

NOTICE TO BIDDERS

GRATIOT COUNTY ROAD COMMISSION

Sealed bids will be received by the Board of Gratiot County Road Commissioners at their office at 200 Commerce Drive, P.O. Box 187, Ithaca, MI 48847, until **Monday, October 16, 2017, at 10:00am**, for furnishing the following:

**ONE STAINLESS STEEL RADIUS DUMP SPREADER BOX,
UNDERBODY SCRAPER, WING, CHLORIDE SYSTEM AND REAR SANDER**

Bid information and specifications are available at the Road Commission office or on-line at www.gratiotroads.org.

The Board reserves the right to accept or reject any or all bids, waive any irregularities and to accept the bid which, in their opinion, is in the best interest of the County of Gratiot.

Any bid received after the specified time will be returned unopened.

COUNTY ROAD COMMISSIONERS
OF GRATIOT COUNTY

BY: Wesley Federspiel, CHAIRMAN

GRATIOT COUNTY ROAD COMMISSION
200 COMMERCE DRIVE
PO BOX 187
ITHACA, MI 48847

**STAINLESS STEEL RADIUS DUMP SPREADER BOX, UNDERBODY SCRAPER,
WING, CHLORIDE SYSTEM AND REAR SANDER**

Minimum specifications for **One NEW STAINLESS RADIUS DUMP TYPE SPREADER BOX, UNDERBODY SCRAPER, WING, CHLORIDE SYSTEM AND REAR SANDER for which sealed bids will be received until Monday, October 16, 2017, at 10:00am**, at the Road Commission office, 200 Commerce Drive, PO Box 187, Ithaca, MI 48847. Bids are to be submitted in a **sealed envelope marked "BOX/UB BID"**. The Road Commission reserves the right to reject any and all bids, waive any informality, and make the award that is in the best interest of the County of Gratiot. Any bid received after the specified time will be returned unopened.

**MINIMUM SPECIFICATIONS AND DESCRIPTION FOR STAINLESS STEEL
RADIUS DUMP SPREADER BOX**

Length: 14 feet.

Capacity: 12 cubic yards.

Body Sides: Radius Design made of 3/16" stainless steel (if a higher grade of finish is available note material and finish).

Steel: 304 Stainless steel, 1/4" longitudinals, 3/16" sides and ends.

Tail Gate: 3/16" Stainless steel heavy duty hinged on top with double locks.

Tail Gate Latches: Two (2) air cylinders controlled over center latches activated by electrical switch mounted in main electrical control box.

Fenders: Dealer installed made of stainless welded to body.

Ladder: Stainless steel type mounted to driver's side to allow for inspection inside of box.

Floor: Stainless 1/4" thickness - Bolt in type.

Tail Gate Jack: Heavy duty with scale on side of measure opening.

Tail Gate Door: Stainless steel minimum size of 28" x 11" with rubber wiper on bottom.

Tail Gate Insert: An insert will be supplied to make tail gate flat for using while dumping if desired. It will be stainless steel and easily inserted and removed.

Cab Protector: Stainless steel cab height and made to cover both fuel and hydraulic tanks (height will be determined by Road Commission).

Brackets & Hold Down Angles: All brackets will be made of stainless steel.

Additional Options for Box:

Grease Bank: An external grease bank will be supplied to allow for greasing all bearings from outside location.

Gravel Extension: On rear of box a hinged stainless steel gravel extension will be supplied to apply gravel.

Floor Cover Kit: A stainless steel slide in floor will be supplied to cover conveyor belt/chain when dump body is used.

CONVEYOR

Chain type running longitudinally with body feeding material to hinged rear gate or feed opening.

Width of Chain: 34" approximately.

Cross Bars: 1/2" x 1 1/2" welded to every other link of chain.

Chain Adjustment: Located in front of box made of two slide adjusters.

Tensile Strength: 24,500 # per strand.

POWER DRIVE

Hydraulic Motors: Mounted on rear shaft to drive conveyor chain.

External Switch: Mounted on rear of box to operate conveyor chain.

REAR SANDER

Installation: Shall be designed to move material from center chain deliver and place it on the center of the roadway. This will be accomplished by a belt conveyer that will incorporate a center mounted spinner system to be used for salting intersections. A door will allow material to be unloaded over the sander. Sander will be able to remove and install easily.

Sander Assembly: Made of 304 stainless steel.

Hoses will be quick coupler type (stainless type).

Spinner assembly: 24" stainless steel with replacement flites.

Sander will be a takeoff unit supplied by Gratiot County Road Commission.

CHLORIDE SYSTEM

Type: Hydraulic driven chloride pump mounted inside of a sealed box.

Tanks: Two tanks mounted on fenders (120 gallon capacity each).

Fill Connection: Mounted in front of driver's side tank which will allow filling of both tanks from same location.

Ventilation: Both tanks will have proper ventilation for filling and unloading.

Spray nozzles: Located at end of sander to pre-wet salt as it leaves end of belt.

TARP SYSTEM

Type: Roll Rite fully automatic electric load cover system. Housing for tarp will be incorporated into cab protector and made of stainless steel or aluminum.

Tarp: Heavy duty nylon mesh type.

Arms: Aluminum 1 5/8" O.D. tube 1/8" wall and mounted as close as possible to box. A tension bow will be used to keep tarp tight when in use.

Control: Electrical switch to control tarp mounted in main control box inside of cab with resettable breaker.

LIGHTING & WIRING

All lights will meet state regulation and guidelines

An electrical disconnect switch will be installed that will eliminate battery power to the truck when switch is turned off. A light mounted in the left rear corner of the cab or in a box located near the left rear corner of the cab will light to show when power is turned on.

Strobe Lights (2): Mounted to cab protector - (Star 9016 LED)
Cage type branch protectors will be added to protect lights.

Tail Light Strobes (2): Mounted in stainless steel box with stop light and turn light. These lights will be Green (LED type)

Stop Lights (4): (2) Mounted stainless steel box on side of spreader box (LED type)
(2) Mounted between frame of truck.

Turn Signal Lights (2): Mounted in stainless steel box on side of spreader box (LED type).

Back up Lights: Incorporated into system (2) LED lights (Ecco E92004).

3-Bar Center Light: Mounted to tailgate.

Back up Alarm: Minimum of 95 decibels.

Wiring: All must be color coded and sealed to prevent corrosion.

Wiring Connections: All tail light connections must be run into sealed junction box at rear of truck mounted in a location for easy diagnosis. All outside connections will be made with weather pack connectors.

Under Body Lights (2): Mounted above underbody to aid in night snow removal (Ecco 92004).

Sander Light (1): Mounted in left rear of box to aid in night salt application (Ecco 92004).

Front Plow Lights (2): Mounted to hood and incorporate turn signals, lights must be high beam and low beam. Lights will be on a separate switch which will allow driver to use the lights at the same time as the truck headlights.

Reflector Markings: Tape will be added to side and rear of truck as described by state regulations.

REAR TOW HOOKS

Two (2) Rear tow hooks will be bolted to the frame at the rear of the truck.

SWITCH CONTROLS

Switches used to operate additional lights, cab fan, strobes and any other accessories will be incorporated into the factory switch and dash panel. All switches will be labeled and fused through factory wiring. The body and equipment installer will coordinate the number of switches needed, their location and the proper labeling with the truck chassis supplier.

UNDERBODY SCRAPER

Monroe MS4500 - 12' or equal.

Hangerboard: 1" x 10" Heavy duty cor-ten steel weldment with anti-back over device.

Moldboard: 12', 20" x 1" Heat treated high carbon steel offset for punched blade use.

Hinges: Bolt on type with grease zerks.

Hinge Shaft: Minimum of 2 ½" x 98".

Lift Cylinders (2): Heavy duty cushion spring shock absorber assemblies, actuated by two 3" double acting cylinders with nitrotec treated piston rods or equal.

Swing Cylinders (2): 4" double acting cylinders with 2" nitrotec piston rods.
(All cylinders must be double acting and have replaceable seals).

Scraping Angle: Up to 45 degrees, adjustable as desired.

Circle: One piece solid 1" steel (notchless). The circle shall incorporate integral stops, not weld on.

Circle Clamps: 20.5" with 3/8" UHMW to work as wear plate for ease of movement of the circle.

Center Swivel: 5" center pin piloted into hanger board and attached with three 3/4" mounting bolts. The center pin shall incorporate a grease groove around the circumference of the pin to ensure proper lubrication.

The scraper shall include a grease manifold block on each side of circle with grease lines to all pivots requiring lubrication. Grease line hoses shall extend to the center bolt, the four grease locations on the hanger board/moldboard hinges, the clevis pins on both the rod and the base end of the power reverse cylinders, and the inner and outer trunion bearings for both canisters.

MONROE "PARAGLIDE" SIDE MOUNTED WING

Location: Right side mounted behind underbody scraper.

Size/length: Wing shall be 9' and will clear a 6 1/2' width.

Height: 33" minimum

Hydraulic lift: "NO" cable or chain lift accepted.

Cutting edge: 9' in length with 5/8" x 8" AASHO punched.

Mold board: 3/16" rolled steel with top formed for additional strength. All seam 100% continuous weld.

Mold board will have a protective polyethylene covering to help with sticking of snow on the surface of the wing.

Heavy duty "replaceable" shoes on both heel and toe of moldboard.

Front frame will bolt to frame and is reinforced to support a slide assembly.

Rear frame will bolt to frame and fabricated to support two push arms and hydraulic lift arm.

Rear push arms will be spring cushioned and include safety shear pins and bolted to plate on moldboard to allow for angle adjustment.

Front toe lifting cylinder will be double acting 4" ID x 12" stroke with 2" rod.

Rear lifting cylinder will be 3" x 15" stroke with 2" rod attached to push arms and will provide lift and float. Wing will have benching capabilities.

All slide components will have poly wear pads or be greasable.

All frame fabricated components will be powder coated black.

Wing will be powder coated orange.

Safety chains will be welded to wing and used while in stored position.

A sequencing valve for both up and down operation of the wing will be used and it will adjust speed of blade lifting and lowering. It will have lock valves to prevent cylinder drifting.

Hydraulic functions will be incorporated into valve body, and cab controls will be the same as other cab controls.

Hydraulic hoses will have stainless couplers to allow for blade removal.

Steel type cutting edge with standard hole spacing.

Strobe light mounted on end of blade to warn motorist of wing down.

Light on wing to show driver wing location.

HYDRAULIC SYSTEM

Pump: Cast iron hydraulic piston type pump, approximately 1400cc disp., direct mounted to end of engine crank shaft. Low oil level and high oil temperature safety shut down will be incorporated into system. A manual override will also be installed.

Valve: Cast iron hydraulic valve assembly consisting of necessary sections to operate an underbody scraper up and down and power right and left, a front plow hitch with double acting lift cylinder for up and down and power right and left, wing up and down and hydraulic cylinder for box hoist. All sections are to be operated by air controls from inside cab. The cab control levers are to be stacked together in a desired order. Control valve assembly is to be mounted on outside of frame and in a sealed stainless steel metal box for easy access and repair. An external port shall be outside the box to check hydraulic pressures.

Hoses: All rubber hoses will be high pressure and protected at all wear areas and securely supported inside of truck frame rails.

Hydraulic Hose Routing: All hydraulic lines to rear of truck will be stainless steel lines securely mounted inside of frame rails with short rubber lines at ends to allow for dumping.

Hoses with stainless steel quick disconnect couplers will be routed and attached to the front frame or bumper to operate swing on front plow.

Spreader Control: Spreader Control shall be mounted to allow for easy access from driver's seat. It shall control the material chain speed of the box and the speed of the spinner. Its functions shall also incorporate a "blast" feature and a "pass" feature. The spreader control will be set up for manual operation and hooked up for a "ground speed system". Spreader control will also be used to apply liquid spray of material at sander. The controller will give a readout of material being applied and will give material totals at the end of each day. It will also record a yearly total of materials applied.

HYDRAULIC TANK AND FUEL TANK

Tanks shall be combination two-piece type constructed of 201 Stainless steel as minimum. The fuel tank shall hold 120 gallons and hydraulic shall hold 40 gallons. Both tanks must be UL approved. The fuel tank will have sending unit that matches dash gauge. Oil tank will have lockable breather cap, sight/temperature gauge, and necessary ports for suction, return and tank drain. Two (2) manual ball type shut off valves will be located at the tank suction and return fittings. An in the tank return type filter element will be used and located in the top of the hydraulic tank and easily accessible for service. Tanks are to be mounted to carriage mount made of 2" x 3" rectangular tubing rather than a mount made of angle iron.

FRONT PLOW HITCH

The front plow hitch shall be a 34" quick disconnect type. Front hitch shall be bolted to front frame extensions and adequate bracing for support. A channel iron type bumper will be incorporated into the hitch to protect front corners of hood. The bumper shall have holes to access two (2) tow hooks that are mounted to the frame. Hitch will be mounted to allow for hood to be tilted forward allowing for engine compartment service and repairs.

PAINT

The fuel and oil tanks are not painted but must be labeled properly.

Box not painted. All frame and brackets to be painted black.

The front plow hitch, bumper, underbody, and all frame parts are to be painted black.

INSTALLATION

Labor will include the complete installation and modification to truck, the box, underbody, hydraulic system, wing, chloride system and electrical. Truck shall be complete and ready for service when delivered to the Gratiot County Road Commission. Ground speed will be calibrated and tested for accuracy.

All workmanship is to be neat and professional.

The order and location of cab controls, hydraulic valve location, height of front plow hitch, spreader control, and switch box will be determined by the Gratiot County Road Commission personnel at the time of installation.

WARRANTY

All components and workmanship will be warranted for 12 months.

Warranty begins at acceptance of equipment and the day that the equipment is put into service.

Extended warranties of components may be offered.

The equipment supplier shall be responsible for all costs of transporting to and from their service facility when warranty repairs are needed.

DEALER SUGGESTED OPTIONS

If you, as an equipment supplier, have a product or component that you feel would improve the performance or longevity of equipment outlined in this bid, the Gratiot County Road Commission would be interested in reviewing those options. These changes will be listed as options and show increases or decreases to the bid.

PAYMENT:

Cash fifteen days after delivery and acceptance by the Road Commission.

BID EXTENSION OPTION:

This bid, if awarded, can be extended for future purchases within two years of the date of this bid, if mutually agreeable between the equipment supplier and the Gratiot County Road Commission.

BID PAGE

Total cost of all equipment and installation: \$ _____

Estimated delivery date: _____

BID FIRM UNTIL _____

BIDDING DEALER: _____

ADDRESS: _____

TELEPHONE _____ FAX _____

SIGNATURE _____ DATE _____

FEDERAL ID NUMBER _____

REMARKS:
