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# Township of Guelph/Eramosa

## Request for Quotation PW 2017-05

To Supply and Deliver

One (1) – 2017 or 2018 Model 30,844 kg GVW Tandem Truck  
with Dump Body, Snow Plow & Wing Equipment

**Closing Date:** Thursday September 7, 2017  
**Time:** 2:00 pm

**Contact:** Harry Niemi, Director of Public Works  
519-856-9596 Ext. 109  
[hniemi@get.on.ca](mailto:hniemi@get.on.ca)

PW 2017-05

**SEALED BIDS** will be received by the Township of Guelph/Eramosa, until  
**Thursday September 7, 2017 at 2:00 pm.**

For supplying, complete as specified, one (1) - 2017 or 2018 Model 30,844 kg GVW  
Tandem Truck with Dump Body, Snow Plow & Wing Equipment

The lowest or any bid will not necessarily be accepted.

Fax responses will not be accepted.

**Communications and Contacts**

All inquiries in regards to this contract should be directed to Harry Niemi, Director of  
Public Works, 519-856-9596 Ext. 109.

**TOWNSHIP OF GUELPH/ERAMOSA**

**SUPPLY AND DELIVERY OF  
One (1) – 2017 or 2018 Model 30,844 kg GVW Tandem Truck with Dump Body,  
Snow Plow & Wing Equipment**

The bidder declares that this bid is made without any connection, comparison of figures or arrangement with or knowledge of any other Corporation, Firm or Person submitting a bid for the same purchase.

The bidder agrees that this bid will remain open for acceptance and the prices herein quoted will remain firm and unchanged for a period of 45 days after the opening of bids and the Township of Guelph/Eramosa may at any time within this period accept this bid whether any other bid has been previously accepted or not.

The bidder agrees to complete delivery of the Township order, if awarded, to the premises of the Township of Guelph/Eramosa and to complete all other work incidental to the execution of this contract at the earliest possible date.

The bidder has attached hereto all relevant information, literature, detailed specifications and other information relevant to the supplying and installing of the unit being offered in order to enable the Township of Guelph/Eramosa to properly evaluate this bid.

Dated at \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_ 2017.

\_\_\_\_\_  
Name of Firm or Individual (Hereafter referred to as "The Contractor")

\_\_\_\_\_  
Address

\_\_\_\_\_  
Name of Person Signing Form (Signature)

\_\_\_\_\_  
Title of Person Signing Form

\_\_\_\_\_  
Contact Person Work Phone Number

\_\_\_\_\_  
Fax Number Cell Phone Number

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

## **SPECIFICATIONS**

1. The bidder must include complete descriptive literature and specifications with their bid.
2. Lowest or any bid will not necessarily be accepted.
3. The vehicle supplied must meet the provisions of the Canada Motor Vehicle Safety Act and the regulations made there under, which are in effect on the date of manufacture of each vehicle.
4. The vehicles supplied shall be a new only 2017 or 2018 year and model.
5. Any additions, deletions or variations from the following specifications must be stated. These specifications shall be construed as minimum. Should the manufacturer's current published data or specifications exceed these, they shall be considered minimum and shall be furnished. Manufacturers shall furnish evidence upon request that the model to be furnished has been commercially available through them to the trade for a period of not less than one year. Specifications also require that the bidder furnish descriptive literature, complete specifications, and all other necessary data on the vehicle one proposes to supply.
6. Vehicle license plates shall be supplied and installed by the successful bidder and registered in the name of the Township of Guelph/Eramosa.
7. Bidder must submit, on a separate form, full details of their warranty.

**ONE (1) CAB & CHASSIS  
G.V.W.R. - 30,844 KG (68,000 LBS.)  
C.A. 3556 MM (140")**

These are the known makes and models, which, with the proper equipment, will comply with the following specifications. Other makes and models, which meet or exceed these specifications, must have approval of the Township of Guelph/Eramosa Public Works Department, prior to bid closing.

**MAKE:**

**MODEL:**

**INTERNATIONAL**

**7600**

**FREIGHTLINER**

**114SD**

**WESTERN STAR**

**4700 Series (SBA)**

**APPROVED ENGINE:**

**Navistar 13 Litre**

**- 430 HP @ 1700 rpm / 1550 lb./ft. torque**

**Detroit Diesel 13 Litre**

**- 435 HP @ 1800 rpm / 1550 lb./ft. torque**

**Part “A”**

**CAB & CHASSIS - TANDEM AXLE  
GVWR- 30,844 Kg/68,000lbs.  
C.A. 3556 mm/140 inches max**

**GENERAL:**

This specification covers a 6 ton tandem diesel truck used for snow plowing and for other Public Works applications.

This specification lists only the major details of the unit. It is the supplier’s responsibility to deliver a fully equipped vehicle with compatible components to provide dependable and efficient service.

Where minimums are called for, the vehicle must meet or exceed the capacity, size or performance specified.

Vehicles shall meet or surpass the mandatory requirements of the “Canadian Motor Vehicle Safety Regulation” (SOR 70-487) amended, and must bear the National Safety Mark, outlined in those regulations.

Some variations from this specification may be accepted provided these variations are, in the opinion of the Township, of a minor nature and will not adversely affect the performance of the equipment. Any variations must be clearly stated in the space provided.

**MAKE AND MODEL:**

Please specify below, the make and model of the unit being quoted.

MAKE	MODEL

**GROSS WEIGHT RATINGS:**

G.V.W.R. - 30,844 KG (68,000 lbs.)	SPECIFY:
G.A.W.R. - front - 9,979 kg (22,000 lbs.) minimum with 23,000 lb. suspension	SPECIFY:
G.A.W.R. - rear – 20,865 kg (46,000 lbs.)	SPECIFY:
The allowable G.V.W.R. as supplied shall be shown on a metal or Mylar tag.	YES:
Chassis tare weight approx. 19,000 lbs.	SPECIFY:

**AXLES:**

Front axle shall be 9,979 kg (22,000 lbs.) capacity minimum. Meritor MFS-20-133A preferred or equivalent.	SPECIFY:
Power assisted steering shall be supplied. Dual Sheppard Gear preferred or equivalent.	YES:
A set back front axle shall be supplied.	SPECIFY: _____" front bumper to center of front axle
Rear axle shall be 20,865 kg (46,000 lbs.) capacity minimum, dual drive with inter axle differential and driver controlled locking differential in forward - rear and rear - rear. Meritor MT-40-14X-5DCR-P preferred or equivalent.	YES: SPECIFY CAPACITY: SPECIFY:
SPL250XL driveshaft with SPL170XL inner axle shaft or 1810 shaft with 1710 inner axle shaft.	SPECIFY:
Rear tandem axle shall be single speed with 4.88 ratio. Bidder to recommend and supply shift / torque scans with bid submission.	YES:
Rear tandem axle shall have a 60" spread.	SPECIFY:
All wheel bearing seals shall be oil bearing type Stemco oil seals or approved equivalent.	SPECIFY:
Transverse torque rods shall be supplied.	YES:
Rear axle ratio to achieve 100 km/hr at governed speed shall be supplied.	YES: SPECIFY:
Rear axles shall have internal lube pump.	YES:
Road speed in top gear at governed RPM shall be 103 km/h Plus or minus 2 km/h.	SPECIFY: TOP GEAR SPEED:
Synthetic oil to be used in differential.	YES:
Cab to axle (CA) shall be 3556 mm (140") approx clear and usable. SPIF chassis layout drawing to be completed by Viking before chassis ordered.	SPECIFY: Overall CA: Clear & Usable CA:

**ABS BRAKES:**

Four channel Anti-Lock Brake System shall be supplied.	YES:
Service brakes - full air brakes.	YES:
Front brakes size - 406 mm x 152 mm (16.5" x 6") "S" cam type.	YES: SPECIFY:
Rear brakes size - 419 mm x 177 mm (16.5 "x 7") minimum.	SPECIFY:
Long stroke brake chambers shall be supplied.	YES:
Rear brakes shall be "S" cam type.	YES:
Dust shields front and rear.	YES:
Low air pressure indicator.	YES:
Berg pull cord drain valves	YES:
Air dryer – Wabco1200 with heater or approved equivalent.	YES: SPECIFY MODEL:
Air compressor - (15.9 CFM) minimum. Cummins or BW-BA-921 or approved equivalent.	YES: SPECIFY CFM:
Asbestos free brake linings.	YES:
Automatic slack adjusters Haldex shall be supplied front and rear	YES:
Emergency brake shall be anchor lock type, applied automatically when pressure is below 280 KPS/40 PSI	YES:
Means shall be supplied from the cab to release the brakes with no pressure in reservoir.	YES:
Main air tank shall have a separate manual drain valves/pull cables included. Air tanks to be mounted inboard on chassis frame rails.	YES:
Automatic drain valve shall be supplied with heater to drain moisture from main air tank (BW DV2 or approved equivalent).	YES:



**FRAME:**

Section modulus shall be 31 cubic inches minimum with full length 'C' channel insert.	SPECIFY:
24" front frame extension with full 1/4" C' channel insert.	SPECIFY:
Frame yield strength shall be 120,000 PSI minimum	SPECIFY:
RBM shall be 3,715,000 lbs/ in. minimum.	SPECIFY:
Specify frame dimensions (depth x width x thickness)	SPECIFY:
The after frame (AF) dimension shall be a minimum of 75".	SPECIFY:
Specify dimensions of reinforcement if equipped.	SPECIFY:
Mounting of snow plow cheek plates shall be possible. Vendor to supply minimum 12" front frame extensions for mounting of cheek plates. Frame extension must be full and integral with frame if required	YES:

**SUSPENSION:**

Front springs shall have a ground rating of 5,216 kg (11,500 lbs.) each minimum. Parabolic Taper or Flat Leaf with shock absorbers	SPECIFY:
Rear springs shall have a ground rating of 10,430 kg (23,000 lbs.) each minimum. (Rear spring ground rating to include auxiliary spring pad rating.	SPECIFY:
Rear suspension shall be Hendrickson HMX- 460-60 or approved equivalent.	SPECIFY:
Driver controlled auxiliary air spring on right front spring supplied if available Note: Township of Guelph/Eramosa will require an auxiliary air spring to be mounted in the event that the unit being bid does not have one presently. The supply and installation of the helper spring must not delay delivery of the unit and can be installed at a later date, minimum of 12" of clear space is required for installation	YES:

**WHEELS AND TIRES:**

Dual rear wheels shall be supplied.	YES:
Wheels shall be hub piloted metric mount single nut with Stemco wheel seals.	YES:
Powder coated - GREY drop center rims shall be supplied.	YES:
Rims shall have load and pressure rating equal to or greater than the Tire ratings.	YES:
Eight (8) first line steel belted radial tubeless 1100 R 22.5 16 ply tires shall be supplied, Michelin XDE M/S,	SPECIFY:
Two (2) first line steel belted radial tubeless type Michelin XZY3 425/65 R 22.5 20 ply regular tread tires shall be supplied on the front axles.	SPECIFY:

**ENGINE:**

Diesel, water cooled, in-line, four stroke cycle, six cylinder, wet sleeved engine, governed between 1700 -2100 R.P.M.	YES:
Engine displacement – 13 litre	YES: SPECIFY:
Engine gross power - 430 H.P. minimum within governed R.P.M. (SAE J 1349)	SPECIFY H.P.: R.P.M.:
Minimum net torque shall be 1550 lbs. / ft.	SPECIFY NET TORQUE :
The engine shall be 2010 EPA compliant, only a EGR engine will be acceptable. SCR technology and DPF, components not to interfere with the mounting and operation of snow plow, salt and sand equipment.	SPECIFY:
State engine warranty <u>NOTE:</u> Required engine ratings must be set at the time of engine manufacture. Engines with locally altered ratings are not acceptable.	SPECIFY:
Insulation under hood and on splash panels for noise abatement shall be supplied. Tunnel firewall liner with silencer or equivalent.	YES:

**TRANSMISSION:**

Transmission shall be Fuller RTLO(F) - 16913A 13 speed manual with double overdrive, air shift and internal lube oil pump.	SPECIFY:
The bell housing shall be cast iron or aluminum.	SPECIFY:
The transmission shall be supplied with 100% synthetic lube oil. Transmission oil cooler mounted to radiator, air to oil type.	YES:

**CLUTCH:**

Easy Fuller Easy Pedal clutch, manual adjust, two plate, cast angle spring, ceramic 15.6" diameter, 7 spring damper, mechanical pull type control, minimum 1700 lb./ft torque capacity.	SPECIFY:
Grease fitting remote mount for clutch cross shaft shall be supplied.	SPECIFY:

**ENGINE EQUIPMENT:**

Alternator shall be 165-ampere capacity minimum.	YES: SPECIFY:
Alternator capacity at idle shall be 60 amp minimum. 120 volt/1500 watt engine block heater with chrome receptacle under cab - driver's side.	YES: SPECIFY:
Battery - maintenance free type (3). SAE rating combined 12 volt, 2775 C.C.A. minimum. Batteries to be mounted in cab under stationary passenger seat or under cab - driver's side a position that shall avoid interference with the installation of the wing harness and the sander spinner assembly to be verified with body builder for clean C.A.	YES:
Electronic throttle to control RPM speed shall be mounted in cab.	YES:
Horton Drive Master direct drive type, 2 speed with residual torque device for disengaged fan speed automatic, temperature controlled on/off fan clutch.	YES:

Governor - Engine governor built in type.	YES:
High temperature and low pressure engine protection light or buzzer device shall be installed (Automatic engine shut down is not acceptable).	YES:
Air cleaner - a heavy duty, two-stage dry type shall be utilized with inside/outside air control or equivalent. Air cleaner single element with integral snow valve and in -cab dash control	SPECIFY:  SPECIFY:
Air shall be drawn from under the hood, side intake or top of cab.	YES:
Air restriction indicator shall be supplied in dash.	YES:
Oil filter - full flow type.	YES:
A heavy-duty fuel oil water separator with heater and sight glass shall be supplied, DAVCO 382E or approved equivalent( DDC)	YES: SPECIFY MAKE: MODEL:
Engine anti-freeze to -40 degrees C permanent type.	YES:
Corrosion resistant spin on water filter for engine coolant shall be supplied.	YES:
Exhaust: The chrome exhaust pipe shall be vertical and equipped with a turn back on top, the muffler shall be mounted horizontal, and the whole installation shall not interfere with the mounting of a standard 12' snow plow wing and wing tower. Horizontal under right step with horizontal tailpipe will be acceptable provided it does not interfere with body builders components.	YES:
Engine hood shall be one piece forward tilting with adequate side access panels for easy engine access with stationary chrome grille and radiator bug screen. Powder coated grey swept back front bumper.	SPECIFY:  SPECIFY::
Access to engine for checking fluid levels will not require tilting of the harness.	SPECIFY:
Engine compression brake (Jacobs model or approved equivalent) with dash	YES:

selector switch for on / off and different settings	
Jump start positive and negative post remotes mounted under cab for boosting	YES:
<p>If the crankshaft is not located low enough below the radiator to allow for the installation of a front mounted pump and drive shaft, a minimum 88 mm (3 1/2 in) diameter opening through the radiator shall be provided centered with the crankshaft of the engine to allow adequate clearance of the PTO shaft. Crankshaft shall be provided with an adapter for PTO drive.</p> <p><u>NOTE:</u> When a crankshaft is located low enough to allow the front mounted pump to operate with sufficient clearance below the radiator, the 88 mm opening in the radiator is not required.</p>	SPECIFY:

**CAB:**

Conventional cab with air ride cab with lower valance panels.	YES:
O.E.M. tinted glass with electrically heated windshield.	SPECIFY:
Premium in-cab trim package: insulated padded cloth headliner, overhead console with netting, padded insulated door panels with map pockets, insulated padded back wall, 2 cup holders,	
<p>Driver's seat shall National 2000 or equivalent high back air suspension type, fully padded and of heavy-duty cloth upholstery construction with foam rubber seat cushions with in-board and outboard movable arm rests, isolator, lumbar, 2 position front cushion adjust, -3 to +14 degree back angle adjust, cushion and back bolsters</p> <p>Passenger seat to be same as above if batteries not mounted in cab other wise cloth high back stationary seat to be provided.</p>	YES:
Seat belts - two 3 point with retractors.	YES:

Both seats shall be adjustable fore and aft.	YES:
Sun visors – dual with 3rd. for drive's side fold down for side window.	YES:
Windshield wipers - dual, two speed electric, intermittent with electric washer pump and windshield winter wiper blades.	YES:
Fresh air heater and defroster with factory installed air conditioning.	YES:
Cab shall have minimum (177 cm) 70" shoulder room approx.	SPECIFY:
Cab shall have a minimum of (142cm) 56" floor to ceiling approx.	SPECIFY:
GAUGE PKG.: Tachometer, engine hour meter, engine oil pressure (electronic), water temperature (electronic), voltmeter, washer fluid level, DPF gauge, ODOMETER: km's/miles, trip miles/km's, trip hours, fault code readout. WARNING SYSTEM: low fuel, low oil pressure, high engine coolant temperature, low battery voltage (visual and audible)	SPECIFY:
Battery disconnect switch outboard of driver's seat. 5 lb. fire extinguisher installed outboard of driver's seat. B.O.C. inside wall mounted triangle reflector and first aid kit.	SPECIFY:  SPECIFY LOCATION:
In dash 12volt power outlet Cigar lighter with ash cup.	YES
Floor covering – heavy duty insulated rubber matting.	YES:
Chrome or stainless powered mirrors - two outside 177 mm x 406 mm (7" x16") mirrors with built in heaters.	YES:
Tripod mounted 8" stainless steel heated convex mirrors shall be supplied and mounted on both the left and right front fenders. One oval look down convex 6" mirror supplied and mounted above passenger door.	SPECIFY:
Chrome towel bar type with anti-slip rubber inserts each side to assist easy entry and exit shall be supplied.	YES:
Lower and intermediate tread plate aluminum 'BUSTIN' steps, both sides	YES:

shall be supplied. Boot brush on driver's side. Provide a piece of literature with bid submission.	
The lower step shall be approx.609 mm/24" from the ground maximum with boot brush mounted at front of step.	YES:
The intermediate step shall be approx. 939mm/37" from the ground.	YES:
Roof mounted chrome air horn(s) shall be supplied complete with snow shield. Electric horn	YES:
18" tilt / telescopic steering column supplied.	YES:
O.E.M. AM/FM/WB/clock3MM auxiliary output with multiple speakers /BLUETOOTH radio supplied (factory installed).	SPECIFY:
Power operated windows and door locks with switches accessible to the operator on driver's side door.	SPECIFY:
All auxiliary lighting shall be factory wired for plow lights, spinner lights, blue and amber flashers, wing lights, beacon and stop/turn and reverse lights.	YES:
2 way radio wiring effects with 20 amp fuse protection . Includes ignition wire with 5 amp fuse. Wire ends heat shrink and routed to center of header console in cab supplied and installed.	YES:
O.E.M. auxiliary 3' front plow light wiring harness plug in within dash switch for body builder install of plow harness lights.	YES:
Rubber fender lip extensions shall be supplied on both front fenders. Lower O.E.M. skirting and mud flaps at rear of front fenders to keep mud off of cab steps.	YES:

**FUEL TANK:**

A 302 L (80 U.S. gallon) minimum non polished aluminum 26" diameter step tank with stainless steel straps mounted on the left side and mounted so as not to interfere with the box and spinner installation shall be supplied. Minimum 9 U.S. gallon DPF tank in front of fuel tank.	YES: SPECIFY CAPACITY: TYPE:  SPECIFY:
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Electric in-dash fuel gauge	YES:
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**LIGHTS:**

Two fender-mounted, 100 mm (4") diameter amber directional lights facing front or integral with headlights.	SPECIFY:
O.E.M. LED directional / stop / tail and back-up lights	YES:
Colour coded exterior sunvisor with five LED cab identification lights.	YES:
O.E.M. in-cab wiring for ground road speed pickup for electronic spreader controller.	YES:
Four way emergency flashers with heavy-duty flasher to be supplied.	YES:
Halogen headlights shall be supplied.	YES:
A salt resistant coating shall be affixed to all wiring.	YES:
Two daytime running lights shall be installed.	YES:
Pre-trip light inspection package with headlights on with wipers, parking brake set warning system factory installed. Alarm to sound if any door opened and parking brake not set.	YES:
Multiplex wiring system shall be supplied.	YES:

**PAINT:**

Exterior paint shall be manufacturer's International RED or Candy Apple RED.	Specify colour and code:
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**WARRANTY:**

Signed manufacturer's warranty shall be supplied.	YES:
All available manuals and/or CD rom discs to be supplied including Parts, Service and Operators	YES:

**ADDITIONAL:**

Dealer markings or transfer are not to be affixed to the vehicle.	YES:
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Vehicle shall be supplied with a valid Preventative Maintenance Compulsory Vehicle Inspection (PMCVI) sticker.	YES:
R.I.N. number and insurance information will be supplied by the successful bidder.	YES:
Vehicle will be licensed to December 31, 2018.	YES:

**DELIVERY:**

Specify anticipated delivery date to successful body builder.	SPECIFY:
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**NOTE:** Vendor’s bid for combination of engine RPM, transmission, axle ratio, and tire size ensure that the vehicle will function to end use purpose with regard to acceleration, gradeability and startability under either empty or fully loaded conditions.

**COMPLY:** \_\_\_\_\_

**NOTE:** Bidder’s should note that availability and delivery to ON body builder will be considered when issuing the purchase order.

**PART “B”**

**FOR THE SUPPLY OF A 13.5 CUBIC YARD  
SANDER DUMP BOX AND EQUIPMENT**

**GENERAL:**

This is the known make and model, which, with the previously specified cab and chassis will comply with the following specifications. Other makes and models, which meet or exceed these specifications, must have approval of the Township of Guelph/Eramosa Public Works Department, prior to bid closing. The snow and ice control equipment supplied under this specification shall be the manufacturer’s latest model standard commercial product and shall have demonstrated industry acceptance.

All specified equipment shall be installed on the cab and chassis as specified in Part “A” and all arrangements for the installation of the following equipment shall be the responsibility of the successful bidder.

Some variations from this specification may be accepted provided these variations are, in the opinion of the Township, of a minor nature and will not adversely affect the performance of the equipment. Any variations must be clearly stated in the space provided.

**MAKE:**

Viking

**MODEL:**

Proline II 1415LW-HT

**SPECIFICATION**

**CONFIRMATION**

<p>This specification covers the supply and mounting of an all way combination dump body and salt/sand spreader.</p> <p>The dump box shall remain stationary on the chassis frame while spreading. Rear discharge shall be front hoist tilt action as per conventional dump bodies. The unit will be oval (U) shaped to permit gravity flow unloading. The main conveyor will be centered and recessed along the length of the box. The cross conveyor will be chassis frame mounted with spreader discharge on the front, left side (drivers) of dump box.</p>	<p>MAKE:</p> <p>MODEL:</p>
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**COMBINATION DUMP /SANDER 'U' BODY:**

Provision shall be made to prevent diamond shaping of the frame. The frame shall be bridged, or a cross member shall be supplied within ten inches of the rear of the cab in order to transfer snow plow wing push to each frame rail. This cross member shall be gusseted fore and aft, and shall conform to established M.T.O. standards.	YES:
The body to be supplied shall have fully boxed upper side rails.	YES:
All dump body welds shall be 100% continuously welded.	YES:
Body sides shall be smooth roll formed or if brake formed the break lines shall be a maximum distance of 1" apart.	YES:
The body and tailgate shall be painted red to match chassis cab.	YES:
The body shall be shot blasted and properly prepared prior to application of paint.	YES
Paint shall be a three stage process, step one, body shall be coated with a organic zinc primer 1.5 to 2.0 mil dry thickness, step two, two coats of Dupont CR 2580 Chromate epoxy primer with a dry thickness of 2.0 mil shall be applied, step 3, finish paint shall be applied, Dupont Imron Elite SS 2.0 dry film thickness	YES
Finish paint shall be baked on.	YES
The body shall fit on a 2017 or 2018 cab and chassis with a clean and clear C.A. of 140".	SPECIFY:
Top of rail of body rails shall be square tubing 4" x 4" x 3/8"	YES:
Sides, tailgate and front head shall be 3/16" thick steel type Hardox 450 Brinell 425 to 475 and with 203,000-PSI minimum yield.	YES:
Body length overall - 15' minimum	SPECIFY:
Body length inside - 14' minimum	SPECIFY:

Outside width - 96" maximum	SPECIFY:
Inside width – 86" maximum	SPECIFY:
Height - Front - 3" higher than chassis cab minimum.	SPECIFY:
Capacity cubic yard water level - 10.5 cu. yd. minimum	SPECIFY CU. YD.
With 10" sideboard water level - 13.5 cu. yd minimum.	SPECIFY CU. YD.
Height of sides inside approx. 45" measured from conveyor floor to top of body side rail.	SPECIFY:
The rear hinge will be welded to the frame with a minimum hinge diameter of 2 ½" with integral rear body safety prop and grease fittings	YES:
The body to be equipped with a locking support brace installed in a location that allows the operator full accessibility with the side mount liquid tanks installed.	YES:

**CAPACITY:**

The hoist shall be capable of lifting the box and the normal content of material plus 20%. Specify make and model of hoist.	YES:  SPECIFY:
Hoist control shall be operated in cab with feather air control system lift to lock.	YES:
The hoist shall be three-stage front telescopic with a minimum of 130" total stroke.	YES: SPECIFY STROKE:
Hoist capacity to be 30-ton minimum.	SPECIFY CAPACITY:
Hoist cylinder shall be Mailhot CS130"-5"-3 stage 'NITRATED'	YES:
There will be no hoist doghouse protruding into front head of body: hoist will be externally mounted to provide flat body front head.	YES:

**TAILGATE:**

The tailgate shall be double acting air controllable from in the cab.	YES:
Air trip shall be actuated by two 30/30 air brake chambers with direct linkage to tailgate latches	YES:
The tailgate shall be continuously welded and rectangular in shape	YES:
The tailgate for the tandem body shall be reinforced for heavy-duty work and use.	YES:
When the tailgate is lowered level with the body floor there shall be no more than ¼” spacing between the floor and the body.	YES:
For safety the air trip tailgate shall have 30/30 air brake pot, one each side for constant air pressure on the latches in the closed position	YES:
Quick release valve in protective enclosure with safety vent.	YES:
Asphalt gate located at bottom center of tailgate.	YES:
Asphalt gate shall measure approx. 20”x16”	SPECIFY:
The asphalt gate will have a height adjustable door with lock latch and lever type operating mechanism.	YES:
The operating lever shall be off set to the curbside of body.	YES:

**AIR TARP SYSTEM:**

Air power arm type tarpaulin shall be supplied.	YES:
Tarp shall be powered by two air cylinder’s mounted one each on right and left side of spreader body.	SPECIFY:
Aluminum tarp arms shall be dog leg style	SPECIFY:
Tarp cover shall be mesh type	SPECIFY:
A manual override system shall be included as well.	SPECIFY:

**SPLASH GUARDS:**

Anti-sail splashguards shall be supplied and installed for both the front and rear dual tires.	YES:
Splashguards shall be full width of dual tires and not more than 12" minimum road clearance.	YES:
No manufacturer's advertising shall be affixed to the splashguards.	YES:

**LIGHTS AND WIRING:**

Lights and wiring to be supplied and installed shall conform to the Highway Traffic Act.	YES:
All lights shall be installed inside vapor and moisture proof polyethylene tubing to have threaded push on type fittings into the lights. Grote Blue Seal body wiring harness kit only.	SPECIFY::
Each light will be individually wired, no splicing.	YES:
Two five Grote L.E.D. 5" #63551 back up lights at rear of chassis frame. Grote L.E.D. amber and blue rear strobes supplied and installed in rear corner posts within 3" of the outside of the tailgate.	YES:
Rectangular L.E.D. stop/tails/directional and back up lights mounted in corner posts within 3" of the outside of the tailgate shall be supplied. Total of 3 lights each side of tailgate.	YES:
Grote L.E.D. 5" #63551 spinner light and B.O.C. conveyor light. Separate in-cab switches.	YES:
Star 200A sealed beam type, high mounted revolving lights one blue and one amber mounted on pedestal behind the cab so as to be visible over the wing tower.	YES:
All VCL backlit circuit switches for body lighting to be mounted in aluminum housing on swivel control pedestal between seats below control levers in cab between seats and within easy	YES:

reach of the operator.	
Aluminum plug in upper MTO light poles with upper REDS, Grote L.E.D. blue strobe on driver's side and amber strobe on curbside. Grote 6" #64491 spot light on each tree aimed at ground - lights hooked into O.E.M. reverse circuit.	YES:
Grote 4" L.E.D. blue and amber rear strobes in stainless steel housing at rear of chassis frame..	YES:

**CONVEYOR/SPINNER:**

The main conveyor shall be recessed in the dump floor and run length wise of the body and consist of 30,000 lb minimum tensile strength self-cleaning pintle chain with 1/2" X 1 1/2" steel crossbars welded to chain links at 4.5" intervals.	YES:
Main conveyor drive shall be high efficiency planetary drive with high torque low speed motor.	YES:
Ratio shall be 25:1	
The drive shall deliver 50,000-in/lb torque intermittent with 34000 in/lb constant.	YES:
Planetary drive close coupled to main conveyor shaft.	YES:
Connection of the planetary drive shaft to the main conveyor shaft shall be accomplished via a split two-piece rectangular shaped coupler assembly.	YES:
The coupler shall supply mechanical split sheer relief and supply shock load protection for the conveyor drive system	YES:
Removal of the (3) coupling bolts will allow simple disassembly of the planetary drive shaft from the main conveyor shaft, for ease of maintenance	YES:
The upper and lower half of the coupler assembly will be bolted together by (3) 5/8" x 4 1/2" N.C. Grade 2 Hex Head bolts.	YES:

<p>The two main conveyor drive shaft flange bearings will be bolted directly to the body long sill weldments. The flow control gate between main and cross conveyor shall be screw adjustable by hand crank from driver's side of dump body.</p>	<p>YES:</p>
<p>The main conveyor flow control gate will be flush and even with the front of the body without any type of recess</p>	<p>YES:</p>
<p>The cross conveyor shall be hydraulic direct drive. Cross conveyor table shall be 3/16" non-painted STAINLESS STEEL, with stainless steel guards back and front of table, STAINLESS STEEL chute and fold-down windrow chute. Bi-directional one piece belt with stainless steel material chute on R.H./curbside. Washout quick coupler for rollers.</p>	<p>SPECIFY:</p>
<p>The unit must be capable of spreading and discharging granular "A" type gravel via the main conveyor, cross conveyor and spinner chute without clogging, jamming or other such problems and the manufacturer shall warrant the unit as suitable for this operation and application.</p>	<p>YES:</p>
<p>The cross conveyor assembly shall be used to discharge material from main conveyor to the left side spinner</p>	<p>YES:</p>
<p>Cross conveyor assembly to mount on chassis frame independent from and in front of main combination spreader unit.</p>	<p>YES: SPECIFY:</p>
<p>The main conveyor chain links shall be permanently covered and protected in all operating modes by permanent built in chain protection integral with body floor.</p>	<p>YES:</p>
<p>Conveyor chain tension to be regulated via a fully automatic chain tensioning system. This tensioning system will provide appropriate chain tension for the main conveyor chain at all times and under all normal operating conditions.</p>	<p>YES:</p>



The fully automated chain tensioner will eliminate the requirement for any manual chain tension adjusting mechanisms such as conventional threaded rod and nut tensioners or hydraulic grease ram tensioners.	YES:
The chain tensioner idler roller shaft shall float via springs in vertical slots flame cut in the right and left side body long members	YES:
One chain tensioner idler roller shaft 1.50" x 32.5" 303 stainless steel	YES:
Chain tensioner idler roller shaft fitted with two cast polyurethane 90A Durometer 4" O.D. x 1.5" I.D. idler rollers	YES:
One chain tensioner idler shaft 1.50" x 32.5" 1144 stress-proof steel	YES:
Two chain tensioner shafts 1.50" x 30" 1144 stress proofed steel each fitted with two 8 tooth 1.5" bore cast sprockets	YES:
Two automated chain tensioner springs attached to 5/8" x 10" eye bolts and at the other end to the spring arm weldment	YES:
The two right and left side automated chain tensioner spring arm weldments shall attach to the idler roller shaft and to the idler shaft	YES:
The bearings for the automated tensioning system shall have two (2) remote mount grease points located each side at front of body	YES:
Removable pinned on service / inspection cover plates integral with right and left side under body longsills shall allow access to the extension springs and spring arm weldments. Stainless steel pins for cover plates.	YES:
Access to automated conveyor chain tensioning system shall be from the side(s) of the body, after removal of the protective cover plate.	YES:
Main conveyor chain cover shall be 3/16" high tensile Hardox 450 steel with full length and with plywood cushion.	YES:

Main conveyor will be three piece formed, approx. 24" width	YES:
The conveyor floor will be 1/4" high tensile Hardox 450 175,000 P.S.I. minimum yield.	YES:
The spinner shall be mounted on the left side ahead of the rear wheels and must be adjustable toward and away from the chassis for full 360 degree spread pattern adjustment	YES:
The spinner shall be hydraulically driven with a variable speed range to provide a controlled spread width range from 1' to 20' radius.	YES:
Spinner assembly will be flip up style allowing spinner assembly to be carried in an on board stored raised position	YES:
The spinner shall be mounted 12" above the ground	YES:
A molded urethane spinner disc shall be supplied	YES:
Stainless steel spinner chute installed to guide material to the left side spinner disc	YES:
A molded urethane spinner disc shall be supplied	YES:
A latest generation Dickey-John Control Point spreader control system to be supplied and installed, with both liquid and granular capability. The system will be complete with Dickey-John P.W.M. dual hydraulic spreader control valve spinner conveyor and liquid pre-wet sections.	YES:
Pressure side of hydraulic system will be supplied with 10 Micron Absolute High Pressure filter with indicator and safety by-pass.	YES:
The filter is to be a Parker Model 30P2-10B-M2-50NNI or equivalent.	YES:
Hydraulic filter element for return line spin on filter assembly will be 10 micron absolute.	YES:
Unit will be functional and calibrated prior to delivery by successful bidder	YES:
The hydraulic system shall incorporate a central hosing system that eliminates the need of disconnecting the conveyor	YES:

drive hoses when raising the body for rear dumping. High-pressure swivel adapters shall be used where applicable.	
Spinner motor hoses to be complete with quick disconnect, self-sealing couplers. Spinner on round pipe mounted to chassis.	YES:
A spin on oil filter for the hydraulic system shall be installed ahead of the oil tank and shall be replaceable without the loss of oil from the reservoir. Filter element to be 10 micron.	YES:
A 35 U.S. gallon B.O.C. reservoir shall be supplied with sight / temperature gauge and ball valve shut-offs.	YES:

**PINTLE PLATE:**

NOTE: NO PINTLE HOOK PACKAGE REQUIRED FOR THIS UNIT
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**HYDRAULICS:**

The body operation shall be powered by the existing hydraulics of the snow plow truck harness.	YES:
Eaton Aeroquip 100R16 2 wire GH781 with brazen resistant cover, 3 1/2" radius bend, -70 / + 260 degree temperature rating, 4500 PSI > 5300 PSI rated	SPECIFY:
All hydraulic hose shall be properly routed, secured and protected at wear points.	YES:
All hydraulic quick couplers shall be capable of one hand connect or disconnect under full system pressure	YES:
Tandem two stage dry mode pump assembly with built in protection against pressure damage when operating in the dry mode.	YES:
Gear pump shall provide flow to allow liquid pre-wet rates from 5% to 30% by weight and shall operate all additional equipment as specified.	YES:

Front mounted Sauer-Danfoss 90cc variable displacement pump with Bosch-Rexroth low oil over ride	YES:
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**ACCESS LADDER:**

Aluminum dump box access ladder shall be located front drivers side lower section shall be fold up/down retractable	YES:
Access ladder will be manufactured from safety grip strut material	YES:

**SNOW PLOW, HARNESS AND LIGHTS:**

Plow controls within reach of the operator or wing person from a normal upright position.	YES:
Viking model VCL 500T hydraulic power tilt front harness assembly to MTO specifications.	SPECIFY:
OPTION: Viking model VCL 500HD hydraulic detach & tilt harness assembly to MTO specifications.	SPECIFY:
The front plate will be of a design to allow sufficient cooling of the chassis radiator manufactured with 3/8" 44W steel plate.	YES:
The front plow harness will tilt forward to allow the chassis hood to tilt forward over center of its pivots and stay open without the need of any additional supports	SPECIFY:
The harness tilt and return function will be performed by the operator from inside the chassis cab via feather air over hydraulic control.	SPECIFY:
One single locking shaft will be manually removed prior to performing the tilt function	YES:
The locking shaft shall be non load bearing design with no weight actually resting on the shaft	YES:
The single lock shaft will have an outside diameter of 1 1/2" inches and overall length will be minimum of 30 inches.	YES:
A handle will be provided on one end of the lock shaft 4" square, 3/8" tube by	YES:

3/4" the other end will be chamfered at 30° degrees	
The lock shaft when installed shall be located inside the full length connecting tube	YES:
The connecting tube and lock shaft assembly will form the upper connection point of the cheek plate weldment to the front plate assembly	YES:
The connecting tube overall length will be 23 3/8" inch, 1.612" inches, outside diameter shall be approx. 1.90" inches	YES:
The hydraulic power tilt cylinder will be double acting 2 1/2 inches with a 6 inch stroke chrome piston rod	YES: SPECIFY:
Two lower pivot tubes will be provided, the outer pivot tube will be connected to the right and left side cheek plates, the inner pivot tube will be permanently attached to the front plate assembly.	SPECIFY:
The inner pivot tube will rotate forward inside the outer pivot tube allowing the front plate assembly to travel forward into the tilted position and will rotate rearward to return the front assembly to the normal working position.	YES:
The inner pivot tube we be 4 inch outside diameter 2 3/4" inside diameter, 52 inch seamless mechanical tubing	YES:
There will be two inner pivot tube gussets 1/2" plate, 18 13/16" long, 5" wide tapering to 2 1/4"	YES:
End plate located on inner tube 1/2" material 12" x 6" to provide lower mounting location for wing front post	YES:
The outer pivot tube will be 5 9/16" outside diameter, 4 1/16" inside diameter , 25 3/8" long extra heavy pipe	YES:
There will be two outer pivot tube gussets 1/2" plate, 8" x 8" triangular	YES:
Outer pivot tube fitted with three NPT grease fittings one each located approx. 2 inches from the end of tube and one in the center.	YES:
Right and left side plates, 15 3/4" maximum width 49 1/4" high 3/8" plate welded to the front plate	YES:
Upper cross channel shall be 6" x 52"	YES:

13 lbs./ft welded to the right and left side plate	
End plate located on upper cross channel 1/2" material 12" x 6" to provide upper mounting location for wing front post	YES:
1/2" steel plate pump and tilt cylinder mounting bracket welded to the end cheek plate assembly, 24 1/4" wide by 18 1/2"	YES:
Cheek plates will be specified to suit chassis frame rails, 1/2" steel plate and will extend back along the chassis frame rails as far as possible	YES:
Cheek plates flame cut from 44W steel	SPECIFY:
All structural steel plate used in the plow harness will be 44W complying with CSA G40.21	SPECIFY:
Yield strength 44 KSI minimum	SPECIFY:
Tensile strength to be 65-90 KSI	SPECIFY:
Fasteners attaching cheek plate to the chassis frame rails will be minimum grade 8 N.C. hex head bolts	YES:
Two pairs of drive ears 100% welded to the front plate spaced at standard 30 1/2" centers.	YES:
Three sets of plow drive bar connection holes located in the drive ears height to lower drive connection 19" mounted with truck empty	YES:
Quick attach hitch pockets with drop in pins bolted to drive ears	YES:
Hydraulic plow lift cylinder, double acting 4" diameter with 10" stroke, hardened chrome cylinder rod	YES:
Plow lift yoke 3/4" steel plate, braced with two 1/4" x 2" flat bar diagonal braces with mounting plates positioned to provide minimum 23.5" span	YES:
Two mounting locations in lift yoke to provide location for mounting of plow hydraulic lift cylinder in winter operating mode and stored summer position.	YES:
Mounting plates for plow lift cylinder, lift yoke and lift yoke braces all 1/2" steel plate 100% welded to the front plate.	YES:

Two independent double acting valve sections shall be incorporated in the valve stack, one section will provide hydraulic power for the plow lift function and the second section will provide hydraulic power for the tilt function	YES:
Two (2) halogen sealed beam headlights with integral parking / turn signals shall be mounted on top of harness and connected directly to the chassis OEM supplied in-dash switch and auxiliary plow wiring harness at front of chassis.	YES:
Grote 6" #64491 rubber encased spot light on top driver's side of harness with separate in-cab switch.	YES:

**ONE WAY PLOW:**

The plow shall be a VCL135HSE9 and conform with the provisions of MTO standards ES-414.	YES:
The weight of the plow shall range from 2,100 to 2,300 lbs. and shall be constructed to prevent the accumulation of water in any area.	YES:
Plow shall have eight (8) 3/8" 100% welded ribs. Top rail of the moldboard shall be 2 1/2" x 2 1/2" angle iron 100% welded.	SPECIFY:
Thickness of moldboard and hood shall be 10 U.S.S. ga. (.1345). Moldboard shall be smooth curve - no bends or formed breaks.	SPECIFY:
INTAKE END: 35" minimum DISCHARGE END: 64" minimum	SPECIFY:
Overall length shall be 14' 4" minimum. Plow shall clear 9'3" @ 37 degrees.	SPECIFY:
Hydraulic power tilt moldboard with hardened chromed 4" D.A. cylinder and in-cab control and separate Sauer Danfoss PVG32 valve section at front of chassis.	SPECIFY:
Bolt on 1 1/2" x 12" rubber deflector across top of moldboard.	YES:
36" florescent marker on each end of moldboard.	YES:
Grade 70 lift chains	YES:

High wear Polar Flex valley blade	YES:
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**PAINT:**

Plow and entire harness to be painted BARIL 180 medium gloss black with a quality zinc based primer to 3.5 mm dry film coating and with a black finish coat to 2.4 mm dry film coating.	YES:
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**12' SNOW LEVELLING CABLE WING  
MODEL VCL144WHD**

The snow leveling wing shall comply with the provisions of M.T.O. Standard ES-406	YES: MAKE: MODEL:
Intake height of wing shall be 29" minimum Discharge height of wing shall be 39" minimum	SPECIFY:
Overall length of wing shall be 12'	YES:
Thickness of the moldboard shall be 10 U.S.S. ga. (.1345) minimum	YES:
The drive ribs shall be located approximately 7'2" and 8'8" from the nose end of the wing	SPECIFY:
The plate for mounting the wing to the front wing post shall be 1" thick. The mounting hole shall be far enough from the edge of the plate to avoid failure in this area.	SPECIFY:
The distance between the center of the mounting holes of the wing braces shall be as follows: Upper Brace - Extended 90" C.C. Collapsed 60" C.C Extended distances shall be measured with spring fully retracted Lower Brace - Extended 88" C.C. Collapsed 58" C.C.	SPECIFY:
One spare pin for adjusting the wing braes shall be supplied with each brace	YES:
One piece high wear cutting edge	YES:
The top edge of the wing shall be boxed in and welded 100% to the ribs and the moldboard so as to avoid all pockets	YES:
36" florescent marker whip at discharge end of moldboard	YES:
Pinned on parking stand on backside of wing moldboard.	YES:
Conspicuity safety reflective tape on wing arms and on rear edge of wing	YES:
Wing prepped and painted BARIL 180 medium gloss black	SPECIFY:

**HYDRAULIC CABLE OPERATED WING HARNESS ASSEMBLY:**

Bottom of wing tower shall be protected by shoe and shall have a minimum ground clearance of 14" with truck empty	YES:
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**OIL RESERVOIR:**

Integral rear wing harness B.O.C. above frame hydraulic oil reservoir / 35 U.S. gallon capacity, welded oil tight.	YES:
Reservoir to have a weather proof screw down filler/breather cap with fine mesh screen and provisions for clean out by hand.	YES:
A removable magnetic trap shall be suspended in the reservoir from the top to permit removal without draining the oil.	YES:
An oil filter with spin on element rated at 45 G.P.M. nominal capacity shall be installed in the return line ahead of oil condition indicator gauge. Filter shall be protected from damage.	YES:
The oil return port shall be fitted with a diffuser to prevent turbulence and foaming of oil inside of the reservoir.	YES:
Oil reservoir level and temperature gauge supplied with in cab warning light and buzzer.	YES:
Oil level and temperature gauge shall be supplied.	YES:
Ball valve hydraulic oil shut offs provided.	YES:
Return line filter assembly will be complete with 10 micron absolute element minimum.	YES:
Interior baffle plate mounted inside reservoir.	YES:
Oil reservoir integral with rear wing harness on right side accessible for filling and service.	YES:
Rear wing tower assembly and integral hydraulic oil reservoir prepped and painted BARIL 180 medium gloss black	SPECIFY:

**CONTROLS AND VALVES:**

Proportional featherable air controls shall be supplied one for each of the eight valve sections.	YES:
An air dryer lubricator and air protection valve shall be installed in the air control system.	YES:
The air control mounting stand will be fully adjustable and located between driver and passenger seats within easy view and reach of either driver or passenger.	YES:
Hydraulic valves will be sectional stackable.	YES:
Bronze sleeve shifters provided with valve stack.	YES:
Two complete separate valve stack assemblies shall be supplied	YES:
Sauer-Danfoss PVG32 closed loop SPLIT HYDRAULIC VALVE SECTIONS: first valve stack shall be located drivers side behind chassis cab in a raised position integral with the rear wing harness	YES:
The following 3 separate valve sections shall be incorporated in the first valve stack assembly: 1 D.A. Rear of Wing 1 D.A. Wing Braces 1 S.A. Body Hoist	YES:
The second valve stack assembly shall be mounted on the driver's side of the snow plow front harness	YES:
The following 5 separate valve sections shall be incorporated in the second valve stack assembly: 1 D.A. Tilt Moldboard 1 D.A. Plow Lift 1 D.A. Front Harness Tilt 1 D.A. Front of Wing	YES:
VCL body lighting switches shall be illuminated function labeled two position rocker switches.	YES:
Switches mounted in aluminum enclosure integral with printed circuit board	YES:
Total number of switches will be nine with capability to control 12 separate	YES:

functions - switches mounted below plow / wing control levers on swivel control pedestal between seats	
The switch enclosure shall be complete with manual reset circuit breakers	YES:
Electrical connection to the switch console shall be one connection direct plug in.	YES:
The entire switch console including the printed circuit board shall be easily removable as a complete assembly	YES:
There shall be no cutting or splicing in the chassis OEM wiring system for connection of the plow wing or spreader lighting all connections shall be direct plug in or an entirely separate circuit shall be run	YES:

**ADDITIONAL:**

Manufacturer's decals or transfer are not to be affixed to the body or snowplow equipment.	YES:
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**WARRANTY:**

State the warranty period for all supplied equipment for Part "B".	SPECIFY:
Warranty work will be F.O.B. 8348 Wellington Rd. 124, Rockwood, ON	YES:

**DELIVERY:**

F.O.B. Township of Guelph/Eramosa, Brucedale Works Yard, 8348 Wellington Rd. 124, Rockwood, ON	YES:
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**PW 2017-05**

**PRICE SCHEDULE:**

Your bid must be signed by an official authorized to bind your Corporation to be considered for award of this contract.

Indicate the equipment that you are bidding on as follows and submit your bid in accordance with the format shown.

**SPECIFY:**

MAKE: \_\_\_\_\_ MODEL: \_\_\_\_\_ YEAR: \_\_\_\_\_  
(Cab and Chassis)

**DESCRIPTION**

**UNIT PRICE**

**One (1) 2017 or 2018 model year 30,844 kg G.V.W.  
Tandem Truck with dump body, snow plow  
and Wing equipment.  
Price to be inclusive of Part 'A' and Part 'B'  
of specifications**

\$ \_\_\_\_\_

**Tire Stewardship Tax**

\$ \_\_\_\_\_

**Air Conditioning Tax**

\$ \_\_\_\_\_

**H.S.T.**

\$ \_\_\_\_\_

**TOTAL BID AMOUNT DELIVERED**

\$ \_\_\_\_\_

**Expected Lead Time** \_\_\_\_\_

**LICENSE – to December 31, 2018—Based on Delivery Date** \$ \_\_\_\_\_