

FORM A: BID
(See B8)

1. Contract Title SUPPLY AND DELIVERY OF BRUSH CHIPPERS

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 BRUSH CHIPPERS

UNIT PRICES

ITEM NO.	DESCRIPTION	SPEC. REF.	UNIT	QUANTITY	UNIT PRICE
1.	Brush Chipper - 130 HP	17039	Each	6	
2.	Brush Chipper - 175 HP	17040	Each	1	

Name of Bidder

FORM N: DETAILED SPECIFICATIONS 17039

Brush Chipper – 130 HP

- 1.1 These specifications describe a **Brush Chipper** and other equipment and features as specified herein.
- 1.2 The **Brush Chipper** shall be a new 2016 to 2017 model year.
- 1.3 The **Brush Chipper** 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 **Brush Chipper** 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 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.csagroup.org/>

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>.

British Columbia Occupational Health and Safety Act, Part 12.70 Mobile Chippers, Driven Feed Chippers
<https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchable-ohs-regulation/ohs-regulation/part-12-tools-machinery-and-equipment>

- 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 of 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) Canadian 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 **Eligible Model: Vermeer BC1500 or Equivalent in accordance with B6 Substitutes.**

5.2 **State** make 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 **Brush Chipper**, 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 **Brush Chipper** 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 **Brush Chipper** 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 **Brush Chipper** of the type being offered.

10.0 SPECIFICATIONS:

Weight and Dimensions:

10.1	Overall Length	179 in.	_____
10.2	Overall Height	104 in.	_____
10.3	Overall Width	86 in.	_____
10.4	Operating Weight	7490 lbs.	_____

Chassis:

10.5	Frame	Heavy duty metal construction	_____
10.6	Axle	Heavy duty, 8000 lbs. capacity	_____
10.7	Suspension	Rubber torsion, sized to match GTWR	_____
10.8	Tires	Floatation type, to match GTWR LT 285/75R16 LR E Load Range E, rib style tread	_____
10.9	Rims	Steel, automotive style	_____
10.10	Spare Rim And Tire	Three (3) spares only, identical to rims and tires being bid	_____
10.11	Wheel Nut Indicators	Required on all wheel nuts	_____
10.12	Fenders	Required, steel, heavy duty, exterior portions to be finished with Line-X heavy duty non-slip coating or equivalent	_____
10.13	Jack Leg	Heavy duty, crank down, located on trailer tongue	_____
10.14	Foot Pad	Stationary, 3 in. x 5 in.	_____
10.15	Brakes	Electric brakes with breakaway switch	_____
10.16	Pintle Draw Bar	Heavy duty, height adjustable draw, bar w/3 in. ID, sized to match GTWR, Dico Model 20 or equivalent	_____

10.17	Safety Chains and Eye Hooks	Shall conform with CMVSS and Manitoba Highway Traffic Act. Eye hooks to be complete with spring closures.	_____
10.18	Tool Box	Lockable Approximately 13 in. Wide x 15 in. Tall x 4.5 in. Deep	_____
10.19	Conspicuity Tape	Truck-Lite 98127 or equal, affixed 360° around unit.	_____
10.20	Fire Extinguisher	5 lb. ABC type, required with mounting bracket and cover, readily accessible. State: location	_____

Engine and Engine Equipment:

10.21	Engine	Cummins QSF3.8L TF4 Four cylinder, liquid cooled, Tier IV Final diesel engine.	_____
10.22	DEF Tank	5 Gal	_____
10.23	Horsepower (Gross)	130 HP	_____
10.24	Torque (Max)	360 ft-lb	_____
10.25	Radiator	Heavy duty with guard rails and removable radiator screen	_____
10.26	Coolant	Extended life, rated for -40°C	_____
10.27	Ignition	Keyed ignition c/w three (3) sets of keys	_____
10.28	Air Cleaner	Dry cartridge type	_____
10.29	Fuel Filter	Spin-on type with water separator	_____
10.30	Fuel Tank	Approximately 45 Gal capacity with sight gauge	_____
10.31	Oil Filter	Full flow, spin-on type	_____
10.32	Clutch	Approximately 13" spring-loaded automotive style and manual lever engagement.	_____
10.33	Exhaust	Muffler with rain cap or bend and 40° cut-off	_____
10.34	Block Heater	110 V immersion type	_____
10.35	Fuel Gauge	Required	_____
10.36	Hour-Meter	Non-resettable type	_____

Cutting System:

10.37	Speed	1980 rpm	_____
10.38	Drum Diameter	22.5 in. Diameter	_____
10.39	Drum Thickness	0.4 in.	_____
10.40	Knives	Two (2) 0.625 in. x 5 in. x 8 in. A8 chipper steel	_____
10.41	Safety	Drums shall have two (2) safety lock positions for changing drum knives	_____

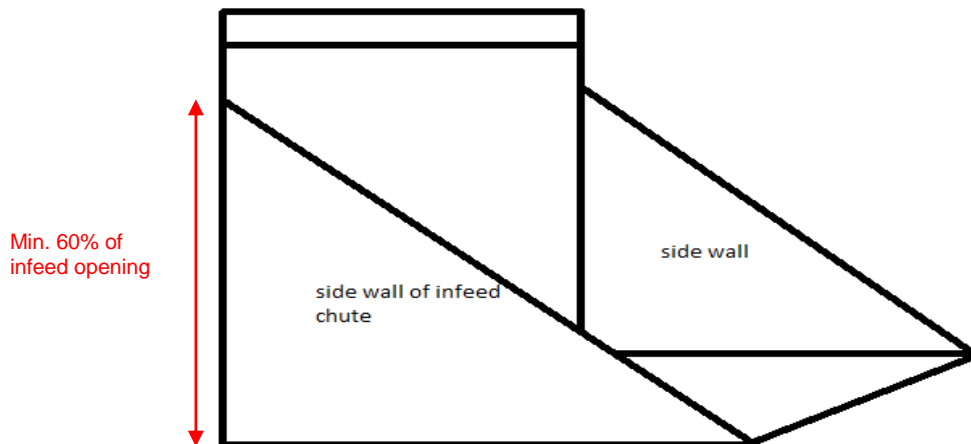
Infeed Chute:

10.42	Heavy duty steel construction with Four Position Feed Control Bar, 2 in. diameter and as <u>Standard Equipment</u> , noticeably labeled.	_____
-------	---	-------

Infeed chute shall have as **Standard Equipment**:

- a. **A Safety Bottom Feed Stop Bar, 2 in. Diameter**
- b. **Reinforced rear rubber infeed safety curtain, positioned to cover entire infeed opening.**

Side walls of infeed chute to cover the area, starting at the bottom, from end of feed table diagonally up to the infeed opening, to minimum 60% height of infeed opening. Refer to diagram below



Feed System:

10.43	Chipping Capacity	15 in.	_____
10.44	Infeed Throat Capacity	15 in. Height x 20 in. Width	_____
10.45	Feed Rollers	<u>As Standard Equipment</u> , two (2), vertical hydraulically driven, supported by heavy duty bearings	_____

10.46	Infeed Table	30.1 in. Length x 55.4 in. Width	_____
10.47	Infeed Hopper Height	32 in.	_____
10.48	Distance from Feed Table to Ground	27.2 in.	_____
10.49	Feed Speed	120-125 fpm	_____
10.50	Feed Rollers	20.9 in. diameter	_____
10.51	Feed System	Reversible	_____
<u>Hydraulics:</u>			
10.52	Engine Speed Monitoring System	Unit shall be equipped with an engine speed monitoring system to automatically control the feed to match engine rpm	_____
10.53	Feed System Governor	Shall be capable of stopping the feed system at a preset engine rpm less than full throttle speed. Governor shall automatically restart the feed system once the engine reaches full rpm	_____ _____
10.54	Hydraulic Oil	Suitable for Manitoba Weather Conditions Ambient temperatures ranging from approximately 90°F (32°C) to -40°F (-40°C) State:	_____
10.55	Hydraulic Pump	State: psi, gpm @ rated rpm	_____
10.56	Return Line Filter	Replaceable, spin-on cartridge type	_____
10.57	Hydraulic Hoses	Rated for system pressure with 4 to 1 safety factor for burst pressure.	_____
10.58	Protection of Hoses	Hydraulic hoses to be protected at wear and scuff locations All hydraulic hoses shall be covered, neatly routed and secured with plastic tie wraps where necessary	_____ _____
10.59	Hose Fittings	Hydraulic full flow, crimp-on (non-reusable) type Note: Black iron fittings are not acceptable on pressure lines	_____

Discharge Chute:

10.60	Length	Approximately 80 in. Shall be capable of discharging chips for truck loading	_____
10.61	Height	104 in.	_____
10.62	Degree of Rotation	270°	_____
10.63	Chip Deflector	Adjustable	_____

Electrical and Lighting:

10.64	Standards	All lighting shall conform to CMVSS (latest revision) and Manitoba Highway Traffic Act requirements	_____
10.65	Electrical System	12-Volt, negative ground system	_____
10.66	Starter	Electric	_____
10.67	Battery	Approximately 900-950 CCA	_____
10.68	Trailer Plug	6-Pole, Pollak 11-605 plug with cable guard or equivalent plug with cable guard	_____
10.69	Stop, Turn and Taillights	Combination Style Truck-Lite 44302R or equivalent LED lights, one (1) per side with 40700 mounting grommets, fully enclosed at rear. Lights to be complete with heavy duty taillight covers	_____ _____
10.70	Clearance Lamps	Truck-Lite 10208R and 10208Y with 10700 mounting grommets or equivalent LED lights	_____
10.71	3-Light Cluster	Required: LED	_____
10.72	Junction Box	Truck-Lite 50400 or equivalent c/w necessary compression fittings, located on inside of trailer frame, protected from damage	_____
10.73	License Plate Lamp	Truck-Lite 15040 or equivalent LED lamp, complete with license plate bracket	_____
10.74	Warning Beacon	Preco 4261A, 360° visibility, wired through chipper ignition switch, fused, c/w heavy duty on-off switch, labeled with a permanent type, engraved style label	_____
10.75	Warning Beacon Brush Guard	Required:	_____
10.76	Wiring	All wiring (including accessories, etc.) shall be colour coded, loomed, properly secured and protected from damage. Loom is required from trailer plug to taillights	_____

10.77 Joining of Wires All joining of wires and electrical connections (including trailer plug wiring) shall be crimped and soldered, then sealed with heat shrink tubing. _____

Crimp-on electrical connectors for joining wires are not acceptable _____

10.78 Holes Any holes required to run wires through chassis, steel sections, etc. shall be drilled (not punched), grommeted and sealed _____

Noise Level:

10.79 Decibel Rating 85 decibels max. @ 50 ft., 360° around unit _____

Colour and Finish:

10.80 The entire unit shall be properly primed and prepared, then painted the manufacturer's standard colour with two (2) coats of polyurethane enamel, DuPont Imron, Endura paint process or equivalent _____

11.0 **Warranty:**

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

11.2 The warranty for the **Brush Chipper** shall cover the complete equipment, and all parts thereof against any defects of workmanship, construction and materials, for a period of 12 months or greater. _____

Any equipment that has become defective during said warranty period and has not proven to have been caused by negligence on the part of the user shall be repaired or replaced at no cost to the City.

The warranty shall be effective from the date the equipment is put into service by the City of Winnipeg.

11.3 Basic Equipment Warranty **State:** _____

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: Three - Six (3 - 6) calendar weeks or sooner** from the date of order. Equipment shall be delivered between 8:00 am and 3:00 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 The manuals supplied under this Contract shall cover the complete equipment including all components thereof, CD is preferred where available. _____

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

Operator Manual – Three (3) Copies

- Equipment Operator Training Branch
- Equipment (Hard Copy)
- Office (Hard Copy)

Parts and Service Manual

- One (1) complete set including preventative maintenance schedules.

14.0 **Parts/ Labour Discount:**

14.1 Bidder to provide City of Winnipeg Parts Discount % Pricing from retail parts pricing. **State percentage discount** _____

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

15.0 **First Service Preventative Maintenance Kit:**

15.1 In order to assure minimum downtime of the Equipment in future service, the Contractor must 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 must 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. _____

FORM N: DETAILED SPECIFICATIONS 17040

Brush Chipper – 175 HP

- 1.1 These specifications describe a **Brush Chipper** and other equipment and features as specified herein.
- 1.2 The Brush Chipper shall be a new 2016 to 2017 model year.
- 1.3 The **Brush Chipper** 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 **Brush Chipper** 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 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.csagroup.org/>

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>.

British Columbia Occupational Health and Safety Act, Part 12.70 Mobile Chippers, Driven Feed Chippers
<https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchable-ohs-regulation/ohs-regulation/part-12-tools-machinery-and-equipment>

- 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) Canadian 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 **Eligible Model: Vermeer BC1800XL or Equivalent in accordance with B6 Substitutes.**

- 5.2 **State** make 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 **Brush Chipper**, 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 **Brush Chipper** 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 **Brush Chipper** 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 **Brush Chipper** of the type being offered.

10.0 SPECIFICATIONS:

Weight and Dimensions:

10.1	Overall Length	177 in.	_____
10.2	Overall Height	107 in.	_____
10.3	Overall Width	78.5 in.	_____
10.4	Operating Weight	9600 lbs.	_____

Chassis:

10.5	Frame	Heavy duty metal construction	_____
10.6	Axle	Heavy duty, 10,000 lbs. capacity	_____
10.7	Suspension	Rubber torsion, sized to match GTWR	_____
10.8	Tires	Floatation type, to match GTWR LT 285/75R16 LR E Load Range E, rib style tread	_____
10.9	Rims	Steel, automotive style	_____
10.10	Spare Rim And Tire	One (1) per unit, identical to rims and tires being bid	_____
10.11	Wheel Nut Indicators	Required on all wheel nuts	_____
10.12	Fenders	Required, steel, heavy duty, exterior portions to be finished with Line-X heavy duty non-slip coating or equivalent	_____
10.13	Jack Leg	Heavy duty, crank down, located on trailer tongue	_____
10.14	Foot Pad	Stationary, 3 in. x 5 in.	_____
10.15	Brakes	Electric brakes with breakaway switch	_____
10.16	Pintle Draw Bar	Heavy duty, height adjustable draw bar w/3 in. ID, sized to match GTWR, Dico Model 20 or equivalent	_____

10.17	Safety Chains and Eye Hooks	Shall conform to CMVSS and Manitoba Highway Traffic Act. Eye hooks to be complete with spring closures.	_____
10.18	Tool Box	Lockable Approximately 13 in. Wide x 15 in. Tall x 4.5 in. Deep	_____
10.19	Conspicuity Tape	Truck-Lite 98127 or equal, affixed 360° around unit.	_____
10.20	Fire Extinguisher	5 lb. ABC type, required with mounting bracket and cover, readily accessible. State: location	_____

Engine and Engine Equipment:

10.21	Engine	John Deere Tier 4 Final Four cylinder, liquid cooled diesel engine.	_____
10.22	DEF Tank	5 Gal	_____
10.23	Horsepower (Gross)	173 HP	_____
10.24	Torque (Max)	492 ft-lb	_____
10.25	Radiator	Heavy duty with guard rails and removable radiator screen	_____
10.26	Coolant	Extended life, rated for -40°C	_____
10.27	Ignition	Keyed ignition c/w three (3) sets of keys	_____
10.28	Air Cleaner	Dry cartridge type	_____
10.29	Fuel Filter	Spin-on type with water separator	_____
10.30	Fuel Tank	Approximately 35 Gal capacity with sight gauge	_____
10.31	Oil Filter	Full flow, spin-on type	_____
10.32	Clutch	Approximately 13" spring-loaded automotive style and manual lever engagement.	_____
10.33	Exhaust	Muffler with rain cap or bend and 40° cut-off	_____
10.34	Block Heater	110 V immersion type	_____
10.35	Fuel Gauge	Required	_____
10.36	Hour-Meter	Non-resettable type	_____

Cutting System:

10.37	Speed	1100 rpm	_____
10.38	Drum Dimensions	36 in. Diameter x 26.1 in. Width	_____
10.39	Drum Thickness	0.5 in.	_____
10.40	Knives	Four (4) 0.625 in. x 5.0 in. x 10" A8 chipper steel	_____
10.41	Safety	Drums shall have two (2) safety lock positions for changing drum knives	_____

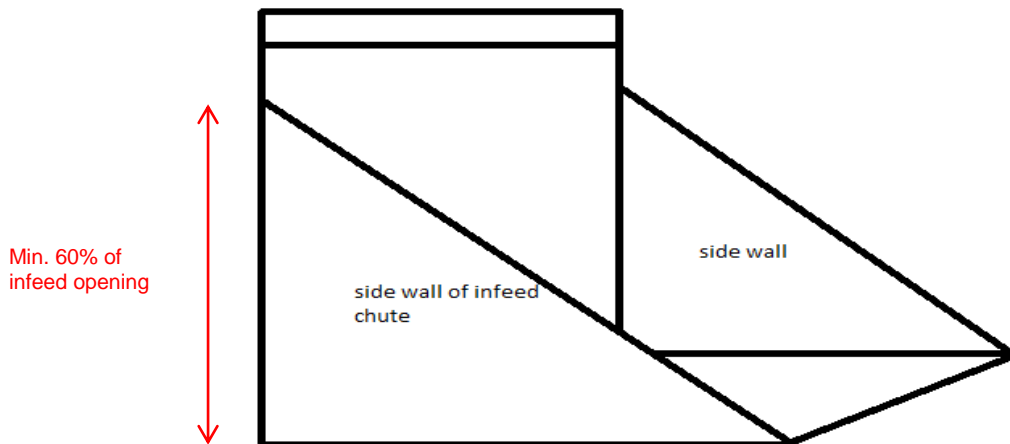
Infeed Chute:

10.42	Heavy duty steel construction with Four Position Feed Control Bar, 2 in. diameter and as <u>Standard Equipment</u> , noticeably labeled.	_____
-------	---	-------

Infeed chute shall have as **Standard Equipment**:

- a. **A Safety Bottom Feed Stop Bar, 2 in. Diameter**
- b. **Reinforced rear rubber infeed safety curtain, positioned to cover entire infeed opening.**

Side walls of infeed chute to cover the area, starting at the bottom, from end of feed table diagonally up to the infeed opening, to minimum 60% height of infeed opening. Refer to diagram below



Feed System:

10.43	Chipping Capacity	19 in.	_____
10.44	Infeed Throat Capacity	20 in. Height x 24 in. Width	_____
10.45	Feed Rollers	<u>As Standard Equipment</u> , two (2), vertical hydraulically driven, supported by heavy duty bearings	_____

10.46	Infeed Table	36 in. Length x 67 in. Width	_____
10.47	Infeed Hopper Height	34 in.	_____
10.48	Distance from Feed Table to Ground	30.5 in.	_____
10.49	Feed Speed	115-120 fpm	_____
10.50	Feed Rollers	23.5 in. Height x 18 in. Diameter	_____
10.51	Feed System	Reversible	_____
<u>Hydraulics:</u>			
10.52	Engine Speed Monitoring System	Unit shall be equipped with an engine speed monitoring system to automatically control the feed to match engine rpm	_____
10.53	Feed System Governor	Shall be capable of stopping the feed system at a preset engine rpm less than full throttle speed. Governor shall automatically restart the feed system once the engine reaches full rpm	_____ _____
10.54	Hydraulic Oil	Suitable for Manitoba Weather Conditions Ambient temperatures ranging from approximately 90°F (32°C) to -40°F (-40°C) State:	_____
10.55	Hydraulic Pump	State: psi, gpm @ rated rpm	_____
10.56	Return Line Filter	Replaceable, spin-on cartridge type	_____
10.57	Hydraulic Hoses	Rated for system pressure with 4 to 1 safety factor for burst pressure.	_____
10.58	Protection of Hoses	Hydraulic hoses to be protected at wear and scuff locations All hydraulic hoses shall be covered, neatly routed and secured with plastic tie wraps where necessary	_____ _____
10.59	Hose Fittings	Hydraulic full flow, crimp-on (non-reusable) type Note: Black iron fittings are not acceptable on pressure lines	_____

Discharge Chute:

10.60	Length	Approximately 90 in. Shall be capable of discharging chips for truck loading	_____
10.61	Height	107 in.	_____
10.62	Degree of Rotation	270°	_____
10.63	Chip Deflector	Adjustable	_____

Electrical and Lighting:

10.64	Standards	All lighting shall conform to CMVSS (latest revision) and Manitoba Highway Traffic Act requirements	_____
10.65	Electrical System	12-Volt, negative ground system	_____
10.66	Starter	Electric	_____
10.67	Battery	Approximately 900-950 CCA	_____
10.68	Trailer Plug	6-Pole, Pollak 11-605 plug with cable guard or equivalent plug with cable guard	_____
10.69	Stop, Turn and Taillights	Combination Style Truck-Lite 44302R or equivalent LED lights, one (1) per side with 40700 mounting grommets, fully enclosed at rear. Lights to be complete with heavy duty taillight covers	_____ _____
10.70	Clearance Lamps	Truck-Lite 10208R and 10208Y with 10700 mounting grommets or equivalent LED lights	_____
10.71	3-Light Cluster	Required: LED	_____
10.72	Junction Box	Truck-Lite 50400 or equivalent c/w necessary compression fittings, located on inside of trailer frame, protected from damage	_____
10.73	License Plate Lamp	Truck-Lite 15040 or equivalent LED lamp, complete with license plate bracket	_____
10.74	Warning Beacon	Preco 4261A, 360° visibility, wired through chipper ignition switch, fused, c/w heavy duty on-off switch, labeled with a permanent type, engraved style label	_____
10.75	Warning Beacon Brush Guard	Required:	_____
10.76	Wiring	All wiring (including accessories, etc.) shall be colour coded, loomed, properly secured and protected from damage. Loom is required from trailer plug to taillights	_____

10.77 Joining of Wires All joining of wires and electrical connections (including trailer plug wiring) shall be crimped and soldered, then sealed with heat shrink tubing. _____

Crimp-on electrical connectors for joining wires are not acceptable _____

10.78 Holes Any holes required to run wires through chassis, steel sections, etc. shall be drilled (not punched), grommeted and sealed _____

Noise Level:

10.79 Decibel Rating 85 decibels max. @ 50 ft., 360° around unit _____

Colour and Finish:

10.80 The entire unit shall be properly primed and prepared, then painted the manufacturer's standard colour with two (2) coats of polyurethane enamel, DuPont Imron, Endura paint process or equivalent _____

11.0 **Warranty:**

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

11.2 The warranty for the **Brush Chipper** shall cover the complete equipment, and all parts thereof against any defects of workmanship, construction and materials, for a period of 12 months or greater. _____

Any equipment that has become defective during said warranty period and has not proven to have been caused by negligence on the part of the user shall be repaired or replaced at no cost to the City.

The warranty shall be effective from the date the equipment is put into service by the City of Winnipeg.

11.3 Basic Equipment Warranty **State:** _____

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: Three - Six (3 - 6) calendar weeks or sooner** from the date of order. Equipment shall be delivered between 8:00 am and 3:00 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 The manuals supplied under this Contract shall cover the complete equipment including all components thereof, CD is preferred where available. _____

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

Operator Manual – Three (3) Copies

- Equipment Operator Training Branch
- Equipment (Hard Copy)
- Office (Hard Copy)

Parts and Service Manual

- One (1) complete set including preventative maintenance schedules.

14.0 **Parts/ Labour Discount:**

14.1 Bidder to provide City of Winnipeg Parts Discount % Pricing from retail parts pricing. **State percentage discount** _____

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

15.0 **First Service Preventative Maintenance Kit:**

15.1 In order to assure minimum downtime of the Equipment in future service, the Contractor must 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 must 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. _____