4.

FORM A: BID (See B8)

1.	Contract Title	SUPPLY AND DELIVE	RY OF WHEEL LOADERS AN	ID INDUSTRIAL	
2.	Bidder				
		Name of Bidder			
		Usual Business Name of Bido	er as it appears on Invoice (if differer	nt from above)	
		Street			
		City	Province	Postal Code	
		Email Address of Bidder			
		Facsimile Number			
	(Mailing address if different)	Street or P.O. Box			
		City	Province	Postal Code	
		GST Registration Number (if	applicable)		
		The Bidder is:			
	(Choose one)	a sole proprietor			
		a partnership			
		a corporation			
		carrying on business un	der the above name.		
3.	Contact Person	act Person The Bidder hereby authorizes the following contact the Bidder for purposes of the Bid.			
		Contact Person	Title		
		Telephone Number	Facsimile Number		
		Email Address			

Definitions All capitalized terms used in the Contract shall have the meanings ascribed to them in the General Conditions and D3.

- 5. Offer The Bidder hereby offers to perform the Work in accordance with the Contract for the price(s), in Canadian funds, set out on Form B: Prices, appended hereto. 6. Commencement The Bidder agrees that no Work shall commence until he/she is in of the Work receipt of a notice of award from the Award Authority authorizing the commencement of the Work. 7. Contract By submitting a bid in response to this Tender, the Bidder certifies that it has read, understands, and agrees to the terms and conditions of this Tender and that the Tender, in its entirety shall be deemed to be incorporated in and to form a part of this offer notwithstanding that not all parts thereof are necessarily attached to or accompany this Bid. 8. Addenda The Bidder certifies that the following addenda have been received and agrees that they shall be deemed to form a part of the Contract: No. Dated
- 9. Time This offer shall be open for acceptance, binding and irrevocable for a period of sixty (60) Calendar Days following the Submission Deadline.
- 10.Indigenous Self-
DeclarationThe City is requesting that Bidders identify if their business is at least
51% owned by one or more Indigenous persons of Canada.

YES, 51% or more Indigenous ownership

NO, it is not

This information is being gathered for statistical purposes only and will not be used for purposes of evaluation.

11. Signatures The Bidder or the Bidder's authorized official or officials have signed this

_____ day of _____ , 20_____ .

Signature of Bidder or Bidder's Authorized Official or Officials

(Print here name and official capacity of individual whose signature appears above)

(Print here name and official capacity of individual whose signature appears above)

FORM B (R1): PRICES (See B9)

SUPPLY AND DELIVERY OF WHEEL LOADERS AND INDUSTRIAL TRACTOR LOADERS

ITEM	SUB	DESCRIPTION	SPEC.	UNIT	QUANTITY	UNIT PRICE
NO.	ITEM NO.	DESCRIPTION	REF.	UNIT	QUANTITY	UNITPRICE
SECT		Industrial Tractor Loader 74HP and	Attachm	nents		
1.		Industrial Tractor Loader 74HP	19010	Each	4	\$
	1a.	Option 1: Attachments	19010	Each		
		3 Point Hitch Box Scraper General Material Bucket Snow Bucket Clam Bucket 4-in-1 Pallet Forks Spare tire and rim front R4			3 3 3 3 3 3 3 3 3	\$ \$ \$ \$ \$ \$ \$
	1b.	Option 2: Attachments	19010	Each		
		Rear Counter Balance Weight Clam Bucket 4-in-1			1 1	\$ \$
TOTA	AL BID P	RICE –SECTION A				\$
0001		Front Find Wheel London (4.95 vd2)	and Atta	chmonte		
SECI	ION D-	Front End Wheel Loader (4.25 yd3)	anu Alla	CHINCHIS		
		Front End Wheel Loader (4.25	19012	Each	7	\$
	2a.					\$
		Front End Wheel Loader (4.25 yd ³)	19012	Each		\$
2.	2a.	Front End Wheel Loader (4.25 yd ³) Option 3: Attachments General Purpose Bucket 4.25 yd ³	19012	Each	7	\$
2. TOT <i>A</i>	2a. AL BID P	Front End Wheel Loader (4.25 yd ³) Option 3: Attachments General Purpose Bucket 4.25 yd ³ RICE –SECTION B	19012 19012	Each Each	7	
2. TOT <i>A</i>	2a. AL BID P	Front End Wheel Loader (4.25 yd ³) Option 3: Attachments General Purpose Bucket 4.25 yd ³	19012 19012	Each Each	7	\$
2. TOTA SECT	2a. AL BID P	Front End Wheel Loader (4.25 yd ³) Option 3: Attachments General Purpose Bucket 4.25 yd ³ RICE –SECTION B	19012 19012 and Atta	Each Each	7	\$
2. TOTA SECT	2a. AL BID P	Front End Wheel Loader (4.25 yd ³) Option 3: Attachments General Purpose Bucket 4.25 yd ³ RICE –SECTION B Industrial Tractor Loader Backhoe Industrial Tractor Hi-Rail Loader	19012 19012 and Atta	Each Each	7 7	\$\$
2. TOT <i>A</i>	2a. AL BID P	Front End Wheel Loader (4.25 yd ³) Option 3: Attachments General Purpose Bucket 4.25 yd ³ RICE –SECTION B Industrial Tractor Loader Backhoe Industrial Tractor Hi-Rail Loader Backhoe 110HP	19012 19012 and Atta 19023	Each Each achments Each	7 7	\$\$

Name of Bidder

FORM N: DETAILED SPECIFICATIONS 19010 INDUSTRIAL TRACTOR LOADER (74HP) STRAIGHT FRAME

1.0 DESCRIPTION OF EQUIPMENT

- 1.1 These specifications describe an **Industrial Tractor Loader** and other equipment and features as specified herein.
- 1.2 The **Industrial Tractor Loader** shall be a new 2019 model year or newer.
- 1.3 The **Industrial Tractor Loader** 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.
- 1.4 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 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 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 Tractor 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: http://web2.gov.mb.ca/laws/regs/current/217.06.pdf

Canadian Motor Vehicle Safety Standards C.M.V.S.S. http://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,_c._1038/section-sched3.html

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

Canadian Standards Association, CSA: <u>http://www.csagroup.org/</u>

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

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

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

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, 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. 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.
- 3.2 If a suitable warranty facility is not available within 10 km of the boundaries of the City of Winnipeg, the Bidder may propose that the City of Winnipeg Repair Facility perform warranty work. Any Work performed by the City of Winnipeg Repair Facility 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 2019: \$109.00/hour and \$154.00/hour for overtime and callout).
- 3.3 Location of the service facility located within 10 km of the boundaries of the City of Winnipeg.

The Bidder shall choose and fill in one of the Clauses listed below. --- 3.4) or 3.5)

- 3.4 Bidder's own facility location. **State the location of the service facility below**.
- 3.5 Bidder elects to have warranty work be performed by the City of Winnipeg. Bidder shall provide all warranty authorization processes.

4.0 <u>REFERENCES</u>

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 make, year and model of the equipment bid-

6.0 INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS

- 6.1 Each bid will be evaluated based on adherence to all terms, conditions and requirements outlined in the Bid Opportunity package.
- 6.2 All items in these specifications must 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 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.

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

7.0 PERFORMANCE RELIABILITY

- 7.1 The responsibility for the design of the <u>Industrial Tractor Loader</u>, its performance and reliability shall rest upon the Contractor.
- 7.2 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.
- 7.3 Where the <u>Industrial Tractor 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.
- 7.4 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)
- 8.0 <u>FUEL</u>
- 8.1 Where applicable, all equipment must be fully fueled upon delivery (no exceptions).

9.0 QUALIFICATIONS OF MANUFACTURER & CONTRACTOR

- 9.1 The manufacturer of the **Industrial Tractor Loader** shall have five (5) years continuous experience manufacturing the equipment.
- 9.2 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.
- 9.3 The Contractor shall have five (5) years continuous experience servicing, repairing and maintaining **Industrial Tractor Loader** of the type being offered.

10.0 **SPECIFICATIONS:**

ENGINE

10.1	Engine make & model	State	
10.2	Engine specification	Diesel, Emissions Tier IV Diesel Interim or Final, must meet current Emission Standards.	
10.3	Horse Power	Approx. Net 74 hp. state.	

10.4	Torque	Net torque, state.
10.5	Engine aspiration	State.
10.6	Fuel shut off	Electric solenoid type.
10.7	Fuel Filter	With water separator.
10.8	Oil filter	Full flow, spin-on type.
10.9	Air cleaner	Dry cartridge type with dash mounted
10.10	Throttle	Hand operated with foot override.
10.11	Exhaust	Muffler, vertical discharge with bendand 40° cut-off (rain cap unacceptable)
10.12	Coolant	Extended life, protected to -40°C.
10.13	Engine block heater	Approx. 750 Watts.
10.14	Cold weather starting aid	Glow plugs or air intake warmer, state type.
10.15	Front radiator guard	Made from steel and painted, protects radiator from rocks and debris when using the front loader. Designed to permit servicing of radiator without being removed.
10.16	Fuel tank	State capacity.
	<u>ELECTRICAL/ LIGHTING/</u> <u>SAFETY</u>	
10.17	Туре	12-Volt, negative ground electrical
10.18	Electric starter	With key starter switch.
10.19	Batteries	Dual batteries, 1600CCA combined
10.20		capacity.
10120	Battery disconnect switch (lockable)	capacity. Protected from the elements. Switch to be lockable with pad lock.
10.21	Battery disconnect switch (lockable) Alternator	Protected from the elements. Switch to
		Protected from the elements. Switch to
10.21	Alternator	Protected from the elements. Switch to be lockable with pad lock Approx. 100 Amp, state capacity
10.21 10.22	Alternator Combined stop and tail lights	Protected from the elements. Switch to be lockable with pad lock.
10.21 10.22 10.23	Alternator Combined stop and tail lights Signal lights with warning flashers	Protected from the elements. Switch to be lockable with pad lockApprox. 100 Amp, state capacityTwo (2)Two (2) front and two (2) rear

10.26	Working lights	Front- four (4) front mounted, adjustable, located immediately below cab roof line.	
		Rear-four (4) rear mounted, adjustable, located immediately below the cab roof line.	
		Side-two (2) side mounted, located immediately below cab roof line.	
10.27	Light switches	Independent on/off switch for each pair of work lights, dash mounted and wired through ignition, labeled with permanent type, engraved style labels.	
10.28	Cab interior light	Interior light.	
10.29	Radio	AM/FM/CD or MP3.	
10.30	Radio installation provision	12 volt, 20Amp independent circuit available at a spare circuit breaker, suitable for installation of a 2-way mobile radio.	
10.31	Horn	Operable from driving position and from backhoe position.	
10.32	Safety lighting (beacon)	Make and Model: Whelen L31 Series Super-LED, SAE Class 1 Blue/Amber (individual control) beacon, 360 degree visibility. Wired through ignition, lights shall be wired for separate amber and separate blue labelled independently "winter", "off", "summer". The winter mode will turn on both blue and the summer will only turn on the amber lights.	
10.33	Flashing backup lighting	Make and model: Grote 77461or Whelen TIR3 (clear). Wired to flash when the unit is in reverse.	
10.34	Beacon guard	Ramped, heavy duty bolt-on metal	
		guard, designed to permit servicing of beacon without being removed.	

10.36	Wiring	All locally installed accessories shall be color coded, loomed and properly secured. Splicing in any factory harness is unacceptable. All electrical power for locally supplied electrical components to be supplied from an OEM power distribution box. All joining of wires and electrical connectors shall be soldered and sealed with heat shrink tubing. All wiring for work lights and warning lights shall be supplied with no exposed wiring.	
10.37	LED lighting	All lighting LED, state.	
10.38	Slow moving sign	Grote 71152 with bracket mounted to rear of the unit.	
	TIRES, RIMS, FENDERS		
10.39	Front tires	Michelin or Bridgestone radial or bias, state.	
10.40	Ply rating	State ply rating.	
10.41	Tread	R4, industrial tractor.	
10.42	Rear tires	19.5L x 24, Michelin or Bridgestone radial or bias, state.	
10.43	Ply rating	State ply rating.	
10.44	Tread	R4, industrial tractor.	
10.45	Fenders	Front and rear, rubber or polymer, state , material.	
	AXLES & BRAKES		
10.46	Front axle	Driven type (4WD) with guarded drive shaft (limited slip differential).	
10.47	Rear axle	Differential lock, push button activation.	
10.48	Brakes	Wet disk type with individual pedals simultaneous or independent operations.	
10.49	Parking brake	Foot or hand operated, state type.	
	TRANSMISSION		
10.50	Туре	Power-shift transmission with torque convertor, manual shift with power reverser preferred, state.	
10.51	Shifting	Fully synchronized.	

10.52	Speeds forward	Four (4).	
10.53	Speeds reverse	Four (4).	
10.54	Power-shift	Direction reverser.	

Approx. 16', state.

Approx. 7', state.

Approx. 84", state.

Approx. 12", state.

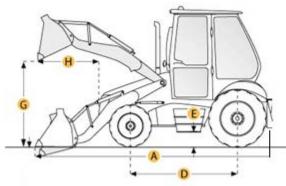
Approx. 9', state.

state.

Approx. 11,500lbs, (without attachments) **state** weight.

Curb clearance with brakes applied,

DIMENSIONS



- 10.55 Overall transport length (A)
- 10.56 Overall transport width (B)
- 10.57 Wheelbase (D)
- 10.58 Operating weight (as bid)
- 10.59 Ground clearance (E)
- 10.60 Overall height (top of cab) (F)
- 10.61 Turning radius

FRONT END LOADER

10.62	Lift capacity, full height	Approx. 6,500lbs., state.	
10.63	Bucket breakout force	Approx. 9,000lbs., state.	
10.64	Dump clearance as bid (G)	Bucket @ 45° approx. 105 inches, state.	
10.65	Controls	Single lever with clutch disconnect button, return –to-dig and float.	
10.66	Self-levelling bucket	With level indicator.	
10.67	Wear plate (s)	Required to prevent bucket heel from rubbing on ground with bolt-on cutting edge in place.	
10.68	Lashing ring	Heavy duty, steel weld-on hook with spring mounted clasp, top-center mounted at front of loader bucket.	
10.69	Loader safety prop bar	Preferred.	



10.70	Hydraulic function	3 function hydraulics.	
10.71	Hydraulic quick attach	For loader buckets.	
10.72	OEM ride control	State.	

ATTACHMENTS

Note: Options to be priced only as indicated on Form B: Prices. Item 1 and Sub Item 1a. and 1b. will be awarded as a Section A.

Option 1: Attachments (Sub Item 1a). Three (3) Industrial Tractors Loaders will come with the following attachments

10.73	3 Point hitch	For Box scraper.
10.74	Box scraper	Quick attach approx. 84" width with replaceable bolt-on cutting edges and scarifier. Weight approx. 1,500 lbs. State weight.
10.75	General Material bucket	Approx. 82" width, with bolt-on cutting edge. Bucket is required to fit inside of a 90" wide dump box for loading purposes.
10.76	Snow bucket	Approx. 93" width, 2.0 yd ³ capacity, state. With bolt-on cutting edge. Wear plates required to prevent bucket heel from rubbing on ground with bolt-on cutting edge in place. Width to exceed machine width at rear tires.
10.77	Clam bucket	4 in 1 combination, with and bolt-on cutting edge. Approx. width 82" with 1.3 yd ³ capacity, state. Replaceable bolt-on cutting edges for all three edges of the bucket. Bucket is required to fit inside of a 90" wide dump box for loading purposes.
10.78	Pallet forks	Carriage and fork set with 48" tines
10.79	Spare tires	One (1) front R4 industrial tractor tireand rim.

Option 2: Attachments (Sub Item 1b). One (1) Industrial Tractor loader will come with the following attachments.

Clam bucket	4 in 1 combination, with and bolt-on
	cutting edge. Approx. width 82" with
	1.32 yd ³ capacity, state. Replaceable
	bolt-on cutting edges for all three edges
	of the bucket.
	Clam bucket

10.81 Rear counter balance weight

Quick attach, approx. 600lbs. OEM, factory installed, required to provide proper machine balance and loading characteristics. **State** weight of counterbalance.

GREASING SYSTEM

10.82 Greasing system

NLGI-2 heavy-duty automatic lubrication system -System layout shall perform under the operating principles of a Parallel injection system (Progressive systems not acceptable).System shall be connected to all grease points, outfitted with automatic low level shut-off, with an in cab monitor showing system status such as low level, low pressure and/ or fault code display.

10.83 Pump reservoir

a) 6kg or larger pump reservoir and parameters preprogrammed required to accommodate 500 hour service intervals. Pump must have correct filler adapter fitting for City of Winnipeg maintenance staff to refill reservoir.

b) For safety reasons, access to refill the pump reservoir shall be via remote fill line of min. 3/8in. hose to accommodate a refill procedure at ground level.

10.84 Power input

System power connection 24-Volt to ignition source with an accessible fuse protection and for greasing system to shut down completely when the engine is turned off.

10.85 Grease lines

a) Main grease lines: Extreme Low temperature (example: Eaton Areo Quip Match Mate Global Ice SAE 100R16) steel braided rubber hose with compatibility to accommodate max working pressure of 6000psi. Each hose on all connected points outfitted with #4 JIC crimped ends

b) Secondary grease lines: 3/16 in. nylon heavy wall secondary grease line or equivalent, and must be installed and protected from extreme environments such as heat sources and components producing vibration.

c) In extreme environment areas such as the lower machine articulator pin, and front bucket pins, heavy wall pipe must be fitted.

10.86 Thread sealant

Applied to main and secondary grease lines of each fitting.

10.87 Greasing points

a) **State**, quantity of greasing points.

b) **State**, quantity of grease points that cannot be connected to the automatic lubrication system but will be connected with remote grease lines. Where remote lines are utilized, decals must be applied stating manual greasing is required with recommended grease application intervals.

10.88 Injector manifolds

All manifolds to be fitted with nylon lock nut hardware and securely mounted in an area away from debris impact. Special guards should be fitted for injector manifolds and hoses in areas of consistent debris impact, i.e., snow, ice, road spray, etc.

10.89 Environmental impact, over-greasing

The system layout and grease injector delivery shall not over-grease any component to the extent where OEM warranties are voided. In addition, environmental impact features shall be incorporated in the automatic lubrication system, i.e., no grease pumped while parked or leaving excessive grease on roadways.

OPERATOR CAB

10.90	Type-ROPS	Roll-over protective structure complete with pressurized cab, OSHA certified or equal.
10.91	Insulation and headliner	For sound suppression and severeweather/climate.
10.92	Floor covering	Rubber matting, throughout.
10.93	Seat	Cushioned, adjustable bucket type with arm rests, cloth upholstery air suspension with retractable seat belt.
10.94	Ride control	Factory installed.
10.95	All Windows	Tinted safety glass with appropriate markings for all panes and opening type where applicable.
10.96	Ignition keys	Three (3) sets required per machine.
10.97	Doors	One (1) each side with spring assisted strut, lockable with common key.
10.98	Interior rear-view mirror	Adjustable.
10.99	Exterior rear view mirrors	One (1) each side (left-right),adjustable.
10.100	Windshield wipers	Intermittent preferred, requires frontand rear.
10.101	Heater/defroster	Heavy duty, hot water type with multi- speed fan, capable of keeping all windows clear at -40° C.
10.102	Window fans	Two (2) with guards.
10.103	Air conditioning	Factory installed with under hood compressor. (Note: roof mounted air conditioners are not acceptable).

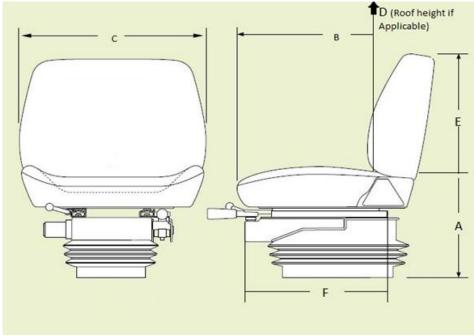
10.104	Steps	Open grate style.	
10.105	Toolbox	Lockable, state location.	
10.106	Instrumentation	Coolant temperature-gauge with audible alarm. Engine oil pressure- gauge or warning light with audible alarm. Engine hour meter-non resettable type. Tachometer. Fuel gauge.	
10.107	Noise Level, interior	85 dB(A), measured in accordance with SAE J336, state noise level.	
10.108	Fire extinguisher	Five (5) lbs. High volume ABC type, State location.	

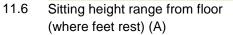
11.0 **OPERATOR STATION ERGONOMICS**

Entry/ Exit

11.1	First step entry height	State, height of first step in inches.	
11.2	First handhold entry height	State, first handhold entry height in	
11.3	Access to equipment	State, door opening height in inches.	
11.4	Access to equipment	State, door opening width in inches.	
11.5	Designed to prevent slipping	Anti-slip steps/handholds (Y or N)?	

Seat (use below diagram to answer questions)





State, seat height range in inches.

11.7	Seat length/depth (B)	State, seat length/depth in inches.	
11.8	Seat width (C)	State, seat width in inches.	
11.9	Cab height from seat to roof (if applicable) (D)	State, cab height range in inches.	
11.10	Back rest height (E)	State, back rest height in inches.	
11.11	Seat travel range (F)	State, seat travel in inches.	
11.12	Lumbar support	Is lumbar support provided (Y or N)?	
11.13	Head rest	Is head rest provided (Y or N)?	
11.14	Seat is made of breathable material	State, type of seat material.	
	<u>Operation</u>		
11.15	Reaching distance to usual work	State, reaching distance in inches.	
11.16	Maximum reaching distance	State, maximum reach distance in	
11.17	Adjustable pedals (accelerator/brake/clutch)	inches. Are pedals adjustable (Y or N)?	
11.18	Adjustable steering wheel	Is steering wheel adjustable (Y or N)?	
11.19	Adjustable shoulder belt	Is belt adjustable and anchored (Y or N)?	
	Cargo Area		
11.20	Lid opens to provide adequate space	Lid opens to provide adequate space	
11.21	Loading height	State, trunk height in inches	
	Environment		
11.22	Operator compartment is insulated from equipment noise (while operating)	State, dBA inside cab while operating	
11.23	Operator insulated from equipment vibration	Is operator insulated from vibration (Y or N)?	
11.24	Heating/cooling systems	State, cab temperature range	
11.25	Cab lighting	State, lumens inside cab	
12.0	WARRANTY		
12.1	All warranty information shall be detailed Contractor shall provide all published wa equipment. Bidder shall state all warran	arranty information upon delivery of the	

12.2 Basic coverage

12.3	Power train	State:
12.4	Hydraulics warranty	State:
12.5	Batteries warranty	State:
12.6	Tires warranty	State:
12.7	Electrical warranty	State:
12.8	Greasing System	State:

13.0 **DELIVERY**

13.1	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 WFMA 185 Tecumseh Street, Winnipeg MB. The successful
	bidder shall be notified by the Contractor Administrator the delivery address prior
	to issuance of the purchase order.

- 13.2 Delivery Time: <u>Twelve (12) calendar weeks</u> from the date of award. Equipment shall be delivered between 8:00 am and 2:00 pm on Business Days.
- 13.3 Delivery Contact: The Contractor shall contact the Contract Administrator prior to delivery of the equipment.
- 13.4 P.D.I: A pre-delivery inspection shall be performed by the Contractor on the equipment. Proof upon inspection including completed check list

14.0 **MANUALS**

- 14.1 Manuals supplied under this contract shall cover the complete equipment including all components thereof, CD or USB flash drive is preferred where available.
- 14.2 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 or USB flash drive are preferred.

15.0 FIRST SERVICE PREVENTATIVE MAINTENANCE KIT

- 15.1 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.
- 15.2 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.

16.0 **PARTS/LABOUR PRICING**

16.1	Bidder to provide City of Winnipeg Parts Discount % Pricing from retail parts pricing. State percentage discount-	%
16.2	Bidder to provide City of Winnipeg Labor Discount % Pricing from Retail shop labor rate. State percentage discount-	%

FORM N: DETAILED SPECIFICATIONS 19012 FRONT END WHEEL LOADER (4.25 YD³)

1.0 DESCRIPTION OF EQUIPMENT

- 1.1 These specifications describe a <u>Front End Wheel Loader</u> and other equipment and features as specified herein.
- 1.2 The **Front End Wheel Loader** shall be a new 2019 model year or newer.
- 1.3 Shall be capable of consistent top performance for construction activities, <u>SNOW REMOVAL</u> <u>WORK UTILIZING A LARUE D60 FRONT MOUNTED SNOW BLOWER</u> and other miscellaneous functions such as ground, boulevard and parkland maintenance during the summer and winter environment, which is normal to the City of Winnipeg.
- 1.4 The **Front End Wheel Loader** 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.
- 1.5 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 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 **Front End Wheel Loader** shall comply with the applicable regulations:

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

Manitoba Safety and Health Regulation, Parts 12, 16, 22: <u>http://web2.gov.mb.ca/laws/regs/current/217.06.pdf</u>

Canadian Motor Vehicle Safety Standards C.M.V.S.S. <u>http://laws-lois.justice.gc.ca/eng/regulations/C.R.C., c. 1038/section-sched3.html</u>

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

Canadian Standards Association, CSA: <u>http://www.csagroup.org/</u>

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

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

City of Winnipeg Lighting Visibility Standard: http://winnipeg.ca/matmgt/pdfs/PublicWorksEquipLightingVisibility.pdf. 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, 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. 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.
- 3.2 If a suitable warranty facility is not available within 10 km of the boundaries of the City of Winnipeg, the Bidder may propose that the City of Winnipeg Repair Facility perform warranty work. Any Work performed by the City of Winnipeg Repair Facility 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 2019: \$109.00/hour and \$154.00/hour for overtime and callout).
- 3.3 Location of the service facility located within 10 km of the boundaries of the City of Winnipeg.

The Bidder shall choose and fill in one of the Clauses listed below. --- 3.4) or 3.5)

- 3.4 Bidder's own facility location. State the location of the service facility below.
- 3.5 Bidder elects to have warranty work be performed by the City of Winnipeg. Bidder shall provide all warranty authorization processes.

4.0 <u>REFERENCES</u>

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 make, year and model of the equipment bid-

6.0 INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS

- 6.1 Each bid will be evaluated based on adherence to all terms, conditions and requirements outlined in the Bid Opportunity package.
- 6.2 All items in these specifications must 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 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.

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

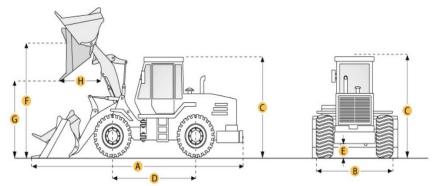
7.0 PERFORMANCE RELIABILITY

- 7.1 The responsibility for the design of the <u>Front End Wheel Loader</u>, its performance and reliability shall rest upon the Contractor.
- 7.2 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.
- 7.3 Where the **Front End Wheel Loader** develops "repeated failures" in service, the Contractor shall make any necessary engineering changes, repairs, alterations or modifications in order to guarantee reliability of performance.
- 7.4 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)
- 8.0 <u>FUEL</u>
- 8.1 Where applicable, all equipment must be fully fueled upon delivery (no exceptions).

9.0 QUALIFICATIONS OF MANUFACTURER & CONTRACTOR

- 9.1 The manufacturer of the **Front End Wheel Loader** shall have five (5) years continuous experience manufacturing the equipment.
- 9.2 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.
- 9.3 The Contractor shall have five (5) years continuous experience servicing, repairing and maintaining **Front End Wheel Loader** of the type being offered.

10.0 SPECIFICATIONS:



DIMENSIONS

10.1	Loader type	Articulating.	
10.2	Overall transport length (A)	State.	
10.3	Width: over tires (B)	State.	
10.4	Overall height (top of cab) (C)	State.	
10.5	Wheelbase (D)	State.	
10.6	Ground clearance (E)	State.	
10.7	Hinge pin height (F)	State.	
10.8	Dump clearance at max raise at 45° (G)	State.	
10.9	Reach at max lift and dump 45°(H)	State.	
10.10	Operating weight (as bid)	Approx. 42,000 – 43,000 lbs., state weight.	

<u>ENGINE</u>

10.11	Engine make & model	State.	
10.12	Engine specification	Diesel, Emissions Tier IV Final, must meet current Emission Standards.	
10.13	Horse power	Approx. Net 200-235HP, state.	
10.14	Torque	Net torque, approx. 750 lb-ft, state.	
10.15	Engine aspiration	State.	
10.16	Fuel shut off	Electric solenoid type.	
10.17	Fuel Filter	With water separator.	
10.18	Oil filter	Full flow, spin-on type.	
10.19	Air cleaner	Dry two-stage cartridge type with restriction indicator and pre-cleaner.	
10.20	Throttle	Hand operated with foot override.	

40.04		NA MILLER MILLER AND A STREET AND A MILLER	
10.21	Exhaust	Muffler with exhaust pipe, vertical discharge with bend and 40° cut-off (rain cap unacceptable).	
10.22	Coolant	Extended life, protected to -40° C.	
10.23	Engine block heater	Approx. 1000 Watts, 120V.	
10.24	Cold weather starting aid	Glow plugs or air intake warmer, state type.	
10.25	Automatic De-rating or equivalent for exceeding system parameters	Shall provide visual and audible warning of principal machine systems including engine oil pressure, low fuel pressure and coolant temperature. Shall provide the ability for the operator to move the machine to a safe location where the machine will not pose a threat to the operator or the public. OEM approved only.	
10.26	Programmable anti-idling system	For carbon emission, reduction/fuel consumption.	
10.27	Oil sampling valves	For engine, transmission and hydraulic system.	
10.28	Engine side covers	Hinged (if lockable, all locks must be keyed alike).	
10.29	Fuel tank	State capacity.	
10.29	Fuel tank <u>ELECTRICAL/ LIGHTING/</u> <u>SAFETY</u>	State capacity.	
10.29 10.30	ELECTRICAL/ LIGHTING/	State capacity. 24-Volt, negative ground electrical system.	
	<u>ELECTRICAL/ LIGHTING/</u> SAFETY	24-Volt, negative ground electrical	
10.30	ELECTRICAL/ LIGHTING/ SAFETY Type	24-Volt, negative ground electrical system.	
10.30 10.31	ELECTRICAL/ LIGHTING/ SAFETY Type Electric starter	24-Volt, negative ground electrical system. With key starter switch. Key type or keyless type with security	
10.30 10.31 10.32	ELECTRICAL/ LIGHTING/ SAFETY Type Electric starter Starter switch	24-Volt, negative ground electrical system.With key starter switch.Key type or keyless type with security code, state.Dual batteries, 2000 CCA combined	
10.30 10.31 10.32 10.33	ELECTRICAL/ LIGHTING/ SAFETY Type Electric starter Starter switch Batteries	 24-Volt, negative ground electrical system. With key starter switch. Key type or keyless type with security code, state. Dual batteries, 2000 CCA combined capacity. Protected from the elements. Switch to 	
10.30 10.31 10.32 10.33 10.34	ELECTRICAL/ LIGHTING/ SAFETY Type Electric starter Starter switch Batteries Battery disconnect switch (lockable)	 24-Volt, negative ground electrical system. With key starter switch. Key type or keyless type with security code, state. Dual batteries, 2000 CCA combined capacity. Protected from the elements. Switch to be lockable with pad lock. 	
10.30 10.31 10.32 10.33 10.34 10.35	ELECTRICAL/LIGHTING/ SAFETY Type Electric starter Starter switch Batteries Battery disconnect switch (lockable) Alternator	 24-Volt, negative ground electrical system. With key starter switch. Key type or keyless type with security code, state. Dual batteries, 2000 CCA combined capacity. Protected from the elements. Switch to be lockable with pad lock. Approx. 120 Amp, state capacity. 	
10.30 10.31 10.32 10.33 10.34 10.35 10.36	ELECTRICAL/ LIGHTING/ SAFETY Type Electric starter Starter switch Batteries Battery disconnect switch (lockable) Alternator Combined stop and tail lights	 24-Volt, negative ground electrical system. With key starter switch. Key type or keyless type with security code, state. Dual batteries, 2000 CCA combined capacity. Protected from the elements. Switch to be lockable with pad lock. Approx. 120 Amp, state capacity. Two (2). LED. 	
10.30 10.31 10.32 10.33 10.34 10.35 10.36 10.37	ELECTRICAL/ LIGHTING/ SAFETY Type Electric starter Starter switch Batteries Battery disconnect switch (lockable) Alternator Combined stop and tail lights Signal lights with warning flashers	 24-Volt, negative ground electrical system. With key starter switch. Key type or keyless type with security code, state. Dual batteries, 2000 CCA combined capacity. Protected from the elements. Switch to be lockable with pad lock. Approx. 120 Amp, state capacity. Two (2). LED. Two (2) front and two (2) rear, LED. 	

10.40	Working lights (heavy duty)	a) Front- two (2) front mounted, adjustable, mounted near to pivot of loader lift arm.	
		b) Rear-two (2) rear mounted, adjustable.	
10.41	Light switches	Independent on/off switch for each pair of work lights, dash mounted, wired through ignition, labeled with permanent type, engraved style labels.	
10.42	Cab interior light	Interior light.	
10.43	Radio	AM/FM/CD or MP3.	
10.44	Radio installation provision	12 volt, 20Amp spate/independent circuit available at a spare circuit breaker, suitable for installation of a 2- way mobile radio.	
10.45	Horn	Operable from driving position.	
10.46	Safety lighting	Make and Model: Whelen L31 Series Super-LED, SAE Class 1 Blue/Amber (individual control) beacon, 360 degree visibility. Wired through ignition, lights shall be wired for separate amber and separate blue labelled independently "winter", "off", "summer". The winter mode will turn on both blue and the summer will only turn on the amber lights.	
10.47	Beacon guard	Ramped, heavy duty bolt-on metal guard, designed to permit servicing of beacon without being removed.	
10.48	Full set of Manitoba Highways provincially approved highway lights (wigwag lights).	Located top rear of the cab roof flush mount. Make and model: Whelen TIR3 Independently controlled through a separate switch. Highway lights not to extend past cab. Independent control for blue/amber and amber only.	
10.49	Back-up alarm	97 dB, factory installed, mounted to be protected from damage.	

10.50	Wiring	a) All locally installed accessories shall be color coded, loomed and properly secured. Splicing in any factory harness is unacceptable. All electrical power for locally supplied electrical components to be supplied from an OEM power distribution box.	
		b) All joining of wires and electrical connectors shall be soldered and sealed with heat shrink tubing. All wiring for work lights and warning lights shall be supplied with no exposed wiring.	
10.51	LED lighting	All lighting LED, state.	
10.52	Slow moving sign	Grote 71152 or equivalent with bracket mounted to rear.	
	TIRES, RIMS, FENDERS		
10.53	Tires	Tire appropriate for use on streets with thicker hard cut resistant rubber.	
10.54	Tread	Snow design style tread, front and rear.	
10.55	Tire size	Approx. 23.5R25 L3, state size.	
10.56	Make and model of tires	State.	
10.56 10.57	Make and model of tires Rims	State. 3-piece design.	
10.57	Rims	3-piece design. Front and rear, rubber or polymer, with anti-skid tape on step surfaces where	
10.57	Rims Fenders	3-piece design. Front and rear, rubber or polymer, with anti-skid tape on step surfaces where	
10.57 10.58	Rims Fenders <u>AXLES, STEERING & BRAKES</u>	3-piece design. Front and rear, rubber or polymer, with anti-skid tape on step surfaces where applicable. State , material. Electronic or hydraulic locking	
10.57 10.58 10.59	Rims Fenders AXLES, STEERING & BRAKES Front axle	 3-piece design. Front and rear, rubber or polymer, with anti-skid tape on step surfaces where applicable. State, material. Electronic or hydraulic locking differential, State type. Electronic or hydraulic locking 	
10.57 10.58 10.59 10.60	Rims Fenders AXLES, STEERING & BRAKES Front axle Rear axle	 3-piece design. Front and rear, rubber or polymer, with anti-skid tape on step surfaces where applicable. State, material. Electronic or hydraulic locking differential, State type. Electronic or hydraulic locking differential, State type. 	
10.57 10.58 10.59 10.60 10.61	Rims Fenders AXLES, STEERING & BRAKES Front axle Rear axle Rear axle	 3-piece design. Front and rear, rubber or polymer, with anti-skid tape on step surfaces where applicable. State, material. Electronic or hydraulic locking differential, State type. Electronic or hydraulic locking differential, State type. Semi-floating or oscillating rear axle 	
10.57 10.58 10.59 10.60 10.61 10.62	Rims Fenders AXLES, STEERING & BRAKES Front axle Rear axle Rear axle Differential drain plugs	 3-piece design. Front and rear, rubber or polymer, with anti-skid tape on step surfaces where applicable. State, material. Electronic or hydraulic locking differential, State type. Electronic or hydraulic locking differential, State type. Semi-floating or oscillating rear axle Magnetic. 4-wheel, hydraulic operated wet disk 	

10.66	Steering	Articulated with approx. 35° articulations left and right of center, state.	
10.67	Articulating center pin components	State type.	
10.68	Operational Steering and Articulating Requirements	a) Steering and Articulation of the machine must be smooth, controlled and continuous, fully raised and loaded at engine idle speed.	
		b) Steering wheel movement must be smooth, controlled and continuous fully raised and loaded engine speed. There shall be no erratic, pulsating or jerking movement of the steering wheel.	
		 c) Steering equipped with neutralizer valves or equivalent to prevent frame to frame contact at full articulation. 	
10.69	Steering frame lock	Required.	
	TRANSMISSION		
10.70	Туре	Shall have the capability of allowing the operator to select either automatic or manual shifting.	
10.71	Shift control	Single lever.	
10.72	Speeds forward	State number of speeds.	
10.73	Speeds reverse	State number of speeds.	
10.74	Power-shift	Shall have the capability of full power shift with torque converter.	
	FRONT END LOADER		
10.75	Breakout Force (required for LARUE D60 front mount snow blower)	Approx. 33,000 lbs. State.	
10.76	Tipping load straight (required for LARUE D60 front mount snow blower)	Approx. 30,000 lbs. State.	
10.77	Tipping load 40º turn (required for LARUE D60 front mount snow blower)	Approx. 26,000 lbs. State.	
10.78	Dumping clearance 45°	Approx. full height approx. 11ft.	
10.79	Hinge pin height fully raise	Approx. 13ft.	

10.80	Loader Controls	One dual function lever that provides lift and curl of the bucket. Automatic return-to-carry.	
10.81	Self-levelling bucket	With level indicator.	
10.82	Boom height control (kick-out)	Automatic, adjustable.	
10.83	Ride control system	OEM system, ride control system shall be of the type that automatically engages or disengages, dependent on the machines ground speed.	
10.84	Safety prop bar (if available)	OEM approved.	
10.85	Hydraulic fluid level indicator	Required.	
10.86	Auxiliary hydraulics	For attachment growth, 3 rd function valve.	

10.87 Hydraulic quick coupler:

Welco Beales Quick Coupler (no substitutes) required for existing city attachment(s) including LARUE D60 Loader mounted snow blowers.

Example of coupler on current City owned wheel loaders (Assembly no. 130-412-0480).



ATTACHMENTS

Note: Options to be priced only as indicated on Form B: Prices. Item 2 and Sub Item 2a. will be awarded as a Section B.

Note: Option 3: Attachments (Sub Item 2a.)

10.88 General purpose bucket

a) General Purpose (4.25 yd³) WBM Quick Coupler hook on bucket with bolt on cutting edge. Bucket width to exceed machine width at tires.

b) Cutting edge - bolt-on, heat treated steel, 1, 2 or 3 piece reversible blade acceptable, full width of bucket x 12 inch deep, Bucyrus or equal.

c) Bottom wear plates - required to prevent bucket heel from rubbing on ground with bolt-on cutting edge in place.

d) Side wear plates - bolt-on, replaceable, Bucyrus or equal.

GREASING SYSTEM

10.89 Greasing system

NLGI-2 heavy-duty automatic lubrication system -System layout shall perform under the operating principles of a Parallel injection system (Progressive systems not acceptable).System shall be connected to all grease points, outfitted with automatic low level shut-off, with an in cab monitor showing system status such as low level, low pressure and/ or fault code display.

10.90 Pump reservoir

a) 8kg or larger pump reservoir and parameters preprogrammed required to accommodate 500 hour service intervals. Pump must have correct filler adapter fitting for City of Winnipeg maintenance staff to refill reservoir.

b) For safety reasons, access to refill the pump reservoir shall be via remote fill line of min. 3/8 in. hose to accommodate a refill procedure at ground level.

10.91 Power input

System power connection 24-Volt to ignition source with an accessible fuse protection and for greasing system to shut down completely when the engine is turned off.

10.92 Grease lines

a) Main grease lines: Extreme Low temperature (example: Eaton Areo Quip Match Mate Global Ice SAE 100R16) steel braided rubber hose with compatibility to accommodate max working pressure of 6000psi. Each hose on all connected points outfitted with #4 JIC crimped ends

b) Secondary grease lines: 3/16 in. nylon heavy wall secondary grease line or equivalent, and must be installed and protected from extreme environments such as heat sources and components producing vibration.

c) In extreme environment areas such as the lower machine articulator pin, and front bucket pins, heavy wall pipe must be fitted.

10.93 Thread sealant

Applied to main and secondary grease lines of each fitting.

10.94 Greasing points

a) State, quantity of greasing points.

b) **State**, quantity of grease points that cannot be connected to the automatic lubrication system but will be connected with remote grease lines. Where remote lines are utilized, decals must be applied stating manual greasing is required with recommended grease application intervals.

10.95 Injector manifolds

All manifolds to be fitted with nylon lock nut hardware and securely mounted in an area away from debris impact. Special guards should be fitted for injector manifolds and hoses in areas of consistent debris impact, i.e., snow, ice, road spray, etc.

10.96 Environmental impact, over-greasing

The system layout and grease injector delivery shall not over-grease any component to the extent where OEM warranties are voided. In addition, environmental impact features shall be incorporated in the automatic lubrication system, i.e., no grease pumped while parked or leaving excessive grease on roadways.

OPERATOR CAB

10.97	Type-ROPS	Roll-over protective structure complete with pressurized cab, OSHA certified or equal
10.98	Insulation and headliner	For sound suppression and severe
10.99	Floor covering	Rubber matting, throughout.
10.100	Seat	Cushioned, adjustable bucket type with arm rests, cloth upholstery air suspension with retractable seat belt.
10.101	All Windows	Tinted safety glass with appropriate markings for all panes and opening type where applicable.
10.102	Ignition keys	Three (3) sets required per machine.
10.103	Left and right doors	Lockable with common key. Door/window shall latch in fully opened position Complete with a full length ladder to provide safe exit if required.
10.104	Anti-theft system	OEM installed.
10.105	Interior rear-view mirror	Adjustable.
10.106	Exterior rear view mirrors	One (1) each side. Heated with remote

10.107	Windshield wipers	Intermittent preferred, requires front and rear.	
10.108	Windshield washers	Front and rear.	
10.109	Heater/defroster/pressurizer	Heavy duty, hot water type with multi- speed fan and filtered air intake capable of keeping all windows clear at -40° C.	
10.110	Steering wheel	Tilt type.	
10.111	Air conditioning	Factory installed with under hood compressor. (Note: roof mounted air conditioners are not acceptable).	
10.112	Steps	Open grate style.	
10.113	Toolbox	Lockable, state location.	
10.114	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.	
10.115	Sun shades	Front and rear fold down style.	
10.116	Rear view camera	OEM installed with guard protection to minimize damage risk.	
10.117	Steps and hand rails	To provide access to windshield.	
10.118	Self-cleaning steps	For safe entry and exit.	
10.119	Noise Level, interior	85 dB(A), measured in accordance with SAE J336, state noise level.	
10.120	Fire extinguisher	Ten (10) lbs. High volume ABC type, State location.	

MISCELLANEOUS

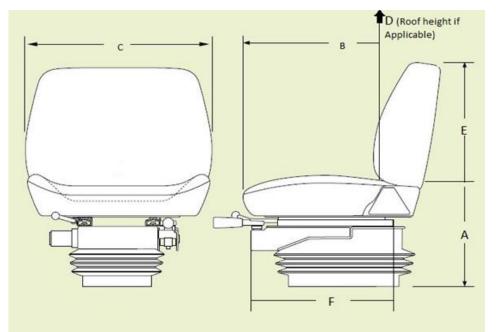
10.121 Rear bumper/counter with Drawbar hitch with pin

11.0 **OPERATOR STATION ERGONOMICS**

Entry/ Exit

11.1	First step entry height	State, height of first step in inches.	
11.2	First handhold entry height	State, first handhold entry height in inches.	
11.3	Access to equipment	State, door opening height in inches.	
11.4	Access to equipment	State, door opening width in inches.	
11.5	Designed to prevent slipping	Anti-slip steps/handholds (Y or N)?	

Seat (use below diagram to answer questions)



- 11.6 Sitting height range from floor (where feet rest) (A)
- 11.7 Seat length/depth (B)
- 11.8 Seat width (C)
- 11.9 Cab height from seat to roof (if applicable) (D)
- 11.10 Back rest height (E)
- 11.11 Seat travel range (F)
- 11.12 Lumbar support
- 11.13 Head rest
- 11.14 Seat is made of breathable material

State, seat height range in inches.

State, seat length/depth in inches.	
State, seat width in inches.	
State, cab height range in inches.	
State, back rest height in inches.	
State, seat travel in inches.	
Is lumbar support provided (Y or N)?	
Is head rest provided (Y or N)?	
State, type of seat material.	

Operation

11.15	Reaching distance to usual work	State, reaching distance in inches.	
11.16	Maximum reaching distance	State, maximum reach distance in inches.	
11.17	Adjustable pedals (accelerator/brake/clutch)	Are pedals adjustable (Y or N)?	
11.18	Adjustable steering wheel	Is steering wheel adjustable (Y or N)?	
11.19	Adjustable shoulder belt	Is belt adjustable and anchored (Y or N)?	

12.0 WARRANTY

12.1 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.

12.2	Basic coverage	State:	
12.3	Power train	State:	
12.4	Hydraulics warranty	State:	
12.5	Batteries warranty	State:	
12.6	Tires warranty	State:	
12.7	Electrical warranty	State:	
12.8	Cab structure/corrosion	State:	
12.9	Greasing System	State:	

13.0 **DELIVERY**

- 13.1 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 WFMA 185 Tecumseh Street, Winnipeg MB. The successful bidder shall be notified by the Contractor Administrator the delivery address prior to issuance of the purchase order.
- 13.2 Delivery Time: <u>Twelve (12) calendar weeks</u> from the date of award. Equipment shall be delivered between 8:00 am and 2:00 pm on Business Days.
- 13.3 Delivery Contact: The Contractor shall contact the Contract Administrator prior to delivery of the equipment.
- 13.4 P.D.I: A pre-delivery inspection shall be performed by the Contractor on the equipment. Proof upon inspection including completed check list.

14.0 **MANUALS**

- 14.1 Manuals supplied under this contract shall cover the complete equipment including all components thereof, CD or USB flash drive is preferred where available.
- 14.2 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 or USB flash drive are preferred.

15.0 FIRST SERVICE PREVENTATIVE MAINTENANCE KIT

- 15.1 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.
- 15.2 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.

16.0 **PARTS/LABOUR PRICING**

- 16.1 Bidder to provide City of Winnipeg Parts Discount % Pricing from retail parts pricing. **State percentage discount-**
- 16.2 Bidder to provide City of Winnipeg Labor Discount % Pricing from Retail shop labor rate. **State percentage discount-**

FORM N (R1): DETAILED SPECIFICATIONS 19023 INDUSTRIAL TRACTOR LOADER BACKHOE (110HP)

1.0 DESCRIPTION OF EQUIPMENT

- 1.1 These specifications describe an **Industrial Tractor Loader Backhoe** and other equipment and features as specified herein. The specifications describe the supply and delivery of a trailer mounted, self-contained, diesel fueled Industrial Tractor Loader machine.
- 1.2 The Industrial Tractor Loader Backhoe shall be a new 2019 model year or newer.
- 1.3 The **Industrial Tractor Loader Backhoe** 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.
- 1.4 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 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 Tractor Loader Backhoe** shall comply with the applicable regulations:

National Safety Mark, NSM = <u>http://www.tc.gc.ca/eng/acts-regulations/acts-road.htm</u>

Manitoba Safety and Health Act, Parts 12, 22 = <u>http://web2.gov.mb.ca/laws/statutes/ccsm/w210e.php</u> and <u>http://www.gov.mb.ca/labour/safety/</u>

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

Under Writers of Canada, U/L = <u>http://www.ulc.ca/</u>

Society of Automotive Engineers, SAE =<u>http://www.sae.org/</u>

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

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, 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. 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.

- 3.2 If a suitable warranty facility is not available within 10 km of the boundaries of the City of Winnipeg, the Bidder may propose that the City of Winnipeg Repair Facility perform warranty work. Any Work performed by the City of Winnipeg Repair Facility 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 2017: \$109.00/hour and \$129.00/hour for overtime and callout).
- 3.3 Location of the service facility located within 10 km of the boundaries of the City of Winnipeg.

The Bidder shall choose and fill in one of the Clauses listed below. --- 3.4) or 3.5)

- 3.4 Bidder's own facility location. **State the location of the service facility below**.
- 3.5 Bidder elects to have warranty work be performed by the City of Winnipeg. Bidder shall provide all warranty authorization processes.

4.0 <u>REFERENCES</u>

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 make, year and model of the equipment bid-

6.0 INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS

- 6.1 Each bid will be evaluated based on adherence to all terms, conditions and requirements outlined in the Bid Opportunity package.
- 6.2 All items in these specifications must 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.

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

7.0 PERFORMANCE RELIABILITY

- 7.1 The responsibility for the design of the **Industrial Tractor Loader Backhoe**, its performance and reliability shall rest upon the Contractor.
- 7.2 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.

- 7.3 Where the <u>Industrial Tractor Loader Backhoe</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.
- 7.4 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)

8.0 <u>FUEL</u>

8.1 Where applicable, all equipment must be fully fueled upon delivery (no exceptions).

9.0 QUALIFICATIONS OF MANUFACTURER & CONTRACTOR

- 9.1 The manufacturer of the **Industrial Tractor Loader Backhoe** shall have five (5) years continuous experience manufacturing the equipment.
- 9.2 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.
- 9.3 The Contractor shall have five (5) years continuous experience servicing, repairing and maintaining **Industrial Tractor Loader Backhoe** of the type being offered.

