ADDENDUM # 4

Bid # 7590553

Title: HEAVY DUTY DUMP TRUCKS W/DOUBLE WING PLOW & ALL SEASON DUMP BODIES

Bid Closing Date & Time: Date & Time: April 5, 2018 @1:30 PM

Notice to Vendors:
Answers to question attached

Kathy Missell
Chief Buyer

Interested parties should monitor this website, on a regular basis, for any additional information that may be posted.
Solicitation Number 7590553

HEAVY DUTY DUMP TRUCKS W/DUOUBLE WING PLOWS & ALL SEASON DUMP BODIES

Addendum Number 4

QUESTION

Page 18: Pre-wetting system
Hydraulic powered calcium pump mounted in a stainless-steel enclosure, all required hoses/spray bar and nozzles to make the system fully functional and controlled by the Hydraulic controller. Shall have 1” Banjo nozzle with Cap for filling of tanks.
May we substitute the stainless-steel enclosure for a Stahlin NEMA 4 enclosure? This type is widely used in our industry and provides great protection from elements and long-life expectancy.

ANSWER
A Stahlin NEMA 4 watertight enclosure with stainless steel hinges and hardware is acceptable.

QUESTION

Page 19: GROUND SPEED ORIENTED CENTRAL HYDRAULIC SYSTEM
NO EXCEPTIONS
The PTO mounted hydraulic pump shall be a piston type, variable displacement, pressure compensating design. The pump shall be a Parker VP1-75, Rexroth A 10V074 52 series or approved equal and shall be Rear Engine mounted(REPTO). COMPLY ________
We are asking that the Eaton series 420 ADU080cc pump be considered as an equal to the pumps listed above. Attached is the literature for the pump and below is the MFG. link to the product.

ANSWER
The Eaton series 420 ADU080cc pump is acceptable to use as long as it is the correct size to meet the requirements of the complete hydraulic system.

QUESTION
Is the shape of the plow a “J” or “C”?

ANSWER
The plow shape is “J”.

QUESTION
This question relates to both bids, specifications state infrared pavement temperature sensor shall be a Quixote Transportation Technologies Surface Patrol (No Exceptions) : This unit may not interface with all electronic control units as it relates to information needed for the controller material based on temperature, will other units be acceptable if required for the functionality of the controller or will this unit still need to be installed as a standalone.

ANSWER
The state infrared pavement temperature sensor shall be a Quixote Transportation Technologies Surface Patrol (No Exceptions)
This question relates to both bids, Under Power Tilt Custom Truck Plow Attachment Specifications-Paint it states all snowplow running gear shall be powder coated glass black-the plow assembly shall be powder coated Omaha orange. Many of the major manufactures do not offer powder coat by choice such as Viking/Tenco and Everest-will the method of painting be acceptable.

ANSWER
An engineered industrial paint system consisting of a primer coat, intermediate coat and a top coat is acceptable equal to the powder coat system required in the specifications. A copy of the paint manufacturers preparation, application and quality control procedures shall be submitted with the bid proposal.

This question relates to both bids, Under Power Tilt Custom Truck Plow Attachments Specifications-Cylinder Rods it states all snow plow hydraulic cylinder rods shall be Nitrided. Again many of the major manufactures use a chrome finished rod and do not offer Nitrided will this be acceptable.

ANSWER
A chrome finished rod with a 36 month 100% parts and 100% labor warranty is acceptable.

This Question relates to both bids, Under installation and Warranty it states body company shall have ASE certified installer and be a MVP member of NTEA and show documentation at the time of bid. This is a good requirement but this cannot be done before the bid opening if your company is not already as you have to apply and wait to be scheduled- the requirement is not a problem just the timing-will we be allowed to bid if it is stated the vendor will be certified before the units are fabricated if awarded the bid.

ANSWER
The goal of the specification is to have certified company and workers at the time of fabrication. The vendor submitting the bid shall submit the documentation that the chosen fabricator has started the certification process and a plan in place to complete the process prior to the start of fabrication.

Is it allowable to offer a flat floor side tipping body with left hand conveyor front of wheels discharge with center spinner application via side dump mechanism for floor reloading. The liquid system tank could be 120 gallon cab shield mounted or 300 plus gallon chassis mounted in front of the body.

