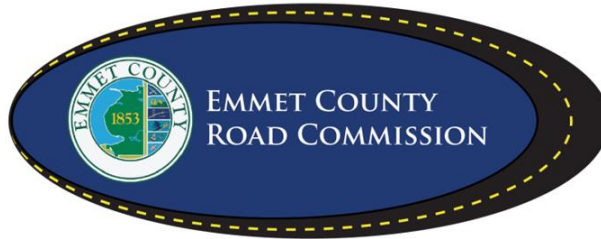


Wade Williams
Robert Notestine
Frank Zuluski Jr.
Brian A. Gutowski, P.E.
Engineer-Manager
Lisa Kleeman
Finance Director -
Clerk of the Board



2265 E. Hathaway Road
Harbor Springs
Michigan, 49740
Office: 231 347-8142
Fax: 231 347-5787
emmetcrc@emmetcrc.com

INVITATION TO BID

The Emmet County Road Commission will receive sealed bids until 10:00 AM, Tuesday February 16, 2021 at which time they will be publicly opened and read aloud at their offices located at 2265 E. Hathaway Road, Harbor Springs, Michigan 49740, for the following:

Two (2) of each: Hydraulic System, Underbody Scraper & 10" 201 Stainless Steel RDS Dump Box Installed and Complete.

Bids shall be on forms furnished by the Road Commission and shall be submitted in a sealed envelope clearly marked as to the contents. Forms can be obtained by contacting the Road Commission at (231)347-8142.

The right is reserved to reject any and all bids, to waive irregularities in the bid procedure and to award bids in the best interest of the Emmet County Road Commission.

EMMET COUNTY ROAD COMMISSION

Frank Zuluski, Jr. - Chairman
Robert Notestine - Vice -Chairman
Wade Williams- Member

Board of Emmet County Road Commissioners
2265 E. Hathaway Road
Harbor Springs, Michigan 49740

Bids due 10:00 AM, Tuesday February 16, 2021
At which time they will be opened and read aloud

**BID FOR: UP TO Two (2) Hydraulic System, Underbody Scraper and 10' 201 Dump Box
Installed and complete.**

Gentlemen:

We agree to furnish the Emmet County Road Commission the following:

Two (2) Hydraulic System, Underbody Scraper and 10' 201 RDS Dump Box, Install and complete.

Make _____ Model _____

Make _____ Model _____

That will meet the minimum requirements of the attached specification sheet.

Bidder's factory specification sheet shall be considered part of the bid requirements.

Bids not supplied on Emmet County Road Commission forms will not be considered.

Bids not received by specified time will not be considered.

F.O.B. Conway Garage- no tax

Total for One (1) Hydraulic System, Underbody Scraper & 10' 201 Dump Box, Installed and complete.

\$ _____

Deduct for Multiple Units \$ _____

Net Cash Difference \$ _____

Total for Two (2) Units \$ _____

Term: _____

Delivery in _____ days after award of bid.

Company _____

Signature & Title _____

Address _____

Phone # _____

E-mail _____

EMMET COUNTY ROAD COMMISSION

MINIMUM SPECIFICATIONS FOR:

Two (2) Hydraulic System, Underbody Scraper & 10' 201 Stainless Steel RDS Dump Box, Installed and complete.

It is the intent of this specification to provide new equipment necessary to complete (2) Plow/Dump Truck for Emmet County Road Commission; that shall include Hydraulic System, Underbody Scraper, and 10' 201 Stainless Steel RDS Dump Box.

Hydraulic & Fuel Tanks:

COMPLY Yes_____ No_____

Shall be a combination Fuel & Hydraulic tank with 110-gallon fuel & 40-gallon hydraulic, with 3" NPT port for 2" suction strainer in bottom of hydraulic tank and flange in top to except a Zinga Model RF1215S-1 return filter housing with breather cap and fill screen, installed in conjunction with DPF/SCR exhaust system.

Solid state fuel sending unit and guarded hydraulic oil sight/ temperature gauge, Fuel tank will have a water sump and petcock type drain, and ball type shut off valves on supply & return. The fuel tank vent shall conform to engine manufactures specifications. Unit shall be mounted on four (4) rubber bushing type mounting points. Hydraulic oil, low-level sensor* with in-cab light & alarm integrated with an electric solenoid shut-off valve at main hydraulic pump outlet, with dash mounted over-ride switches for low-level alarm & pump shut-off. *low oil sensor will be a solid state non- float type sensor, mounted in top of oil tank. Fuel & Hydraulic Tanks shall be of 7ga. Stainless Steel construction.