10.0 SPECIFICATIONS:

ENGINE

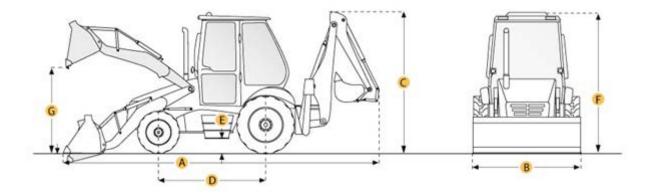
10.1	Engine make & model	State	
10.2	Engine specification	Diesel, Emissions Tier IV Diesel Interim or Final, must meet current Emission Standards.	
10.3	Horse power	Approx. Net 110 hp. State.	
10.4	Torque	Net torque, State.	
10.5	Engine aspiration	State.	
10.6	Fuel shut off	Electric solenoid type.	
10.7	Fuel filter	With water separator.	
10.8	Oil filter	Full flow, spin-on type.	
10.9	Air cleaner	Dry cartridge type with dash mounted restriction indicator.	
10.10	Throttle	Hand operated with foot override.	
10.11	Exhaust	Mufflered, vertical discharge with bend and 40° cut-off (rain cap unacceptable).	

10.12	Coolant	Extended life, protected to -40° C.	
10.13	Engine block heater	Approx. 750 Watts.	
10.14	Cold weather starting aid	Glow plugs or air intake warmer, state type.	
10.15	Fuel tank	State capacity.	
10.16	Front radiator guard	Made from steel and painted, protects radiator from rocks and debris when using the front loader. Designed to permit servicing of radiator without being removed.	
	<u>ELECTRICAL/ LIGHTING/</u> <u>SAFETY</u>		
10.17	Туре	12-Volt, negative ground electrical system.	
10.18	Electric starter	With key starter switch.	
10.19	Batteries	Dual batteries, 1600CCA combined capacity.	
10.20	Battery disconnect switch (lockable)	Protected from the elements. Switch to be lockable with pad lock.	
10.21	Alternator	Approx. 150 Amp, state capacity.	
10.22	Combined stop and tail lights	Two (2).	
10.23	Signal lights with warning flashers	Two (2) front and two (2) rear.	
10.24	Warning flashers	Operable with key removed.	
10.25	Headlights	Two (2).	
10.26	Working lights	Front- four (4) front mounted, adjustable, located immediately below cab roof line.	
		Rear-four (4) rear mounted, adjustable, located immediately below the cab roof line.	
		Side-two (2) side mounted, located immediately below cab roof line.	
10.27	Light switches	Independent on/off switch for each pair of work lights, dash mounted, wired through ignition, labeled with permanent type, engraved style labels.	
10.28	Cab interior light	Interior light.	
10.29	Radio	AM/FM/CD or MP3.	

10.30	Radio installation provision	12 volt, 20Amp spate/independent circuit available at a spare circuit breaker, suitable for installation of a 2- way mobile radio.	
10.31	Horn	Operable from driving position and from backhoe position.	
10.32	Safety lighting (beacon)	Make and Model: Whelen L31 Series Super-LED, SAE Class 1 (or equivalent in accordance to B6) Blue/Amber (individual control) beacon, 360 degree visibility. Wired through ignition, lights shall be wired for separate amber and separate blue labelled independently "winter", "off", "summer". The winter mode will turn on both blue and the summer will only turn on the amber lights.	
10.33	Beacon guard	Ramped, heavy duty bolt-on metal guard, designed to permit servicing of beacon without being removed.	
10.34	Back-up alarm	Approx. 97 dB, factory installed, mounted to be protected from damage.	
10.35	Wiring	All locally installed accessories shall be color coded, loomed and properly secured. Splicing in any factory harness is unacceptable. All electrical power for locally supplied electrical components to be supplied from an OEM power distribution box. All joining of wires and electrical connectors shall be soldered and sealed with heat shrink tubing. All wiring for work lights and warning lights shall be supplied with no exposed wiring.	
10.36	LED lighting	All lighting LED, state.	
10.37	Slow moving sign	Grote 71152 (or equivalent in accordance to B6) with bracket mounted to rear of backhoe.	
	TIRES, RIMS, FENDERS		
10.38	Front tires	Michelin or Bridgestone radial or bias, (or equivalent in accordance to B6) state.	
10.39	Ply rating	State ply rating.	
10.40	Tread	R4,Industrial tractor.	

10.41	Rear tires	Size 21L-24, Michelin or Bridgestone _ radial or bias, (or equivalent in accordance to B6) state.	
10.42	Ply rating	State ply rating.	
10.43	Tread	R4, industrial tractor.	
10.44	Fenders (extensions)	Front and rear, rubber or polymer,	
	AXLES & BRAKES		
10.45	Front axle	Driven type (4WD) with guarded drive _ shaft (limited slip differential).	
10.46	Rear axle	Differential lock, push button activation.	
10.47	Brakes	Wet disk type with individual pedals	
10.48	Parking brake	Foot or hand operated, state type.	
	TRANSMISSION		
10.49	Туре	Power-shift transmission with torque _ convertor, manual shift with power reverser, state.	
10.50	Shifting	Fully synchronized.	
10.51	Speeds forward	Four (4), state.	
10.52	Speeds reverse	Four (4), state.	
10.53	Power-shift	Direction reverser.	
10.54	Travel speed Max	Forward speed: approx. 24 mph (40 kph), state.	
		Reverse speed: approx. 24 mph (40 kph), state.	

DIMENSIONS



10.55	Overall transport length (A)	Approx. 24', state.	_
10.56	Overall transport width (B)	Approx. 8', state.	_
10.57	Overall transport height (C)	Approx. 12'5", state.	_
10.58	Overall width	Stabilizer spread, outside edge of pad,	_
10.59	Wheelbase (D)	Approx. 84", state.	_
10.60	Ground clearance (E)	Approx. 12", state.	_
10.61	Overall height (top of cab) (F)	Approx. 9', state.	_
10.62	Operating weight (as bid)	Approx. 18,000lbs, (withoutattachments) state weight.	_
10.63	Turning radius	Curb clearance with brakes applied,	_
	FRONT END LOADER		
10.64	Lift capacity, full height	Approx. 8400lbs., state.	_
10.65	Bucket breakout force	Approx. 13,000lbs., state.	_
10.66	Dump clearance as bid (G)	Bucket @ 45 [°] approx. 108 inches, state	_
10.67	Controls	Single lever with clutch disconnect button, return –to-dig and float.	_
10.68	Self-levelling bucket	With level indicator.	_
10.69	Wear plate (s)	Required to prevent bucket heel from rubbing on ground with bolt-on cutting edge in place.	_
10.70	Lashing ring	Heavy duty, steel weld-on hook with spring mounted clasp, top-center mounted at front of loader bucket.	_
10.71	Loader safety prop bar	For safety when servicing loader arms.	_

10.72	Hydraulic function	For attachment growth, 3 rd function valve. High flow pump, approx. 43 gpm Couplers and controls shall be provided as required on all machines to accommodate, a brush mower attachment etc.	
10.73	Hydraulic quick attach	For loader bucket. In cab controls to release pins from bucket.	
10.74	OEM ride control	State.	
	BACKHOE		
10.75	Туре	Centre pivot with extendable dipper- stick.	
10.76	Maximum digging depth	Approx. 19'6", state digging depth.	
10.77	Overall reach from rear axle centerline	Approx. 27', state reach.	
10.78	Digging force	Bucket cylinder (SAE), with 24 inch bucket approx. 15,000lbs., state.	
10.79	Digging force	Crowd cylinder (SAE), with dipper-stick retracted approx. 10,500lbs., state.	
10.80	Lifting capacity with stick at 12ft reach	Approx. 4,400lbs. state.	
10.81	Controls	SAE excavator style, pilot operated hydraulic joystick controls.	
10.82	Multi-brand Quick coupler attachment bracket	For quick attachment of all buckets and hydraulic hammers, state make and model being bid.	
10.83	360° rotation and tilt attachment coupler	Hydraulic quick attach.	
10.84	Attachment bracket	Permit use of two (2) bucket positions.	
10.85	Attachment bracket	Permit bucket, and bucket position changes.	
10.86	Certified lifting hooks	All buckets to be complete with certified lifting hooks.	
10.87	Stabilizer pads	Designed for use on railways.	
10.88	Front counterweight	Supplied as to provide proper machine balance and loading characteristics.	
10.89	Replaceable bushings and grease fittings	At backhoe pivot points, cylinder rod and closed ends, and bucket links.	

10.90 Auxiliary hydraulics

For attachment growth, 3rd function valve. High flow pump, approx. 43 gpm Couplers and controls shall be provided as required on all machines to accommodate, BTE tube tie talon etc.

ATTACHMENTS

Note: Options to be priced only as indicated on Form B: Prices. Item 3 and Sub Item 3a. will be awarded as a Section C.

Option 4: Attachments (Sub Item 3a). Unit to have the following attachments

10.91 Clam bucket
4 in 1 combination, with bolt-on cutting edge. Approx. width 93" with 1.4 yd³ capacity. Replaceable bolt-on cutting edges for all three edges of the bucket. (Quick Attach)
10.92 24 inch digging bucket
24 inch heavy duty digging bucket with replaceable pin-on teeth, complete with required attachment pin(s) and certified

installed.

- 10.93 Hydraulic thumb (backhoe) Factory installed, state
- 10.94 BTE (or equivalent) Extendable Tube talon (backhoe)

Extendable with rotozip for removing and inserting railway ties.

lifting hooks. Backhoe to be delivered with 24 inch digging bucket (w/teeth)



Hi-Rail Dolly Set

10.95 Hi-Rail Make

10.96 Hi-Rail Model

State. State.

Bid Submission Page 45 of 50

10.97 Rear dolly

Four (4) wheel dolly with rear tower bracket. Rear tower bracket mounted to the rear of loader backhoe. With mechanical lock pins. Backhoe to be delivered with bracket installed.



10.98 Bucket wheels

10.99	Rail Travel Speed
10.100	Guide Wheels
10.101	Track Gauge
10.102	Brakes

OPERATOR CAB

10.103 Type-ROPS

10.104 Insulation and headliner

10.105 Floor covering

10.106 Seat

10.107 Ride control 10.108 All windows

10.109 Ignition keys

Heat treated and lubricated rail wheels with mechanical lock pins (stowable). Backhoe to be delivered with bucket wheels installed.



Approx. 24 mph (40 kph), state.	
Approx. 8" in diameter.	
Standard, 56.5 inches.	
Rubber tire friction rail travel and braking.	
Roll-over protective structure complete with pressurized cab, OSHA certified or equivalent in accordance with B6.	
For sound suppression and severe weather/climate.	
Rubber matting, throughout.	
Cushioned, adjustable bucket type with arm rests, cloth upholstery air suspension with retractable seat belt.	
Factory installed.	
Tinted safety glass with appropriate markings for all panes and opening type where applicable.	

Three (3) sets required per machine.

10.110	Doors	One (1) each side with spring assisted strut, lockable with common key.	
10.111	Interior rear-view mirror	Adjustable.	
10.112	Windshield wipers	Intermittent preferred, requires front and rear.	
10.113	Heater/defroster	Heavy duty, hot water type with multi- speed fan, capable of keeping all windows clear at -40 ⁰ C.	
10.114	Window fans	Two (2) with guards.	
10.115	Air conditioning	Factory installed with under hood compressor. (Note: roof mounted air conditioners are not acceptable).	
10.116	Steps	Open grate style.	
10.117	Toolbox	Lockable, state location.	
10.118	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.	
10.119	Noise Level, interior	Approx. 85 dB(A), measured in accordance with SAE J336, state noise level.	
10.120	Fire extinguisher	Five (5) lbs. High volume ABC type, State location.	
	GREASING SYSTEM		
10.121	Greasing system	Parallel NLGI-2 (or equivalent in accordance with B6) heavy-duty automatic lubrication system, connected to all grease points, outfitted with automatic low level shut-off. With an in cab monitor showing system status such as low level, low pressure and/ or fault code display.	
10.122	Pump reservoir	 a) Approx. 6kg pump reservoir. Parameters preprogrammed to accommodate 500 hour service intervals. Pump must have correct filler adapter fitting for City of Winnipeg maintenance staff to refill reservoir. 	
		 b) Access to refill the pump reservoir shall be via remote fill line of min. 3/8" hose to accommodate a refill procedure at ground level. 	

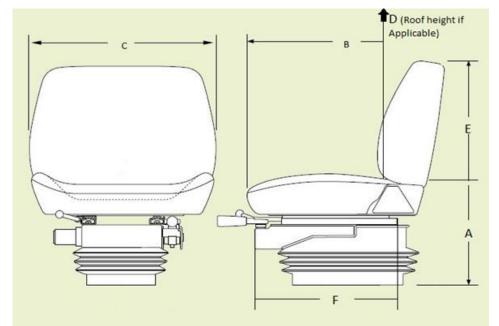
10.123	Power input	a) System power connection 12-Volt to ignition source with an accessible fuse protection. Greasing system to shut down when the engine is turned off.	
		b) Bidder to suggest possible anti idle protection feature providing it does not affect Machine OEM warranty.	
10.124	Grease lines	 a) Extreme Low temperature (example: Parker Blue Stripe or equivalent in accordance with B6) steel braided rubber hose. With compatibility to accommodate max working pressure of 5000psi. Each hose on all connected points must be outfitted with #4 JIC crimped ends. Thread sealant for each fitting must be used. 	
		 b) In extreme environment areas such as the lower machine articulator pin, and front bucket pins, heavy wall pipe must be fitted. 	
10.125	Greasing points	a) State, quantity of greasing points connected to the automatic lubrication system.	
		b) State , quantity of remote grease lines points that cannot be connected to the automatic lubrication system.	
10.126	Grease fittings	Each connected component must have a manual grease zerk either at each injector or at the connected component to manually lubricate.	
10.127	Injector manifolds	Mounted secure in an area away from debris impact. Special guards should be fitted for injector manifolds and hoses, in areas of consistent debris impact (snow, ice, etc.).	

11.0 **OPERATOR STATION ERGONOMICS**

Entry/ Exit

11.1	First step entry height	State, height of first step in inches.	
11.2	First handhold entry height	State, first handhold entry height in inches.	
11.3	Access to equipment	State, door opening height in inches.	
11.4	Access to equipment	State, door opening width in inches.	
11.5	Designed to prevent slipping	Anti-slip steps/handholds (Y or N)?	

Seat (use below diagram to answer questions)



11.6	Sitting height range from floor (where feet rest) (A)	State, seat height range in inches.
11.7	Seat length/depth (B)	State, seat length/depth in inches.
11.8	Seat width (C)	State, seat width in inches.
11.9	Cab height from seat to roof (if applicable) (D)	State, cab height range in inches.
11.10	Back rest height (E)	State, back rest height in inches.
11.11	Seat travel range (F)	State, seat travel in inches.
11.12	Lumbar support	Is lumbar support provided (Y or N)?
11.13	Head rest	Is head rest provided (Y or N)?
11.14	Seat is made of breathable material	State, type of seat material.

Operation

11.15	Reaching distance to usual work	State, reaching distance in inches.	
11.16	Maximum reaching distance	State, maximum reach distance in inches.	
11.17	Adjustable pedals (accelerator/brake/clutch)	Are pedals adjustable (Y or N)?	
11.18	Adjustable steering wheel	Is steering wheel adjustable (Y or N)?	
11.19	Adjustable shoulder belt	Is belt adjustable and anchored (Y or N)?	

12.0 WARRANTY

12.1 All warranty information shall be detailed and include all exclusions. The Contractor shall provide all published warranty information upon delivery of the equipment. Bidder shall state all warranty information.

12.2	Basic coverage	State:	
12.3	Power train	State:	
12.4	Hydraulics warranty	State:	
12.5	Batteries warranty	State:	
12.6	Tires warranty	State:	
12.7	Electrical warranty	State:	

13.0 **DELIVERY**

- 13.1 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 WFMA 185 Tecumseh Street, Winnipeg MB. The successful bidder shall be notified by the Contractor Administrator the delivery address prior to issuance of the purchase order.
- 13.2 Delivery Time: <u>Twelve (12) calendar weeks</u> from the date of award. Equipment shall be delivered between 8:00 am and 2:00 pm on Business Days.
- 13.3 Delivery Contact: The Contractor shall contact the Contract Administrator prior to delivery of the equipment.
- 13.4 P.D.I: A pre-delivery inspection shall be performed by the Contractor on the equipment. Proof upon inspection including completed check list

14.0 **MANUALS**

- 14.1 Manuals supplied under this Contract shall cover the complete equipment including all components thereof, CD or USB flash drive is preferred where available.
- 14.2 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 or USB flash drive are preferred.

15.0 FIRST SERVICE PREVENTATIVE MAINTENANCE KIT

15.1	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.	
15.2	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.	
16.0	PARTS/LABOUR PRICING	
16.1	Bidder to provide City of Winnipeg Parts Discount % Pricing from retail parts pricing. State percentage discount-	%
16.2	Bidder to provide City of Winnipeg Labor Discount % Pricing from Retail shop	%

Bidder to provide City of Winnipeg Labor Discount % Pricing from Retail shop labor rate. **State percentage discount-**16.2