

FORM A: BID
(See B7)

1. Contract Title SUPPLY & DELIVERY OF CATCH BASIN SEWER CLEANER VEHICLES

2. Bidder

Name of Bidder

Usual Business Name of Bidder as it appears on Invoice (if different from above)

Street

City

Province

Postal Code

(Mailing address if different)

Email Address of Bidder

Facsimile Number

Street or P.O. Box

City

Province

Postal Code

(Choose one)

GST Registration Number (if applicable)

The Bidder is:

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 B8)

SUPPLY & DELIVERY OF CATCH BASIN SEWER CLEANER VEHICLES

UNIT PRICES

ITEM NO.	DESCRIPTION	SPEC. REF.	UNIT	QUANTITY	UNIT PRICE
1.	Catch Basin Sewer Cleaner Vehicles	12047	(Each)	(5)	

Name of Bidder

FORM N: DETAILED SPECIFICATIONS 12047
(Water & Waste Sewer)

1.0 INTENT / PREFORMANCE-

1.1 The Catch Basin Sewer Cleaner Vehicles shall be the manufacturer's latest model as may be modified by these specifications. The vehicles shall be furnished complete and ready for use. Any parts not specifically mentioned but which are required to complete and place the units in successful operation shall be furnished as though specifically mentioned in these specifications. The complete units, and all parts thereof, shall conform in strength and quality of material and workmanship, to the best standards and engineering practice of the industry.

2.0 OPERATIONAL APPLICATION-

2.1 The application at The City of Winnipeg Wastewater Services – Local Sewer consists of the following (4) applications. The equipment shall be able to preform all of these applications.

- Catch Basin Vacuuming 45 %
 - WWS / LDS Cleaning 30%
 - Hydro Excavating "Soft Digs" Vacuuming & Cleaning 20%
 - Lift station/ Treatment plant Vacuuming 5%
-

2.2 Of the (4) applications, Catch Basin Vacuuming consists of 45% of our scope of work, WWS / LDS Cleaning 30%, Hydro Excavating "Soft Digs" 20% (It should be noted that this part of our business is the fastest growing and we expect the percentage to raise) and Lift station/Treatment plant Vacuuming (5% or our business). Of the (4) applications, the catch basin vacuuming, wws/lDs cleaning and Hydro Excavating "Soft Digs" applications are at shallow depths (ground level to 25' below grade). The equipment shall be able to perform all of these applications.

3.0 PERFORMANCE-

3.1 The responsibility for the design of the Catch Basin Sewer Cleaner Vehicles, its performance and reliability shall rest upon the Contractor. 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.

3.2 Where the Catch Basin Sewer Cleaner Vehicles develops "repeated failures" in service, the Contractor shall make any necessary engineering changes, repairs, alterations or modifications in order to guarantee reliability of performance.

3.3 The Catch Basin Sewer Cleaner Vehicles shall be capable of consistent

top performance for the following functions while being safely and efficiently controlled by one (1) operator:

a) Removing and simultaneously loading debris from catch basin culverts, manholes and wet wells at rates up to 25,000 lbs. (11 340 kg) per hour from depths to 60 ft. (18.3 m),

b) High pressure flushing of 6 in. (152 mm) to 24 in. (610 mm) diameter sewer lines

c) High pressure flushing of sewer lines and simultaneous removal and loading of debris from the manhole while operating within the confines of one(1) traffic lane at all times utilizing the truck protect the operator from traffic.

3.4 The unit shall be capable of consistent top performance for the functions during the summer and winter environments which is normal to the City of Winnipeg. **Note: The City of Winnipeg has four seasons with ambient temperatures ranging from approximately 90°F (32°C) to -40°F (-40°C).**

4.0 **OTHER SPECIFICATIONS AND STANDARDS-**

4.1 All applicable SAE standards form an integral part of these specifications and shall have precedence in any conflict concerning minimum acceptable standards.

4.2 The ratings specified herein state the minimum values acceptable to the City, not implying that these values are sufficient for the design of the particular unit being bid.

4.3 The **Catch Basin Sewer Cleaner Vehicles** and all its components and attachments shall comply with the applicable regulations:

Highway Traffic Act = <http://web2.gov.mb.ca/laws/statutes/ccsm/h060e.php>

Manitoba Motor Vehicle Act = <http://www.tc.gc.ca/acts-regulations/GENERAL/M/mvsa/menu.htm>

Canadian Motor Vehicle Safety Standards, CMVSS = <http://www.gnb.ca/0062/regs/83-163.htm>

Transport Canada = <http://laws.justice.gc.ca/en/notice/index.html?redirect=%2Fen%2FM-10.01%2F250448.html>

National Safety Mark, NSM = <http://www.tc.gc.ca/acts-regulations/GENERAL/M/mvsa/regulations/mvsrg/001/mvsr3-5.html>

Manitoba/Winnipeg 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://en.wikipedia.org/wiki/Society_of_Automotive_Engineers

4.4 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. _____

4.5 The Contractor shall be registered with the Workers compensation Board of Manitoba, shall provide and maintain workers compensation coverage throughout the term of the Contract, and shall provide the supervisor of Administrative Services of the Fleet Management Agency with evidence thereof upon request. _____

5.0 SERVICE FACILITY-

5.1 For the purpose of warranty repairs, service support and parts availability, the bidder shall have an authorized service facility located within 10 kilometres of the boundaries of the City of Winnipeg. The facility, or a portion thereof, shall be dedicated to the service, maintenance, parts delivery and parts stock, of the type equipment being offered. Further, 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. The service facility shall be capable of accommodating the equipment being bid. The Contract Administrator shall determine if the vendor's service facility will qualify or not. _____

5.2 STATE LOCATION- _____

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 QUALIFICATIONS OF MANUFACTURER & CONTRACTOR-

7.1 The manufacturer of the Catch Basin Cleaner Vehicles shall have five (5) years continuous experience manufacturing centrifugal fan Catch Basin Sewer Cleaner Vehicles. _____

7.2 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. _____

7.3 The Contractor shall have five (5) years continuous experience servicing, repairing and maintaining Catch Basin Sewer Cleaner Vehicles of the type being offered, specifically centrifugal fan Combination Sewer and Catch Basin Cleaner Vehicles _____

7.3.1 The manufacture shall have in effect a documented quality control program ensuring that the quality of materials and workmanship, including welding, conforms to the best standards and engineering practice of the industry. _____

8.0 REFERENCE LIST-

8.1 The bidder shall provide five (5) Canadian Municipal/Governmental references using the same equipment (technical specification) being bid. The references must have a minimum of 3 years **in service experience** of the centrifugal fan type of equipment required.

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____

9.0 NATIONAL SAFETY MARK-

9.1 In Canada, modification to new vehicles can only be done at facilities that are recognized by Transport Canada. All of these facilities must have a National Safety Mark from Transport Canada. Transport Canada National Safety Mark is a label that indicates that the modifications are compliant with all current Canadian Motor Vehicle Safety Standards (CMVSS)

STATE (NSM) #- _____

10.0 MANITOBA SAFETY INSPECTION-

10.1 The vehicles shall be complete with a current Manitoba Safety Sticker affixed to the driver's side vent window.

11.0 BODY TYPE-

11.1 Shall be a combination sewer and catch basin cleaning machine equipped with a high pressure water system, a self-contained water supply, a vacuum debris loading system and a debris storage tank, and a hydro-excavation ("soft dig") system complete with a hot water boiler, mounted on a tandem rear axle, conventional cab truck chassis.

12.0 CAB & CHASSIS-

12.1 The cab and chassis shall be a conventional cab, set back axle, tandem rear axle unit supplied by a local Winnipeg Truck Dealer (no exceptions), **state** dealer-

12.2 The Contractor shall ensure that the cab and chassis is properly serviced (P.D.I.) prior to any road transportation, in accordance with the manufacturer's recommendations. A pre-delivery inspection sticker shall be affixed under the hood of the vehicle.

12.3 The Contractor shall ensure that the entire vehicle contains a current Manitoba Safety sticker in accordance with the Province of Manitoba. The Manitoba Safety sticker shall be affixed on the driver's side window .

12.4 GVWR Total 58,000 lbs.

12.5 Front 18,000 lbs.

12.6 Rear 40,000 lbs.

12.7 Wheelbase As required for body installation, **state-**

12.8	Cab to Axle	As required for body installation, state-	_____
12.9	Turning radius	State-	_____
12.10	Engine Type	Tier IV Diesel, inline 6-cylinder. Engines shall be warranted to use biodiesel at a B10 blend level (10% biodiesel to 90% ultra low sulphur diesel), where the biodiesel will meet product specification ASTM D 6751 to ensure fuel quality	_____
12.11	Horsepower	330-350 HP gross	_____
12.12	Torque	1150 lb-ft	_____
12.13	Engine shut down	Low oil pressure / high water temperature	_____
12.14	Anti-idling programming	Required	_____
12.15	Starting Aid	Cold weather starting aid required	_____
12.16	Fuel Shut-off	Electric solenoid type	_____
12.17	Air intake	Dual element air cleaner	_____
12.18	Air cleaner	Dry type, suitable for application, under hood	_____
12.19	Air intake restriction ind.	Restriction indicator dash mounted	_____
12.20	Oil drain plug	Magnetic type	_____
12.21	Oil filter	Full flow, spin-on type	_____
12.22	Fuel filter	Spin-on type	_____
12.23	Fuel/water separator	Heated, drainable, mounted under hood, located to be protected from road spray	_____
12.24	Fuel line primer pump	Required	_____
12.25	Block heater	Immersion type, 1000 Watt with covered recessed male plug, located under driver's side door	_____
12.26	Coolant	Extended Life coolant, antifreeze to -40°F (-40°C)	_____
12.27	Coolant filter	Required	_____
12.28	Coolant hoses	Premium hoses	_____
12.29	Fan Drive	Thermostatically controlled, automatic type	_____
12.30	Air compressor	Water cooled, pressure lubricated, 18 cfm	_____
12.31	PTO Provision	Front engine PTO with adapter plate,	_____
12.32	Engine Oil Fluid	State type-	_____
12.33	Electrical System	Standard wiring system	_____
12.34	Alternator	Brushless 160 amp	_____

12.35	Starter	Delco Remy with thermal over crank protection	_____
12.36	Circuit breakers	Auto-reset, readily accessible	_____
12.37	Batteries	Three (3) maintenance free (12)-volt, group 31, 2775 CCA combined capacity	_____
12.38	Battery Box	Under cab or frame mounted c/w enclosure, not to Impede with body installation	_____
12.39	Battery disconnect	In-cab mounted	_____
12.40	Remote boost terminal	Remote battery boost terminal(s), protected from road spray, covered	_____
12.41	Cab marker lights	LED located in exterior sun shade or visor	_____
12.42	Trailer plug wiring	Routed to end of frame plus 3 extra feet of wiring, c/w 6-pole plastic socket. Wiring shall be circuit breaker protected, wired separately from main truck lighting	_____
12.43	2-way radio circuit	Independent 20 Amp circuit, ignition powered, wired under dash loose, labelled	_____
12.44	Accessory switches	Six (6) required, dash mtd. labelled and backlit .All switches complete and wired for body installation.	_____
12.45	Exhaust Configuration	Single horizontal, after treatment frame mounted Right hand side under cab with vertical tail pipe.	_____
12.46	Heat shield	Required over exhaust next to cab door	_____
12.47	Transmission Model	Allison 3000 RDS with 6-speed programming and Load Management Programming for fuel efficiency	_____
12.48	Shift selector	Allison Digital push-button type, dash mounted	_____
12.49	Trans Fluid	Synthetic	_____
12.50	Cooling capacity	As per manufacturer's recommendation for severe duty cycle	_____
12.51	Oil level dipstick	Bayonet type with high and low level markings	_____
12.52	Trans. drain plug	Magnetic type	_____
12.53	Programming	Transmission Load Management and Economy mode programming	_____
12.54	Front Axle Type	Meritor 18,000 lbs. capacity	_____
12.55	Front Axle Fluid	State type-	_____
12.56	Rear Type	Meritor 40,000 lbs. capacity	_____
12.57	Ratio	As per intended application city usage and for 110 km/hr top speed, state ratio-	_____

12.58	Differential lock	Required for both drive axles w/dash mtd. Switch	_____
12.59	Rear axle Fluid	Synthetic	_____
12.60	Hub seals	Oil lubricated front and rear	_____
12.61	Hubs	Aluminum front & rear hubs	_____
12.62	Front Suspension-	Taper leaf spring suspension 18,000 lbs. capacity	_____
12.63	Rear Suspension-	Air ride suspension, 46,000 lbs. capacity	_____
		State optional upgrade price for Primax Air Suspension-	\$ _____
12.64	Susp. control valve	Manual dump valve for air suspension c/w dash mtd. switch, indicator light, gauge and buzzer	_____
12.65	Front Wheels	22.5 x 12.25 aluminum wheels, aluminum hub Piloted, wheel indicators	_____
12.66	Rear Wheels	22.5 x 8.25 aluminum wheels, aluminum hub Piloted, wheel indicators	_____
12.67	Front Tires-	Make & Model Michelin or Bridgestone (Mud & Snow). Front steer tires must be suitable for application and Province of Manitoba weather conditions,	_____
12.68	Size Front	385/65R 22.5, 18-ply Load range J	_____
12.69	Rear Tires-	Make & Model Michelin or Bridgestone (Mud & Snow). Rear Drive tires must be suitable for application and Province of Manitoba weather conditions	_____
12.70	Size	11R 22.5, 16-ply	_____
12.71	Frame	Rail, suitable for requested GVWR, application and length	_____
12.72	Application	Suitable for sewer & catch basis body	_____
12.73	Chassis fasteners	Grade-8 threaded hex headed frame fasteners	_____
12.74	Front frame extension	Integral type, 20 in.,	_____
12.75	After-frame	As required body specifications	_____
12.76	Steering-	Heavy-duty power, synthetic oil preferred	_____
12.77	Brakes	Air, ABS, S-cam drum brakes, front & rear	_____
12.78	Slack adjusters	Meritor (clearance sensing), automatic type	_____
12.79	Parking brake	Spring set, four (4) chamber system	_____
12.80	Brake pots	Vented type	_____
12.81	Dust shields	Required, front and rear	_____

12.82	Moisture ejector	Bendix DV-2, heated, required in all air tanks	_____
12.83	Drain valves	Manual, chain or cable operated, required on each air tank	_____
12.84	Air dryer	Wabco System Saver 1200, heated	_____
12.85	Air Tanks	Must be aluminum	_____
12.86	Fuel Tank	Aluminium, fully fuelled upon delivery, state maximum fuel capacity available-	_____
12.87	Tank straps	Stainless steel or aluminum straps with 1/16 in. rubber or neoprene isolators to prevent galvanic corrosion	_____
12.88	Fuel separator	Heated, drainable	_____
12.89	Cab-	Conventional w/corrosion inhibitor	_____
12.90	Cab Construction	State-	_____
12.91	Front axle to BBC	110" -117.9 (excluding the front frame extension)	_____
12.92	Cab mounts	Air suspension	_____
12.93	Front grille	Stationary type	_____
12.94	Cab interior / trim	Extreme climate insulation including cloth or vinyl headliner on roof, door panels and rear interior of cab	_____
12.95	Cab silencer package	Required for minimal decibel level	_____
12.96	Hood/Firewall/Engine	Insulated hood liner, engine cover and firewall	_____
12.97	Floor covering	Rubber mats with under-padding	_____
12.98	Floor mats	Two (2) heavy-duty rubber	_____
12.99	Driver's seat	High back, air suspension w/foldable armrests, lumbar support, heavy-duty cloth upholstery, complete with seat covers.	_____
12.100	Passenger seat	High back, air suspension w/foldable armrests, lumbar support, heavy-duty cloth upholstery, complete with seat covers.	_____
12.101	Sun visors	Dual flip-up type	_____
12.102	Steering wheel	Tilt and telescopic type	_____
12.103	12-Volt power outlet	(2) Required	_____
12.104	Radio	Factory installed AM/FM/CD, Hands Free Blue Tooth	_____
12.105	Starter switch	Key operated c/w three (3) sets of keys	_____
12.106	Interior light	Dome light with driver and passenger door switches	_____

12.107	Heater / Defroster	High output, capable of keeping all windows clear at an outside temperature of -35°F (-37°C)	_____
12.108	Air conditioning	Required	_____
12.109	Brake & pedal	Hanging type brake pedal	_____
12.110	Horn	Dual electric	_____
12.111	Exterior mirrors	Power, dual heated, lighted exterior mirrors. Shall come with convex mirrors. Suitable for 102 in. equipment width	_____
12.112	Down view mirror	Required over passenger door	_____
12.113	Windows & windshield	Factory Tint	_____
12.114	Power windows	Required on driver and passenger side. Controls for both windows required on driver side	_____
12.115	Windshield wipers	Electric, intermittent	_____
12.116	Wiper blades	Snow type	_____
12.117	Windshield washers	Required	_____
12.118	Grab handles	Dual exterior	_____
12.119	Entrance steps	Dual each side, open grate / grip type	_____
12.120	Winter front	Heavy-duty vinyl w/twist lock or snap type fasteners	_____
12.121	Fender extensions	Front Fender extensions required	_____
12.122	Exterior Visor	Exterior sun visor with LED Lights	_____
12.123	Dash	Wing type dash for operator convenience preferred	_____
12.124	Fender Mtd. Mirrors	Required	_____
12.125	Flare kit	Required, with three (3) triangular reflectors, CVSA approved	_____
12.126	Fire Extinguisher	(10) lbs. fire extinguisher required	_____
12.127	First aid kit	Required,	_____
12.128	Oil pressure	Gauge	_____
12.129	Coolant temperature	Gauge	_____
12.130	Transmission oil temp.	Gauge	_____
12.131	LOP/HWT	Warning light and buzzer	_____
12.132	Voltmeter	Gauge	_____
12.133	Air reservoir pressure	Gauge with LAP warning light and buzzer	_____

12.134	Engine hour-meter	Required, non-resetable type	_____
12.135	Tow Hooks	(2) front inside frame rail, (2) rear mounted	_____
12.136	Front Bumper	Front bumper required	_____
12.137	Exterior Color	White	_____
12.138	Interior Color	Blue or grey	_____
12.139	Frame & suspension	Primed and finished with black Imron 5000 paint	_____
12.140	Flare kit	Three (3) triangular reflectors, CVSA approved	_____
12.141	Weight Monitor-	Model- "Air Weigh Truck Scale"-Electronic weight read-out to be installed in cab.	_____

13.0 DIMENSIONS AND TURNING RADIUS-

13.1 State the following dimensions of the complete unit:

- a) Overall length, **state-** _____
- b) Overall width – 96 in _____
- d) Overall height, with boom in stored position – 150 in _____

13.2 **State** the vehicle turning radius, to curb, measured as per SAE J695- _____

14.0 WEIGHT DISTRIBUTION-

14.1 **State** the weight distribution of the vehicle with the following payloads:

- a) Water tank and debris tank empty
- Front axle weight: _____
- Rear axle weight: _____

- b) Water tank filled to capacity and debris tank empty
- Front axle weight: _____
- Rear axle weight: _____

State water capacity (gal)- _____

- c) Water tank filled to capacity, and 12,500 lbs.
(5670 kg) debris in the debris tank
- Front axle weight: _____
- Rear axle weight: _____

State water capacity (gal) _____

14.2 The combination sewer and catch basin cleaner shall comply with the chassis manufacturer's recommendations for vertical and horizontal centre of gravity with the payloads listed in Section 14.1 Proof of documentation shall be provided within this bid submission. _____

15.0 DEBRIS BODY-

- 15.1 Body design – cylindrical dumping type _____
- 15.2 Body construction – 3/16 in (4.8 mm), 50,000 psi yield strength, corrosion and abrasion resistant Ex-Ten Steel _____
- 15.3 Useable capacity – 9.0 yd.3 (6.9 m3), _____
- 15.4 Level indicator – external type with internal float mechanism. _____
- 15.5 Rear door – full size, heavy duty, steel construction, continuously welded. _____
- 15.6 Rear door hinges – top mounted, heavy duty, grease-able type preferred, _____
- 15.7 Rear door seal – neoprene, full perimeter, replaceable. _____
- 15.8 Rear door controls – 2 sets of controls operated by rocker switches protected from accidental actuation, located mid-ship curbside and in cab located to right of driver and operable from a normal driving position, located adjacent to hoist controls. Must control power up, power down, lock and unlock rear door. With operators safety in mind, manual door locks not acceptable. _____
- 15.9 Safety support struts – capable of holding the rear door in a raised position to provide a 48 in. (1219 mm) opening at the bottom of the door. _____
- 15.10 Drain – required in rear door with 6 in.(150 mm) diameter manual butterfly valve. Drain shall be designed to expel excess liquid while retaining solids in debris body. _____
- 15.11 Drain hose – Approx. 10 ft. (3 m), lay-flat type, pre-connected, complete with storage bracket. _____
- 15.12 An 450 gpm submersible trash pump external mounted on the rear door with a 3" x 25' drain hose and drain storage bracket. _____
- 15.13 Debris deflector – positioned to prevent incoming debris from plugging Rear door mounted drain. _____
- 15.14 Debris washout system – high pressure system designed to undermine and free heavy material. _____
- 15.15 Debris body to have a debris deflector plate below the door to prevent debris from covering the back of the truck when dumping. _____
- 15.16 Hoist – hydraulic, heavy duty, double acting. _____
- 15.17 Hoist controls –2 sets of controls operated by simple rocker switches protected from accidental actuation, located mid-ship curbside and in cab located to right of driver and operable from a normal driving position _____
- 15.18 Dumping angle – 50° _____
- 15.19 Dumping height (ground to bottom of debris tank open)- 60 inches _____
- 15.20 Safety prop – tubular steel construction, easily accessible, designed to Support debris body in raised position and permit servicing of hoist. _____

15.21 Debris body to be reinforced at point of contact with prop. _____

16.0 VACUUM SYSTEM-

16.1 Vacuum created by a dual centrifugal compressor fan system capable of air flows from 0 to 8,000 cfm (3776 L/sec). Centrifugal compressor fan vacuum only- no substitutes. _____

16.2 Centrifugal compressor – 38 in. (965 mm) diameter, statically and dynamically balanced, manufactured from non-corrosive materials. _____

16.3 Compressor housing – ¼ in. (6.4 mm) spun steel construction. _____

16.4 Capable of vacuuming wet or dry material without damage to Vacuum/equipment systems. _____

16.5 Vacuum system designed for minimal material discharge to atmosphere. _____

16.6 Vacuum system shall be designed to minimize noise levels. _____

16.7 For operator safety, Compressor housings shall each be equipped with a drain not exceeding 2" diameter and have a fresh water flush-out system in each housing that prevents the operator from having to manually clean the fan housings _____

16.8 Vacuum and air flow expressed in negative water pressure and duration – The City of Winnipeg may ask for verification using a manometer test with City personnel present, whereby the claimed numbers will be demonstrated. The test will simulate material restriction to airflow using 4, 5, and 6 inch diameter opening restriction plates covering the vacuum tube opening. The manometer will be attached to a 1/4 inch port within 12 inches from the vacuum tube opening. Measurements are to simulate real world working conditions, therefore measurements from locations other than near the vacuum tube opening (eg. fan housings) will not be accepted. Using greater restriction plates (eg. 1" or 2") are also unacceptable, as they only simulate little or no vacuuming of material. The test is meant to determine the effectiveness of the entire air flow system and monitor performance over a period of time. _____

– state maximum reading, duration, and engine RPM with 4" diameter opening restriction plate. _____

– state maximum reading, duration, and engine RPM with 5" diameter opening restriction plate. _____

– state maximum reading, duration, and engine RPM with 6" diameter opening restriction plate. _____