ANSWER
A side tipping body is not acceptable.

QUESTION
Solicitation Number 7590553

HEAVY DUTY DUMP TRUCKS W/DUOUBLE WING PLOWS & ALL SEASON DUMP BODIES

Addendum Number 4

On page 11 of both specification it says with the ability to remove snow above guardrail. I see no mention of Benching height for either the front or rear post? Remove snow above the guardrail can be accomplished with a “Patrol WinG” not very well but it will work. This is not what the State has used in the past (Benching Wings) and I want to understand completely what you are requiring as there are major cost differences between the two systems.

ANSWER
The wing plow shall be able to bench at a height range of 40” to 50”

QUESTION
Spec:
Double rail, with minimum 3.25” flange
Minimum RBM- 3,840,000 inch-pounds per rail
Minimum Section Modulus 32.0

ANSWER
Minimum Section Modulus 29.45
Minimum RBM 3,500,000

Page 4 of 30 Frames MINIMUM REQUIREMENTS
Remove:
Double rail, with minimum 3.25” flange
Minimum RBM- 3,840,000 inch-pounds per rail
Minimum Section Modulus 32.0
24” front frame extension, continuation of parent rail (not bolted)

Replace:
Minimum Section Modulus 29.45
Minimum RBM 3,500,000
20” front frame extension, continuation of parent rail (not bolted)

Page 6 of 30 Fuel System
Remove:
Fuel tank - LH, Minimum 80 gallon aluminum
Aluminum fuel tank steps/straps

Replace:
Fuel tank - LH, Minimum 70 gallon aluminum
Aluminum or Stainless-Steel fuel tank steps/straps

Page 18 of 30 Pre-Wetting System
Remove: Poly tanks (One per side) shall be 230 gallons per tank.
Replace: Poly tanks (One per side) minimum capacity of 130 U.S. gallons each tank for total 260 U.S. gallons
Solicitation Number 7590553

HEAVY DUTY DUMP TRUCKS W/DOUBLE WING PLOWS & ALL SEASON DUMP BODIES

Addendum Number 4

Page 12 of 30 Reversing Frame and A Frame:
Remove: Ear spacing of plow portion hitch shall be 21”
Replace: Ear spacing of plow portion hitch shall be 30 ½”

Page 26 of 30 TRUCK DELIVERY SCHEDULE
Remove: All trucks ordered shall be delivered to RIDOT, ready for immediate use, no later than October 1, 2017 without exception.
Replace: All trucks ordered shall be delivered to RIDOT, ready for immediate use, no later than November 1, 2018 without exception.

Page 19 of 30 GROUND SPEED ORIENTED CENTRAL HYDRAULIC SYSTEM NO EXCEPTIONS

QUESTION – These 3 related questions will be answered as follows

• Our body supplier just brought a real problem to our attention. It appears that only Volvo and Mack can meet spec with the Rear Engine PTO spec as it is called out in these bids. We were told that these specs were to be set up so that they would not be so restrictive that only one or two dealers could meet spec. This does not seem to be the case and leaves all the other truck manufacturers out of contention. There are other viable ways that any of the body companies could power their equipment other than the proprietary way of Volvo/Mack as it is currently written.

• Under Ground Speed Oriented Central Hydraulic System on Page 18. Power take off will be rear engine mounted REPTO and will be hot shift design with no less than 100% of engine speed, the PTO will accept a variable displacement pump via direct mount. Our OEM’s engine offering does offer a REPTO provision; however, it is no different than a tradition FEPTO design. By that I mean; We do not have a direct pump mount or a hot shift version of the REPTO. The drive is a “Live PTO” which means that it provides continuous power any time the engine is operating. The REPTO is driven by the engine geartrain at a 1.22:1 ratio, has a Spicer 1350/1410 flange drive, and is mounted on the flywheel housing. It is located at the right rear side of the engine. Upon doing further checking it appears there to be only one manufacturer that provides a direct mount system. We can offer both a direct mount pump hot shift system on the Allison automatic transmission (industry standard) OR a FEPTO system for much less money. Will either of these alternative PTO designs be accepted?

• Have been told the bid specs for chassis with a central hydraulic system run off a rear engine PTO with a direct mounted pump can not be built by Freightliner or Western Star. Last year the central hydraulics were run off the Allison 4500RDS transmission. Will it be acceptable to use this method versus rear engine PTO?

ANSWER
The specification intention is not to preclude International, Freightliner, Western Star or any other manufacture that can meet the chassis specification. A REPTO or a FEPTO system with a properly sized variable displacement pump is acceptable. The system shall be designed such that if there is a hydraulic
leak, the system can be shut off so the truck can be driven without damaging the hydraulic system. The drivelines for all pumps that are not direct mount shall be easily accessible for service. They shall be designed and installed such that if they fail, they do not damage other components. A PTO run off the Allison 4500RDS transmission is not acceptable.

**Page 19 of 30 GROUND SPEED ORIENTED CENTRAL HYDRAULIC SYSTEM NO EXCEPTIONS**

**Remove:** the PTO will accept a variable displacement pump via direct mount.  
**Add:** A FEPTO is acceptable.

**QUESTION**  
Under Frames on Page 4: Frame rails treated w/ Tectyl 185GW Pigmented 2.8 VOC for rust resistance. This seems to be a specific treatment that a particular OEM utilizes. Our OEM has utilized a process of: The frame rails are e-coat primed by the manufacturer. Then they are top coated at the plant. The standard black frame paint is as then applied. I have attached our OEM’s paint spec for review. Will this be considered an approved equal?

**ANSWER**  
The OEM paint system is acceptable.

**QUESTION**  
Under Wheels on Page 6: Front steel disc, hub piloted (two hand hole) rims. 315/80R22.5 size tires are recommended to be mounted on 9” rims which in turn are designed with 5 hand holds. Will Accuride 29039 22.5x9.00 10-hub pilot 5.25 inset 5-hand steel disc front wheels be considered an approved equal.

**ANSWER**  
The 5-hand steel disc front wheels are acceptable.

**QUESTION**  
Under Electrical System on Page 6: Wiring schematic shall be supplied illustrating the wiring system. Our OEM no longer offers a printed copy of the wiring schematics. Do to print size they were often very difficult to read. However; instead we offer free of charge ON-LINE access to EZ-Wiring which is VIN specific. Will this electronic version be acceptable?

**ANSWER**  
The electronic version is acceptable.

**QUESTION**  
Under Electrical System on Page 6: It is asked for battery box mounting – LH rail back of fuel tank. Will a battery box mounted under LH side of cab above fuel tank be accepted? This will further protect batteries and box from road debris while also creating additional frame space back of cab for accessory mounting if needed.
Solicitation Number 7590553

HEAVY DUTY DUMP TRUCKS W/DOUBLE WING PLOWS & ALL SEASON DUMP BODIES

Addendum Number 4

ANSWER
A battery box mounted under LH side of cab above fuel tank is acceptable with the ability to charge and jump start the batteries from external lugs.

QUESTION
Under Cab on Page 6: Identification/clearance lights (5). Does RIDOT want these (5) five cab clearance lights to be incandescent amber bulbs OR LED amber marker lights?

ANSWER
The clearance lights shall be LED.

QUESTION
Under Cab on Page 7: Seat driver, Bostrom Talledaga 915 air suspension. Our OEM no longer offers this specific manufacturer nor model; rather they install ACV branded seats which is the parent company who manufactures seats for many manufacturers. Will a ACV brand basic high back air suspension driver seat with mechanical lumbar and integrated cushion extension be considered an approved equal?

ANSWER
Yes, OEM high back air suspension driver seat is acceptable.

QUESTION
Under Warranties on Page 8: Please provide warranty information….. Is RIDOT expecting to receive only information on what’s available and the respective prices for each to be considered as options, OR are these itemized warranties suppose to be included in our bid submittal price as part of the package.

Page 8 of 29 Warranties
Replace this section with the following:

Warranties
Engine - The Engine shall have the standard manufacturer’s warranty extended for the period of 60 months/100,000 miles to include 100% parts, labor and other incidentals which are cover under the standard new vehicle warranty.
Engine After treatment system and EA Harness and sensors – 60 months/100,000 miles – 100% parts and labor
Chassis - The standard manufacturer’s warranty shall be extended for the period of 60 months/100,000 miles to include 100% parts, labor and other incidentals which are cover under the standard new vehicle warranty
Transmission – 60 months/no mileage limits – 100% parts and labor
No engine hour limitation in above warranties

QUESTION
Under Pre-Delivery Service: a complete RIDOT “Equipment Information” sheet. Can a preliminary copy of this document be provided so we know what specific information is expected?
ANSWER
This list is vendor specific and details all of the components proposed to meet the specifications.

QUESTION
Is the Force America TXV Delta 092 / 120 - 5800 PSI load sense pump considered an acceptable equal?

ANSWER
The Force America TXV Delta 092 / 120 - 5800 PSI load sense pump is acceptable to use as long as it is the correct size to meet the requirements of the complete hydraulic system.

QUESTION
Would the Force America Add-A-Fold 4020 sectional stacked manifold valve rated to 3500 PSI be an accepted equal?

ANSWER
The Force America Add-A-Fold 4020 is acceptable to use as long as it is the correct size to meet the requirements of the complete hydraulic system.

QUESTION
Would APSCO VM series air controllers carried by Force America be accepted as an equal?

ANSWER
The APSCO VM series air controllers carried by Force America is acceptable.

QUESTION
Is the Force America SSC6100 spreader controller considered an acceptable equal?

ANSWER
The Force America SSC6100 spreader controller is acceptable.

QUESTION
Page 12 Trip Edge Power Reversible Plow Specifications The upper portion of the polymer sheet shall be bolted to and sandwiched between 3” x 3” x ¼” and 3-1/2” x 3-1/2” x ¼” angles…. Our polymer sheet is sandwiched between 3.5” x 2.125” x .375” angle and 2.5” x 1” formed 10 ga sheet. Is this acceptable?

ANSWER
Yes

QUESTION
Page 12 Trip Edge Power Reversible Plow Specifications The bottom of the moldboard shall be reinforced by not less than a 5” x 5” x ½” angle. Our bottom of moldboard is supported by 4” x 3” x ½” angle. We use this size angle to minimize the overall moldboard thickness and allow adequate clearance for our spring adjusters. The moldboard design was optimized to use this angle. Is this acceptable?
ANSWER
Yes

QUESTION
Page 12 Cutting Edge Reinforcement Replaceable wear parts….and two (2) cast chilled malleable iron curb shoes. Will our #95001 curb shoe be acceptable? The #95002 shoe rod is ROUND,HR,1-1/4” and #95003 shoe plate is 1.5” A36 PLATE. Please refer to attached drawings.

ANSWER
Yes

QUESTION
Page 12 Reversing Frame and A-Frame Three (3) sets of ½” thick reinforced connecting lugs spanning 80” shall be welded to the 4” x 4” x 4/8” member of the reversing angle. These lugs shall serve as connection points to the moldboard. Our plow pushframe as six (6) sets of lugs for attachment to the moldboard over 96” width. This allows more distribution of impact of forces through more lugs allowing longer wear life.

ANSWER
This is acceptable

QUESTION
Page 12 Reversing Frame and A-Frame The rear plate….which incorporates 1 ¼” drive ears. Our drive ears are 1” thick. Is this acceptable?

ANSWER
The drive ears shall be 1 ¼”, 1” drive ears are not acceptable.

QUESTION
Page 12 Reversing Frame and A-Frame The sliding member…shall include a 1-15/16” diameter CRS pivot pin… Our pin is 1-3/4” diameter CR1045. Is this acceptable?

ANSWER
This 1-3/4” diameter pin is acceptable

QUESTION
Page 13 Reversing Frame and A-Frame The hydraulic reversible push frame….shall be via two (2) 3” diameter x 18” stroke single acting cylinders. Our cylinders are 2.875” x 10” or 3” x 10”. Are either of these acceptable?

ANSWER
The 3” x 10” cylinders are acceptable.

QUESTION
Page 13 Reversing Frame and A-Frame Cylinder protection shall be provided by the aforementioned spring retained sliding mechanism with a minimum 1 ¼” NiCroloy locking pin. Our pins are CR1045, 1” diameter. Is this acceptable?
ANSWER
This 1” diameter pin is acceptable.

QUESTION
Page 13 Hardware Plating Plow lift to include dead sheave leveling device with stainless steel cable. Will RIDOT accept our standard lift arm with lift chains in lieu of cable?

ANSWER
The lift arm with lift chains are acceptable.

QUESTION
Page 14 Dump Body – Capacity and Dimensions Corner posts will be 10 ga 304L stainless steel. Body shall be one piece construction for both the head board and side panels. Our body includes 7ga corner posts. Is this acceptable?

ANSWER
The 7ga corner posts are acceptable.

QUESTION
Page 15 Dump Body – Capacity and Dimensions The fenders will fully enclose and protect chassis frame mounted on-board liquid storage tanks minimum capacity of 130 U.S. gallons each tanks for total 260 U.S. gallons. Our ploy tanks will be 150 gallon for total of 300 gallon . Can the tanks be body mounted rather than chassis mounted?

ANSWER
The 150 gallon tanks are acceptable. They can be mounted to the body.

QUESTION
12 Page 15 Dump Body – Hoist Mailhot nitride top lift 3 state telescopic hoist “C” series Model CS-130-5-3 Mailhot has replaced this model with G4 135-5.7-3. Would RIDOT please accept/update specification?

ANSWER
The G4 135-5.7-3 is acceptable

QUESTION
Page 15 Dump Body – Hoist Cylinder stroke shall be 130” Stroke for new model hoist is 135”. Would RIDOT please update specification?

ANSWER
The 135” stroke is acceptable.
Solicitation Number 7590553

HEAVY DUTY DUMP TRUCKS W/DOUBLE WING PLOWS & ALL SEASON DUMP BODIES

Addendum Number 4

QUESTION
Page 15 Dump Body – Hoist Rear hinge diameter shall be 2 ½” Our rear hinge is 2” diameter solid 303 stainless steel pins. Is this acceptable?

ANSWER
The 2” diameter rear hinge pins are acceptable.

QUESTION
Page 15 Dump Body – Hoist The body to be equipped with a positive locking support brace integral with rear dump hinge. Our design will use separate body props versus the integral locking brace on rear hinge. Is this acceptable?

ANSWER
The separate body props are acceptable.

QUESTION
Page 15 Dump Body – Main Conveyor The removable main conveyor cover will be manufactured from 3/8” 2 ply high temperature rubber. Our conveyor cover is made from 3/16” AR400. Is this acceptable?

ANSWER
The 3/16” AR400 conveyor cover is acceptable.

QUESTION
Page 15 Dump Body – Main Conveyor The removable main conveyor cover will self-feed into place to allow fast and simple installation. Our design does not self-feed into place.

ANSWER
The 3/16” AR400 conveyor cover does not need to self-feed.

QUESTION
Page 16 Dump Body – Main Conveyor Drive and idler sprockets to be minimum eight-tooth cast steel. Our shafts are made of C1045. Is this acceptable?

ANSWER
The C1045 shafts are acceptable.

QUESTION
Page 16 Dump Body – Main Conveyor Planetary drive close coupled to main conveyor shaft. Would RIDOT consider the following language: Conveyor to be coupled to gearcase via keyway. Rear driveshaft to have one bearing opposite gearcase.

ANSWER
The proposed language is acceptable.
QUESTION
Page 16 Dump Body – Main Conveyor Conveyor change tension to be regulated via an automatic chain tensioning system. Our design does not offer automatic chain tensioning system. Manual adjustment via jackscrews is required. Is this acceptable?

ANSWER
The system shall be fabricated such that the chain stays in adjustment during operation. A detail of the system shall be submitted with the bid.

QUESTION
Page 16 Dump Body – Main Conveyor Underside of main conveyor to be complete with full length poly guard to prevent material spillage…. Our underbody guard / pan is made out of stainless steel. Is this acceptable? Can do poly cover on top of frame rails that is a pin on design.

ANSWER
The stainless steel underbody guard/pan is acceptable.

QUESTION
Page 18 Pre-Wetting System Hydraulic powered calcium pump mounted in a stainless steel enclosure… Would RIDOT accept a fiberglass enclosure ilo stainless steel?

ANSWER
Yes, a fiberglass watertight enclosure with stainless steel hinges and hardware is acceptable.

QUESTION
Page 18 Pre-Wetting System Poly tanks (one per side) shall be 230 gallons per tank. Our tanks capacity is 150 gallons per tank for 22 degree sides as documented in question #12.

ANSWER
The 150 gallon tanks are acceptable.

QUESTION
Under Ground Speed Oriented Hydraulic System.
Power take off :
Will REPTO engine mount Be direct mount or drive shaft
Will REPTO be supplied with Din mount D 5462 if direct mount
Will REPTO engine mount be shift able on/off
Hydraulic pto mounted pump :
Will BoschRexroth A18VO80 if Din mounting ; be acceptable with larger cc’s ( and comparable to a VP1-75 )
Will if Drive shaft mounted BoschRexroth A10VO74 31 series or larger be acceptable
Hydraulic valves :
Will Rexroth load sense M4-12series valve as supplied to RIDOT with 1 valve assembly with spool valves and electrical PWM actuators on one side for ease of service and smaller footprint of design BoschRexroth valves have multiple actuators on one assembly available Will RI Dot do field conversions on valve actuations (It is possible) would not be a sound hydraulic principal

Module 1:
BoschRexroth (inlet cartridge valves are not needed-----BR uses all in one M4-12 assembly (cartridge valves in inlet are not field convertible to mechanical or air ) field conversions of actuators are not usually necessary if valve is configured correctly and would not be a sound hydraulic principal BoschRexroth can do 16 sections

Mounting Choices:
Will work ports that exit the side of the behind the cab valve enclosure be acceptable (this design keeps fittings higher on chassis ).

Spreader Control:
Bosch Rexroth CS 550 will be compatible with existing controls and will transfer parameters between existing controllers if needed, and transfer data to Interfleet/Webtec . And all customer set programming options available, along with material compensation by road temperature, material usage on screen totals, and out of liquid material warnings. 9 programmed settings per material. All solid material will be controlled by conveyor sensor and calibrated in closed loop by lbs. per revolution of conveyor (true closed loop operation).

Will these trucks require closed loop gate hydraulics or just controller capable for future upgrade. Reservoir/valve Compartment
Will the BoschRexroth CSVTM S/S valve /tank enclosure be acceptable that has pivot and/or easily lift off door design and 2 latches (not one) as has been supplied to the RIDOT .

ANSWER
BoschRexroth hydraulic pump, valves, controls and enclosures are acceptable to use as long as they are the correct size to meet the requirements of the complete hydraulic system. The hydraulics shall be sized to operate all the system component functions simultaneously throughout the operating range of the truck’s engine.
Solicitation Number 7590553
HEAVY DUTY DUMP TRUCKS W/DOUBLE WING PLOWS & ALL SEASON DUMP BODIES

Addendum Number 4

Page 24 of 29 CUSTOMER SERVICE
Add the following:

The chassis manufacture and upfitter are responsible for providing on-site service if they or an authorized service center are located outside a 50 mile radius from Warwick.

Upfitter Customer Service Representative  ____________________________________________

Upfitter Customer Service Representative Contact Number _____________________________

Upfitter Service Representative  ______________________________________________________

Upfitter Service Representative 24/7 Contact Number  ________________________________

Comply _____

Page 2 of 29 General Scope of Work

Add the following:
Manufacture cut sheets and dimensioned line drawings for the proposed body, plow components, and enclosures shall be submitted with the bid package. The details for the hydraulic system shall be submitted to demonstrate that it has been sized properly.

Reminders:

Page 2 of 30 General Scope of Work Note: Any manufacture’s deviation from the specification, no matter how minor, shall be noted on a separate sheet and be referenced to the section. The deviation shall be explained in detail and identified as an Exception, Clarification or Enhancement.

Page 26 of 29 CONCLUDING STATEMENTS: Note: All bid packages shall be submitted in duplicate including all cover sheets, responses and supporting documentation.