



Eaton County
**Road
Commission**

January 6, 2015

Timothy J. Lamoreaux
Chairman

Benjamin S. Lyons
Vice Chairman

Duane A. Eldred
Member

Dorothy E. Maxwell
Member

Darrell R. Tennis
Member

Blair E. Ballou, P.E.
Engineer-Manager

Lori N. Friedlis, CPA
Director of Finance

1112 Reynolds Road
Charlotte, MI 48813

Telephone
517-543-1630
Toll-Free
877-883-2866

Fax
517-543-2608

Email
ecrc@eatoncountyroad.com

NOTICE TO BIDDERS

Sealed proposals will be received by the Board of County Road Commissioners of the County of Eaton, Michigan at 1112 Reynolds Road, Charlotte, MI 48813, until 6:30 P.M., Tuesday, January 27, 2015 at which time and place proposals will be publicly opened and read aloud for furnishing and delivering the following:

**FURNISHING AND MOUNTING
TWO MULTIBODY BOXES, TWO LIVE HYDRAULIC SYSTEMS,
TWO UNDERBODY SCRAPERS, TWO TARP SYSTEMS,
AND EACH TO BE PRICED WITH AND WITHOUT
A MID MOUNTED PATROL WING**

Specifications, bid blanks, and further information may be obtained at the offices of the undersigned, 1112 Reynolds Road, Charlotte, MI, 48813, Telephone (517) 543-1630 or (877) 883-2866.

All proposals must be submitted in sealed envelopes bearing the name of the bidder and clearly marked with a notation indicating the service or material for which the bid is submitted.

The Board reserves the right to accept or reject any or all bids, to waive irregularities in any proposal, and to make the award in any manner deemed in the best interest of the County of Eaton.

**BOARD OF COUNTY ROAD COMMISSIONERS
OF THE COUNTY OF EATON, MICHIGAN**

Timothy J. Lamoreaux, Chairman
Benjamin S. Lyons, Vice Chairman
Duane A. Eldred, Member
Dorothy E. Maxwell, Member
Darrell R. Tennis, Member

**SPECIFICATIONS FOR FURNISHING AND MOUNTING
TWO MULTIBODY BOXES, TWO LIVE HYDRAULIC SYSTEMS,
TWO UNDERBODY SCRAPERS, TWO TARP SYSTEMS AND EACH TO BE PRICED
WITH AND WITHOUT A MID MOUNTED PATROL WING**

Bid date: January 27, 2015

Time: 6:30 PM

Sealed proposals shall be received by the Board of County Road Commissioners of the County of Eaton at their office at 1112 Reynolds Road Charlotte Michigan, until 6:30 PM on January 27, 2015 at which time bids will be publicly opened and read aloud for furnishing and mounting two multibody boxes, two live hydraulic systems, two underbody scrapers and two tarp systems according to the following specifications. All specific parts and equipment mentioned in this bid are intended to be comparable in engineering and rating. If there is a problem, the dealer shall bid only those components that are comparable and point this out on the bid sheet or an attachment. Any Bids not conforming to these specification will be rejected, and it will be the responsibility of the manufacture to conform with the requirement unless deviations have been specifically cited by the bidder and acceptance made on the basis of the exception.

TRUCKS BEING SUPPLIED WILL BE:

2016 Freightliner Model: 114SD
Detroit DD13 Engine
Allison 4500 RDS Automatic Transmission
With PTO Provisions

LOAD SENSING HYDRAULIC SYSTEM

Pump and control valves shall be manufactured by the same company with the exception of the electronic spreader controller. All functions furnished are to be plumbed. Plumbing to the rear spreader shall include quick disconnects at rear end of truck frame mounted in cross-member. If black iron pipe is used in any plumbing it must be extra heavy wall pipe.

PUMP

Pump shall be all cast iron or steel construction, variable displacement load sensing type with a minimum flow rating of 18.74 GPM @ 1000 RPM Rexroth A10V071 or approved equal. Pump shall be driven from the crankshaft by a Spicer 1310 series shaft protected so as not to damage radiator if shaft breaks with a removable protective guard furnished and installed to cover the exposed shaft.

VALVES

Control valves shall be a closed center stackable design Rexroth MP18 or approved equal. Valve sections shall be self-centering with easily adjustable flow control on each section. Main relief shall be set at 3000 PSI. These valves shall be mounted in a sealed aluminum protective box outside the right side of hoist cylinder behind the cab. The Dump Hoist Valve furnished shall be capable of operating dump hoist with air operated box safety valve so as when spinner is on, the box will only lift slightly. Hoist Valve shall be four-way section detented with 35 gallon Spool

and adjustable pressure relief valves. Scraper Swing valve shall be a four-way section non-detent valve capable of operating the underbody swing and adjustable relief valves. Front Plow valve shall be capable of operating front plow cylinders with two four-way section valves to operate plow power up and down as well as plow swing left and right. Ball type Gate Valves shall be furnished and installed on each line leaving or entering reservoir. All piping larger than ½" shall be extra heavy pipe. All screw type relief valves shall have an adjustable range of 1000 to 3000 PSI. There shall be check valves at the hydraulic tank return port. All hoses or connections shall have swivels on both ends. Hydraulic Pump shall be mounted with inlet on the bottom. Any hydraulic plumbing routed to rear of truck shall be mounted on outside of frame.

CONTROLS

Furnish and install all control valves. Valves shall be air actuated with cab mounted lever assemblies convenient to the driver between the bucket seats. These actuators shall operate all functions of the valve except the spreader. Consult with Eaton County personnel on the required order and location of all cab controls.

SPREADER CONTROL

The up fitter shall furnish and install an Electronic Digital Spreader Control System. Spreader Control shall be an open loop system with a programmable microprocessor. It shall be capable of both automatic and programmable modes with LED or lighted LCD readout to display actual application rate in lbs./miles and a two-position switch to provide for these programmable features. Additional features shall include a maximum application rate knob; a maximum spread width knob and a blast button with a duration timer. Spreader Control shall have a built in data logger and communications port for the addition of a printer at a later date, and/or connection to a portable PC. The system shall also include a spot-spreading switch in the cab to allow instantaneous activation from the standby mode. **ONE COPY OF ALL NECESSARY CONNECTION SOFTWARE CABLES, ADAPTERS AND DOCUMENTATION SHALL BE PROVIDED.**

PLUMBING

JIC fittings shall be furnished and installed at all hose-connections where possible and practical. Supply lines shall be 2" and return lines shall be a minimum of 1.25". Case drain shall be 1" and routed to top area of oil tank. All components furnished shall be plumbed and ready to work. All hoses shall be insulated at all chafing points. Return line filter shall be Rexroth MP100 filter or approved equal.

OIL & FUEL TANKS

If fuel check valves are required they shall be furnished and installed by the body up fitter. Furnish and install a 140-gallon Steel US DOT approved fuel tank mounted behind cab. Tank size shall be determined to allow positioning of multi-body as close to cab as possible without compromising the capacity of the tank. Body up fitter shall furnish and install a hydraulic tank with the largest capacity possible not to be less than 30 gallons mounted in-place of the left side tool box step. Up fitter shall fabricate steps to allow ease of access to cab. Both tanks shall be mounted on angle iron frame with adequate steel tie down straps. Up fitter shall furnish and install sending unit wired to dash gauge for fuel tank, and magnetic drain plugs in bottom of both tanks. Hydraulic tank shall be fitted with a sight tube for oil level check and strainer at filler neck with threaded screw on cap furnished by the installer. Tanks shall have wrap around ends with no welds at corners. Up fitter shall furnish and install a Low oil warning system with light and a hot oil temperature warning system with light.

UNDERBODY SCRAPERS

Up fitter shall furnish and install a Root F-8900 Series underbody scraper or approved equal. The moldboard shall be 12' long by 20" high by 1" thick heat-treated carbon steel with 2.5" O.D. carbon steel hinge shaft. There shall be two 3" I.D. vertical actuating cylinders with 1 1/2" I.D. nitrated cylinder rods; also two 4" I.D. reversing cylinders with 2" O.D. nitrated cylinder rods. Scraper shall be mounted according to the manufactures instructions. Mounting height to be established by E.C.R.C. Underbody shall have dual power reverse cylinders and one-piece 1" thick notch-less circle with 20" wide circle clamps constructed with poly-urethane wear pads. Blade clamp interior edge shall match radius of blade circle with a maximum clearance of 1/4".

TANK PORTS

Hydraulic tank shall have a 2" bottom port with stand-off pipe in tank and a 1.25" bottom return port with stand pipe in tank with a 1" case drain entering near the top of tank. Furnish and install Hydro Craft combination temperature level gauge. Furnish and install full flow shut off valves at both bottom ports, at the filter, and at the case drain line port. Suction line shall have a 2" diameter removable stand pipe protruding 2" inside tank and a 1 1/4" diameter removable standpipe protruding 8" inside tank. Return line filter shall be Rexroth MP100 filter

FRONT PLOW HITCH

Up fitter shall shorten the front frame extension and furnish and install a 34" Root Quick Hitch or approved equal with proper bracing. Hitch shall be installed as close as practical to grill of truck. Up fitter shall furnish and install polyurethane bumper pads on top of hitch to provide a hood rest when hood is lifted. Existing bumper shall be remounted in conjunction with the new hitch. Furnish and install 3" O.D. double acting cylinder. Up fitter shall install front and rear tow hooks or toe rings on each side of frame rails both shall be Drop Forged Extra Heavy Duty.

MULTIBODY & HOIST

This specification describes a combination dump/spreader body or approved equal. Bidders must submit with their bid complete specifications on the unit they propose to furnish. Furnish and install front mounted box cylinder. The body up fitter shall install a multi-body with minimum capacity of 12 cyd struck and inside length of 14' for approximate cab to axle measurement of 138 inches. The inside width shall be minimum 96" to provide maximum capacity, with a minimum side height of 36", a tailgate height of 48" and a head-sheet height of 54". Sides and head-sheet shall be made of one-piece 7 gauge HSLA steel, stainless steel, or comparable aluminum. The up fitter shall install a multi-body that is self cleaning and able to be unloaded without raising box. The box side rail shall be seamless and sloped inward with 4" side-board pockets. Furnish and install aluminum fenders over rear tires.

CONVEYOR

The conveyor shall have 12" long-sills 10" from truck frame to conveyor floor with 7 gauge 409SS formed inner long-sills 10 gauge 409SS formed outer and 1/4" T-1 conveyor floor. The drive and idler shafts shall be 2" diameter with 8 tooth cast iron sprockets with a 6:1 ratio twin input conveyor gear-case or approved equal. Main conveyor shall be a minimum 28" wide with a AL667XH minimum rated pintle chain 24,500 lb. tensile/strand with 1/2" thick X 1.5" wide conveyor crossbars spaced on every other link.

SPINNER AND CHUTE ASSEMBLY

Spinner disc shall be made of polyurethane. There shall be (4) four over-lapping spinner deflectors adjustable by rod and clip pins. Chain adjustable deflectors are not acceptable. Spinner baffles and deflectors shall be hand adjustable without tools.

TAILGATE

Tailgate shall be 7 gauge HSLA sheet steel, stainless steel, or comparable aluminum. Tailgate shall have full perimeter boxing with all horizontal braces that are flush with perimeter boxing. Box shall have flush mount 1/2" flame cut tailgate pivots and heavy duty offset hinge plates 1" flame cut and 3/4" latch hooks with 3/8" latch plates. Tailgate shall have a minimum 10"X24" rear feed-gate operating perpendicular to the floor. Feed-gate to be lever operated and quickly adjustable in 1" increments. Furnish and install dual brake chamber air tailgate latch with over-center linkage or approved equal. Pivot points include stainless steel bushings to reduce seizing of linkage.

HOIST

Hoist shall be a single cylinder, trunnion mount with wear and corrosion resistant nitrated cylinder tube with minimum 2 year cylinder warranty. Connecting pivots shall have replaceable greaseless composite bushings. The hoist shall have a one piece modular cradle that incorporates body props, body guides, and greaseless composite hoist bushings. Cylinder shall have a .5 degree oscillating collar. An air operated safety cut off or kill switch shall be furnished and installed so as when spinner is mounted on the dump body, dump body will lift only slightly to keep from damaging spinner.

REAR HINGE ASSEMBLY

Rear hinge assembly shall be 6"X8"X1/2" structural angle with nitrated 2" 1045 C.R. hinge pins connecting to 2-1/2" hinge blocks with grease fittings.

ADDITIONAL EQUIPMENT

Up fitter shall furnish and install a polyurethane cover over frame rails to keep material from getting on inside frame rails. Up fitter shall furnish and install an access ladder made of the same material as the box mounted on driver's side of multibody. Furnish and install a 22" cab protector and a rear mounted asphalt patching pan.

TARP MECHANISM

Up fitter shall furnish and install a Pioneer ECT 1500-D fully automatic load cover mechanism or approved equal, with a heavy duty mesh tarp material and wind deflector. Arms shall be a min. 1-5/8" OD tube with 1/8" wall, and mounted as close to box as possible.

MID MOUNTED PATROL WING

Up fitter shall furnish and install a mid-mounted Patrol Wing designed to mount behind underbody and shall have a moldboard nine foot long. The up fitter shall furnish and install a Led strobe light kit on toe end of moldboard. Up fitter shall furnish and install lock valves built into the sequencing valves to prevent plow from drifting when in the stored position. The up fitter shall install a sequencing valve and shall be adjustable for both up and down functions of the wing. The Up fitter shall furnish and install a proximity switch that will turn on indicator dash light when plow is in the down position. Furnish and install a 4411 sealed beam light on wing side positioned to shine in front of plow. The wing shall have twin rear push arms and up fitter

shall install a rubber bumper mounted so plow will not hit box in the up or stored position. The up fitter shall install shoes on both toe and heel of wing plow. The successful bidder shall furnish and install a four inch Heel cylinder mounted at rear instead of front of plow and twin rear push arms. The moldboard shall be 3/16 minimum thickness with a poly moldboard liner installed. Para Glide System at front post or approved equal. The rear wing mounts and brackets shall be removable in order to use truck in summer for chip seal applications.

SAFETY & MISCELLANEOUS

Up fitter shall be required to modify curbside entry step for scraper clearance. It will also be necessary to relocate at least (4) four and possibly (5) five air tanks and (1) air dryer mounted to the outside of Frame rails for scraper mounting. This chassis work shall be included as part of your bid. Body up fitter shall install Preco 4782 amber twin top lights on cab of truck. These lights will be furnished by E.C.R.C. Body up-fitter shall use a wire in loom to a fused cab switch, and furnish and install a sealed rear junction box (Betts brand) sealed system to be mounted on the street-side rear panel of the dump body. All rear lighting and strobe lighting shall be run through this box. Galvanized pipe shall be used to incase wiring across rear of truck. Furnish and install back up alarm, 4411 sealed beam blade light and sander light with heavy-duty steel housing. Furnish and install Truck-Lite kit # 80800 halogen hood mounted plow light or approved equal. Exact location shall be designated by E.C.R.C. for Strobes, Plow lights, Blade light and Sander light.

PAINT AND PREPARATION

All surfaces that will be painted shall be high pressure cleaned with a phosphate solution and primed with a high quality alkyd type primer and painted with acrylic enamel with hardener. Body up fitter shall paint the multi-body, tarp mechanism, fuel tank, oil tank and tank cradles the same color to match the cab unless made of aluminum. Scraper, front hitch, box hoist and sub-frame shall be painted black. Up fitter shall undercoat vertical columns and bottom of dump-body.

NOTES

The Bidder shall show the brand bid and shall list all exceptions or areas in which the bidder's equipment does not comply with these specifications. It is the intention of the Eaton County Road Commission to award the bid for this equipment to a company located in the Mid-Michigan area. All workmanship shall be neat and professional. Eaton County Road Commission will require a completion date of 75 calendar days from the date of delivery of the truck chassis to the successful bidder.

BID BLANK

COMPLETE WITH MULTIBODY AS SPECIFIED

Bidder: _____

COST OF ONE COMPLETED UNIT WITH STEEL BODY: \$ _____

COST OF ONE COMPLETED UNIT WITH 409 STAINLESS STEEL BODY: \$ _____

COST OF ONE COMPLETED UNIT WITH ALUMINUM BODY: \$ _____

COST OF ONE COMPLETED UNIT WITH STEEL BODY AND WING: \$ _____

COST OF ONE COMPLETED UNIT WITH 409 STAINLESS STEEL BODY AND WING: \$ _____

COST OF ONE COMPLETED UNIT WITH ALUMINUM BODY AND WING: \$ _____

MULTIBODY

MAKE _____

MODEL _____

YEAR _____

WARRANTY _____

COST _____

TARP SYSTEM

MAKE _____

MODEL _____

YEAR _____

WARRANTY _____

COST _____

UNDERBODY SCAPER

MAKE _____

MODEL _____

YEAR _____

WARRANTY _____

COST _____

BIDDER'S REMARKS OR EXCEPTIONS. USE ADDITIONAL SHEETS IF NECESSARY:

COMPLETION TIME (IN DAYS)
AFTER UNIT IS DELIVERED _____

TERMS: _____

BIDDER _____

BY _____

TITLE _____

ADDRESS _____

TELEPHONE () _____ DATE _____

THE BOARD OF EATON COUNTY ROAD COMMISSIONERS RESERVES THE RIGHT TO REJECT ANY AND ALL PROPOSALS, TO WAIVE IRREGULARITIES IN ANY PROPOSALS AND TO ACCEPT THE PROPOSAL THAT, IN THE OPINION OF THE BOARD, IS IN THE BEST INTEREST AND TO THE ADVANTAGE OF THE BOARD OF EATON COUNTY ROAD COMMISSIONERS AND THE COUNTY OF EATON, MICHIGAN.