Hydraulic System:

COMPLY Yes_____ No_____

Transmission mounted power take off (PTO) load sense hydraulic system. The PTO will feature cast iron construction and hot shift switch engagement. PTO will include flange for pump mounting. The PTO will be controlled through the truck control system to a shut off in the event of a low oil condition. PTO to be a Chelsea model 280 series, designed to fit Allison 4500 RDS Automatic Transmission with PTO provision. Hydraulic pump will be a variable displacement Rexroth piston pump model A18V080DRS with load sense control. Pump to feature external bleed down compensator and separate adjustments for stand-by and main pressure. All hydraulic hoses will have crimp type fittings, swivels where needed and abrasive resistant sleeve covering in high wear areas. All clamps lines with abrasive resistant sleeve covering. Routing of all hoses on the left side of engine as to stay away from turbo heat, using proper extension hangers and to leave room for service of oil filter. Underbody scraper (up, down & reverse), Plow (up & down) Dump Box with single-acting lift cylinder, & *Sander and Pre-Wet system functions. (*sander & pre-wet valve sections only, no controls*)

Rexroth M4-12, 7-Bank valve assembly with the following features.

- Air operated D/A plow section 13gpm
- Air operated D/A scraper section 16 gpm w/ 500psi A port LS relief
- Air operated D/A scraper angle 16 gpm
- Air operated S/A dump box hoist 34 gpm
- EPC S/A sander conveyer chain 15 gpm*
- EPC S/A spinner 8 gpm*
- EPC S/A pre-wet 8 gpm* * = valve sections only. No controls.

EPC = Electronic Proportional Control

Hydraulic System Cont.:

COMPLY

Yes _____

No _____

Blade lock valve and down pressure relief valve shall be mounted outside of cab in a stainless-steel weather-tight enclosure, Valve control shall be Morse Air-type remote with offset Handles for hand clearance mounted in cab.

Hydraulic return filter to be in-tank style, (see hydraulic & fuel tanks)

All ridged hydraulic lines shall be of stainless-steel construction.

System to be approved by Emmet County Road Commission prior to installation.

Dump Body:

10' Monroe Radius Dump Spreader RDS-120-96-56

COMPLY

Yes _____

No _____

- Body is 120" long X 89" wide, 44" sides, 50" front and 50" gate, all are inside dimensions, with the total outside width being 96" overall, side height 56", approximately 7.19 cubic yards, and 8.4 cubic yard ends. Front is sloped to accommodate ahead lift cylinder with partial doghouse and conform with the radius of the body, is constructed of 3/16" 201 stainless steel, 100% welded inside and out.
- Sides are constructed of 3/16" 201 stainless steel, brake formed to a radius of 43", 3/16" 201 stainless steel boxed top rail, includes sideboard pockets. 100% welded.
- Tailgate is 3/16" 201 stainless steel with 3" boxed perimeter and two horizontal braces full width 100% welded. Tailgate has double acting design, 3/8" spreader chains, including double banjo eyes. Chain has sufficient length to allow tailgate to lay flat. Tailgate is operated by a 3-1/2" air cylinder; cylinder shaft is retracted in closed position with in-cab control. The top hinge is 1" thick X 4" wide and has 1-1/4" grease-able hinge pins, trip rod and latch fingers are built of carbon steel.
- Rear of Body is flush with rear corner pillars.
- Rear material door is extended 16" into the interior of the body to prevent material from escaping through the partially opened door over the conveyor. The door is 1/4" thick approximately 21" wide X 8-1/2" high and includes, poly universal joint, crank handle – jack and ruler.
- Replaceable material door 3/16", to be used when using as dump body.
- Rear of body is supported by combination of 3/16" 201 stainless steel plate contoured to the radius of the body, both sides, 3/16" 201 stainless steel formed box sections, tied to the rear 3/16" 201 stainless steel corner posts. All 100% welded.
- Understructure: longsills are fabricated from 1/4" 201 stainless steel and joined together with: sections of 4" formed 201 stainless steel channels are welded every two feet the length of the spreader at the base of the longsills, where the longsills are then boxed in with 1/4" 201 stainless steel, then there is 3/16" X 3" X 3" formed angle welded every 12" the full length of the conveyor at the top of the longsills.
- Chain Shields are 3/16" 201 stainless steel and floor is 1/4" thick 201 stainless steel, both are bolt in replaceable design.
- Body conveyor assembly is 34" in width and has a 26,000 lbs. tensile strength per strand pintle chain, 1-1/2" X 1/2" bar flights and hi-temp belt over chain.