16.9 The Contract Administrator may request the bidder to provide a unit for testing purposes within 5-7 business days of the request. The unit must be the same type being bid. _____

17.0 COMPRESSOR DRIVE SYSTEM-

- 17.1 Auxiliary engine – 6 -cylinder, liquid cooled industrial diesel, 185 hp, or equal. (SCR- Selective Catalytic Reduction not acceptable). Engines shall be warranted to use biodiesel at a B10 blend level (10% biodiesel to 90% ultra low sulphur diesel), where the biodiesel will meet product specification ASTM D 6751 to ensure fuel quality, **state-** _____
- 17.2 Engine equipment shall include the following:
- a) 12-volt electric starter with power from main vehicle batteries.
 - b) Drainable fuel filter/water separator.
 - c) Fuel supply from main vehicle fuel tank.
 - d) Heavy duty air filter with pre-cleaner and service indicator.
 - e) Full flow, spin-on oil filter.
 - f) Electric solenoid fuel shut-off.
 - g) Pressurized cooling system with antifreeze to -35°F (-37°C).
 - h) Automatic engine protection system with a low oil pressure/ high water temperature alarm and shutoff system. _____
- 17.3 Compressor drive transmission – helical gear type, fully lubricated, single speed, with a step of ratio of 2 to 1, coupled to the compressor via a fluid coupler. _____
- 17.3 The gear shall attach directly to the rotor shaft without the use of belt drives of any kind. The drive shaft shall be supported via tapered roller bearings and gears. _____
- 17.4 Steel enclosure – lockable, required to fully enclose auxiliary engine and compressor drive transmission. The enclosure shall be preferably on roller tracks allowing the enclosure to be easily pulled away from the engine, providing complete engine access for maintenance at all times. _____
- 17.5 Full width platform allowing operator safe access to the auxiliary engine must be supplied. Platform to be Non-slip platform material. _____
- 17.6 Enclosure shall be fully insulated for sound suppression. _____
- 17.7 Auxiliary engine control panel – located on the front-mounted hose reel _____
- 17.8 Controls shall be shielded against damage. _____
- 17.9 Auxiliary engine controls shall include the following:
- a) Keyed ignition start / stop switch.
 - b) Tachometer.
 - c) Non-reset able hour-meter.
 - d) Water temperature gauge.
 - e) Oil pressure gauge. _____

18.0 VACUUM PICK-UP HOSE AND BOOM-

- 18.1 Pick-up hose and boom shall be designed for front end operation. _____
- 18.2 Vacuum hose – heavy-duty, 8 in. (203 mm) diameter. _____
- 18.3 Flexible section of upper vacuum hose with telescoping section of upper vacuum hose. The telescoping boom length would be approximately 23 feet in length. _____
- 18.4 Vacuum hose and boom shall remain stationary when dumping debris body. _____
- 18.5 Hose storage – front mounted with locking clamp. _____
- 18.6 Vacuum hose extensions – aluminum construction, complete with a catch basin nozzle with a steel reinforced tip, for a working depth of 26 ft. (7.9 m) _____
- 18.7 Extensions shall utilize over centre type quick clamp connectors. _____
- 18.8 Extension storage racks shall be located on the right (curb) side of the truck and on the rear door – tubular steel construction, suitable for storage of three (3) lengths of debris tubing. Rack shall be a spring-activated, fold down design, able to facilitate convenient removal/replacement of debris tubes. **Note: Street-side located storage rack not acceptable.** _____
- 18.9 Boom rotation – hydraulic, cylinder actuated 90° to each side (180° total). _____
- 18.10 Rotation mechanism – heavy duty with self-locking feature to lock boom in any working position. _____
- 18.11 Boom extension – hydraulically extendable with 8 ft. (2.4 m) extension, state- _____
- 18.12 Working radius – 23 ft. (7.0 m) with boom extended, **state-** _____
- 18.13 Boom raise and lower – hydraulic. _____
- 18.14 Boom controls – electric over hydraulic with controls for left/right rotation, raise/lower, extend/retract, emergency vacuum breaker, and emergency stop. _____
- 18.15 Pendant control box – portable type with a heavy duty, water proof housing and a 25 ft. (7.6 m) control cable. Remote pendant shall include all controls specified in Section 14.9. _____
- 18.16 Wireless remote control - portable type with a heavy duty water proof housing, and be equipped with control of the following:
 - a) Chassis engine throttle control
 - b) Water pump on/off switch
 - c) Water pressure control
 - d) Hose reel wind/unwind
 - e) Hose reel speed control
 - f) Boom elevation, rotation, and extension control
 - g) Vacuum relief
 - h) Electronic emergency stop _____

18.17 Boom support – tubular steel construction, designed to support boom in stored position.

19.0 WATER TANKS-

19.1 Cylindrical aluminum construction internally baffled. (under-slung frame mounted Tanks not acceptable due to off-road operations)

19.2 Certified, metered capacity – 1,000 US Gallons

19.3 Tanks shall be positioned to provide optimal weight distribution and lowest centre of gravity.

19.4 Interconnected tanks shall have aluminium piped connections with Intermediate or end mounted flexible rubber sleeves.

19.5 Water level gauge – sight type, located on right (curb) side water tank, protected from damage.

19.6 Low water level sensor – required with warning light and alarm, activated at approx. 200 Imp. Gallons (910 L), located at the front control stations and right (curb) side water tank.

19.7 Tank filler – anti-siphon, air gap type. Air gap shall be twice inlet diameter.

19.8 Strainer – “Y” type with stainless steel cartridge in tank fill line,

19.9 Spare strainer cartridge – stainless steel, one (1) per unit.

19.10 Filler hose – 25 ft. (7.6 m) long with 2½ in. (64 mm) female Western Canada thread hydrant coupling, pre-connected to tank filler line.

19.11 Hose storage – basket type, expanded metal construction, easily accessible.

20.0 WATER PUMP-

20.1 Single piston water pump, double acting, designed and constructed for its intended use as a high pressure sewer flusher pump.

20.2 Capable of providing a pulse (jack hammer) type action and a non-pulse (surge-free flow) type action.

20.3 Water pump output – hydraulically controlled, pressure adjustable from 250-2500 psi (1724-17 240 kPa) via a control panel mounted dial. Flow shall be adjustable from 0 to 80 gpm (5 L/sec) through the cleaning nozzle.

20.4 Relief valve or pressure regulator – factory set to regulate pressure Output of pump.

20.5 Water pump location shall be mounted low enough to allow gravity to provide a flooded suction inlet at all times and shall permit easy accessibility for pump maintenance.

- 20.6 The water pump location shall be certified by the pump manufacturer and be provided to the City of Winnipeg. Any components of the pump requiring regular servicing shall be serviceable from the exterior of the pump without removal or dismantling of the pump. _____
- 20.7 Water pump capable of purging residual water from system by pumping Air through entire water system. Water pump shall be designed so that no damage will occur if run at normal operating pressure without water for 20- 30 minutes. _____
- 20.8 Drive system – hydraulically driven via transmission power take-off (PTO) driven hydraulic pump, designed and constructed for continuous duty operation. _____
- 20.9 Capacity for continuous duty operation, water pump and drive system, 80 gpm (5 L/sec) at 2500 psi (13 790 kPa) water pressure measured at the nozzle on the front hose reel. _____
- 21.0 HOSE REEL-**
- 21.1 Front mounted, hydraulically extendable with hose reel carrier frame bolted to chassis frame. _____
- 21.2 Hose reel extension – sufficient to allow full opening of tilt hood. _____
- 21.3 Hose reel shall be located to provide sufficient airflow to chassis radiator and engine compartment, as recommended by the chassis manufacturer, when stored in the fully retracted position. _____
- 21.4 Hose reel shall be capable of swivelling approximately 270° with the hose reel carrier in the fully extended position. For operator safety, the reel shall not extend beyond the chassis width in any position. _____
- 21.5 Swivel bearing – large diameter, heavy-duty ball type, grease-able. _____
- 21.6 Swivel lock – spring applied, air released. _____
- 21.7 Hydraulic drive system for wind/rewind and speed control of hose reel. _____
- 21.8 All drive components shall be readily accessible for servicing. _____
- 21.9 All hose reel controls shall be mounted at the front control stations. _____
- 21.10 Hose reel rotation bearings – heavy duty pillow block type, grease-able. _____
- 21.11 Hose reel rotation counter – required with reading in meters. _____
- 21.12 Hose – 600 ft. (183 m) long, 1 in. (25.4 mm) interior diameter sewer hose with 2500 psi (17 238 kPa) operating pressure and 3000 psi (20 685 kPa) burst pressure rating. _____
- 21.13 Hose guide –A manual hose level wind scroll device shall be supplied. _____
- 21.14 Hose area to be free of any obstructions which may damage hose. _____

22.0 SEWER FLUSHING ACCESSORIES-

- 22.1 One (1) each rubber covered, steel braid leader hose, approximately 4' x 1" ID (1.2 m x 25.4 mm ID). _____
- 22.2 One (1) each rigid finned guide assembly for leader hose, designed to stabilize nozzle and absorb impact of debris immediately behind nozzle. _____
- 22.3 One (1) each flexible hose guide with retaining rope. _____
- 22.4 One (1) each 15° sand nozzle with 6 rearward jets, 2 forward jets and tungsten carbide orifices. _____
- 22.5 One (1) each 30° sanitary nozzle with 6 rearward jets and tungsten carbide orifices. _____
- 22.6 One "warhog" grease cutting nozzle per Catch Basin Sewer Cleaner vehicle. _____

23.0 FRONT CONTROL STATIONS-

- 23.1 A complete control station shall be supplied. _____
- 23.2 The station shall be equipped with a complete set of controls and gauges including the following:
- a) Chassis engine throttle control.
 - b) Water pump on/off switch.
 - c) Water pressure control
 - d) Water pressure gauge – oil dampened 0-3000 psi display.
 - e) Low water level warning
 - f) Hose reel wind/unwind control.
 - g) Hose reel speed control.
 - h) Hose reel telescopic extension control.
 - i) Boom elevation, rotation and extension controls.
 - j) Aux engine tachometer with hour meter
 - k) Aux engine voltmeter
 - l) Aux engine oil pressure gauge
 - m) Aux engine water temperature gauge
 - n) Electronic emergency stop
 - o) Digital flow meter
 - p) Digital colour diagnostic control panel
 - q) Weather proof plug-in for remote pendant control
- To permit operator control from both sides of the hose reel, a second control station shall be located on the back of the hose reel with the following controls:
- a) Chassis engine throttle control.
 - b) Water pump on/off switch.
 - c) Water pressure control

- d) Hose reel wind/unwind control.
 - e) Hose reel speed control.
 - f) Electronic emergency stop
- 23.3 All controls shall be identified with permanent, engraved type labels.
- 23.4 All controls shall be protected from damage or accidental actuation.
- 23.5 Remote spotlight – LED hand held type with impact resistant, water proof Housing and 25 ft. (7.6 m) cord. Spotlight storage provision required at front control station.
- 23.6 Cord reel – spring return type, installed adjacent to spotlight.
- 24.0 WASH DOWN GUN CLEANING SYSTEM-**
- 24.1 Water supply to handgun from high pressure water pump.
- 24.2 Factory set relief valve to protect wash down system – operating pressure not to exceed 1,000 psi
- 24.3 Quick connect couplers – located mid-ship on right (curb) side.
- 24.4 Handgun – pistol grip type with 25 ft. (7.6 m) of ½ in. (13 mm) diameter, wire braid reinforced hose with quick connect coupler.
- 24.5 Spray pattern – trigger controlled, adjustable from fine mist to steady stream.
- 25.0 HYDRO EXCAVATION SYSTEM-**
- 25.1 Boiler – 400,000 btu boiler system. System shall be approved by the Manitoba Department of Labour. State make model and details of Hydro excavation system. Proof of shall be given to the Contract Administrator prior to delivery.
- 25.2 Hose reel – retractable hose reel with 50 ft. of ¼ in. ID high pressure hose and hydro excavation lance.
- 26.0 COLD WEATHER OPERATING SYSTEM-**
- 26.1 Water lines – insulated, including, but not limited to, pump suction line, pressure line to hose reel, and hand-held gun line.
- 26.2. Cold water re-circulation system– 20 gpm, designed to prevent freeze-up while driving to and from work sights, operable at all vehicle road speeds.
- 26.3 Cold Water to circulate through entire system including hose reel and pump (Not through boiler)
- 26.4 Air purge system – required to remove water from pump and water lines.
- 26.5 Ball valves or drain valves shall be provided in the bottom section of the water pump for cold weather draining and daily flushing.

27.0 HYDRAULIC SYSTEM-

- 27.1 Hydraulic oil reservoir – steel reservoir with internal baffles, sized to meet system requirements.

- 27.2 Oil level gauge – sight type.

- 27.3 Drain plug – required at bottom of tank.

- 27.4 Reservoir filler – top mounted filler with strainer and breather cap with filter.

- 27.5 Sealed clean-out/inspection cover.

- 27.6 The oil reservoir shall be clearly labelled “Hydraulic Oil”.

- 27.7 Suction filter – nominal 100 micron filter, located in the oil reservoir, serviceable.

- 27.8 Shut-off valve – ball type, located between the oil reservoir and the pump, fastened in open position with a bracket and bolt.

- 27.9 Return line filter – nominal 10 micron, spin-on type, serviceable without oil loss.

- 27.10 High pressure relief valve(s) – located to protect the entire hydraulic system.

- 27.11 Hydraulic lines – plated seamless steel tubing wherever possible and high pressure hydraulic hose where flexibility is required.

- 27.12 Hydraulic hoses – wire braid reinforced hoses rated for system operating pressure with 4 to 1 safety factor for burst pressure.

- 27.13 Hose fittings – full flow, crimp-on (non-reusable) type.

- 27.14 Hoses and tubing shall be properly routed and secured, and protected at wear and scuff locations. Tubing shall be shock-mounted.

- 27.15 Hydraulic valves – sized to meet system flow requirements without causing restrictions. All valves shall be individually serviceable and shall be located for easy accessibility for servicing.

- 27.16 The hydraulic system shall be designed for cold weather operation.

28.0 ELECTRICAL SYSTEMS, GENERAL-

- 28.1 Electrical wiring shall be vapour sealed to eliminate moisture damage and shall be in accordance to NEMA 4 (National Electrical Manufacturing Association) standards.

- 28.2 All wiring shall be in pre-engineered harnesses with weather proof, guided pin snap-together connectors. Each circuit shall be colour coded and marked the entire length of the wire with easily read numbers and/or letters for identification.

- 28.3 Where crimp-on type electrical connectors are necessary, the connectors shall be crimped and soldered to the wiring, then sealed using heat shrink tubing.

28.4 All wiring shall be properly secured, routed and protected. All holes Required for routing shall be drilled, grommetted and sealed as required. _____

28.6 Circuit breakers shall be used in lieu of fuses for all circuits requiring overload protection (reset type circuit breakers are preferred). _____

28.7 All circuit breakers and relays shall be located behind quick removable panels, located to be readily accessible for servicing. All circuit breakers and relays shall be permanently labelled to indicate their function. _____

29.0 LIGHTING EQUIPMENT-

29.1 The vehicles shall be equipped with all vehicle lighting equipment required under the Canada Motor Vehicle Safety Act and the Manitoba Highway Traffic Act. _____

29.2 Supplier installed lighting shall include the following components:
(All lighting shall be LED including spot lights)

- a) Combination stop, turn and taillights – LED.
- b) Back-up lights – LED.
- c) Light cluster – three (3) lights LED protected to avoid damage.
- d) Clearance lights – LED.
- e) License plate lamp – LED, complete with license plate bracket, located to be protected from damage.
- f) Lighting harnesses – properly routed and secured.
- g) All plug-in connectors shall be coated with di-electric silicone prior to assembly.
- h) Warning lights – LEC two (2) mini light bars located for 360° visibility, complete with in-cab switch wired through chassis ignition circuit. Steel guards shall be provided. _____

30.0 MISCELLANEOUS EQUIPMENT-

30.1 Back-up alarm – Grote 73040-5 or equivalent, installed at the rear of the unit, located to be protected from damage. _____

30.2 Mud-flaps – black rubber mud-flaps mounted fore and aft of rear wheels with anti-sail brackets. _____

30.3 Aluminum storage compartments – Two (2) required with a combined storage capacity of approx. 15 ft.3 (425 L). _____

30.4 Access step(s) – grip strut construction, located on right (curb) side adjacent to the auxiliary engine to permit safe access to auxiliary engine, hoist, boom etc. by operator, or mechanical personnel. _____

30.5 Grab handles – supplied as required. _____

30.6 Whelen LED Sequential rear-mounted horizontal arrow board. _____

30.7 Arrow board control console – mounted in chassis cab, accessible from a normal driving position, wired through the chassis ignition circuit. _____

30.8 LED Boom-mounted work light, and front control station work light. _____

30.9 Reflective safety tape where applicable _____

31.0 LUBRICATION AND SERVICE-

- 31.1 Groeneveld or Lube Core Greasing System, **state** quantity of grease points- _____
- 31.2 All components of the combination sewer and catch basin cleaner requiring regular scheduled servicing or lubrication shall be easily accessible. _____
- 31.3 All pivot and friction points requiring lubrication including, but not limited to, all hydraulic cylinder pivot pins and tailgate hinge pins, shall have high pressure zerk fittings for lubrication. _____
- 31.4 Zerk fittings shall be easily accessible with a standard hand held grease gun. _____
- 31.5 Remote grease lines with zerk fittings shall be provided for grease points that are not accessible from ground level. Prefer Grease lines to be protected. _____
- 31.6 A permanent lubrication chart showing lube points and intervals shall be installed in a visible location. _____
- 31.7 Back up Carmera Back-up camera to be installed with monitor in cab _____
- 31.8 Fan wash-down system, tied in with 15.14 Debris washout system, for fan clean-out. _____

32.0 INSTALLATION-

- 32.1 Installation of the combination sewer and catch basin cleaning machine on the cab and chassis shall be in accordance with the chassis manufacturer's recommendations. _____
- 32.2 The installation shall allow for proper access to all chassis components requiring regular scheduled maintenance. _____
- 32.3 Any holes required in the chassis frame web shall be drilled to fit the bolts. Drilling on chassis frame flanges is not permitted. _____
- 32.4 Welding on the chassis frame is not permitted. _____
- 32.5 Tire clearance –3 in. (76 mm) plus full suspension travel. _____

33.0 COLOUR-

- 33.1 The combination sewer and catch basin cleaning machine shall be Painted white using polyurethane enamel paint to match the chassis cab colour. _____
- 33.2 Paint shall be applied in accordance with the paint manufacturer's recommendations. All surfaces shall be properly cleaned, prepared and primed with a suitable primer prior to painting. Painting shall be performed in an atmosphere controlled spray booth. _____
- 33.3 Body and components shall be painted prior to assembly process. _____

37.0 TRAINING-

37.1 The Manufacturer shall be required to provide training (at the Contractor's expense) for the City of Winnipeg maintenance and operating personnel. The training shall be divided into two separate sessions, one for maintenance personnel and one for operating personnel. The training shall be conducted in separate or combined sessions for each group of personnel.

The duration of the sessions shall be as long as required for adequate familiarization and orientation of the equipment to the satisfaction of the Contract Administrator.

The training shall be conducted within two (2) calendar weeks from the date of delivery and shall be coordinated through the Contract Administrator.

The training shall be conducted in Winnipeg at a time and location designated by the Contract Administrator.

Pricing should be based on

- three (3) business days for maintenance
- four (4) business days for combination of classroom and practical operator training

If the City requires additional maintenance training, **state** per day cost- \$ _____

Note: The first payment of the contract on the equipment will not be issued until successful completion of training has been conducted to the satisfaction of the Contract Administrator. _____

37.2 Training Aides:

a) On the type of equipment being offered, **state if CD Rom training aides or on-line training are available-** _____

What is the recommended minimum training duration for: _____

Primary unit- _____

For major attachments (if applicable): _____

State what other training aids are available (videos, CDs). _____

For the primary unit- _____

For major attachments (if applicable): _____

37.3 Training Materials and applicable manuals or on-line training material information must be provided to the Operator Training Branch of Public Works at the earliest possible opportunity, no later than (4) weeks prior to delivery, when supplying vehicles, equipment and related attachments. Send these materials, preferably in both electronic format and hard copy (training videos are to be supplied on either CD or DVD) to: Public Works Department, Human Resources Division Equipment Operator Training Branch

**102-1155 Pacific Avenue
Winnipeg, MB
R3E 3P1**

**Leanne Chetyrbok
Equipment Operator Training Consultant**

Cell: 204-451-3793
Contact e-mail: lchetyrbok@winnipeg.ca

38.0 TECHNICAL SERVICE/PARTS MANUALS & OWNERS MANUALS-

38.1 **Two (2) sets** of technical service, parts manuals and owner's manuals are required, CD preferred

39.0 DELIVERY-

39.1 **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.

39.2 **Delivery Time-** Within **twenty- four calendar weeks** from the date of official notification of award of contract. Equipment shall be delivered between 8:00 am and 3:00 pm on Business Days. **State delivery time-**

39.3 **Delivery Contact-** The Contractor shall contact the Contract Administrator prior to delivery of the equipment.

40.0 GUARANTEED BUYBACK-(IF THE VENDOR PREFORMS FULL MAINTENANCE)

40.1 Guaranteed Buyback (based on 150 hours per month for 3 years) \$ _____

40.2 Guaranteed Buyback (based on 170 hours per month for 3 years) \$ _____

40.3 Guaranteed Buyback (based on 190 hours per month for 3 years) \$ _____

40.4 Full Maintenance Proposal Price (for 36 months) based upon 170 hours per month \$ _____

41.0 GUARANTEED BUYBACK-(IF THE WFMA PREFORMS FULL MAINTENANCE)

41.1 Guaranteed Buyback (based on 150 hours per month for 3 years) \$ _____

41.2 Guaranteed Buyback (based on 170 hours per month for 3 years) \$ _____

41.3 Guaranteed Buyback (based on 190 hours per month for 3 years) \$ _____

41.4 Full Maintenance Proposal Price (for 36 months) based upon 170 hours per month \$ _____

41.5 Bidder shall submit complete details of their Full Maintenance Proposal if available:-

Under the Full Maintenance Proposal the City shall be responsible for the following items for equipment under this Contract:

- Licensing and insurance coverage for the equipment;
- Repair of damage to the equipment where damage has proven to have been caused by negligence on the part of the City;
- Repair or replacement of tires damaged due to road hazards;
- Fuel and other normal operating and maintenance supplies including daily and weekly maintenance such as greasing, cleaning, drainage of water.
- Replacement of high pressure water hose;
- Vacuum hose
- Nozzle replacement
- Aluminum vacuum extensions
- Windshield wipers
- **Daily greasing**

Under the Full Maintenance Proposal the Contractor shall be responsible for the following items for equipment under this Contract:

- All scheduled maintenance including (but not limited to) oil and filter changes, and regular service adjustments as recommended by the equipment and chassis manufacturers;
- **All preventative and predictive maintenance**
- All repairs due to mechanical failure or malfunction;
- Towing costs (if unit is immobile);
- All parts and labour costs (excluding items listed in Section 4.6);
- Tires due to normal wear;

41.6 - Under the full maintenance proposal the contractor will advise and provide copies of **all** invoices for **all** work performed to the chassis and body including PM's and MGI's in order to be entered and tracked by the WFMA fleet software system for reporting.

42.0 ALTERNATIVE FUELS- (IF APPLICABLE)

42.1 Please **state** if there are any alternative fuels offered in your product to assist in The City of Winnipeg Green Fleet Initiatives. If available, please state, type description, benefit, fuel savings, environmental benefits and the cost of the option.

- | | |
|------------------------------|----------|
| • CNG Compressed Natural Gas | \$ _____ |
| • Diesel Bio Blends | \$ _____ |
| • Electric | \$ _____ |
| • Other Alternative Fuels | \$ _____ |

43.0 FACTORY PRE-PRODUCTION VIEWING-

43.1 The successful bidder at their own expense shall send (4) City of Winnipeg Personal to the manufacture's factory. The intent of the site viewing is to:

- Ensure production quality
- Ensure all safe applications are being met

Form O-Preventative Maintenance Schedule

Make: _____
 Model: _____
 Year: _____

Service/Parts Contact info: _____

PM Checklist and Adjustments

Please fill in all applicable areas and add any missing service intervals or component part numbers that are applicable to the supplied unit.

All items required to maintain warranties must be listed.

Description:	Capacity:	Type:	Description:	Capacity:	Type:
Engine Oil	Litres		Transmission	Litres	
Cooling System	Litres		Transfer Case	Litres	
Hydraulic Tank	Litres		Hydraulic System	Litres	
A/C Refrigerant	Lbs	R-134a	Brake Reservoir	Litres	
Fuel System	Litres		Differential (Front)	Litres	
Final Drives	Litres		Differential (Rear)	Litres	

Type of Filter:	OEM:	Wix:	Purolator:	Fram:	Baldwin:	Fleetguard:
Engine Oil						
Air Primary						
Air Secondary						
Primary Fuel						
Secondary Fuel Filter						
Cab Air Filter						
Hydraulic (pressure)						
Hydraulic (return)						
Transmission						
A/C Belt						
Alt Belt						
Water Pump Belt						
Serpentine Belt						

Make _____
 Model: _____

Year: _____

Item	Recommended Service Intervals. Kms/Hours	Comments
List any one time services		
List any one time adjustments		
List regular Adjustments		
Initial Oil and Filter Change		
Engine Valve Lash and Fuel Injector, Timing Check.		
Engine Oil and Filter Changes and/or Oil Sample Intervals		
Lubrication Points and Intervals		
Transmission Filter/Screens- Replace/Clean and/or Obtain Oil Sample		
Primary Fuel Filter (Replace)		
Secondary Fuel Filter (Replace)		
Differential Oil Sample (Front)		
Final Drive Oil Sample (front)		
Hydraulic Filter (Replace and Obtain Oil Sample)		
Front Differential Fluid (Change)		
Rear Differential Fluid (Change)		
Differential Vents		
Transmission Oil (Change)		
Clean Transmission Magnetic Screen		

Make _____

Model: _____

Year: _____

Item	Recommended Service Intervals Kms/Hours	Comments
Change Final Drive Oil (Front)		
Clean Engine Crankcase Breather		
Hydraulic System Oil (Change)		
Engine Valve Lash and Fuel Inj. Timing (Check)		
Cooling system Water Temperature Regulator (Replace)		
Cooling System Coolant Extender (ELC)-Add		
Cooling System		
Wheel nut Torque and Intervals		
Check wheel Nut torque At Every service interval		
Refrigerant dryer (Replace)		

FORM P-DATA COLLECTION SHEET FOR W.F.M.A

UNIT NUMBER		
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ITEMS		DETAILS FROM VENDOR
MAKE/MANUFACTURER	(e.g. Ford, Volvo, etc.)	
MODEL	Enter model (e.g. F-350)	
YEAR	(Enter model year)	
DISCRIPTION/TYPE	(e.g. Truck, snow blower, mower, tractor)	
FUEL TYPE	(e.g. gas, diesel, hybrid, propane)	
RATED FUEL CONSUMPTION	(L/100 km, L/hr, etc.)	
GVWR	(In pounds [lbs.] and kilograms)	
GAWR FRONT		
GAWR REAR		
GCWR		
DIMENSION HEIGHT	(Overall height m)	
DIMENSION LENGTH	(Overall length m)	
DIMENSION WIDTH	(Overall width m)	
WHEELBASE		
DELIVERY DATE	(Confirmed date)	
SUPPLIER/DEALER	(Name, phone number, and contact person)	
ODOMETER/HOUR METER	(Upon delivery)	
V.I.N. NUMBER		
SERIAL NUMBER (if applicable)		
CAB CONFIGURATION	(Regular, Extended, Crew)	
M.G.I NUMBER (if applicable)		
KEY DOOR NUM		
KEY IGNITION NUM		
PAINT CODE	(Exterior colour)	
PAINT COLOUR	(Exterior colour)	
PAINT TRIM CODE	(Interior code #/colour)	
ITEMS	SERVICE ITEMS	DETAILS FROM VENDOR
ENGINE MAKE		
ENGINE MODEL		
ENGINE SERIAL NUMBER		
ENGINE HORSE POWER	(Enter as xxx H.P. @ xxxx RPM)	

ENGINE DISPLACEMENT	(In cubic inches and litres)	
CPL NUMBER		
ENGINE CYLINDERS	(Number of cylinders)	
ENGINE OIL CAPACITY	(Capacity with filter, in litres)	
ENGINE OIL FILTER PART NUMBER	(Number of filters and part numbers)	
ENGINE OIL TYPE	(e.g. 15W40, regular or synthetic)	
ENGINE AIR FILTER (PRI)	(Make, part number, quantity)	
ENGINE AIR FILTER (SEC)	(Make, part number, quantity)	
CAB FILTER	(Part number and location)	
FUEL TANK CAPACITY	(In litres)	
FUEL FILTER # PRIMARY	(Make, part number, and quantity)	
FUEL FILTER # SECONDARY	(Make, part number, and quantity)	
FUEL SEPARATOR	(Make, part number, and quantity)	
COOLANT TYPE	(Heavy-duty, extended life, or regular)	
COOLANT CAPACITY	(In litres)	
COOLANT FILTER NUMBER	(Part number)	
TRANSMISSION		DETAILS FROM VENDOR
TRANSMISSION MAKE	(Enter make & model)	
TRANSMISSION SERIAL NUMBER		
TRANSMISSION TYPE	(Hydrostatic, standard, automatic)	
TRANSMISSION FLUID CAPACITY	(in litres)	
TRANSMISSION FLUID TYPE	(Dextron III, synthetic, weight, etc.)	
TRANSMISSION FILTER(S)	(# of filters and part numbers; internal and external filters)	
TRANSMISSION FILTER KITS	(Gasket, o-ring, secondary filters etc.)	
TRANSMISSION COOLER	(Make and part number if applicable)	
FRONT DIFFERENTIAL		DETAILS FROM VENDOR
DIFFERENTIAL MAKE		
DIFFERENTIAL MODEL		
DIFFERENTIAL SERIAL #		
DIFFERENTIAL OIL TYPE	(e.g. 80W90, synthetic)	
DIFFERENTIAL CAPACITY	(In litres)	
REAR DIFFERENTIAL		DETAILS FROM VENDOR
DIFFERENTIAL MAKE		

DIFFERENTIAL MODEL		
DIFFERENTIAL SERIAL #		
DIFFERENTIAL OIL TYPE	(e.g. 80W90, synthetic)	
DIFFERENTIAL CAPACITY	(In litres)	
TIRES/WHEELS/ETC.		DETAILS FROM VENDOR
TIRE MANUFACTURER & BRAND		
TIRE SIZE FRONT		
TIRE SIZE REAR		
WHEEL NUT TORQUE	(lb-ft)	
WHEEL NUT RE-TORQUE INTERVAL		
FINAL DRIVE/HUB	(Oil type and capacity)	
WHEEL SPINDLES OIL CAPACITY	(In litres)	
WHEEL SPINDLES FLUID TYPE	(e.g. 80w90, Dextron, synthetic)	
POWER STEERING CAPACITY	(In litres)	
POWER STEERING FLUID TYPE	(e.g. ATF or synthetic)	
POWER STEERING FILTER #	(Make, part number, quantity)	
BRAKE FLUID	(Type)	
BRAKE TYPE	(Hydraulic/air)	
MISC. ITEMS		DETAILS FROM VENDOR
ALTERNATOR	(Enter make, model, part #)	
ALTERNATOR AMPS	Integers only (e.g. 105, 125, etc.)	
BATTERY MAKE		
BATTERY MODEL		
BATTERY CCA		
BATTERY QTY.		
BATTERY VOLTAGE		
BELT A/C PART #	(Enter make and part number)	
BELT COMPRESSOR PART #		
BELT FAN PART #		
BELT ALTERNATOR PART #		
BELT STEERING	(V-belt or serpentine, quantity)	
BELT STEERING PART #		
BELTS OTHER		

COMPRESSOR CFM	(e.g. 13.2, 15, 18)	
COMPRESSOR MODEL	(Enter make and model)	
COMPRESSOR PART #		
AIR DRYER	(Enter make and model)	
AIR DRYER PART/SERIAL #		
AIR DRYER DESCRIANT		
AIR DRYER FILTER	(part number)	
AUX. HEATER TYPE	(Diesel, electric, etc.)	
AUX. HEATER MAKE		
AUX. HEATER MODEL		
AIR CONDITIONING	(Type, 113 etc.)	
AIR CONDITIONING CAPACITY	(lbs)	
A/C RECEIVER DRYER PART #	(part, number)	
ATTACHMENT ITEMS	(Construction equipment)	DETAILS FROM VENDOR
SKID SHOE	(part number)	
STINGER BLADES	(part number)	
STINGER TEETH	(Quantity and part number)	
BUCKET TEETH	(Quantity and part number)	
CUTTING TOOTH		
CLAM BUCKET BLADE	(Dimensions and part number)	
UTILITY BUCKET BLADE	(Dimensions and part number)	
BOX SCRAPER BLADE	(Dimensions and part number)	
BUCKET CAPACITY		
BUCKET BLADES AND SIDES	(Quantity and part number)	
GRADER BLADES	(part number)	
GRADER ICE BLADES	(Part number)	
WING BLADES	(Part number)	
BODY UNIT ITEMS		DETAILS FROM VENDOR
BODY SUPPLIER	(Name and contact number)	
BODY TYPE		
BODY MAKE		
BODY MODEL		
BODY SERIAL NUMBER		
BOX SIZE	(Length and/or capacity)	

HYDRAULICS		DETAILS FROM VENDOR
HYDRAULIC PUMP	(Make, model and capacity)	
PTO	(Make, model and shift type)	
HYDRAULIC TANK CAPACITY	(In litres)	
HYDRAULIC FILTER NUMBER	(Filter number and screen numbers)	
HYDRAULIC FLUID TYPE	(e.g. N22, synthetic)	
HYDRAULIC FILTER	(Make, quantity and part number)	
HYDRAULIC SCREEN	(Make, quantity and part number)	
HYDRAULIC BREATHER	(Make, quantity and part number)	
HYDRAULIC SPINNER		
HYDRAULIC SPINNER MAKE		
HYDRAULIC SPINNER MODEL		
HYDRAULIC SPINNER SERIAL #		
CONVEYOR MOTOR MAKE		
CONVEYOR MOTOR MODEL		
CONVEYOR MOTOR SERIAL #		
CYCLE TIME DOWN		
CYCLE TIME UP		
SANDER/DUMP CONTROLS:		DETAILS FROM VENDOR
CONTROL SYSTEM MAKE		
CONTROL SYSTEM MODEL		
CONTROL SYSTEM SERIAL #		
CONTROL SYSTEM PART #		
CONVEYOR CHAIN	(Length and part #)	
SENSORS	(Part #s)	
CALCIUM PUMP MAKE		
CALCIUM PUMP MODEL		
CALCIUM PUMP SERIAL #		
CALCIUM PUMP CAPACITY		
UNIT ITEMS	ATTACHMENT(S)	DETAILS FROM VENDOR
TYPE	(e.g. snow blower, mower, spreader, etc.)	
MAKE/ MANUFACTURER	(e.g. John Deere, Colpron, etc.)	
MODEL		

YEAR	(Enter year manufactured)	
AUX. ENGINE	(Make and model)	
AUX. ENGINE DISPLACEMENT	(In cubic inches and litres)	
AUX. ENGINE SERIAL #		
SUPPLIER/DEALER	(Name, phone number, and contact person)	
FUEL TYPE	(e.g. gas, diesel, propane)	
ODOMETER/HOUR METER		
AUX. ENGINE HORSE POWER	(Enter as xxx H.P. @ xxxx RPM)	
AUX. ENGINE CYLINDERS	(Number of cylinders)	
AUX. ENGINE OIL CAPACITY	(Capacity with filter, in litres)	
AUX. ENGINE OIL FILTER PART #	(Number of filters and part number)	
AUX. ENGINE OIL TYPE	(e.g. 15W40, regular or synthetic)	
AUX. ENGINE AIR FILTER (PRI)	(Make, part number, quantity)	
AUX. ENGINE AIR FILTER (SEC)	(Make, part number, quantity)	
HYDRAULICS	ATTACHMENT(S)	DETAILS FROM VENDOR
HYDRAULIC DRIVE MAKE	(Enter make & model)	
HYDRAULIC DRIVE MODEL		
HYDRAULIC DRIVE SERIAL #		
HYDRAULIC DRIVE TYPE	(Hydrostatic, standard, automatic)	
HYDRAULIC DRIVE FLUID CAPACITY	(in litres)	
HYDRAULIC DRIVE FLUID TYPE	(Dextron III, synthetic, etc.)	
HYDRAULIC DRIVE FILTER(S)	(# of filters and part numbers; internal and external filters where applicable)	
HYDRAULIC DRIVE COOLER	(Part number if applicable)	
HYDRAULIC BREATHER CAP	(Part number if applicable)	
SWEEPER		DETAILS FROM VENDOR
BROOM SEGMENTS	(part #)	
WATER FILTER	(part #)	
WEAR PLATES	(part #)	
ROLLERS	(part #)	
SKID SHOES	(part #)	

FORM Q-SUSTAINABILITY QUESTIONNAIRE

Product Information

(Yes/No)

Product Sustainability: High Quality, Small Ecological Footprint

1. Have you employed environmentally innovative best practices and/or technologies in the goods you are supplying in this Bid Opportunity as compared to similar goods? If yes, please describe them below.

Describe:

2. Have you obtained 3rd party environmental certifications for any of the products that you are supplying in this Bid Opportunity?

Describe:

3. Have you performed a life cycle assessment of the goods you are supplying in this Bid Opportunity? If yes, please describe below.

Describe:

4. Are there any other environmentally innovative best practices and/or technologies in the goods you are supplying in this Bid Opportunity that we could have specified in this tender, but have not? If yes, please describe them below.

Describe:

Company Information

Energy and Climate: Reducing Energy Costs and Greenhouse Gas Emissions

1. Have you measured your corporate greenhouse gas emissions? If yes, please report your total annual greenhouse gas emissions reported in the most recent year measured?

Describe:

2. Have you set publicly available greenhouse gas reduction targets? If yes, what are those targets?

Describe:

Material Efficiency: Reducing Waste and Enhancing Quality

1. Do you measure the total amount of solid waste generated from the facilities that produce your product(s) for this Bid Opportunity? If yes, please report for the most recent year measured.

Describe:

2. Have you set publicly available solid waste reduction targets? If yes, what are those targets?

Describe:

3. Do you measure the total water use from facilities that produce your product(s) for this Bid Opportunity? If yes, please report for the most recent year measured.

Describe:

4. Have you set publicly available water use reduction targets? If yes, what are those targets?

Describe:

Natural Resources: Responsibly Sourced Raw Materials

1. Have you established publicly available sustainability purchasing guidelines for your direct suppliers that address issues such as environmental compliance, employment practices and product safety?

Describe:

Social Responsibility: Ensuring Responsible and Ethical Production

1. Do you have a process for managing social compliance at the manufacturing level?

Describe:

2. Do you work with your supply base to resolve issues found during social compliance evaluations and also document specific corrections and improvements?

Describe:

3. Do you invest in community development activities in the markets you source from and/or operate within? _____

Describe:
