

**FORM A: BID**  
(See B8)

1. Contract Title SUPPLY AND DELIVERY OF A USED 4WD LOADER BACKHOE

2. Bidder

\_\_\_\_\_  
Name of Bidder

\_\_\_\_\_  
Usual Business Name of Bidder as it appears on Invoice (if different 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 under the above name.

3. Contact Person

The Bidder hereby authorizes the following contact person to represent the Bidder for purposes of the Bid.

\_\_\_\_\_  
Contact Person

\_\_\_\_\_  
Title

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_  
Facsimile Number

\_\_\_\_\_  
Email Address

4. 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 of the Work The Bidder agrees that no Work shall commence until he/she is in receipt of a notice of award from the Award Authority authorizing the commencement of the Work.

7. Contract The Bidder agrees that the Bid Opportunity 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. 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: PRICES**  
(See B9)

SUPPLY AND DELIVERY OF A USED 4WD LOADER BACKHOE

UNIT PRICES

ITEM NO.	DESCRIPTION	SPEC. REF.	UNIT	QUANTITY	UNIT PRICE
1.	Used 4WD Loader Backhoe	17062	Each	1	

\_\_\_\_\_  
Name of Bidder

**FORM N: DETAILED SPECIFICATIONS 17062**  
**USED 4WD LOADER BACKHOE**

**1.0 DESCRIPTION OF EQUIPMENT**

- 1.1 These specifications describe a **Used 4WD Loader Backhoe** and other equipment and features as specified herein.
- 1.2 The **Used 4WD Loader Backhoe** shall be a used Loader Backhoe model year 2011 or newer with approximately no more than 4000 hours on the machine.
- 1.3 The **Used 4WD Loader Backhoe** and all other items/components 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 **Used 4WD Loader Backhoe** shall comply with the applicable regulations:

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

Manitoba Safety and Health Act, Parts 12, 22:

<http://web2.gov.mb.ca/laws/statutes/ccsm/w210e.php> and <http://www.gov.mb.ca/labour/safety/>

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

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

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.

#### **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.

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#### **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 **Used 4WD 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 **Used 4WD Loader Backhoe** 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 FUEL**

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

#### **9.0 QUALIFICATIONS OF MANUFACTURER & CONTRACTOR**

- 9.1 The manufacturer of the **Used 4WD 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 **Used 4WD Loader Backhoe** of the type being offered.

10.0 **SPECIFICATIONS:**

**State:**

Make: \_\_\_\_\_  
Model: \_\_\_\_\_  
Year: \_\_\_\_\_  
Hours: \_\_\_\_\_

**ENGINE**

- |       |                                   |  |       |
|-------|-----------------------------------|--|-------|
| 10.1  | Engine Make & Model               | <b>State:</b>  | _____ |
| 10.2  | Engine Specification              | Diesel<br>Tier 3, Tier 4 (Interim) or Tier 4 (Final)<br><b>State:</b>  | _____ |
| 10.3  | Horse Power                       | Approximately Net 95 HP<br><b>State:</b>   | _____ |
| 10.4  | Torque                            | Net torque<br><b>State:</b>  | _____ |
| 10.5  | Engine Aspiration                 | <b>State.</b>  | _____ |
| 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                           | Muffled, 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               | Approximately 750 Watts.   | _____ |
| 10.14 | Cold Weather Starting Aid         | Glow plugs or air intake warmer<br><b>State:</b> type.   | _____ |
| 10.15 | Engine Protection Shutdown System | Visual and audible warning of principle machine systems including engine oil pressure and coolant temperature c/w engine shutdown. | _____ |
| 10.16 | Fuel Tank                         | <b>State:</b> capacity.  | _____ |

**ELECTRICAL/ LIGHTING/ SAFETY**

10.17	Type	12-Volt, negative ground electrical system.	_____
10.18	Electric Starter	With key starter switch.	_____
10.19	Batteries	Dual batteries, Approximately 1600 CCA combined capacity. <b>State:</b>	_____
10.20	Alternator	Approximately 100 Amp <b>State:</b> capacity	_____
10.21	Combined Stop and Tail Lights	Two (2)	_____
10.22	Signal Lights with Warning Flashers	Two (2) front and two (2) rear	_____
10.23	Warning Flashers	Operable with key removed	_____
10.24	Headlights	Two (2)	_____
10.25	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.	_____ _____ _____
10.26	Light Switches	Independent on/off switch for each pair of work lights, dash mounted wired through ignition, labeled with permanent type, engraved style labels.	_____
10.27	Cab Interior Light	Interior light.	_____
10.28	Radio	AM/FM/CD or MP3.	_____
10.29	Radio Installation Provision	12 volt, 20Amp spate/independent circuit available at a spare circuit breaker, suitable for installation of a 2-way mobile radio.	_____
10.30	Horn	Operable from driving position and from backhoe position.	_____

10.31	Safety Lighting (Beacon)	Make and Model: <ul style="list-style-type: none"><li>• Whelen L31 Series Super-LED, SAE Class 1 (or equivalent) Blue/Amber (individual control) beacon</li><li>• 360 degree visibility.</li><li>• Wired through ignition, lights shall be wired for separate amber and separate blue labelled independently "winter", "off", "summer".</li><li>• The winter mode will turn on both blue and the summer will only turn on the amber lights.</li></ul>	_____
10.32	Beacon Guard	Ramped, heavy duty bolt-on metal guard, designed to permit servicing of beacon without being removed.	_____
10.33	Back-Up Alarm	97 dB, factory installed, mounted to be protected from damage.	_____
10.34	Wiring	<ul style="list-style-type: none"><li>• All locally installed accessories shall be color coded, loomed and properly secured.</li><li>• Splicing in any factory harness is unacceptable.</li><li>• All electrical power for locally supplied electrical components to be supplied from an OEM power distribution box.</li><li>• All joining of wires and electrical connectors shall be soldered and sealed with heat shrink tubing.</li><li>• All wiring for work lights and warning lights shall be supplied with no exposed wiring.</li></ul>	_____
10.35	LED Lighting	All lighting LED <b>State:</b>	_____
10.36	Slow Moving Sign	Grote 71152 or equivalent with bracket mounted to rear of backhoe	_____
<b><u>TIRES, RIMS, FENDERS</u></b>			
10.37	Front Tires	OEM recommended for 4WD <b>State:</b>	_____
10.38	Ply Rating	OEM recommended <b>State:</b> ply rating	_____
10.39	Tread	R4, Industrial tractor	_____
10.40	Rear Tires	OEM recommended for 4WD <b>State:</b>	_____
10.41	Ply Rating	OEM recommended <b>State:</b> ply rating	_____

- 10.42 Tread R4, Industrial tractor \_\_\_\_\_
- 10.43 Fenders (Extensions) Front and rear, rubber or polymer, \_\_\_\_\_  
**State:** material

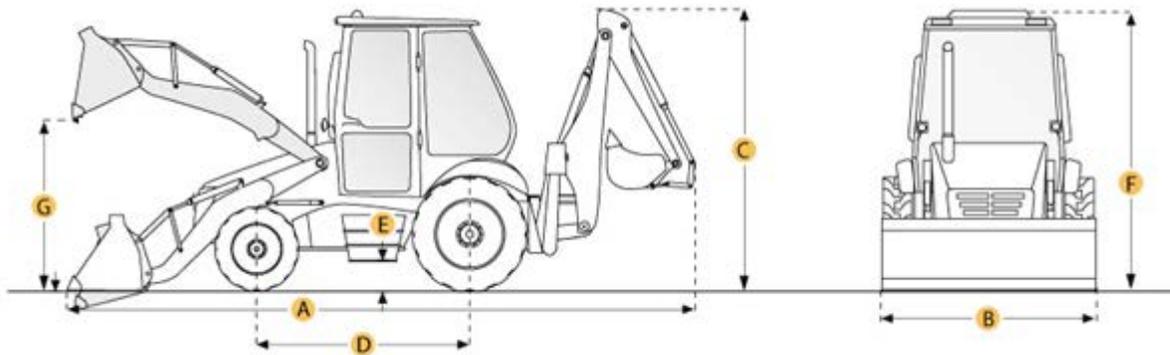
**AXLES & BRAKES**

- 10.44 Front Axle Driven type (4WD) with guarded drive \_\_\_\_\_  
 shaft (limited slip differential).
- 10.45 Rear Axle Differential lock, push button activation. \_\_\_\_\_
- 10.46 Brakes Wet disk type with individual pedals \_\_\_\_\_  
 simultaneous or independent operations.
- 10.47 Parking Brake Foot or hand operated \_\_\_\_\_  
**State:** type.

**TRANSMISSION**

- 10.48 Type Power-shift transmission with torque \_\_\_\_\_  
 convertor, manual shift with power reverser preferred  
**State:**
- 10.49 Shifting Fully synchronized \_\_\_\_\_
- 10.50 Speeds Forward Four (4) \_\_\_\_\_
- 10.51 Speeds Reverse Four (4) \_\_\_\_\_
- 10.52 Power-Shift Direction reverser \_\_\_\_\_

**DIMENSIONS**



- 10.53 Overall Transport Length (A) Approximately 24' \_\_\_\_\_  
**State:**
- 10.54 Overall Transport Width (B) Approximately 8' \_\_\_\_\_  
**State:**

10.55	Overall Transport Height (C)	Not to exceed 11' 2" (Height restrictions in place at some facilities) <b>State:</b>	_____
10.56	Transport Weight	Approximately 15,000 – 19,000 lbs. <b>State:</b>	_____
10.57	Overall Width	Stabilizer spread, outside edge of pad <b>State:</b>	_____
10.58	Wheelbase (D)	Approximately 84" <b>State:</b>	_____
10.59	Ground Clearance (E)	Approximately 12" <b>State:</b>	_____
10.60	Overall Height (Top of Cab) (F)	Approximately 9' <b>State:</b>	_____
10.61	Operating Weight ( As Bid)	Approximately 16,000 lbs. (without attachments) <b>State:</b> weight.	_____
10.62	Turning Radius	Curb clearance with brakes applied, <b>State:</b>	_____
<b><u>LOADER BUCKET</u></b>			
10.63	Lift Capacity, Full Height	Approximately 7000 lbs. <b>State:</b>	_____
10.64	Heaped Capacity	Approximately 1.30 cubic yards <b>State:</b>	_____
10.65	Bucket Breakout Force	Approximately 11,000 lbs. <b>State:</b>	_____
10.66	Dump Clearance As Bid (G)	Bucket @ 45° Approximately 105 in. <b>State:</b>	_____
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	Preferred.	_____
10.72	Hydraulic Function	3 function hydraulics.	_____
10.73	Hydraulic Quick Attach	For loader bucket.	_____

10.74	OEM Ride Control	<b>State:</b>	_____
	<b><u>BACKHOE BUCKET</u></b>		
10.75	Type	Over Centre Design with extendable dipper-stick, approximately 3 – 5 ft. <b>State:</b>	_____
10.76	Heaped Capacity	Approximately 7.5 – 13 cubic feet <b>State:</b>	_____
10.77	Maximum Digging Depth	Approximately 19'6" <b>State:</b> digging depth	_____
10.78	Digging Force	Bucket cylinder (SAE), with 24 inch bucket Approximately 15,000 lbs. <b>State:</b>	_____
10.79	Digging Force	Crowd cylinder (SAE), with dipper-stick retracted Approximately 9,500lbs. <b>State:</b>	_____
10.80	Controls	SAE excavator style, pilot operated hydraulic joystick controls.	_____
10.81	Multi-Brand Quick Coupler Attachment Bracket	For quick attachment of all buckets and hydraulic breaker <b>State:</b> make and model being bid. Make: _____ Model: _____	_____
10.82	Hydraulic Quick Attach	For backhoe bucket.	_____
10.83	Attachment Bracket	Permit use of two (2) bucket positions.	_____
10.84	Attachment Bracket	Permit bucket, and bucket position changes.	_____
10.85	Certified Lifting Hooks	All buckets to be complete with certified lifting hooks.	_____
10.86	Stabilizer Pads	Reversible, flip-over type pads. Cemetery/Street type <b>State:</b>	_____
10.87	Front Counterweight	Supplied as to provide proper machine balance and loading characteristics.	_____
10.88	Replaceable Bushings and Grease Fittings	At backhoe pivot points, cylinder rod and closed ends, and bucket links.	_____
10.89	Auxiliary Hydraulics	Couplers and controls shall be provided as required on all machines to accommodate hydraulic hammers.	_____

**Hydraulic Breaker (Optional)**

**Option 1: Used Hydraulic Breaker** \$ \_\_\_\_\_  
**State Price:**

**Option 1: New Hydraulic Breaker** \$ \_\_\_\_\_  
**State Price:**

- 10.90 To be compatible with the Used Loader Backhoe quoted \_\_\_\_\_
- 10.91 Impact Class Approximately 1300 ft.-lbs. \_\_\_\_\_
- 10.92 Striking Rate Approximately 1450 bpm. \_\_\_\_\_
- 10.93 Carrier Weight 5.5 - 13 US tons. \_\_\_\_\_
- 10.94 Flow Range 18 - 32 gpm. \_\_\_\_\_
- 10.95 Acceptable Back Pressure Approximately 300 psi. \_\_\_\_\_
- 10.96 Operating Weight Approximately 950 lbs. \_\_\_\_\_
- 10.97 Tool Diameter Approximately 3.3 inches. \_\_\_\_\_
- 10.98 Attachment Pins Required. \_\_\_\_\_
- 10.99 Quick Couplers Required. \_\_\_\_\_
- 10.100 Lashing Ring and Heavy Duty Chain Suitable chain length with forged slip hooks for safe and secure transport of hydraulic breaker in loader bucket. \_\_\_\_\_
- 10.101 Mounting Plate Compatibility **Required:** \_\_\_\_\_

**OPERATOR CAB**

- 10.102 Type-ROPS Roll-over protective structure complete with pressurized cab, OSHA certified or equal. \_\_\_\_\_
- 10.103 Insulation and Headliner For sound suppression and severe weather/climate. \_\_\_\_\_
- 10.104 Floor Covering Rubber matting, throughout. \_\_\_\_\_
- 10.105 Seat Cushioned, adjustable bucket type with arm rests, cloth upholstery air suspension with retractable seat belt. \_\_\_\_\_
- 10.106 Ride Control Factory installed. \_\_\_\_\_
- 10.107 All Windows Tinted safety glass with appropriate markings for all panes and opening type where applicable. \_\_\_\_\_
- 10.108 Ignition Keys Three (3) sets required per machine. \_\_\_\_\_
- 10.109 Doors One (1) each side with spring assisted strut, lockable with common key. \_\_\_\_\_
- 10.110 Interior Rear-View Mirror Adjustable. \_\_\_\_\_

10.111	Windshield Wipers	Intermittent preferred, requires front and rear.	_____
10.112	Heater/Defroster	<ul style="list-style-type: none"><li>• Heavy duty</li><li>• Hot water type with multi-speed fan</li><li>• Capable of keeping all windows clear at -40<sup>0</sup> C.</li></ul>	_____
10.113	Window Fans	Two (2) with guards.	_____
10.114	Air Conditioning	Factory installed with under hood compressor. (Note: roof mounted air conditioners are not acceptable).	_____
10.115	Steps	Open grate style.	_____
10.116	Toolbox	Lockable <b>State:</b> location	_____
10.117	Instrumentation	<ul style="list-style-type: none"><li>• Coolant temperature-gauge with audible alarm.</li><li>• Engine oil pressure- gauge or warning light with audible alarm.</li><li>• Engine hour meter-non resettable type. Tachometer.</li><li>• Fuel gauge.</li></ul>	_____
10.118	Noise Level, Interior	85 dB(A), measured in accordance with SAE J336, <b>State:</b> noise level.	_____
10.119	Fire Extinguisher	Five (5) lbs. High volume ABC type, <b>State:</b> location.	_____

**GREASING SYSTEM**

10.120	Greasing System	If Equipped <b>State:</b> make and model	_____
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11.0 **WARRANTY**

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

11.1	Standard Coverage	<b>State:</b> If remaining warranty is available	_____
11.2	Used Equipment Warranty	<b>State:</b> If available Provide details. <b>Cost:</b>	_____ \$ _____

12.0 **DELIVERY**

12.1 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. \_\_\_\_\_

12.2 Delivery Time:  
**State:** \_\_\_\_\_  
Equipment shall be delivered between 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 shall be performed by the Contractor on the equipment. Proof upon inspection including completed check list \_\_\_\_\_

13.0 **MANUALS**

13.1 Manuals supplied under this contract shall cover the complete equipment including all components thereof, CD or USB flash drive is preferred where available. \_\_\_\_\_

13.2 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 set 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. **State percentage discount-** \_\_\_\_\_

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

16.0 **ERGONOMIC SPECIFICATIONS**

**Entry/ Exit**

16.1 First step entry height **State:** height of first step in inches \_\_\_\_\_

16.2 First handhold entry height **State:** first handhold entry height in inches \_\_\_\_\_

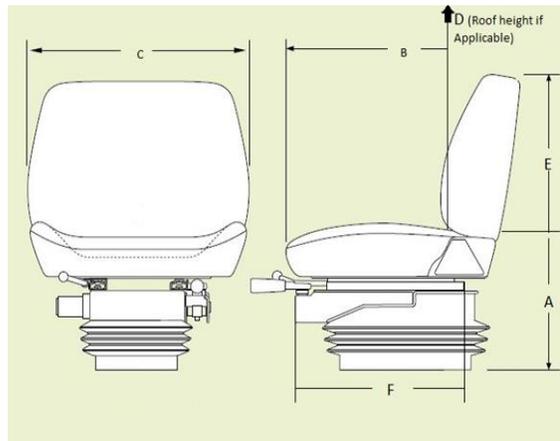
16.3 Access to equipment **State:** door opening height in inches \_\_\_\_\_

16.4 Access to equipment **State:** door opening width in inches \_\_\_\_\_

16.5 Designed to prevent slipping **Anti-slip steps/handholds (Y or N)?** \_\_\_\_\_

**Seat**

16.6 Use diagram to answer questions.



16.7 Sitting Height Range (from floor (where feet rest) (A)) **State:** seat height range in inches \_\_\_\_\_

16.8 Seat Length/Depth (B) **State:** seat length/depth in inches \_\_\_\_\_

16.9 Seat Width (C) **State:** seat width in inches \_\_\_\_\_

16.10 Cab Height (from seat to roof (if applicable) (D)) **State:** cab height range in inches \_\_\_\_\_

- 16.11 Back Rest Height (E) **State:** back rest height in inches \_\_\_\_\_
- 16.12 Seat Travel Range (F) **State:** seat travel in inches \_\_\_\_\_
- 16.13 Lumbar Support Is lumbar support provided (**Y or N**)? \_\_\_\_\_
- 16.14 Head Rest Is head rest provided (**Y or N**)? \_\_\_\_\_
- 16.15 Seat is made of breathable material **State:** type of seat material \_\_\_\_\_

**Operation**

- 16.16 Reaching Distance (to usual work) **State:** reaching distance in inches \_\_\_\_\_
- 16.17 Maximum Reaching Distance **State:** maximum reach distance in inches \_\_\_\_\_
- 16.18 Adjustable Pedals (accelerator/brake/clutch) Are pedals adjustable (**Y or N**)? \_\_\_\_\_
- 16.19 Adjustable Steering Wheel Is steering wheel adjustable (**Y or N**)? \_\_\_\_\_
- 16.20 Adjustable Shoulder Belt Is belt adjustable and anchored (**Y or N**)? \_\_\_\_\_

**Cargo Area**

- 16.21 Lid opens to provide adequate space Adequate space provided (**Y or N**)? \_\_\_\_\_
- 16.22 Loading Height **State:** trunk height in inches \_\_\_\_\_

**Environment**

- 16.23 Operator compartment is insulated from equipment noise (while operating) **State:** dB inside cab while operating \_\_\_\_\_
- 16.24 Operator insulated from equipment vibration Is operator insulated from vibration (**Y or N**)? \_\_\_\_\_
- 16.25 Heating/Cooling Systems **State:** cab temperature range \_\_\_\_\_
- 16.26 Cab Lighting **State:** lumens inside cab \_\_\_\_\_

**Maintenance/ Inspection**

- 16.27 Lift Assistance (when necessary) Is lift assistance provided (**Y or N**)? \_\_\_\_\_
- 16.28 Easy Access (to compartment doors) Is easy access provided (**Y or N**)? \_\_\_\_\_
- 16.29 Include any other relevant ergonomic specifications and applicable range of adjustment \_\_\_\_\_