

Grant County
PUBLIC WORKS DEPARTMENT

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Sealed bids will be received for the following items:

Dump Trucks
2015

Bid Opening At:

1:45 PM
April 21, 2015

At the
Office of the
Board of County Commissioners
Grant County Courthouse
P.O. Box 37
35 C Street NW, Room 207
Ephrata, Washington 98823

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INFORMATIONAL COPY ONLY- NOT FOR BIDDING PURPOSES

NOTICE TO EQUIPMENT DEALERS

Sealed bids, plainly marked "**Bid for Dump Trucks 2015**", will be received by Grant County at the Office of the Board of County Commissioners located in the County Courthouse, 35 C Street NW - Room 207, P.O. Box 37, Ephrata, WA 98823, until **1:45 PM, Tuesday, April 21, 2015**, and will then and there be opened and publicly read for furnishing and delivering:

<u>Item#</u>	<u>Quantity</u>	<u>Description</u>
15-11	3	455 Hp Chassis & 14 cy Dump Body w/ 12' two-way Plow and Body/Tailgate Sander

Informational copies of the proposal and specifications are on file with the County Engineer in the Grant County Public Works Building, 124 Enterprise St. SE, Ephrata, WA 98823.

Any bidder offering new equipment shall include in their proposal an offer to purchase the trade-in equipment. The County assumes the new equipment bidder's trade-in offer is a part of the bid including the new equipment. The bidder's trade-in offer will only be considered separately if the bidder grants permission to the County to consider their trade-in offer separately.

Any person or company may make an offer to purchase the trade-in equipment independent of a bid on the sale of the new equipment. Such offers shall be made on forms provided by the County. The bidders are advised that mileage/hours will continue to accumulate at the current usage rate until replacements vehicles are upfitted, delivered, and put in service. The County is offering the following trade-ins:

Trade-Ins:

<u>Unit #</u>	<u>Description</u>	<u>Dept. /Dist.</u>	<u>Color</u>	<u>VIN</u>
1280	1999 Sterling LT-9511 Dump Truck	Road District 1	Red	2FZNNSYB1XAA76131

Truck consists of a CAT 3406E-355 SAE net HP engine, Fuller RTLO-14713A 13 speed transmission, 20,000 lb. front axle, 46,000 lb. tandem rear axle, 54,780 lb. GVWR, Crankshaft mounted PTO and pump @ 35 gpm at 2000 rpm, 100 gallon fuel capacity, Heil 14' 10-12 cy dump body w/ hoist, Henke Expressway reversible plow, and Hi-way 10 cy Body Sander. This truck is currently in-service and has 235,968 miles as of 3/25/2015.

The chassis, dump body, sander body, and plow may be inspected at the Grant County Road District 1 Shop at 124 Enterprise St. SE, Ephrata, WA. Monday thru Thursday between 7:00 am and 3:00 pm by calling (509) 754-6082 and asking for Steve Hill.

<u>Unit #</u>	<u>Description</u>	<u>Dept. /Dist.</u>	<u>Color</u>	<u>VIN</u>
3680	1997 Ford LT9000 Dump Truck	Road District 3	Red	1FDYU90W5VVAD5233

Truck consists of a CAT 3406E engine, Fuller RTLO-14713 13 speed transmission, 20,000 lb. front axle, 46,000 lb. tandem rear axle, 54,600 lb. GVWR, Crankshaft mounted PTO and pump @ 35 gpm at 2000 rpm, 100 gallon fuel capacity, Critzer 10-12 cy dump body w/ hoist, Henke Expressway reversible plow, and Hi-way 10 cy Body Sander. This truck is currently in-service and has 231,786 miles as of 3/25/2015.

The chassis, dump body, sander body, and plow may be inspected at the Grant County Road District 3 Shop at 13766 Rd. E-SW, Royal City, WA. Monday thru Thursday between 7:00 am and 3:00 pm by calling (509) 346-1620 and asking for Jason Collings or by calling (509) 787-2321 and asking for John Brissey.

<u>Unit #</u>	<u>Description</u>	<u>Dept. /Dist.</u>	<u>Color</u>	<u>VIN</u>
3690	1997 Ford LT9000 Dump Truck	Road District 3	Red	1FDYU90W0VVA05592

Truck consists of a CAT 3406E engine, Fuller RTLO-14713 13 speed transmission, 20,000 lb. front axle, 46,000 lb. tandem rear axle, 54,600 lb. GVWR, Crankshaft mounted PTO and pump @ 35 gpm at 2000 rpm, 100 gallon fuel capacity, Critzer 10-12 cy dump body w/ hoist, and Henke Expressway reversible plow. This truck does not come with a sander body or pintle hitch. This truck has been put out of service due to heavy blow-by. Truck runs but will need engine overhaul. The truck has 232,742 miles as of 3/25/2015.

The chassis, dump body, and plow may be inspected at the Grant County Road District 1 Shop at 124 Enterprise St. SE, Ephrata, WA. Monday thru Thursday between 7:00 am and 3:00 pm by calling (509) 754-6086 and asking for Darrell Doolittle.

All equipment is offered "AS IS, WHERE IS". Prospective buyers may view the equipment at the convenience of the operator. Please call the department to make arrangements to inspect the vehicle. All in-service equipment is operating and currently in-service.

The Board of County Commissioners reserves the right to reject or accept any or all portions of the bids received.

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INSTRUCTIONS TO BIDDERS

- 1) Sealed bids, plainly marked "**Bid for Dump Trucks 2015**", will be received by Grant County at the Office of the Board of County Commissioners located in the County Courthouse, P.O. Box 37, 35 C Street NW - Room 207, Ephrata, WA, 98823, until 1:45 PM, April 21, 2015, and will then and there be opened and publicly read for the construction of the improvements.
- 2) The Bidder may submit a bid on any or all items listed. If the Bidder does not wish to bid any particular item or items, please write "**NO BID**" on the appropriate proposal sheet.
- 3) Multiple bids for the same item may be made by the Bidder. Please copy the appropriate proposal sheet(s) for the item(s) to be bid with more than one model. The proposal for each item bid must be completed. Please number the proposal sheet accordingly.
- 4) The proposal must be completed and the proposal signature sheet must be signed.
- 5) An informational copy of the contract is provided to the Bidder. Please read it but do not sign it.
- 6) All exceptions or changes to the specifications must be shown on the proposal sheet(s) in the space provided or attached to the proposal sheet.
- 7) The Board of County Commissioners reserves the right to reject or accept all or part of the proposal submitted by the Bidder.
- 8) Bidders are advised that the unit price bid for each new item will be compared with current State or public agency contract prices for similar vehicles. After said comparison the County may reject or accept all or part of the proposal submitted by the Bidder and purchase items directly from the State or other public agency contracts.
- 9) Trade-in equipment is offered for sale in this contract. Bidders offering new equipment are required to make an offer on the trade-in equipment listed, but can choose to restrict their offer to the award of the contract. Interested parties that are not offering new equipment may submit a bid for one or more trade-in equipment listed. A 5% bid security is required for offers made on all trade-ins from bidders not offering new vehicles or equipment. Although no minimum bids are reserved the County will compare trade-in offers to reliable publications or other sources.
- 10) Interested parties bidding for trade-in equipment only are required to post a 5% deposit based on the bid amount offered for the equipment. The deposit will be held until the purchaser provides the whole amount for all vehicles awarded to the high bidder. If the purchaser fails to pay the awarded vehicles within the allotted time, the deposit shall be forfeited to the County.

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PROPOSAL – PART I

(For New Equipment Dealers)

General Conditions

1. The attached specifications are for the purpose of providing details regarding the type of product desired by Grant County. Equal or similar product from reputable manufacturers and suppliers are permitted. Grant County shall be the final determiner of product equivalence.
2. Bidders interested in providing bids for new equipment must complete and return Part I of this proposal.
3. The Bidder has 15 days from the date of award to sign and return the contracts. Failure to sign and return the contracts may result in the loss of the contract to the Bidder. No performance bond is required for this bid.
4. Grant County shall pay state sales and use taxes on all products purchased. The Bidder shall not include taxes in the bid price and shall show state sales taxes as a separate item in the space provided.
5. Grant County is a political subdivision of the State of Washington and is exempt from paying all Federal excise taxes. The Bidder shall furnish Federal excise tax exemption certification when applicable. All other taxes and costs of business shall be borne by Bidder and included in the base price offered.
6. The bidders are advised that mileage/hours on used equipment will continue to accumulate until replacement vehicles/equipment are upfitted, delivered and put in service.
7. All products shall conform to applicable Federal and State safety and health laws, rules and regulations.

Bid Evaluations

Bid evaluations shall include, but not be limited by, the following criteria:

- * Price (*may include life cycle*)
- * Conformance to specifications
- * Quality of product
- * Prompt service and parts availability
- * Training
- * Bidder's previous contact experience
- * Public's best interest.

Submission to be included with the Bid Proposal

Bidders are advised to submit the following with each bid item:

- * Descriptive literature.
- * Complete operating dimensions and sketches of the proposed unit.
- * Complete information detailing engine accessories, transmissions, frame, axles, electrical components, cab, differentials, drivelines, hydraulic systems, and appurtenances for each unit bid.

The Bidder may submit any other information that may assist Grant County in evaluating the bid.

Full Service Facility

A full service facility is defined as the location with spare parts available to Grant County within 24 hours from 8:00 AM to 5:00 PM, Monday thru Friday.

Warranty

The Bidder must state the warranty period(s) on all items bid or portions of each item. Grant County may require a minimum warranty period. Within the warranty period the successful Bidder shall replace all parts and perform all repairs which are required or made necessary due to defective design, materials, workmanship, or non-conformance with the specifications. Unless otherwise noted, the Bidder shall perform all warranty repairs at the Bidder's place of business. All repairs shall have the warranty reinstated for the remaining period.

Operator, Parts, and Service Manuals

The Bidder shall furnish operator's manuals, service manuals and parts manuals as specified in the proposal. Manuals must be delivered to Grant County before product delivery is considered complete.

Delivery, Inspection and Acceptance

All equipment shall be new and the manufacturer's latest model. All standard equipment shall be furnished with the unit. The unit and mounted equipment, if any, shall be serviced, comply with all specifications, and be in full working order for the purpose it was designed at the time of delivery. **Grant County will accept delivery between the hours of 8:00 AM to 3:30 PM, Monday thru Thursday only.** Unless otherwise noted, deliveries shall be F.O.B., Freight and Insurance Prepaid and included, to Grant County. The Bidder will be required to obtain a delivery address within Grant County, Washington, and the time from the County Engineer, or his designated representative, for each piece of equipment. The Bidder, or his representative, is requested to be present at the time of delivery.

Supplier(s) shall provide the following documents for review at time of delivery for each item.

- * The manufacturer's line production sheet stating the equipment serial and identification numbers and listing all of the equipment's components. (Maroni sticker)
- * Completed Invoice.
- * The Manufacturer's Statement of Origin (MSO).
- * Axle weights slips (for all units with axles).
- * A completed Washington State title application showing both the legal and registered owner as:
Grant County Public Works, 124 Enterprise St. SE, Ephrata, WA 98823. The mailing address is the same. Out of state Supplier(s) may contact Grant County, Financial Administration Office at (509) 754-6082 to obtain a Washington State title application.

Training

1. The Bidder and manufacturer's representatives must be able to provide sufficient training to Grant County personnel to operate service and repair the equipment. The training shall occur in Grant County. Training shall include all labor, equipment, materials, tools, travel and other expenses needed to provide a complete service. The Bidder may show a minimum number of training hours for each category. Failure to offer any training will be a consideration in the bid evaluation process.
2. The Bidder shall state the number of hours and the cost per hour for each category of training on the proposal form in the space provided.
3. Training is an additive cost to the contract. The Bidder shall not include training costs in the base bid of the proposal. Grant County is not obligated to use the training offered by the Bidder, however, should Grant County desire to utilize the training programs offered those cost will be added to the contract.

Late Delivery

No penalty for late delivery will be assessed against the bidder. However, the Bidder is advised that the failure to deliver the equipment before the promised date will be a consideration used at succeeding bid proposal evaluations.

Trade-ins

Grant County is not obligated to accept any trade-in offer and may accept new equipment bid without the required trade-in offer. The trade-in offer itself will be considered to be a part of the whole item and will not be considered separately unless the bidder checks the appropriate line. Bidders, wishing to bid for trade-ins only to be considered separately should complete and sign part II of this proposal and provide a 5% security deposit. No security deposit is required for bidders bidding new equipment and offering trade-in values in Part I of this proposal.

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PROPOSAL Bid Item No. 1

BID ALTERNATE # _____

Furnish and Deliver

	<u>Quantity</u>	<u>Unit Price</u>	<u>Amount</u>
Truck chassis with Equipment Package, 12-14 CY Dump Body, 12' Two-way Snow Plow, and 10 CY Body Sander.	2	\$ _____	\$ _____
Truck chassis with Equipment Package, 12-14 CY Dump Body, 12' Two-way Snow Plow, and Tailgate Sander.	1	\$ _____	\$ _____

(F.O.B. Grant County, WA)

Trade-in #1280 (\$) _____
 Trade-in #3680 (\$) _____
 Trade-in #3690 (\$) _____

Note: Bidder agrees to let the County consider trade-in offers separately.

Yes _____ No _____ (Please Check One)

Subtotal \$ _____
 % SST \$ _____
Total Bid \$ _____

Equipment price including install sold individually:

(Sales Tax Not Included)

(F.O.B. Grant County, WA)

Truck Chassis \$ _____
 12-14 CY Dump Body \$ _____
 12' Two-way Plow \$ _____
 10 CY Body Sander \$ _____
 Tailgate Spreader \$ _____

Extended Purchase Options:

(The bidder is requested to provide extended purchase order information. If no extended purchase bid is offered, please write NO BID in the spaces shown)

Please list final order date for 2015 model purchase orders:

Truck Chassis: _____
 12-14 CY Dump Body: _____
 12' Two-way Plow: _____
 10 CY Body Sander: _____
 Tailgate Spreader: _____

Please list the additional amounts for purchases requested after the final order date listed above and on or before March 15, 2016:

Truck Chassis \$ _____
 12-14 CY Dump Body \$ _____
 12' Two-way Plow \$ _____
 10 CY Body Sander \$ _____
 Tailgate Spreader \$ _____

Bidder is required to provide the following information:

Make and Model Cab/Chassis:	_____	Delivery: _____ (After receipt of order)
Warranty Period (engine):	_____	
Warranty Period (transmission):	_____	
Warranty Period (cab/chassis):	_____	
Make and Model Dump Body:	_____	Delivery: _____ (After receipt of order)
Warranty Period :	_____	
Make and Models Snow Plow:	_____	Delivery: _____ (After receipt of order)
Warranty Period:	_____	
Make and Model Body Sander:	_____	Delivery: _____ (After receipt of order)
Warranty Period:	_____	
Make and Model Tailgate Sander:	_____	Delivery: _____ (After receipt of order)
Warranty Period:	_____	

Alternate Bid per specifications found in appendix #1
(NOTE: Extended purchase options to apply to Alternate Bid)

12-14 CY Dump Body

		Quantity:	\$
Make and Model Dump Body:		Delivery:	
Warranty Period:		<i>(After receipt of order)</i>	

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Transmission

Base Transmission: Eaton Fuller RTLO-16918B 18-speed overdrive manual transmission	
Option 1 Transmission: Eaton Fuller FO-16E318BMP18-speed Ultra-shift Plus automated transmission (Please show added cost for this option)	\$
External transmission oil cooler, frame mounted	
Transmission leaf spring support	
Magnetic fill/drain plugs	
Eaton Fuller 15-½" clutch, manual adjustment, 1,650 ft-lb, cast iron housing	
Full warranty period, please state in time and mileage	
Additional cost for full five (5) years transmission warranty	\$

Frame, brakes, axles, suspension and tires

Steel frame and insert per manufacture's design for vocational Class 8 severe duty use. Please list base frame, options with price changes	
24" integral front frame extensions	
16.5" x 6" front cam brakes with dust shields, cast iron drums, auto slack adjusters, wet-type oil seals	
16.5"x7" rear cam brakes with dust shields, cast iron drums, auto slack adjusters, oil seals	
Anti-lock brake system Wabco 4 sensor/4 modulator with trailer warning light	
Spring actuated emergency brakes effective on rear axles and capable of holding fully loaded vehicle on 10% grade	
20,000 lb. front axle	
18,000 lb. front leaf suspension with double-acting shock absorbers	
22.5 x 9.00 front steel wheels, white, 10 hole hub-piloted	
315/80R 22.5L 20 ply (9000 lb. single load) radial front tires	
Michelin XZY-3 or other brand equivalent	
No additional front spare tire and wheel required	
46,000 lb. rear axles	
52" rear axle spacing	
46,000 lb. rear suspension, Hendrickson RTE 463 with shock absorber kit	
22.5 x 8.25 RR steel wheels, white, 10 hole hub-piloted	
11R22.5G 14 ply (5,850 lb. dual load) rear tires, Michelin XDE or other brand equivalent, 8 tires	
No additional rear spare tire and wheel required	
4.30 rear axle ratio. Magnetic traps and drain/fill plugs	
Driver controlled differential lockup, both axles on tandem	

Chassis Equipment

Area between chassis frame rails and from the back of cab to 48" rearward of back of cab must remain clear of all air tanks, oil coolers, hydraulic systems (except behind the cab reservoir, etc., to provide access for sander discharge chute)	
One 100 gallon fuel tank mounted on driver's side of truck, two full length slip-resistant steps on fuel tank for access to cab. Two 50 gallon tanks w/steps acceptable	
One 23 gallon diesel exhaust fluid tank	

Single bright chrome vertical exhaust stack, curved top, stainless steel shield, mounted passenger side of cab, 11'± high, muffler mounted horizontal. Coordinated installation with dump body half-cab protector	
Air lines for trailer towing including glad-hands, not mounted	
Trailer cable, J560 7-pin receptacle, center pin powered thru ignition, not mounted, incl. chassis power distribution module	
HD steel front bumper, painted black	
Bumper mounted tow hooks	
License plate mounting bracket on bumper	
Mount front mud flaps to chassis and splash guards on hood. (Black)	
Mount rear mud flaps to chassis frame, fore and aft of tandems. (Black)	

Cab Equipment - Exterior

Cab vibration isolation and sound suppression package	
Dual air horns, electric horn	
LH/RH extended grab handles	
Bug screen, grille mounted	
Doors and ignition keyed alike, provide three sets per truck	
Provide and install high-mounted headlights, turn signals and side markers to offer visibility above a mounted snow plow. High mounted headlights, turn signals and side marker lights shall be mounted on the truck chassis (remain with the truck when plow is removed). Chassis bidder to provide switch and wiring for high-mount headlights, turn signal and side marker lights used above snow plow. Provide receptacle on hood near tilt pin, allowing for hood tilt and hood removal. Wiring shall be sealed and weather proof (Weather Pak or equivalent).	
Switch w/indicator lamp and wiring for utility lights behind cab, provide receptacle and light on back of cab	
LED stop/tail/turn signal and backup lights w/ sealed connectors	
LED side and top of cab marker lights switched through chassis circuits	
Stainless steel auxiliary mirrors, 8", mounted below primary	
Stainless steel mirrors, 16" x 8", heated, RH remote controlled	
Rear cab windows	
Corner cab windows	
Passenger side lower door window	

Cab Equipment - Interior

Factory installed air conditioning/heater/defroster systems	
Tinted windows	
LH/RH door trim with storage pockets for operator's manual and log book	
AM/FM/CD radio w/ audio input	
Install County supplied ICOM F5011 two way radio, coax cable, and antenna. Radio to be mounted in overhead console or approved location	
Bluetooth for hands-free cell phone use, wired through sound system (customer to provide phone)	
All standard analog system gauges, warning lights and chimes (attach list)	
All digital monitoring and diagnostic systems, warning lights and chimes (attach list)	
Fuel level gauge	
Diesel exhaust fluid gauge	
Hour meter	
Outside air temperature gauge	
Backup alarm	

Six (6) extra 12 volt circuits with dash mounted switches with indicator lamps (up-fitter switches)	
Marker lights and headlights switch with separate interrupter terminals and lighted switch for snow plow lights	
Auto self-resetting circuits breakers	
Wiring schematics	
Convenience lighting group	
Rubber floor mats	
Two cup holders with size inserts	
Air suspension driver's seat, HD cloth, with retractable dual armrest, adjustable position and height with adjustable lumbar support, 3 point seat restraint system	
Vinyl passenger bench with largest available tool box	
5# Type ABC fire extinguisher mounted in cab	
Telescoping steering wheel with tilt	
Cruise control	
18" cushioned steering wheel	
LH/RH sun visors	
Trailer brake hand control valve	

Color

Color: Exterior – Imron Color Code N2225 (Candy Apple Red)	
Interior – Dark Gray Preferred, Manufacturer's standard for all other components that are not rubber, aluminum or bright finished.	

Standard Equipment and Warranty

All factory standard equipment and warranties including: (3) parts books, (3) shop service/repair manuals, (3) diagnostic manuals, and (4) operator's manuals for the entire order shall be furnished at the time of delivery. Manuals furnished on CD are acceptable.	
Full 12 month service and repair warranty for cab/chassis	
List other factory standard equip. warranties or attach literature	

Nearest service outlet for engine warranty repairs:

Company: _____ Contact: _____
 Street: _____ Phone: _____
 City: _____ Fax: _____
 State: _____ Zip: _____ Email: _____

Proposed customer training:

Operator: _____ Hrs @ \$ _____ /Hr
 Service: _____ Hrs @ \$ _____ /Hr
 Mechanical: _____ Hrs @ \$ _____ /Hr
 Location: _____

Nearest service outlet for transmission warranty repairs:

Company: _____ Contact: _____
 Street: _____ Phone: _____
 City: _____ Fax: _____
 State: _____ Zip: _____ Email: _____

Proposed customer training:

Operator: _____ Hrs @ \$ _____ /Hr
 Service: _____ Hrs @ \$ _____ /Hr
 Mechanical: _____ Hrs @ \$ _____ /Hr
 Location: _____

Nearest service outlet for cab/chassis warranty repairs:

Company: _____ Contact: _____
 Street: _____ Phone: _____
 City: _____ Fax: _____
 State: _____ Zip: _____ Email: _____

Proposed customer training:

Operator: _____ Hrs @ \$ _____ /Hr
 Service: _____ Hrs @ \$ _____ /Hr
 Mechanical: _____ Hrs @ \$ _____ /Hr
 Location: _____

Dump Body Specifications

The selected bidder is expected to furnish, install, and deliver a dump body and special hitch plate with all required controls and hydraulic systems for dump body, hitches, plow, wing, and sander. The dump body must be dismountable. **NOTE:** The successful bidder will provide a “pre-build” meeting at Grant County Public Works, Ephrata, WA where the bidder’s technicians responsible for the final assembly of the completed trucks will meet with Grant County personnel to confirm location of mounted equipment and demonstrate a complete understanding of the County’s requirements.

General	List specifications, models & cost changes
2015 model year dump body	
15' 6" ft. box length, 7 ft. box width 34"± sidewall height, 42" tailgate height to provide 14 cy capacity (with side boards)	
8 gauge one-piece high tensile steel sidewalls and headwall. Flanged top rail and sloped braces. Gussets for 3" wide side board extensions (Sideboards not included)	
1/4" thick AR400 180,000 PSI tensile strength abrasion resistant steel floor supported with 4" structural channel steel full width one piece cross-members interlaced on 12" centers through 12" trapezoidal longitudinal members constructed of 8 gauge. "Domex" 100,000 PSI tensile strength steel. The under-structure to include factory installed 4"x8"x1/4" wall "fork-lift tubes" that will allow the body to be lifted from the side. Location of tubes to be on 54.5" centers such as to provide lift at the center of gravity of body including the weight of the hoist cylinder and cylinder mounting brackets.	
Factory provided engineering drawings and build sheet of the dump body to be provided at time of bid. Failure to provide drawing & build sheet will invalidate bidder's response. No exceptions.	
8" radius knee braces on sidewalls & front (excluding doghouse)	
10 gauge x 24" steel half-cab protector, 1:12 slope toward box, 2" lip on edges. Provide cut-away for vertical exhaust	
Box mounted with a 12" min. overhang beyond chassis frame	
3/16" AR400 steel sloping tailgate with three (3) horizontal braces to form double wall construction and spreader chains.	
Asphalt tailgate (drawing to be provided with bid, NO exceptions)	
Air-actuated tailgate release/capture with cylinder, switch mounted on control console with position indicator.	
Doghouse to be approx. 14" sq. to accept an inverted hoist cylinder	
Seven (7) slip resistant bar steps (four outside/three inside) and one vertical extended hand hold welded to box providing ingress & egress to box by driver's door	
Tire chain hooks, four each side	
Bidder is to provide and install a 12 ga. powder coated steel toolbox on the driver's side of the chassis approximately 24" long x 14" tall x 14" deep.	
All hoses required to make the truck fully functional are to be supplied by the successful vendor. Hoses are to be the appropriate size and SAE rating for the functions being operated. All high pressure functions to be plumbed with a minimum of SAE 100R2 hoses. All hydraulic fittings are to be of steel (black pipe not acceptable). JIC or O-ring fittings are to be used over pipe fittings where possible. Wherever possible, 45 degree fittings are to be utilized in place of 90 degree elbows	
Hoses are to be secured in place with rubber cushioned mechanical fasteners, not "zip tied" to existing electrical lines or hoses.	
Hoses to be protected with wrap where chafing may be an issue.	

All hydraulic, and electrical lines linking sander body to chassis shall be quick disconnect design with dummy plugs to aid in removal of the sander body. Electrical connections shall be Weather Pak or equivalent.	
36 month at 100% service and repair limited warranty for dump body and hoist plus an additional 24 months at 50% service and repair limited warranty on the dump body and hoist. Copy of manufacturer's warranty to be provided with bid response.	
Color: Imron Color Code N2225 (Candy Apple Red)	
Selected bidder shall pick up the truck chassis from a Grant County specified location and install the dump body, special hitch plate, air and hydraulic systems in substantial compliance of the specifications and plans.	

Lighting

List specifications, models & cost changes

All lighting shall be L.E.D. including oval stop/tail/turn lights, rear oval amber programmable strobe lights activated with beacon switch, and round side and rear marker lights. All lights housed in rubber shock resistant containers and have sealed connectors (Weather Pak or equivalent) at the lights. All lights to be FMVSS 108 compliant.	
Whelen L31-HAF Super LED 360 Degree Beacon attached to half-cab protector. Use available chassis up-fitter switch, provide required fuse (not circuit breaker), connect highest pulse flash pattern w/high intensity feature, Wiring encased in non-rusting conduit. Sealed connector (Weather Pak or equivalent) at beacon for easy replacement.	

Rear Hitch Plate

List specifications, models & cost changes

Premier Model 370A air-actuated pintle hitch when parking brake is released.	
Rear hitch plate shall have a round 4 pin auxiliary receptacle mounted for pup trailer tailgate trip (Only one wire used), 7 pin trailer receptacle, and 2 D-rings used for safety chains installed.	
Hitch plate and drawbar to be built in substantial compliance with the attached plan. Hitch design to be confirmed at the required pre-build meeting	
All hydraulic connections must terminate with quick disconnect flush face (minimum spill) couplers and must be clearly and permanently labeled. See attached plan for Parker part numbers for 3/4" and 1" flush face quick couplers. At the hitch mount male couplers on the supply side (driver side) and female couplers on the return side (passenger side).	
All hydraulic connections must terminate with quick disconnect flush face (minimum spill) couplers must be clearly and permanently labeled. Couplers must meet following specifications: 1/2" male/female-Parker FF-502-8FP/Parker FF-501-8FP 3/4" male/female-Parker FF-752-12FP/Parker FF-751-12FP 1" male/female-Parker FF-1002-16FP/Parker FF-1001-16FP	

Hoist

List specifications, models & cost changes

Crysteel Marathon Model M63138 three stage front mounted hoist, or approved equal, with 12" overhang (end of frame), 38 ton lift capacity, 50 degree dump angle, hydraulic feed lines at base of cylinder, to be equipped with auto-bleed system that evacuates air from the hydraulic oil with each cycling of the hoist, air bleed valves not acceptable. Slow elevation and return speeds will not be acceptable. Time allowed for for bed to return is 17 seconds or less at 70°F.	
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Mounted hoist frame and bolts must be independent from mounted frames and bolts for battery box, valve platform, and hydraulic tank. Mounted hoist frame must bolt to top of angle steel bolted to outside truck frame. Hoist frame to be set up to be lifted from truck with dump body. Mounting brackets inside of chassis frame rails will not be acceptable because of conflicts with body sander discharge chute.

Hydraulics and Controls

List specifications, models & cost changes

The purpose of these specifications are to describe a complete hydraulic system and controls for the operation of a severe service municipal truck. The products specified by name and model number have been chosen to perform together as a complete unit and the hydraulic system will be purchased as a complete system for warranty accountability. Exceptions may be bid if noted but it is the agency's decision to determine if they are considered equal to the specified product. Any exceptions must be noted by model number and complete performance literature must be included for comparison or the offering will be considered as non-responsive.

Valve functions to be as follows:

1. Single Acting Hoist for a Dump Body; PVG100 section
2. Single Acting Hoist for a Towed dump trailer; PVG100 section
3. Plow raise with plow balance. PVG32 (Plow raise must have DA cylinder)
4. Plow Shift PVG32
5. Wing Toe PVG32(Raise 7gpm nominal) Hydraulic circuit to be capped at enclosure for future installation.
6. Wing Heel PVG32(Height 7gpm nominal) Hydraulic circuit to be capped at enclosure for future installation.
7. High Flow Conveyor PVG32 (24gpm nominal) for a sander.
8. Spinner PVG32 (7gpm Nominal) for a typical body/tailgate sander.
9. Proportional tool circuit (PVG32 section, spool size to be determined) plumbed to the back of the truck with Switch enable for hydraulics associated with towed equipment (Powered flat deck trailer etc.)

The system must include a "Panic Mode" designed as an integral function of the control software and intended to automatically retract joystick functions selected at the prebuild meeting to a user settable trim value (final setup and calibration will occur at the user orientation training following delivery)

Certified Power Solutions "Plow balance system" mounted external to the valve enclosure (no exceptions).

Certified Power Solutions Valveguard 304 stainless steel valve enclosure. Series MTEA xxxxxxxx (No exceptions) mounting side to be street side. The valve enclosure must be of weather-tight design and utilize a gasket to seal the lid to the body of the unit. Lid shall be retained by two rubber fasteners. Handles (two) shall be welded to the lid and constructed of stainless steel.

The hydraulic pump will be a variable displacement piston pump with load sensing control and must be NON-Proprietary. Pump to feature covered separate adjustments for stand by and main pressure. Compensator setting to be 2000 PSI. Pump construction to feature a flanged two piece drive shaft to promote long term reliability. Pump displacement to be 100 cc/rev. Pump to be a Danfoss model 45. Access to the front engine pump drive shall be below the vehicle's radiator. The pump shall be attached to the front engine by means of a tubular driveline. (No exceptions)

Pump shall have a minimum 2.5" suction, 1" pressure line, and a 1/2" drain line plumbed directly back to the reservoir.	
Certified Power Solutions "Low oil and hot oil shutdown system" SG04090016 (or current model) for protection of the front mounted hydraulic pump. (No exceptions)	
Body up, and dump angle limit are to be environmentally sealed proximity switch with M12 electrical connections and will be configured to illuminate appropriate indicator lights on the console. Body limit will be configured to limit hoist up travel.	
50 Gal Behind the cab hydraulic reservoir with a sight gauge, temperature sensor, low oil float sensor. Sensors will appropriately connect to in-cab indicators and the pump protection system. The reservoir will be constructed of 10 gauge powder coated steel and installed with a spring loaded cradle.	
10 micron (beta 1000) hydraulic return line filter rated at 60 gpm. Suction strainer and a filler breather cap that includes a steel strainer basket	

Control Console

List specifications, models & cost changes

Certified Power Solutions SG41xxxxxx series 4 stick control console. (No exceptions)	
Stick arrangement left to right. DA plow functions, DA wing functions, SA hoist functions, SA PUP hoist functions. (No exceptions)	
Operator panel to be located top left	
Indicator lights shall include hot hydraulic oil (Hot Oil), low hydraulic oil (Low Oil), dump body raised (Box Up), and dump body limit (Box Limit).	
Touchguard 6 button panel to be located top right. (Backlit switches change color when activated. (Light blue to red) Touchguard to include bump protection (SG07070160). Switches are as follows: 1. Tailgate 2. Pup trailer tailgate 3. Tool circuit 4. Plow balance enable 5. Momentary low oil/hot oil override (top right button) 6. Momentary panic button	
Standard base assembly SG0707xxxx with upright tube and armrest.	
Weld ring for horizontal vibration bracing to be included should sub floor structure prevent solid mounting.	
Certified Power Solutions XDS CANbus proportional electric control system as detailed in the attached XDS specification document. (No exceptions.)	

Directional Control Valve Manifold

List specifications, models & cost changes

The directional control manifold will be constructed of Non-Proprietary, Danfoss PVG32/PVG100 Load sensing sectional valves of the cast iron modular type used in mobile construction equipment. Hoist must use appropriately sized PVG100 valve sections and be installed in the valve bank as one complete valve assembly. Critical functions like "Box Down or Hoist Down" must have the ability to descend rapidly, while retaining the safety of precise control and variable operational speed of proportional electric valve systems. Systems which open parallel flow paths, to bring the hoist down, are unacceptable for this application.	
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<p>The valve must be constructed so that all ports are on the same plane, allowing the valve to be mounted against the bottom of the valve enclosure on a removable valve mounting plate which is sealed with a gasket, preventing contaminate ingress into the enclosure. No hoses may penetrate the enclosure, and all hose connections are to be made directly to the fittings which extend beyond the valve mounting plate into the valve body itself.</p>	
<p>The directional valves must be compact in design and installation and withstand temperature extremes of -22°F to 140°F ambient temperature, and tolerate oil cleanliness standards to maximum of 23/19/16 per ISO 4406. The load sensing shuttle network will be internal to the valve assembly.</p>	
<p>Valve sections must exhibit load independent flow characteristics of load sense circuitry and the valve will be rated to a maximum continuous pressure of 5075 PSI in the main body and 3000 PSI in any aluminum auxiliary manifolds.</p>	
<p>Valve functions must use proportional electric operators which utilize amp junior electrical connections, and include manual override and mechanical spool stops as standard in Danfoss PVG32 proportional electric valve operators.</p>	

Hydraulic Control System

List specifications, models & cost changes

<p>The intent of this specification is to describe a complete control system that operates on a CAN-Bus. The system communicates over a CANopen bus system using CANopen protocol. Systems that use a proprietary communication protocol are not acceptable. (Certified Power XDS System Preferred)</p>	
<p>The system shall consist of four primary modules that reside on the CANbus and allow flexibility in mounting configurations. The system is completely expandable and allows for additional modules to be added to the CANbus. All four primary components of the system are software shall be upgradeable. The configuration file of a calibrated system can be saved for transfer to other systems or as a backup providing the ability to use a specific configuration for varying vehicle use or operator skill level. The configuration file will be accessible by a USB port located in the display. The original configuration is maintained at the factory as a secondary backup and is traceable by part number.</p>	
<p>The in-cab axis controls must be placed on the CANopen bus by utilizing an encoder module which has (5) 0-5v analog inputs and (14) PnP Digital Inputs. The Encoder module will use a circuit board that has been conformal coated to provide moisture and shock resistance. The system will support up to (2) Joystick encoder modules and be able to support 10 joystick axes.</p>	
<p>The display can be attached to the system panel or remote mounted. Joystick function will be clearly labeled on a graphic overlay providing basic operator instruction. The system panel can be positioned over a 360 degree rotation and 4 inches of vertical travel on its mounting tube. The optional Certified Power Solutions Touchguard panel can be remote mounted, mounted in the system panel, or armrest. Up to (4) Touchguard systems can be associated on the same CANbus.</p>	
<p>The system must boot in 35 seconds or less and must not consume power when the ignition key is turned off. Systems that draw power in the "off mode" to manage system boot time between ignition cycles are not acceptable.</p>	

Control Wiring Specifications

List specifications, models & cost changes

The system must make heavy use of electrical connections and cables that resist corrosion and contaminant ingress in all areas exposed to the elements. Systems that use DIN connectors in these areas are specifically disqualified. Wiring and harness system shall meet ISO rating IP68 and NEMA 6 where ever possible. Heavy preference shall be awarded to systems that use M12 connections in these locations. The connectors shall be stainless steel or nickel plated brass, similar to a MIL spec connector. Each shall have three sealing points: the lock ring itself, a raised portion of the molded plastic around each pin, and a viton O-ring that seals the entire connector. The cable jacket shall be TPE- thermoplastic elastomer, and molded to the connectors. Connectors and harness shall be rated and tested for a temperature range from -22°F to 158°F. Connectors shall be tested to be water tight when submerged in 6’ of water for 24 hours, in 275’ of water for 1 hour, and when subjected to a 1000-psi pressure wash. The connectors shall be designed to have NO corrosion after 5000 hours in a 35C salt spray. Cabling shall be rated excellent in low temperature flexibility and in its resistance to oxidation, heat, oil, weather, sun, ozone, abrasion, electrical priorities, flame, water, acid, alkali, gasoline, benzol, toluol, degreaser solvents, alcohol, and weld slag.

Display

List specifications, models & cost changes

The Display will include a 7 inch, 800x480 RGB WVGA 18 Bit color touchscreen enclosed within durable aluminum housing. It will utilize an ARM 9 processor and include (1) USB port and (4) Digital outputs capable to 400 mA.

The display will include a well-designed User Interface (UI) that allows the user to navigate within the system software easily. The UI will include a self-guided Freedom Interactive Rapid Start Tutorial (F.I.R.S.T.) for setup and calibration. Context appropriate help menus will also be available within individual setup screens.

The screen layout will be user defined to optimize functions as well as to view and interact with the system within a 4x5 grid layout. Users may combine or separate grid location boxes in order to view system information in the combination and shape of their choosing. Users will be able to easily reconfigure the system for rapid transition between winter and summer operations with unique layouts and system configurations.

System information on the screen may include, but is not limited to: granular rates, prewet and anti-ice rates, lane indication, road/air temperature, hydraulic pressure, system status, error messages, plow float indication, auto/manual mode indication and material currently being used. Active functions that are not in use shall show “off” and the graphic be “grayed out” for ease of operator interpretation. Tile color assignments may be customized by the user.

The display will provide a built in diagnostic feature allowing technicians to view all input signals in real time. The display will also provide error logging and system status change logging for reviewing operator inputs.

Software

List specifications, models & cost changes

The system shall incorporate three levels of security and access that is password protected and defined by the user. The three levels of access called “user”, “technician” and “admin” shall give the user varying levels of access to the system setup, data, configuration fields and parameters based upon access given. The “administrator” shall have full access to all menus in the system and have the ability to make system configuration changes as well as system parameter changes.

<p>Spreader and liquid functions must have the ability to be controlled utilizing closed loop feedback. The system will automatically default to open loop operation in the event of a sensor failure or loss of input. The system will alert the operator and log the error. The system shall have “over speed” protection for the liquid functions that will alert the operator and shut down the liquid function when the driver has exceeded a user defined speed.</p>	
<p>The software shall incorporate a “test speed” mode for use in testing the system safely without requiring the truck to be moving or the drive axles engaged.</p>	
<p>The system must be able to independently operate a second spreader (such as a tow plow) that includes liquid or granular application without the installation of multiple control systems. Rate information must be able to be displayed on a single display screen for both the main unit and the towed equipment. Both must be controlled from one operator panel. Application rates may run independently or be slaved to the main unit. The system will also be capable of dynamic variable gate control and cross conveyor support.</p>	
<p>The system will be capable of supporting directional spinners for granular or slurry application for a typical spreader.</p>	
<p>Non-critical alerts such as sensor faults must not create alarms that distract the driver by requiring action to clear or stop the audible alarm. Material application should continue in open loop mode.</p>	
<p>The software shall include as a baked in safety feature the ability to configure a “Panic mode” where momentary operation of a switch in the console starts a timed cycle which automatically retracts user specified functions at a predetermined trim value. After the cycle times out the system shall return to normal operation.</p>	

Driver Module

List specifications, models & cost changes

IP68 sealed assembly shall be mounted to the valve enclosure providing both interior and exterior electrical connections. The valve driver module drives up to (14) 6 amp PWM channels, accepts 4 – 20mA input, 4 closed loop feedback signals, and multiple digital inputs. All PWM outputs are software configurable and can be controlled by closed loop operation, proportional input devices, or digital input devices. The module includes: over temperature shutdown, over current shutdown, and low voltage shutdown. All electrical connections are IP68 sealed when mated, utilizing threaded connections for positive retention.

Operator Panel

List specifications, models & cost changes

The operator panel shall be enclosed in a durable aluminum housing which includes crash bars to protect the buttons and rotary encoders. It will include a silicone keypad with conductive carbon contacts and (3) rotary encoders that are individually repairable. These encoders will have detented positions that will be user programmable as to the value of each increment in the setup menu. The operator panel provides input capabilities to support RS232, RS422, truck speed input, and multiple digital I/O. The panel shall have provisions for the Vaisala or Roadwatch Road Air temperature sending unit.

The panel has built in LED backlighting that dims with the display for night viewing. The panel shall incorporate button labeled: blast, pause, liquid, spreader, mode, product, select.

Electric Tarp System and Controls

List specifications, models & cost changes

Bidder is to provide and install a heavy duty electric tarp system with dual arm system (tension bow) with external 4 spring pivot set. Asphalt tarp (vinyl) with wind deflector. Heavy duty gear motor and solenoids to operate the tarp system. Heavy duty power cable connector for removal of dump body located at dump body pivot (Weather Pak or equivalent). Motor and tarp assembly to be mounted as low as possible (Below Overhang). Controls shall be mounted in the cab in an approved location and shall be clearly labeled. List make/model and attach specifications.

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Standard Equipment and Warranty

All factory standard equipment and warranties including: (3) parts books, (3) shop service/repair manuals, (3) diagnostic manuals, and (4) operator's manuals for the entire order shall be furnished at the time of delivery. Manuals furnished on CD are acceptable.

Full 12 month service and repair warranty for dump body

List other factory standard equip. warranties or attach literature

Nearest service outlet for dump body warranty repairs:

Company: _____ Contact: _____
Street: _____ Phone: _____
City: _____ Fax: _____
State: _____ Zip: _____ Email: _____

Proposed customer training:

Operator: _____ Hrs @ \$ _____ /Hr
Service: _____ Hrs @ \$ _____ /Hr
Mechanical: _____ Hrs @ \$ _____ /Hr
Location: _____

Nearest service outlet for hydraulic system warranty repairs:

Company: _____ Contact: _____
Street: _____ Phone: _____
City: _____ Fax: _____
State: _____ Zip: _____ Email: _____

Proposed customer training:

Operator: _____ Hrs @ \$ _____ /Hr
Service: _____ Hrs @ \$ _____ /Hr
Mechanical: _____ Hrs @ \$ _____ /Hr
Location: _____

Two-way Snow Plow Specifications

The selected bidder is required to furnish, install, and deliver a two-way snow plow with hitch using controls and hydraulics provided by dump body installer.

General

List specifications, models & cost changes

2015 Model Year Henke or Henderson Expressway Snow Plow (or approved equal)	
3/16" steel two-way reversible plow with 4" x 2" x 10" reversing cylinders and low profile universal plow quick hitch.	
12' overall length, 9'10" plowing width @ 35° plow angle	
40" to 46" moldboard height @ nose	
46" or taller moldboard height @ discharge end	
Vertical rib reinforcement per manufacturer's standard	
Solid integral snow deflector and moldboard, 2,000+ lb. weight less hitch and hydraulics	
6" x 5/8" high tensile steel cutting edge with carbide inserts and 6" x 1/2" high tensile steel facing edge	
Rectangular wear shoes, screw adjustable.	
Adjustable spring-type safety trip	
Plow shall be capable of performing at working speed of 35 mph.	
Hitch must accommodate truck tilt hood. Truck chassis provided will have 24" integral front frame extensions. Installer must cut frame extensions to length, reinstall front bumper leaving sufficient space to dismount and service pump.	
The truck portion of the snow plow coupling device must be of the Universal Quick Hitch (UQH) attach and release design.	
The receiver opening to be set up for 30-1/2" push lug centers and be tapered to allow up to a 5" horizontal misalignment when connecting plow to truck.	
On the truck portion of the plow hitch the hitch receiver boxes shall be fabricated from 1/2" plate and welded to 4" x 4" x 1/2" vertical structural angle.	
Hitch frame members are 4" x 4" x 1/2" structural angle. The truck portion of the hitch is to be low profile to allow the truck's hood to tilt forward to provide access to the engine compartment.	
The lift arm and lift frame shall be designed to accept a two-way double acting 4" lift cylinder with Nitride cylinder tube. Cylinders pins are to be 1" cold rolled steel.	
Self-storing lift arm, accomplished by pulling one 1" pin and folding the cylinder up, allows operator to re-pin to store.	
The telescopic lift arm shall be manufactured of 4" x 4" x 3/8" square outer tubing and 3" x 3" x 3/8" square inner tubing.	
The lifting plate shall be 3/8" x 4" flat material and have two banjo-type chain eyes able to accept 1/2" chain as well as the weight of the plow.	
The plow portion of the UQH must have a 2-point locking mechanism on 33 1/2" centers.	
Decoupling shall be accomplished by removal of a vertical pin and the tripping of a lever which automatically opens the receptacles and allows the truck to back away from the plow unit.	
The universal quick hitch shall be affixed to the plow frame with a 1 1/2" GR 8 bolt.	
The plow portion of the quick hitch shall swivel horizontally, allowing the plow to follow the variations in the road surface.	

Bidder to supply and run hydraulic hoses to plow balance valve body supplied by dump body installer. Electronically actuated controls for plow lift and two-way positioning will be mounted in the control console and provided by the dump body installer.	
Hoses are to be secured in place with rubber cushioned mechanical fasteners, not "zip tied" to existing electrical lines or hoses.	
Bulk Headed quick disconnect couplers must be used at front hitch plate. Fitting are to be 1/2" male/female Parker FF-502-8FP/Parker FF-501-8FP	
Color: Manufacturer's standard	
All factory standard equipment and warranties including: (3) parts books, (3) shop service/repair manuals, (3) diagnostic manuals, and (4) operator's manuals for the entire order shall be furnished at the time of delivery. Manuals furnished on CD are acceptable.	
Selected bidder shall pick up the truck chassis from a Grant County specified location and install the snow plow, plow hitch, and hydraulic systems in substantial compliance with above mentioned specifications.	
A factory supplied build sheet for the plow is to be provided at time of bid response. Failure to provide build sheet will be cause for invalidation of the bidder's response. No exceptions.	

Nearest service outlet for snow plow warranty repairs:

Company: _____ Contact: _____
 Street: _____ Phone: _____
 City: _____ Fax: _____
 State: _____ Zip: _____ Email: _____

Proposed customer training:

Operator: _____ Hrs @ \$ _____ /Hr
 Service: _____ Hrs @ \$ _____ /Hr
 Mechanical: _____ Hrs @ \$ _____ /Hr
 Location: _____

10 cv. Body Sander Specifications

The selected bidder is required to furnish, install, and deliver a 10 cubic yard body sander using controls and hydraulics provided by dump body installer.

General

List specifications, models & cost changes

2015 model year sander body	
10 gauge steel continuously welded hopper with minimum 10 cubic yard struck capacity with replaceable 3/16" steel bolt-on bottom and inverted "V" over conveyor.	
24" wide conveyor with 1 1/2" x 3/8" flights on 4-1/2" centers	
A sander controller will be integrally mounted in control console to manage hydraulic flow requirements for conveyor and spinner assemblies and separate hydraulic drivers w/ hydraulic lines terminated at rear hitch plate using 3/4" & 1" Parker flush face full flow quick disconnect couplers will be provided by dump body installer. Successful bidder will be required to supply proper fittings and hoses to couple sander hydraulics to rear hitch plate fittings per drawing. Location of quick couplers to be finalized at required pre-build conference.	
Hoses are to be secured in place with rubber cushioned mechanical fasteners, not "zip tied" to existing electrical lines or hoses.	
Heavy duty 18" to 20" spinner assembly mounted in front of tandem axle with four (4) adjustable deflectors and direct spreading capability. Drop chute construction to bypass truck driveline.	
A side access panel is to be provided to facilitate clean-outs of the sander hopper.	
Hinged hopper screens	
Catwalks with side ladder on hopper and mud flaps fore and aft of rear axles.	
Successful bidder is to fabricate a sub frame mounting system that will allow for quick removal and or reinstallation of sander. Incorporated into the sub frame will be 4"x8"x1/4" "forklift blade" sockets on 54.5" centers located at the center of gravity of the sander that will allow the County to pick or place the sander off or on the truck chassis. NO exceptions.	
The sub frame of the sander is to mount to the same frame mounting brackets as used to secure the dump body hoist behind the cab of the truck and "pin in" to the rear dump body hinge assemble. Final details of the mounting system to be determined at time of the required pre-build conference. NO exceptions.	
Cab shield	
LED rear stop lights, park lights, turn lights w/ sealed connectors (shall be Weather Pak or equivalent).	
One (1) front-mounted and two (2) rear mounted Whelen L31-HAF Super LED 360 degree beacons. Use available chassis up-fitter switches, provide required in-line fuses (not circuit breakers), connect highest pulse flash pattern w/high intensity feature.	
All hydraulic, and electrical lines linking sander body to chassis shall be quick disconnect design with dummy plugs to aid in removal of the sander body.	
Electrical (Weather Pak or equivalent)	
Color: Manufacturer's standard	
All factory standard equipment and warranties including: (3) parts books, (3) shop service/repair manuals, (3) diagnostic manuals, and (4) operator's manuals for the entire order shall be furnished at the time of delivery. Manuals furnished on CD are acceptable.	

Bidder to provide factory build sheets of the sander at the time of the bid. Failure to provide build sheets will be cause for invalidation of the bidder's response.	
Selected bidder shall pick up the truck chassis from a Grant County specified location, mount sander, and make the sander fully operational on the truck chassis and dump body bid listed. The successful bidder will provide all materials and other equipment necessary to successfully complete the installation. Bidder must demonstrate operability of all sander body functions before delivery is considered final.	

Additional Options: (Please list the cost to add following options for equipment listed above or add the equipment specified. Do not include sales tax. Do not include this price in the base bid)

304 Stainless steel construction in lieu of mild steel sander construction. **ADD \$** _____

Nearest service outlet for sander body warranty repairs:

Company: _____ Contact: _____
 Street: _____ Phone: _____
 City: _____ Fax: _____
 State: _____ Zip: _____ Email: _____

Proposed customer training:

Operator: _____ Hrs @ \$ _____ /Hr
 Service: _____ Hrs @ \$ _____ /Hr
 Mechanical: _____ Hrs @ \$ _____ /Hr
 Location: _____

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Stainless Steel Tailgate Spreader w/ Spinner

The selected bidder is required to furnish, install, and deliver a stainless steel tailgate spreader using controls and hydraulics provided by dump body installer.

General

List specifications, models & cost changes

2015 model year	
Overall length 96" (approx.)	
Height 35.50" with spinner (approx.)	
304 Stainless Steel Construction w/ 7ga trough material and 1/4" end plates.	
Self leveling 18" spinner assembly to remain parallel to the road at any dump bed angle.	
Deflector for spinner to keep material off of truck	
Heavy duty 9" auger with direct drive	
Fully tapered trough to prevent material build up	
Full opening bottom trough hinged on body side for accessibility and complete clean out.	
Successful bidder is to fabricate, install and paint (match bed paint color) mounting system that will allow for quick removal and or reinstallation of spreader.	
A sander controller will be integrally mounted in the control console to manage hydraulic flow requirements for the auger/spinner assemblies and will be installed by the dump body installer. The dump body installer will also have the hydraulic lines terminated at the rear hitch plate. The successful tailgate spreader bidder will be required to supply hoses and specified coupler ends to connect to rear hitch plate couplers (See drawings). Final details of the mounting system to be determined at time of the required pre-build conference. NO exceptions.	
All hoses required to make the truck fully functional are to be supplied by the successful vendor. Hoses are to be the appropriate size and SAE rating for the functions being operated. All high pressure functions to be plumbed with a minimum of SAE 100R2 hoses. All hydraulic fittings are to be of steel (black pipe not acceptable). JIC or O-ring fittings are to be used over pipe fittings where possible. Wherever possible, 45 degree fittings are to be utilized in place of 90 degree elbows	
Hoses are to be secured in place with rubber cushioned mechanical fasteners, not "zip tied" to existing electrical lines or hoses.	
Hoses to be protected with wrap where chafing may be an issue.	
All factory standard equipment and warranties including: (2) parts books, (2) shop service/repair manuals, (2) diagnostic manuals, and (3) operator's manuals for the entire order shall be furnished at the time of delivery. Manuals furnished on CD are acceptable.	
Selected bidder shall pick up the truck chassis from a Grant County specified location and make the tailgate spreader fully operational on the truck chassis. The successful bidder will provide all system controls and other equipment necessary to successfully complete the installation.	

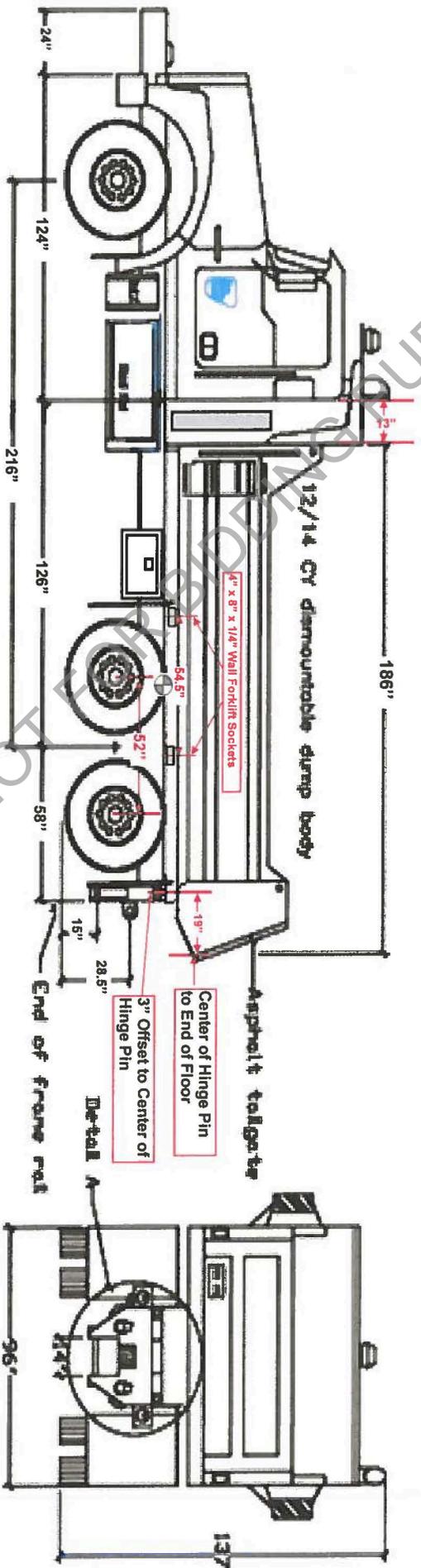
Nearest service outlet for tailgate spreader warranty repairs:

Company: _____ Contact: _____
 Street: _____ Phone: _____
 City: _____ Fax: _____
 State: _____ Zip: _____ Email: _____

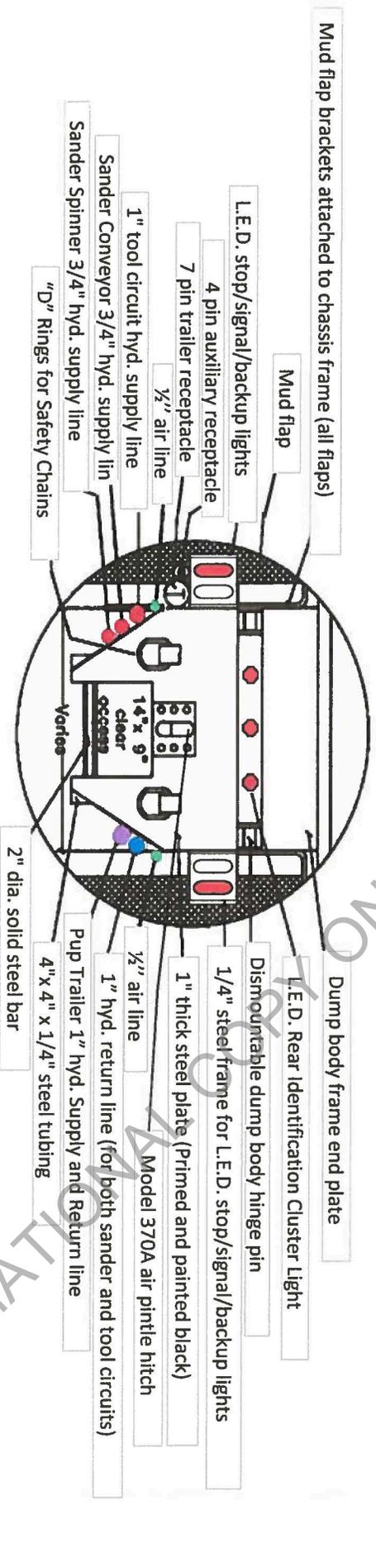
Proposed customer training:

Operator: _____ Hrs @ \$ _____ /Hr
 Service: _____ Hrs @ \$ _____ /Hr
 Mechanical: _____ Hrs @ \$ _____ /Hr
 Location: _____

Grant County Dump Truck Layout



Detail A



TRADE-INS

Trade-Ins:

<u>Unit #</u>	<u>Description</u>	<u>Dept. /Dist.</u>	<u>Color</u>	<u>VIN</u>
1280	1999 Sterling LT-9511 Dump Truck	Road District 1	Red	2FZNNSYB1XAA76131

Truck consists of a CAT 3406E-355 SAE net HP engine, Fuller RTLO-14713A 13 speed transmission, 20,000 lb. front axle, 46,000 lb. tandem rear axle, 54,780 lb. GVWR, Crankshaft mounted PTO and pump @ 35 gpm at 2000 rpm, 100 gallon fuel capacity, Heil 14' 10-12 cy dump body w/ hoist, Henke Expressway reversible plow, and Hi-way 10 cy Body Sander. This truck is currently in-service and has 235,968 miles as of 3/25/2015.

The chassis, dump body, sander body, and plow may be inspected at the Grant County Road District 1 Shop at 124 Enterprise St. SE, Ephrata, WA. Monday thru Thursday between 7:00 am and 3:00 pm by calling (509) 754-6082 and asking for Steve Hill.

<u>Unit #</u>	<u>Description</u>	<u>Dept. /Dist.</u>	<u>Color</u>	<u>VIN</u>
3680	1997 Ford LT9000 Dump Truck	Road District 3	Red	1FDYU90W5VVAD5233

Truck consists of a CAT 3406E engine, Fuller RTLO-14713 13 speed transmission, 20,000 lb. front axle, 46,000 lb. tandem rear axle, 54,600 lb. GVWR, Crankshaft mounted PTO and pump @ 35 gpm at 2000 rpm, 100 gallon fuel capacity, Critzer 10-12 cy dump body w/ hoist, Henke Expressway reversible plow, and Hi-way 10 cy Body Sander. This truck is currently in-service and has 231,786 miles as of 3/25/2015.

The chassis, dump body, sander body, and plow may be inspected at the Grant County Road District 3 Shop at 13766 Rd. E-SW, Royal City, WA. Monday thru Thursday between 7:00 am and 3:00 pm by calling (509) 346-1620 and asking for Jason Collings or by calling (509) 787-2321 and asking for John Brissey.

<u>Unit #</u>	<u>Description</u>	<u>Dept. /Dist.</u>	<u>Color</u>	<u>VIN</u>
3690	1997 Ford LT9000 Dump Truck	Road District 3	Red	1FDYU90W0VVA05592

Truck consists of a CAT 3406E engine, Fuller RTLO-14713 13 speed transmission, 20,000 lb. front axle, 46,000 lb. tandem rear axle, 54,600 lb. GVWR, Crankshaft mounted PTO and pump @ 35 gpm at 2000 rpm, 100 gallon fuel capacity, Critzer 10-12 cy dump body w/ hoist, and Henke Expressway reversible plow. This truck does not come with a sander body or pintle hitch. This truck has been put out of service due to heavy blow-by. Truck runs but will need engine overhaul. The truck has 232,742 miles as of 3/25/2015.

The chassis, dump body, and plow may be inspected at the Grant County Road District 1 Shop at 124 Enterprise St. SE, Ephrata, WA. Monday thru Thursday between 7:00 am and 3:00 pm by calling (509) 754-6086 and asking for Darrell Doolittle.

All equipment is offered "AS IS, WHERE IS". Prospective buyers may view the equipment at the convenience of the operator. Please call the department to make arrangements to inspect the vehicle. All in-service equipment is operating and currently in-service and will remain in-service until the replacement vehicle is upfitted, delivered and put in service.

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NON-COLLUSION DECLARATION

I, by signing the proposal, hereby declare, under penalty of perjury under the laws of the United States that the following statements are true and correct:

1. That the undersigned person(s), firm, association, or corporation has (have) not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the project for which this proposal is submitted.
2. That by signing the signature page of this proposal, I am deemed to have signed and have agreed to the provisions of this declaration.

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Proposal for New Equipment - Signature Page

The Bidder supplying new vehicles and trade-in offers is hereby advised that by signature of this proposal he/she is deemed to have acknowledged all requirements and signed all certificates contained herein.

No proposal guaranty is required for this bid proposal offering new vehicles and trade-in offers.

Receipt is hereby acknowledged of addendum(s) No. (s) _____, _____ & _____

In compliance with Chapter 39.34.030(5)b RCW a public notice for this solicitation for bids has been posted on Grant County's website <http://www.grantcountywa.gov/GCPW/>

- * The Bidder will allow Grant County to purchase additional contract items at the original bid prices offered: Yes _____ No _____
- * The Bidder will allow other public agencies to purchase additional contract items at the original prices offered (RCW 39.34) : Yes _____ No _____
- * The Bidder will allow modifications on contract items for additional purchase requests (subject to wholesale price adjustments agreeable to each public agency) : Yes _____ No _____
- * The Bidder understands Grant County accepts no responsibility for the payment of any additional purchase requests made by other public agencies: Yes _____ No _____
- * The Bidder understands Grant County is not required to purchase additional contract items: Yes _____ No _____

PROPOSAL MUST BE SIGNED

Signature of Authorized Official(s)

Name of Authorized Official (Print): _____

Firm Name: _____

Address _____

City, St, Zip: _____

Voice: () _____ Fax: () _____

Email: _____

State of Washington License No. _____

Federal ID No. _____

- Note:
- (1) This proposal form is not transferable and any alteration entered hereon without prior permission from the County
 - (2) Should it be necessary to modify this proposal either in writing or by electronic means, please make reference to the following proposal number in your communication: **Dump Trucks 2015**

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CONTRACT

THIS AGREEMENT, made and entered into this _____ day of _____, 2015, between the Board of County Commissioners of Grant County, State of Washington, acting under and by virtue of Chapter 36.77 of the Revised Code of Washington, as amended, hereinafter called the County, and for itself, its heirs, executors, administrators, successors and assigns, hereinafter called the Contractor.

WITNESSETH:

That in consideration of the payments, covenants, and agreements, hereinafter mentioned, and attached and made a part of this agreement, to be made and performed by the parties hereto, and the parties hereto covenant and agree as follows:

DESCRIPTION OF WORK:

1. The Contractor shall do all work and furnish all tools, materials, labor and equipment necessary to improve and complete **Dump Trucks 2015**, located in Grant County, Washington, as proposed in a bid opened **1:45 PM, Tuesday, April 21, 2015** in accordance with and as described in the herein attached plans and standard specifications, and in full compliance with the terms, conditions, and stipulations herein set forth and attached, now referred to any by such reference incorporated herein and made part hereof as fully for all purposes as if here set forth at length, and shall perform any alterations in or additions to the work covered by this contract and every part thereof and any force account work may be ordered as provided in this contract and every part thereof.
2. The Contractor shall provide and be at the expense of all materials, labor, carriage, tools, implements and conveniences and things of every description that may be requisite for the transfer of materials and for constructing and completing the work provided for in this contract and every part thereof.
3. The County hereby promises and agrees with the Contractor to employ, and does employ the Contractor to provide the materials and to do and cause to be done the above described work and to complete and finish the same according to the attached plans and specifications and the terms and conditions herein contained, and hereby contracts to pay for the same according to the attached specifications and the schedule of unit or itemized prices hereto attached, at the time and in the manner and upon the conditions provided for in this contract and every part thereof. The County further agrees to employ the Contractor to perform any alterations in or additions to the work covered by this contract and every part thereof and any force account work that may be ordered and pay for same under the terms of this contract and the attached plans and specifications.
4. The Contractor for himself, and for his heirs, executors, administrators and assigns, and successors and assigns, does hereby agree to the full performance of all the covenants herein contained upon the part of the Contractor.
5. It is further provided that no liability shall attach to the County by reason of entering into this contract, except as expressly provided herein.

IN WITNESS WHEREOF, the said Contractor has executed this instrument, and the said Board of County Commissioners of aforesaid County has caused this instrument to be executed by and in the name of said Board by its Members, duly attested by its Clerk, the day and year first above written, and the seal of said Board to be hereunto affixed on the date in this instrument first above written.



_____, 2015

Signature

Print Name

Firm Name

Address

City State Zip

Phone

ATTEST:

Clerk of the Board

APPROVED AS TO FORM:

_____ day of _____, 2015

Prosecuting Attorney

**BOARD OF COUNTY COMMISSIONERS OF
GRANT COUNTY, WASHINGTON**

Richard Stevens Chairman

Cindy Carter Vice Chair

Carolann Swartz Member

PROPOSAL – PART II

(For Used Equipment Dealers)

General Conditions

1. The attached specifications are for the purpose of providing details regarding the type of equipment for sale by sealed bids.
2. Bidders interested in bidding for used equipment must complete and return Part II of this proposal.
3. The bidders are advised that mileage/hours on used equipment will continue to accumulate until replacement vehicles/equipment are delivered, up-fitted and placed in service.
4. The successful bidder shall pay State, Local, and Use taxes on all products purchased. The Bidder shall not include state and local taxes in the bid price in the space provided.

Bid Evaluations

Bid evaluations shall include, but not be limited by, the following criteria:

- * Price
- * Bid prices shall be compared to trade-in offers provided by vendors bidding new equipment.
- * Grant County receives a reduction in sales tax from trade-in offers included with new equipment. That sales tax reduction shall be considered when comparing offers made by bidders for used equipment.
- * Although no minimum bids are reserved Grant County will compare trade-in offers to reliable publications or other sources. Bids considered too low will not be accepted.
- * Public's best interest.

Submissions

Bidders are advised to submit the following with each bid item:

- * A 5% security in the form of a certified or cashier's check based upon the bidder's offer for the used equipment. Descriptive literature.
- * Completed and signed Proposal sheet. Failure to complete and sign the Proposal form may result in the bid being declared irregular and not considered.

The Bidder may submit any other information that may assist Grant County in evaluating the bid.

Warranty

The Bidder is advised Grant County offers no express or implied warranty and all used equipment available for sale is offered "AS IS, WHERE IS". Prospective buyers may view the equipment at the convenience of the operator. Contact information is listed.

Trade-ins

Grant County is not obligated to accept any trade-in offer. The trade-in offer itself will be for used equipment and described attachments, if any. All bids for trade-ins using Part II of this proposal will be considered separately. The successful bidder shall be given the prescribed number of days shown in the Proposal Signature Page from the date of notification that the used equipment is available and to pay the balance owed and pick up the equipment. If the bidder fails to complete the transaction within that time period the deposit shall be forfeited to Grant County.

The available list of used equipment follows:

TRADE-INS

Trade-Ins:

<u>Unit #</u>	<u>Description</u>	<u>Dept. /Dist.</u>	<u>Color</u>	<u>VIN</u>
1280	1999 Sterling LT-9511 Dump Truck	Road District 1	Red	2FZNNSYB1XAA76131

Truck consists of a CAT 3406E-355 SAE net HP engine, Fuller RTLO-14713A 13 speed transmission, 20,000 lb. front axle, 46,000 lb. tandem rear axle, 54,780 lb. GVWR, Crankshaft mounted PTO and pump @ 35 gpm at 2000 rpm, 100 gallon fuel capacity, Heil 14' 10-12 cy dump body w/ hoist, Henke Expressway reversible plow, and Hi-way 10 cy Body Sander. This truck is currently in-service and has 235,968 miles as of 3/25/2015.

The chassis, dump body, sander body, and plow may be inspected at the Grant County Road District 1 Shop at 124 Enterprise St. SE, Ephrata, WA. Monday thru Thursday between 7:00 am and 3:00 pm by calling (509) 754-6082 and asking for Steve Hill.

AMOUNT OFFERED \$ _____

<u>Unit #</u>	<u>Description</u>	<u>Dept. /Dist.</u>	<u>Color</u>	<u>VIN</u>
3680	1997 Ford LT9000 Dump Truck	Road District 3	Red	1FDYU90W5VVAD5233

Truck consists of a CAT 3406E engine, Fuller RTLO-14713 13 speed transmission, 20,000 lb. front axle, 46,000 lb. tandem rear axle, 54,600 lb. GVWR, Crankshaft mounted PTO and pump @ 35 gpm at 2000 rpm, 100 gallon fuel capacity, Critzer 10-12 cy dump body w/ hoist, Henke Expressway reversible plow, and Hi-way 10 cy Body Sander. This truck is currently in-service and has 231,786 miles as of 3/25/2015.

The chassis, dump body, sander body, and plow may be inspected at the Grant County Road District 3 Shop at 13766 Rd. E-SW, Royal City, WA. Monday thru Thursday between 7:00 am and 3:00 pm by calling (509) 346-1620 and asking for Jason Collings or by calling (509) 787-2321 and asking for John Brissey.

AMOUNT OFFERED \$ _____

<u>Unit #</u>	<u>Description</u>	<u>Dept. /Dist.</u>	<u>Color</u>	<u>VIN</u>
3690	1997 Ford LT9000 Dump Truck	Road District 3	Red	1FDYU90W0VVA05592

Truck consists of a CAT 3406E engine, Fuller RTLO-14713 13 speed transmission, 20,000 lb. front axle, 46,000 lb. tandem rear axle, 54,600 lb. GVWR, Crankshaft mounted PTO and pump @ 35 gpm at 2000 rpm, 100 gallon fuel capacity, Critzer 10-12 cy dump body w/ hoist, and Henke Expressway reversible plow. This truck does not come with a sander body or pintle hitch. This truck has been put out of service due to heavy blow-by. Truck runs but will need engine overhaul. The truck has 232,742 miles as of 3/25/2015.

The chassis, dump body, and plow may be inspected at the Grant County Road District 1 Shop at 124 Enterprise St. SE, Ephrata, WA. Monday thru Thursday between 7:00 am and 3:00 pm by calling (509) 754-6086 and asking for Darrell Doolittle.

AMOUNT OFFERED \$ _____

All equipment is offered "AS IS, WHERE IS". Prospective buyers may view the equipment at the convenience of the operator. Please call the department to make arrangements to inspect the vehicle. All in-service equipment is operating and currently in-service and will remain in-service until the replacement vehicle is upfitted, delivered and put in service.

Proposal for Trade-Ins - Signature Page

The Bidder for trade-in vehicles only (not including new vehicle dealers) is hereby advised that by signature of this proposal he/she is deemed to have acknowledged all requirements and signed all certificates contained herein.

A 5% proposal guarantee is required for the bid proposal for trade-ins.
(Please attach cashier's check or certified check.)

Receipt is hereby acknowledged of addendum(s) No. (s) _____, _____ & _____

Additional terms:

- * If the Bidder's offer to purchase used equipment is accepted by the County, the bidder understands he/she has 30 days to complete the sale after notification of the delivery of new vehicle.
- * The Bidder may be allowed to withdraw his/her offer if the used vehicle is damaged or has become mechanically unreliable and the value of used vehicle is reduced. In the event this happens the County and the Bidder may
- * The bidder will not be permitted to withdraw his/her offer due to increased mileage or hours.

PROPOSAL MUST BE SIGNED

Signature of Authorized Official(s)

Name of Authorized Official (Print): _____

Firm Name: _____

Address _____

City, St, Zip: _____

Voice: () _____ Fax: () _____

Email: _____

State of Washington License No. _____

Federal ID No. _____

- Note:
- (1) This proposal form is not transferable and any alteration entered hereon without prior permission from the County
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Appendix #1

Specifications for Alternate Bid #1

Provide and Install **Model SLTS Crysteel 14' 10"** Dump Body (or approved equal) and Certified Power (or approved equal) Hydraulic System to Consist of the Following:

BODY

1/4" AR400 (180,000 P.S.I. tensile, 145,000 P.S.I. yield strength) steel floor with 6" radius at sides with one-piece center sheet.
Side height (34") to provide ten (10) cubic yard water level capacity. Inner wall to be 10 ga. A1011 grade 50 (65,000 P.S.I. tensile, 50,000 P.S.I. yield strength) steel. Outer wall to be 12 ga. A1011 grade 50 (65,000 P.S.I. tensile, 50,000 P.S.I. yield strength) steel, with two intermediate horizontal side braces, to provide double wall construction. Side shall be equipped with 2" wide board pockets and equipped with 2"x 8" tubular steel side boards with a 1-1/4" x 1-1/4" x 3/16" steel angle top cap. Sides shall have radius boxed front corner pillars.
A grip strut walk way on each side attached to the rub rail shall be installed plus access steps each corner of body mounted to the upper horizontal side brace. Grab handles to be installed both sides front and rear of body
Cab protector shall be 10 ga. A1011 grade 50 steel, 24" extension forward of the front bulkhead of the dump body. Must be so designed as to not interfere with exhaust system, taking into consideration normal operation on steep sloped surfaces.
42" high tailgate shall be <u>SLOPING</u> at 15° from vertical to be constructed of 3/16" AR400 (180,000 P.S.I. tensile, 145,000 P.S.I. yield strength) steel. Shall have full perimeter boxed bracing plus two intermediate horizontal braces and two intermediate vertical braces to form a 9-Panel design and be equipped with over center air tailgate trip mechanism. Rear lower portion of body to be tapered to facilitate dumping into chip spreader. To include combination spread and drop tailgate chains per County specifications.
Tailgate to be equipped with extended 12" offset top hinges constructed of not less than 1 1/4" flame cut steel, offset to facilitate dumping of large diameter materials. Tailgate trip latches to be constructed of not less than 1" flame cut steel.
Crossmember type understructure to be interlocking style with 12" high-formed 8 ga. 100XF "Domex" (100,000 P.S.I. tensile strength steel trapezoidal longitudinal members interlaced with one piece full width 4" structural steel "I" beam cross members on 12" centers. Longitudinals to be fabricated to provide a minimum RBM of 1,733,600 inch/pounds. Interior surface of longitudinal members to be treated with rust inhibitors and equipped with rubber cushion strips to protect top of truck frame rails.
To be equipped with an extreme duty (3/4" thick base angle) greaseable rear hinge set up to allow for quick removal of body.
Must include installed body prop.
Must include installed mud flaps fore and aft of rear tandems. Rear Flaps to be hinged.

LIGHTS

All lights and wiring shall be installed to FMVSS specifications and standards.
All lights shall meet all applicable local, state, and federal laws and or/standards at the time of installation.
All lights, wiring and connections shall be weather tight utilizing weather tight connectors.
Shall have one body mounted Truck-Lite series 50 weather proof, surface mounted junction box.
All lighting where possible shall be LED.
Shall have a 6-1/2" oval stop, turn, and tail lamp and a 6-1/2" amber strobe light in each rear corner post.
Provide and install front amber marker light located in the front corner posts.
Provide and install a 6" amber strobe light mounted to the leading edge of the cab protector. Strobe light to be protected from damage with a custom fabricated limb guard constructed of 1/2" round bar.
Front mounted strobe and rear corner strobe lights to be controlled by a single console mounted switch.
OEM supplied stop/turn/tail lights shall be incorporated into rear hitch.

HITCH

Model 370A Premier air pintle hook mounted to a 3-piece formed 3/4" steel buck plate style hitch designed for pup trailer application.
Pintle hook shall be 45 ton capacity.
Shall have adequate bracing to insure rated capacity can be safely towed.
Chassis manufacturer supplied electrical connection with standard 7-pole heavy-duty connector plus safety chain rings shall be installed. Location to meet County specifications.
Buck plate shall have pintle hook mounting holes to provide hitch height per County specifications.
Fabricate and install a chip spreader hitch to meet County specifications.
1" hydraulic quick coupler to be provided in location per County specifications
Chassis mfg. supplied glad hands to be installed in location to meet County specifications
Final design of hitch and location of components to be determined at mandatory pre-build meeting where the technicians responsible for the completion of the truck will meet with County personnel at the County's shop facility.

HYDRAULIC SYSTEM

Pump to be 6.1 CID (42 gal/min @ 1,600 RPM) load sensing type with minimum 2.5" suction port.
Pump hose connections to be O-ring type flanges with 90 degree bent stems. Pump ports to be equipped with split flange type fittings.
The pump will be driven live from a front engine PTO adaptor provided by the chassis mfg.
A "low oil" / "high temp" shut down valve will be plumbed into the pressure line. Shut down valve activated by the "low oil" or "high temp" sensor located in the reservoir.
Frame mounted hydraulic reservoir/valve enclosure to be 50 gallon nominal capacity.
Reservoir/valve enclosure to be constructed of stainless steel and internally baffled. Reservoir/enclosure mounting brackets are to be a spring loaded "cradle" type that will not transmit any truck torsional loads through the tank. Valve enclosure to be integrated into the reservoir. Valve enclosure to be sealed with a rubber gasket.
Cover will protect valves from both road and pressure washer spray.
Filler breather cap
100 mesh suction strainer that is removable
Fluid level sight gauge with guard
Reservoir magnet
In tank return filter 10 micron absolute minimum with condition indicator gauge that is also wired to an "filter condition" indicator light in console
2-1/2" full flow ball valve for tank suction line
Low-level/high temp indicator with in cab indicator lights in control console.
The hydraulic valve shall be of a stacked section design. The valve shall be rated up to 70 gpm. Main relief to be located in the valve end cap and be set for system requirements.
Valve sections to be arranged as follows: a. Truck Hoist, 3-way w/air actuator, hoist limited by proximity switch b. Pup trailer hoist, 3-way w/air actuator
Note: The pup trailer hoist section will also control the plow raise function of the County supplied One Way Snow Plow
An 85-P.S.I. air protection valve shall be installed to supply air to valve controls, etc.
The control center must be an integral center for controlling all hydraulic functions with the plow raise function slaved off of the pup trailer hoist control.
Control Center to include the following: a. Proportional truck hoist control with center interlock b. Proportional pup hoist control with center interlock c. Indicator lights for body raised, low oil, high temperature oil, and return line filter condition.
Hose and fittings for truck and pup trailer hoists shall be at least 1 in.

Per County specifications a hydraulic line will be "T'd" off of the pup trailer circuit and plumbed to the front of the truck. Plow raise line to be plugged and tied off in an easy to find location.
Pump suction line shall be <u>2-1/2 in.</u>
Pump pressure lines to the truck and pup trailer hoists shall be 1 in.
All hydraulic fittings shall be JIC O-ring where possible.

HOIST

Trunnion mounted hoist cylinder.
Rated approximately 42 tons capacity with dump angle limit switch set at 50-degree dump angle.
Dump angle to be limited by a proximity switch that will disengage the hoist raise function as well as provide a signal to a "body raised" indicator light on the control console.
Hoist cylinder equipped with self-bleeding feature.
Hoist cylinder shall be installed with as little intrusion as possible into the body (14" square doghouse)
Hoist cylinder to be isolated from truck frame and dump body bending stresses with a "floating" cradle allowing the cylinder to pivot 2.5 degrees from side to side.
Hoist to be covered by a five (5) year warranty, first three (3) years covered at 100%, balance at 50%.

INSTALLATION & PAINT

Prior to the start of installation there is to be a mandatory pre-build meeting where the technicians responsible for the completion of the truck will meet with County personnel at the County's shop facility at which time location of all components of the final assembly of the truck are to be discussed and agreed upon.
As part of bidder's response a build sheet is to be provided by the manufacturer of the body and the hydraulic/control system used in the completion of the truck. Failure to provide build sheets will invalidate bidder's response. No exceptions allowed.
Dump body to be prepared in accordance with paint/primer manufacturer's recommendations. In addition, all welding slag, scale, grease and other foreign substances shall be removed prior to painting. Dump body shall be painted with baked on PPG paint to match cab of truck.
Prior to application of paint there is to be a pre-paint inspection of the truck and mounted components at which time County personnel will examine the truck to confirm compliance with specifications.
All wiring shall use M12 rated wiring wherever possible. All other wiring to utilize heat shrink wire connectors and or weather-pak type connections. 3-M quick clips will not be accepted.
All wiring, hydraulic hoses to be secured in place with elastomer hose mounts. Plastic wire ties and tying off to existing lines etc. will be cause for immediate refusal of completed truck.