- Conveyor is driven by two 6:1 spur gear box and (2) high torque/speed White hydraulic motors, (1) with a speed sensor. There are 8 tooth hardened sprockets, keyed to 2” drive and idler shafts, both have heavy duty dust sealed self-aligning four bolt flange bearing, idler is adjustable with heavy duty slide rail type adjustment, using 1-1/4” rod adjusters.
- Fenders are designed to fit a single axle, manufactured of 3/16” 201 stainless steel, installed to the body, accommodate tarp system, and are reinforced to hold additional weight of pre-wet tanks – approximately 1,200 lbs per side.
- Custom Cab-shield is 3/16” 201 stainless steel 24” coverage. Cab shield welded 100% inside and out.

DUMP BODY ACCESSORIES

Remote grease fitting and line system shall be installed to consolidate fittings in three (3) locations for ease of maintenance.

Remote lube system shall connect to all grease points, total of 21, except (2) top tailgate pins, (2) rear hinge pins and (2) body prop pivots.

Electronic back-up alarm.

(2) grease-able body safety props.

(4) HD ½” thick anti-sail mud flaps installed ahead and behind drive axles with stainless steel hardware.

304SS shovel holder.

304SS hinge down ladder – 6 step design.

Location of shovel holder and hinge down ladder to be determined at installation.

¼” thick AR400 conveyor belt chain cover – used for HD dump body use.

Tailgate to have 304 stainless steel air Foil.

Toolbox:

COMPLY Yes _____ No _____

One (1) 18”x18”x18” SS tool-box, mounted on drivers’ side (if possible) in Stainless steel saddle, with S/S hardware and neoprene isolation strips for corrosion resistance.

Sander/Pre-Wet Controls:

COMPLY Yes _____ No _____

Dickey-John Control Point System consisting of six basic components.

- 1.) Console
- 2.) Switch module
- 3.) Ground Speed Sensor
- 4.) Feed-back devices
- 5.) Actuator devices
- 6.) Wiring harness to interconnect **All** components including, Road Watch wiring & sensor

To be installed by Body Dealer.

Pre-Wet system:

Monroe snow and ice on board pre-wet system, designed to fit and operate off 10 FT Radius Dump Spreader with Dicky john ground speed controllers, would consist of the following:

- Dual 75-gallon tank kits RDS fender mounted.
- NEMA fiberglass enclosure to house hydraulic motor 7 GPM. Bronze chemical pump and flow meter.
- Enclosure mounting kit.
- Dual Tank crossover kit.
- Bulk fill kit.
- Flusher kit.
- 3 GPM brass spray nozzles.
- All hoses fittings and adapters.

Hoist System:

COMPLY Yes _____ No _____

• Dump body hoist is manufactured by Mailhot, telescopic design with trunnion mounting, trunnion collar is oscillating, all pivots, cylinder pin, hinges are grease able. Cylinder has nitride surface for wear and corrosion resistance. Cylinder is rated 2,500 PSI- double acting, all stages self-bleeding and operates off Allison transmission driven hydraulic system.

Everything above the floor shall be stainless steel

Body and Hoist shall have a 5-year warranty; 3 years full warranty and remaining 2 years at 50/50 parts & labor.

Tarp System:

COMPLY Yes _____ No _____

Roll Right 6416 Electric Tarp system (to include spool & housing, tarp tension bows, and 16’ mesh Tarp and severe duty wiring).

Lighting:

COMPLY Yes _____ No _____

LED headlights with LED turn signals, hood mounted on custom built aluminum brackets, as approved by Emmet County Road Commission, with approved reinforcements on underside of hood for extra rigidity.

One (1) roof mounted remotely controlled articulating halogen spotlight with protective dome.

Four (4) LED work lights for Underbody blade and Dump Box discharge areas, locations to be determined at time of installation.

Quad flash LED Strobe lights with 3 strobe heads (1) cab mounted (amber/ green), (2) (1-amber, 1-green) tailgate mounted with Amber LED indicator light mounted outside cab near driver’s door for OEM supplied Master Electrical Disconnect Switch.

Note: The up- fitter will supply and install all wiring & lights not listed above.

Underbody Scraper:

COMPLY Yes_____ No_____

Monroe 11' HD4500 **rolled** moldboard designed for 4x4 trucks.
Moldboard shall be 1" thick x 20" high x 12" long made of heat-treated high-carbon steel. Circle shall be 1" thick solid steel (no notches)
Circle clamp shall be heavy-duty with poly shim.
Two (2) Actuating Cylinders with Socatri shafts enclosed in shock spring housing and trunnion mounted.
Dual power-reverse cylinders with Socatri shafts & crossover relief.
Shall include a manifold bracket for a Grease line Kit, (1) each installed on each side of hanger Board.
Serrated safety step, 12"x 12" welded to outer end of the moldboard on driver's side.

Plow Hitch:

COMPLY Yes_____ No_____

Hustings style heavy duty 34" wide Quick Hitch with 3" double acting cylinder
And lift arm. Plunger pins shall be a Monroe p/n# 05022221 with grease zerks, and secondary locking tabs, with reinforcements.
Plow hitch shall be bolted to 12" min, heavy duty structural channel front bumper flared back with boxed ends.

Tow Hooks:

Comply Yes_____ No_____

Four (4) Heavy-Duty Drop Forged Frame mounted on front and rear frame support structures (as approved by County) with a minimum rating of 44,000 lbs. each.

Rear Hitch:

Comply Yes_____ No_____

Shall be a Holland PHT 760 pintle hitch, having a 9,800 lb. tongue weight capacity, 49,000 gross trailer weight capacity, mounted to a 3/4" full steel plate with reinforcements and bolted in using grade 8 hardware, with (2) two 3/4" 26,500 lb. rated D-rings for safety chains.
Shall include 7-pin round pin & 4-pin trailer plug connector.
As per ECRC Specifications.

CROSS AUGER/SPINNER: Designed for rear of RDS body

201SS 96" full width, unobstructed top and bottom clean out, single pin SS quick detachable hardware, chain hoist lifting slots placed at the balance points to provide easy level mounting and dismounting of the spreader hopper.

3/16" 201SS auger trough, all interior seams shall be continuously welded, ¼" extended 201SS one piece end plates continuously welded to auger trough, 3/16 201SS combination cover and rear panel shall be removable and hinged to raise for spreading and lay flat for dumping over, bottom hinged with 3 solid ½" SS hinges allowing clogged material to drop out when it is opened using the new "Z" latch lever handles.

Auger shall be 9" diameter, 4" pitch, 3/8" flighting 2-7/8 OD tube, extreme left-hand discharge. The shafts shall be 1-1/2" supported by heavy duty 1-1/2" sealed self-aligning, relubable, 4 bolt flange bearings.

Auger shall be driven by a Roller Stator direct drive motor, 28 cubic inch, 1-1/4" – 14 spline shafts coupled to the auger right end mount with a stainless-steel coupler.

The motor shall include 7/8" O-ring ports.

Auger will have a custom mount drop shoot made of 201SS to spinner assembly due to height of truck (must meet customer approval).

The spinner assembly shall be 201SS and mounted independent of the bottom clean-out door (driver's side). Self-leveling feature, 18" poly disc, direct mount Roller Stator 3 cubic inch motor to include seal saver design, cast iron hub, adjustable spread pattern – 4 ft to 40 ft.

Complete unit installed, including (2) ¾" & (2) ½" SS quick disconnects with caps and plugs.

Remote Camera System: COMPLY Yes_____ No_____

A Voyager Model VCCS150B Remote Camera System with M.S. Foster & Associates, Inc. Model MSF8470038000 Washer System shall be installed to monitor the rear and right-side blind spots of material spreaders.

Both Remote Camera Heads shall be installed in a protective stainless-steel enclosure.

Exact location and mounting option will be approved by E.C.R.C.

I have read and understand the instructions in the bid specifications, and I certify that the above specifications will be met with the following exceptions*

* Differences in bid specifications must be Noted & Highlighted on page marked

Exception and Clarifications to Bid Specifications.

Signature & Title

EXCEPTIONS AND CLARIFICATIONS TO BID SPECIFICATIONS

Fuel & Hydraulic Tanks:

Hydraulic System:

Dump Body & Hoist System:

Tarp:

Lighting:

Underbody Scraper & Plow Hitch:

Rear Hitch & tow Hooks:
