

PART A

BID SUBMISSION

FORM A: BID
(See B7)

1. Project Title SUPPLY & DELIVERY AN (AWD) MOTOR GRADER

2. Bidder

Name of Bidder

Street

City

Province

Postal Code

(Mailing address if different)

Street or P.O. Box

City

Province

Postal Code

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

4. Definitions

All capitalized terms used in the Contract shall have the meanings ascribed to them in the General Conditions and D3.1 unless the context otherwise requires.

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 is in receipt of a Purchase Order 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 Submission.

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

In witness whereof 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 AN (AWD) MOTOR GRADER

ITEM NO.	DESCRIPTION	SPEC. REF.	UNIT	APPROX. QUANTITY	UNIT PRICE	AMOUNT
1	AWD Motor Grader	05055	Each	1	\$ _____	\$ _____
1a	Operator's Manual for Item 1	05055	Each	2	\$ _____	\$ _____
1b	Parts, Repair and Technical Service Manuals for Item 1	05055	Set	2	\$ _____	\$ _____
1c	Diagnostic/Information Software (including applicable cabling) for Item 1	05055	Each	2	\$ _____	\$ _____
2	Rotary Cutter Attachment	05055	Each	1	\$ _____	\$ _____
2a	Operator's Manual for Item 2	05055	Each	2	\$ _____	\$ _____
2b	Parts, Repair and Technical Service Manuals for Item 2	05055	Set	2	\$ _____	\$ _____
TOTAL BID PRICE (GST and PST extra) (in figures) \$ _____ (in words) _____ _____						

 Name of Bidder

FORM N: DETAILED SPECIFICATIONS 05055

ALL WHEEL DRIVE MOTOR GRADER *(Street Maintenance)*

1.0 INTENT

- 1.1 It is the intent of these specifications to describe a nominal 40,000 lbs., articulated, all wheel drive motor grader with a heavy-duty circle, 14 ft. mouldboard, a 225 hp rotary cutter drum attachment and other equipment and features as specified herein.
- 1.2 The Motor Grader shall be furnished complete and ready for use. All 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 unit, and all parts thereof, shall conform in strength and quality of material and workmanship, to the best standards and engineering practice of the industry.
- 1.3 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 unit.
- 1.4 The ratings specified herein merely state the minimum values acceptable to the City. There is no intent of implying that these values are sufficient for the design of the unit being bid.

2.0 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.

3.0 QUALIFICATIONS OF MANUFACTURER / CONTRACTOR

- 3.1 The Contractor shall be an authorized distributor/supplier of the Motor Grader equipment being bid.
- 3.2 The Contractor 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 Motor Grader 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 on Motor Grader equipment, and general service capabilities. A description of the service facility shall be provided within 3-Calendar Days upon request by the Contract Administrator.
- 3.3 If a suitable warranty facility is not available within 10 km of the boundaries of the City of Winnipeg, the Bidder may propose that warranty work be performed by the City of Winnipeg Repair Facility. Any Work performed by the City of Winnipeg Repair Facility shall be charged to the Contractor at the Facility's shop rate in effect at the time the work is performed (for example, shop rate for 2006: \$68.00/hour regular time, \$95.00/hr overtime and callout.

4.0 INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS

- 4.1 All items in these specifications must be answered indicating compliance or non-compliance. **Bidders shall state "yes" for compliance or state deviation, or give a reply where requested to do so.** Deviations shall be clearly stated and fully detailed. Alternatives will be considered subject to evaluation.

4.2 Each bidder is required to fill in every blank. **Failure to do so may be used as a basis for rejection of bid.**

5.0 PERFORMANCE

5.1 Shall be capable of consistent top performance for cold planning, snow removal work, construction activities, maintenance dragging, and other miscellaneous municipal grader functions during the summer and winter environment which is normal to the City of Winnipeg. The motor grader shall have the proper combined weight and features suitable for consistent top performance of the rotary cutter attachment as described in Section 19.0.

6.0 WEIGHT AND DIMENSIONS

6.1 Operating weight (SAE) – nominal 40,000 lbs. c/w 14 ft. moldboard, full fuel tank, coolant, lubricants and an operator. State weight of machine as specified.

6.2 Overall length (without front attachment) – 30 ft. approx., state.

6.3 Overall height (low profile cab) – 10 ft. approx., state overall height including beacons and lights.

6.4 Wheelbase – 21 ft. approx., state.

7.0 ENGINE

7.1 Type – diesel engine, US EPA Tier 3 compliant.

7.2 Displacement – 9-10 Litre class, state make, model and size.

7.3 Horsepower, net engine output (per SAE J1349) – variable horsepower ranging between 210 hp min. to 260 hp, state horsepower ranges.

7.3.1 Torque – 850 lb-ft min., state.

7.4 Fuel shut-off – electric solenoid type.

7.5 Fuel filter – spin-on type.

7.5.1 Fuel system water separator – required.

7.6 Oil filter – full flow, spin-on type.

7.7 Turbo II pre-cleaner or equivalent. State.

7.8 Air cleaner – dry type, two-stage with dash mounted restriction indicator.

7.9 Coolant – ethylene glycol based, protected to –40° C.

7.10 Exhaust – mufflered, roof height vertical discharge with bend and 40° cut-off.

7.11 Engine block heater – immersion type.

7.12 Engine protection system – shall provide visual and audible warning of principal machine systems including engine oil pressure and coolant temperature.

7.13 Snow plow protection package – shall include protection for brake line covers and battery box protection.

8.0 DRIVE TRAIN

8.1 Transmission shall be a power shift transmission with inching or creep feature allowing road speeds suitable for use with rotary cutter drum attachment.

8.1.1 Speeds – minimum eight (8) forward and four (4) reverse.

8.2 Differentials – required with operator controlled lock/unlock.

8.2.1 Differential drain plugs – magnetic type.

8.3 Front drive – hydraulic drive, operational as a minimum in gears 1-5 forward and 1-4 reverse. State.

9.0 BRAKES & TIRES

9.1 Service brakes – 4-wheel, hydraulic or air actuated, wet disk type.

9.2 Parking brake – manually operated, spring applied, hydraulically released preferred. State.

9.3 Summer tires – six (6) 17.5-25 tires, L3 lug tires, rock tread, bias ply on a 3-piece rim, Goodyear or equal. State make, model and size being bid.

9.3.1 Spare summer tire and rim – one (1), same as front and rear summer tires and rims.

Note: Two (2) spare summer tires and rims shall be provided if tires and rims differ in size or mount from front to rear, (i.e., one (1) of each type).

9.4 Winter tires – six (6) 17.5-25 radial tires, Bridgestone V.K.T. tires, on a 3-piece rim.

9.4.1 Spare winter tire and rim – one (1), same as front and rear winter tires and rims.

Note: Two (2) spare winter tires and rims shall be provided if tires and

rims differ in size or mount from front to rear, (i.e., one (1) of each type).

10.0 FRONT AXLE

- 10.1 Ground clearance – 22 in. minimum. _____
- 10.2 Front wheel lean – 15° left and right minimum. _____
- 10.3 Oscillation – 16° up and down, or 32° total. _____

11.0 CIRCLE

- 11.1 Type – heavy duty welded construction, heat treated for strength, supported at multiple points, adjustable clamp plates and guide shoes, replaceable wear inserts. _____
- 11.2 Diameter – 60 in. minimum. _____
- 11.3 Thickness – 1.2 in. minimum. _____
- 11.4 Rotation – 360°. _____
- 11.5 Teeth – heat induction hardened to resist wear. _____

12.0 MOLDBOARD

- 12.1 Dimensions – 24" H x 14' L x 0.875" T minimum. _____
- 12.2 Blade down force – 17,000 lbs. min. as per ISO 7134, state. _____
- 12.3 Blade pull at base weight – 32,500 lbs. min. (no wheel slip, 0.9 traction co-efficient). State. _____
- 12.4 Moldboard shall be equipped with blade lift accumulators, power tilt, power side-shift, a hydraulically driven, fully reversing circle, replaceable end bits and minimum ¾" x 6" heat treated cutting edges. _____
- 12.4.1 Stinger board c/w eighty-four (84) Stinger teeth, maximum duty bit. John Deere Part Number AT 164846 or equivalent. State. _____
- 12.5 Moldboard end gate – mounted on right hand side of moldboard, hydraulic raise/lower with float provision, designed to interrupt the windrow created by the grader while moving snow. State make and model being bid. _____
- 12.5.1 Weight – 450 lbs. approx., state. _____
- 12.5.2 Dimensions – 56"L x 32"W x 28"H approx., state. _____
- 12.5.3 Cutting edge – 5/8" x 6" approx., reversible. _____
- 12.5.4 Skid shoe(s) – heavy duty, bolt-on, reversible. _____

13.0 **ARTICULATION**

13.1 Type – hydraulic actuation with anti-drift lock valve. _____

13.2 Range – 20° left and right minimum, state range. _____

14.0 **HYDRAULICS**

14.1 Power float position – required for vertical movement of the moldboard. _____

14.2 Lock valves shall be integrated into all implement circuits to prevent drift. _____

15.0 **OPERATOR COMPARTMENT**

15.1 Type – roll over protective structure complete with pressurized cab, OSHA certified or equal. _____

15.2 Cab configuration – low profile cab. _____

15.3 Insulation – required for sound suppression. _____

15.4 Interior noise level – maximum 77 Db(A), measured in accordance with SAE J336. State noise level. _____

15.5 Seat – cushioned suspension seat, adjustable bucket type with cloth upholstery, c/w adjustable armrests and retractable seat belt. _____

15.6 Windows – tinted safety glass with appropriate markings for all panes. _____

15.7 Doors – lockable with keyed alike locks. Doors shall latch in fully opened position. _____

15.8 Exterior rear view mirrors – one (1) each side, 16" x 9" min., break-away style, heated type. _____

15.8.1 Interior rear view mirror – required. _____

15.9 Windshield wipers – two speed with intermittent, front (upper and lower) and rear. _____

15.9.1 Windshield washers front (upper and lower) and rear. _____

15.10 Heater/defroster/pressurizer – heavy duty, hot water type with filtered air intake. Heater/defroster shall maintain a comfortable cab temperature at outside ambient temperature of –40°C. _____

15.10.1 Heater capacity – approx. 40,000 BTU. _____

15.10.2 Defroster – capable of keeping all windows clear at –40°C. _____

15.10.3 Defroster fans – required front and rear. _____

15.11 Air conditioning – approx. 20,000 BTU, factory installed, under hood mounted. _____

15.12 Rubber floor covering – required throughout. _____

15.13 Radio – AM/FM, factory installed. _____

15.14 Sun visors – required, front and rear. _____

15.15 Ignition keys – three (3) sets required. _____

16.0 INSTRUMENTATION

16.1 Engine coolant temperature gauge – required. _____

16.2 Engine oil pressure gauge – required. _____

16.3 Transmission oil temperature gauge – required. _____

16.4 Engine hourmeter – non-resettable type. _____

16.5 Ammeter/voltmeter – gauge preferred, state type. _____

16.6 Fuel gauge – required. _____

16.7 Engine Alarm System shall be OEM, notification by light and buzzer. Shall include engine coolant, engine oil pressure and transmission oil temperature. _____

17.0 ELECTRICAL & LIGHTING

Note: All lights must be protected from damage, ie. snow, branches, or vibration.

17.1 Radio installation provision – 12 volt, 20 amp separate/independent circuit available at a spare circuit breaker, suitable for installation of a 2-way mobile radio. _____

17.2 Wiring for all locally installed equipment shall be colour coded, loomed and properly secured. _____

17.3 All joining of wires and electrical connectors shall be soldered and sealed with heat shrink tubing or approved OEM weather tight connections, no splicing of wires allowed (crimp on electrical connectors for joining wires are not acceptable). _____

17.4 Alternator – 100 Amp minimum. _____

17.5 Electric starter – required with heat and overspin protection. _____

17.6 Batteries – two (2), grp. 31, 1800 CCA combined capacity minimum. _____

17.6.1 Battery disconnect switch – required, state location. _____

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- 17.5 Combination stop and tail lights – two (2), _____
- 17.6 Signal lights with warning flashers – two (2) front mounted, two (2) rear mounted. _____
- 17.7 Back-up lights – two (2) required. _____
- 17.8 Headlights – two (2), mounted below cab roof line. _____
- 17.9 Moldboard work lights – two (2), 6" x 4" min., adjustable. _____
- 17.10 Work lights, rear – two (2), 6" x 4" min., adjustable, mounted below cab roof line. _____
- 17.11 Wig-wags – six (6) amber oval LED warning lights, Grote 77363, each mounted in fully enclosed metal housings. _____
- 17.11.1 Mounting locations – generally mounted as follows:
- Note: Exact mounting locations to be confirmed at time of installation.
- i) Front facing – two (2) mounted horizontally under cab roof line. _____
- ii) Top rear facing – two (2) mounted vertically at or beside cab sides, below roof line. _____
- iii) Lower rear facing – two (2) mounted vertically below rear stop, turn and taillights. _____
- 17.12 Light bars – two (2) Grote 76813 mini light bars, 12-Volt, amber, roof mounted with ramped, bolt-on metal guards, 360° visibility. _____
- 17.13 Switch, warning lights/wig-wags – mini light bars and oval LED warning lights shall be wired through the ignition, wired through a single OEM dash-mounted switch, labelled with a permanent type, engraved style label. _____
- 17.14 Cab interior (dome) light – required. _____
- 17.15 Horn – required. _____
- 17.16 Back-up alarm – mounted at rear of unit, located to be protected from damage. _____
- 17.17 All wiring for electrical and lighting (including locally installed lighting components) shall be colour coded, loomed and properly secured. _____
- 17.17.1 All electrical connectors and joining of wires shall be crimped and soldered, then sealed using heat shrink tubing. _____
- 17.17.2 All wiring for work lights and warning lights shall be supplied with no exposed wiring. _____

18.0 MISCELLANEOUS

18.1 Engine side covers – hinged (all locks must be keyed alike). _____

18.1.1 Winter covers – snap-on, required for rear grill, sides and top cover. _____

18.2 Fuel tank – 380 L capacity minimum, fully fuelled upon delivery. _____

18.3 Drawbar hitch with pin. _____

18.4 Access ladders with non-skid step surfaces, both sides. _____

18.5 Grab handles – supplied as required at all appropriate locations. _____

18.6 Rear fenders – steel, required on rear tandems with anti skid tape on step surfaces. State gauge of steel. _____

18.6.1 Rear fenders shall allow for full articulation of machine. _____

18.7 Front fenders – fibreglass, poly, or hard rubber material. State material. _____

Note: Fenders shall not interfere with operation and performance of the rotary cutter attachment or the front power unit.

18.8 Toolbox – lockable, state location. _____

18.9 Slow moving vehicle emblem. _____

18.10 All grease fittings for the entire Motor Grader shall be readily accessible or shall be equipped with remote grease zerks as required. _____

18.11 Caution sign – shall read "CAUTION – KEEP BACK 15 METRES". Dimensions shall be 36"W x 24"H approx., black letters on orange backing, reflective, mounted so as to not interfere with radiator cooling. _____

19.0 ROTARY CUTTER ATTACHMENT

19.1 Rotary cutter – self-powered, 72 in. rotary cutter drum attachment with Tungsten Carbide bits, RG72 Series II RotoGrader or equal. State make and model being bid. _____

19.2 Engine – industrial diesel engine, 225 hp gross minimum including radiator, steel enclosure, mounting skid, air cleaner, muffler, battery and cables, fuel tank and hydraulic tank, John Deere 6068T or equal. State make and model being bid. _____

19.2.1 Power unit shall be completely self contained and mount to the front scarifier bracket, easily removable. _____

19.3 Water tank – nominal 400 Imperial gallon tank, rear mounted, poly construction c/w pump, hoses, controls and full width spray bar on cutting head. _____

19.4 Cutter head – 24 in. diameter rotating steel drum with approx. 144 replaceable cutter bits, approx. nine (9) rows of teeth, drum speed 100-250 rpm. State number of rows, teeth and drum speed. _____

19.4.1 Cutter head to be equipped with skid shoes and protection plates on the curb side. _____

19.5 System control – positioning of cutter performed by motor grader blade controls c/w appropriate labelling. _____

20.0 TRAINING

20.1 The Contractor shall be required to provide, at their expense, operator and preventative maintenance training by qualified staff, for City of Winnipeg operator and maintenance personnel at or near the time of delivery of the equipment. The training shall be conducted in a separate or combined session/s for each group of personnel. The session/s shall be sufficient in duration and shall provide 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 location designated by the Contract Administrator. _____

20.1.1 Pricing should be based on two (2) working days for maintenance personnel and two (2) working days for operating personnel.

Note: Final payment of the equipment will not be issued until successful completion of training has been conducted to the satisfaction of the Contract Administrator.

20.2 Provide VHS video tape or CD training aides on the type of equipment being offered is available. _____

20.3 State if other training aides are available. _____

21.0 MANUALS

21.1 Parts and technical service manuals shall be supplied for the complete motor grader (including electrical and wiring diagrams and wiring diagrams for locally installed equipment) and the complete Rotary Cutter attachment when delivered. The manuals shall be in English and shall cover the complete machine including the engine (CDs preferred). Quantities as per Form B: Prices. _____

21.1.1 Operator's manual – required for motor grader and for the rotary cutter attachment. Quantities as per Form B: Prices. _____

22.0 DIAGNOSTIC EQUIPMENT

22.1 The motor grader shall be supplied with computer diagnostic/information

software, suitable for use with City owned laptop computers. The software shall be capable of downloading the grader's history pertaining to the engine, transmission, front and rear axles, fuel consumption, etc.. The software shall be complete with all cabling required to connect to the motor grader's ECU by means of a link inside the cab. Further to Section 20.1 above, the Contractor's training shall include the utilization of the diagnostic software. Quantities of software and cabling is listed on Form B: Prices.

22.2 State the name and details of the software being bid.

LITERATURE

23.1 Bidders shall submit current, descriptive detailed literature within twenty four (24) hours of the request of the Contract Administrator.

WARRANTY

24.1 Complete details of warranties shall be made available within twenty-four (24) hours of the request of the Contract Administrator.

24.2 The Contractor shall warrant **all equipment** (including attachments) against any defects of workmanship, construction and materials, and agrees to repair or replace without cost to the City any article that has become defective and not proven to have been caused by negligence on the part of the user within **two (2) years** from the date the equipment is put into service by the City of Winnipeg. Normal wear items such as cutting blades and cutter bits are excluded.

24.2.1 Notwithstanding 24.2 above, the Contractor shall warrant **all major components** including, but not limited to, engine, transmission, final drives, all wheel drive system (and all components thereof), pumps and motors, axle assemblies, tandem drives, etc. against any defects of workmanship, construction and materials, and agrees to repair or replace without cost to the City, articles that have become defective and not proven to have been caused by negligence on the part of the user within **five (5) years** from the date the equipment is put into service by the City of Winnipeg.

24.2.2 Frame warranty – lifetime warranty.

24.2.3 Articulation bearings and pins – lifetime warranty.

24.3 All incidental warranty related costs (including, but not limited to, Contractor's travel, mileage, deductibles, etc.) in executing any part of the warranty shall be the sole responsibility of the Contractor.

24.4 Items considered to be normal wear not included in warranty:
a) blades b) wiper blades c) cutter bits

24.5 During the warranty period, if a defect or deficiency prevents the full and normal use or operation of the equipment or any portion thereof, the Contractor shall provide a replacement grader and/or attachments for use by the City until the warranty repairs are completed. The replacement grader and/or attachments shall be provided within two (2) working days from request of the City. The replacement grader and/or attachments shall be a 2000 model year or newer, and shall be of the same make and model or larger of the grader/attachments supplied under this Contract. If the warranty failure is not rectified within the specified period, the City shall (at its discretion) charge the Contractor an amount of \$500 per unit per calendar day until the problem is rectified.

25.0 PERFORMANCE RELIABILITY

25.1 The responsibility for the design of the complete unit, its performance and reliability shall rest upon the Contractor.

25.2 The term "*repeat failures*" as used herein is defined to mean that the same component, subassembly, or assembly develops repeated defects, breakdowns and/or malfunctions rendering the unit inoperative, or requiring repeated shop correction, service and/or replacement during the warranty period applicable for said component, sub-assembly, or 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 schedules.

25.3 Where the unit develops "repeated failures" in service, the Contractor shall make any necessary engineering changes, repairs, alterations or modifications in order to guarantee reliability of performance.

FORM O: QUESTIONNAIRE

1.0 **STATE** the delivery time of the complete order from the date of official notification of award: (See D5.1)

2.0 **LIST** any significant features that will be supplied standard on the unit being offered, but were not specifically mentioned in the Detailed Specifications:

3.0 **LIST** three current users of the offered model including names and telephone numbers:

4.0 **STATE** the location of the service facility:

5.0 Does the equipment being offered meet or exceed the minimum requirements of the Detailed Specifications?

6.0 **LIST** any deviations that might be considered less than equal to the Detailed Specifications:
