BOARD OF COMMISSIONERS
SARPY COUNTY, NEBRASKA

RESOLUTION AWarding LOW BID FOR THREE (3), FOURTEEN FOOT (14’) Dump Bodies FOR THE
PUBLIC WORKS DEPARTMENT

WHEREAS, pursuant to Neb. Rev. Stat. §23-104(6), the County has the power to do all acts in
relation to the concerns of the County necessary to the exercise of its corporate powers; and,

WHEREAS, pursuant to Neb. Rev. Stat. §23-103, the powers of the County as a body are
exercised by the County Board; and,

WHEREAS, bids for the three (3) fourteen foot (14’) dump bodies have been solicited, made,
opened, and reviewed pursuant to applicable Nebraska State Statutes; and,

WHEREAS, based on those proceedings, this Board has duly deliberated and considered the bids
received; and,

WHEREAS, this Board desires to proceed forthwith in order to expedite and facilitate service to
the Citizens of Sarpy County; and,

WHEREAS, two late bids were received by the Sarpy County Clerk’s Office.

NOW, THEREFORE, BE IT RESOLVED, By the Sarpy County Board of Commissioners that:

1. The bid of J-Craft Inc. for Three (3) Fourteen Foot (14’) Dump Bodies for an amount of Forty Eight
Thousand Five Hundred Ninety Dollars and ninety cents ($48,590.90) per unit for an extend price
of One Hundred Forty Five Thousand Seven Hundred and Seventy Two Dollars and Seventy Cents
($145,772.70) is accepted, ratified, and confirmed.

2. The late bids from Protech and Crysteel Truck Equipment Inc. as received by the Clerk’s office are
directed to be returned unopened to the vendor.

3. This Board’s Chairman, Clerk and Attorney are hereby authorized and directed to execute such
ancillary documents as may be required to evidence the contract and take any and all steps
necessary or required in order to carry out the terms of such contract after said documents have
been reviewed by the Attorney, Fiscal Administrator and County Administrator.

The above Resolution was approved by a vote of the Sarpy County Board of Commissioners at a public
meeting duly held in accordance with applicable law on the 6th day of
February, 2018.

Sarpy County Board Chairman

Attest:

County Clerk
To: Sarpy County Board of Commissioners

From: Beth Garber

Re: Dump Bodies Award

On January 18, 2018, four (4) bids were opened for the three (3) fourteen foot dump bodies with hydraulic systems for the Public Works Department. There were also two (2) late bids received that will not be considered. All bids were very competitive ranging from the low bid of $48,590.90 to $50,586.00 per unit.

After review, it is recommended the bid be awarded to the low bidder, J-Craft Inc. for a unit price of $48,590.90, which is an extended price of $145,772.70 for the three units. The dump bodies will be delivered in approximately 120 days after order date. Please contact me with any questions at bgarber@sarpy.com.

February 1, 2018

Beth Garber

cc: Dan Hoins
    Scott Bovick
    Brian Hanson
    Deb Houghtaling
<table>
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<tr>
<th>Make</th>
<th>Model</th>
<th>Year</th>
<th>Delivery Date</th>
<th>Unit Price</th>
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<tr>
<td>J-Craft Inc.</td>
<td>Ultra</td>
<td>2018</td>
<td>120 Days</td>
<td>$48,590.90</td>
<td>$145,772.70</td>
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<td>Aspen Equipment</td>
<td>MKE-TA</td>
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<td>July 1, 2018</td>
<td>$48,789.48</td>
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<tr>
<td>Reading Truck Equipment</td>
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<td>15-18 Weeks</td>
<td>$50,586.00</td>
<td>$151,758.00</td>
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<td>Northern Truck Equipment Corp.</td>
<td>Crysteel</td>
<td>2018</td>
<td>150-190 Days</td>
<td>$48,984.00</td>
<td>$146,952.00</td>
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<td>Protech</td>
<td>Crysteel</td>
<td>2018</td>
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<td>LATE BID</td>
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Bid Opening:
10:00 A.M., Thursday,
January 18, 2018
Sealed Bid

Three (3) New Fourteen Foot (14') Dump Bodies with Hydraulic Systems

J-Craft Inc.

Bid opening Due:
Tuesday, January 23, 2018 @ 10am

RECEIVED
JAN 2 2018

DEBBIE HIGHTALING
SUSSEX COUNTY CLERK
1:20 PM VB
Sarpy County, Nebraska
Three (3) New Fourteen Foot (14') Dump Bodies with Hydraulic Systems
Bid Form

COMPANY NAME: J-Craft Inc.

Make: J-Craft Inc.  Model: Ultra

Year: 2018

The undersigned, having carefully examined the specifications and other contract documents for furnishing Three (3) new Fourteen Foot (14') Dump Bodies with Hydraulic Systems, mounted on a 64,000 GVWR Tandem Axle Cab Chassis, for Sarpy County Public Works Department use, hereby propose to furnish equipment as specified for a cost as follows:

UNIT PRICE

$48,590.90

EXTENDED PRICE

$145,772.70
(Unit Price x3)

*Prices are to be F.O.B. - 15100 S. 84th Street, Papillion, NE 68046

DELIVERY DATE: 120 days or less from order date.

Company Information

Years in business: 40 Years
Number of employees: 185
Total sales last 3 years:
2015 - $8 million
2016 - $14 million
2017 - $16 million
I certify that this bid is submitted in accordance with the specifications issued by Sarpy County. I affirm that the original Specifications have not been altered in any way. Any alteration of the original Specifications, outside of an alternate bid, may be considered grounds for refusal of the bid.

I acknowledge receipt of the following addenda (if applicable):

<table>
<thead>
<tr>
<th>Addendum #1</th>
<th>1/16/18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addendum #2</td>
<td>1/16/18</td>
</tr>
</tbody>
</table>

Attachments:

Warranty Information

Literature/Cut-sheets – 1 sets (Detailed specifications or advertising literature with cuts or photographs)

J-Craft Inc.  
Company Name: Cherokee County Highway Dept.
Address: 5074 Highway 3 Cherokee, IA 51012
Contact Name: Larry Walker  
Phone Number: (712)929-6382
Date of Purchase: Last truck 12/2017  
Email: lwalker@co.cherokee.iu.us

Company Name: Mills County, IA
Address: 403 Railroad Ave Glenwood, IA 51534
Contact Name: Mark McVay  
Phone Number: (712)520-2041
Date of Purchase: June 2017  
Email: N/A

Company Name: City of York, NE
Address: 100 E 4th St York, NE 68467
Contact Name:  
Phone Number: (402)363-2600
Date of Purchase: May 2017  
Email: 

References

Company Name: Cherokee County Highway Dept.
Address: 5074 Highway 3 Cherokee, IA 51012
Contact Name: Larry Walker  
Phone Number: (712)929-6382
Date of Purchase: Last truck 12/2017  
Email: lwalker@co.cherokee.iu.us

Company Name: Mills County, IA
Address: 403 Railroad Ave Glenwood, IA 51534
Contact Name: Mark McVay  
Phone Number: (712)520-2041
Date of Purchase: June 2017  
Email: N/A

Company Name: City of York, NE
Address: 100 E 4th St York, NE 68467
Contact Name:  
Phone Number: (402)363-2600
Date of Purchase: May 2017  
Email: 

*NOTE: Sarpy County is tax exempt and will provide the proper form upon request.
Attachment A

Rear Hydraulic Coupler
Configuration for Spreader

Auger Reversing  Auger Feed  Return  Spinner

#8  #12  #16  #8

Female  Female  Male  Male

Aeroquip brand:
(1) 5602-16-16S - Male end on return line.
(1) 5601-12-12S - Female end on auger feed.
(1) 5601-8-10S - Female end auger reversing valve
(1) 5602-8-10S - Male end on spinner feed.
EXCEPTIONS/CLARIFICATIONS/COMMENTS

1. The pressure rating in the specifications are for the smaller 4.67 CID pump.

2. The F ASD 45 6.0 CID pump is rated for 3000 PSI maximum and 2500 PSI continuous operation.

3. 

4. 

5. The Parker / Chelsea 277 series PTO has been replaced with the 280 series.

6. 

7. 

8. 

9. 

10. 

11. 

12. 

13. 

14. 

15. 

26 | Page
Til & I Quote Response Form

End User: GEORGE FUNDERBURK
Customer: 106040
15100 SOUTH 84TH STREET
PAPILLION NE 68046

Taken By: Shane Bretzman
Phone: 402-537-6980
Fax: 402-537-6990

<table>
<thead>
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<th>Description</th>
<th>Unit Price</th>
<th>Extended Price</th>
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<tr>
<td>EA</td>
<td>3.00 2031890</td>
<td>MAB ULTRA-84/96-1400-13Y-FC145-6.5 INS</td>
<td>17,918.90</td>
<td>53,756.70</td>
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Ref Body Number...2042811

Body Style: ULTRA **
Body Length: 14'-0"
Body ID: 84
Body OD: 96
Hoist Mounting Type: BAILMOUNT
Hoist Model: HYVA FC 145-6-5-4 S/A
Front Style: STRAIGHT
**Upper inside stiffener of front panel shall have sander mounting tubes welded to the bottom side of stiffener. Tubes shall be placed 25" in from the inside edge of the dump box. The tube diameter shall be 2" outside diameter with 3/8" wall x 3" long. **

Side Style: SINGLE PANEL W/RUBRAIL
Rear Style: STRAIGHT
Frame Style: 8 WESTERN I-BEAM
Crossmember Type: NA
Crossmember Spacing: NA
Front Height: 62
Side Height Front: 44
Side Height Rear: 44
Rear Height: 54
Front Material: 3/16 AR450 STEEL
Side Material: 3/16 AR450 STEEL
Rear Material: 3/16 AR450 STEEL
Floor Material: 1/4 AR450 STEEL
Frame Material: A36 STEEL
Outer Side Material: 7GA A1011 STEEL
Doghouse Reservoir: NO
Asphalt Rear: NO
Power Tailgate: NO
Rear Pillar Width: 18
Tailgate Release Type: AIR
Tailgate Hinge Type: 1.5 THICK / 7 OFFSET
Tailgate Thickness: 3.5
Tailgate Bracing Style: 2H
Patchgate: NO
Patchgate Location: NA
Add On Fender: NO
Upper Rail: NO
Lower Rail: NO
**Left Front Ladder: Stow Away ladder, grip strut ladder with 2 grab handles above ladder installed**
Left Rear Ladder: NO
Right Front Ladder: NO
Right Rear Ladder: NO
Steps Inside Body: LEFT FRONT
Side Vertical Quantity: 4
Side Vertical Style: TRAPEZOID
Front Brace Quantity: 2
Included in quote:
- Body to be blasted, 2k filler primer, primed, and painted (Clients choice)
- Automotive seam sealer will be applied to all open seams
- Frame area paint
- 2" x 10" board pockets made of 1/4" steel. 3 pockets per side (front, center, and rear)
- HYVA FC 145-6.5-4, Trunion Mount, Single Acting Hoist
- Frame mounted Reservoir
- Automatic Transmission
- Ultra Commander controls, floor mounted between seats in cab
- ALL ELECTRICAL CONNECTIONS TO BE SOLDERED AND WEATHER SEALED WITH HEAT SHRINK****
- Composite Removable Pin Hinge
- 24" x 84" 7ga Cabshield Installed (holes for drainage)
- Air trip tailgate release (Electric solenoid remote mounted on bracket behind cab)
- Extra step installed on front lower section of body (for transition from cab to box)
- Spreader chains shall be bolted below the top horizontal brace on the inside edge of the tailgate. The chains will extend 72" to reach the lower brackets on the inside edge of the tailgate. The chains will go through the brackets to the lower chain slot brackets to secure and adjust the tailgate. Spreading chains shall be a minimum of 3/8".
- Anti-sail Front & Rear Mud flaps***
- 45 degree mount on rear pillar, above the banjo bracket (top of pillar), for surface mount strobe (Sound Off-Signal ENT3B3A)*Please see attached picture for reference.
- Installed on Customers Supplied Chassis
- Body will be built & installed in Lake Crystal MN

EA 3.00 2031893 MAB 3/4" HITCH, 45TON PINTLE INST 1,850.00 5,550.00
**Quote Response Form**

**End User:**
GEORGE FUNDERBURK  
SARPY CTY FLEET SERVICE DEPARTMENT  
15100 SOUTH 84TH STREET  
PAPILLION NE 68046

**Customer:** 106040

**Taken By:** Shane Bretzman

**Phone:** 402-537-6980  
**Fax:** 402-537-6990

<table>
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<td>BRETZMAN, SHANE</td>
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<th>Extended Price</th>
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<td></td>
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<td></td>
<td>Couplers shall be securely mounted for ease of coupling at rear of dump body. The preferred location is between the rear frame rails. The Hydraulic Couplers and License plate shall be recessed inside of a box between the rear frame rails. The box will be mounted from the underside of the box hinge plate (See picture). The box must be made with inside box measurements of 6&quot; deep x 5-1/2&quot; tall with the bottom plate set at 30degree angle to shed material. 2 oval STT lights and 3 light cluster between longsills of body on hinge angle.  ** See attached pic for reference **</td>
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</table>

|    |          |      | Pup Hitch - Make & Model | 3/4" thick pull plate, w/1/2" thick bracing to truck frame. Safety Chain D-Rings installed. Provision for electrical socket included. Vertical tongue weight 18,000 lbs Horizontal tongue weight 90,000 lbs max Gross Trailer Weight Latching tensile strength 20,000 lbs Rated capacity 90,000 lbs max Gross Trailer Weight Is installation included? NO Is the price of the hitch for a truck with air and electric YES provided to rear of frame? Note: Truck Must come w/Tractor Pkg. Includes: Installation Cost Include all Parts & Labor PREMIER 100-3A PINTLE, Installed 7contact socket Installed - Qty Two (2) - One for trailer(Phillips 16-713) with trailer brake and one for sander(Phillips 15-740). Please see attachment C for Sander plug wiring. Aeroquip Brand ends (Sander): (1) 5602-16-16s - Male end on return line (1) 5601-12-12s - Female end on auger feed (1) 5602-8-10s - Female end on auger reversing valve (1) 5602-8-10s - Male end on spinner feed |          |                |
| EA | 3.00 1774158 |      | POLY SIDE BOARDS-BLK-2"X10"X168"-INST | 485.00 | 1,455.00 |
|    |          |      | Sideboards shall have 2" wide notches cut into them where they are bolted. For expansion & contraction |          |                |
| EA | 3.00 1794892 |      | MAB SOUNDOFF SRFC MNT STROBES PAIR INS | 675.00 | 2,025.00 |
|    |          |      | Two (2) Sound Off-Signal (ENT3B3A) Surface mounted strobe lights mounted on lower body seam of cab. One per side of truck. Mounting brackets shall be made of stainless steel.(If needed) PLEASE SUPPLY PICTURES OR DRAWINGS FOR PLACEMENT |          |                |
| EA | 3.00 1794893 |      | MAB FORCE ADD A FOLD HYDRAULICS INST | 25,625.00 | 76,875.00 |
Hydraulics - Make and Model Force America pump, Force/Parker MCV-ISO Add-A-Fold Valve Series

Cab controls description Force America electronic control assembly, (Floor Mount)

Sander control description Force America model 6100 manually or programable adjustable Electronic control, w/stand-by, blast, ground-speed interrupt, & liquid hookup.

Pump drive description Automatic Transmission Mounted PTO

Pump type axial piston type, load-sensing

Valve description Closed center load-sensing type, w/mid-inlet, manifold design

Number and type functions 3 to 10 functions:

Type of valve actuation Elect solenoid, w/manual over-ride

Reservoir size Selectable, w/filler-breather, sight glass, suction screen, and magnetic plug

Fluid type ATF (equivalent to Dexron III)

Filter style Remote mount, or intank w/12 volt DC condition indicator, & return line check valve.

Valve enclosure frame mount design, w/removable cover. Valve Enclosure Mounted on Stainless Steel Mounting Brackets. (VT35)

Hose recommendation 2" dia suction, 1-1/4" dia return, 1" dia pressure, w/balance to match equipment port sizing. R2 for pressure lines, R1 for return lines, R4 for suction line. Return line manifold included.

Includes:
MODULAR ULTRA-3-6100 Patrol Commander control, Installed
IN-TANK mounted filter w/12 volt indicator, installed
VT35 valve enclosure/Reservoir
Force FASON5R LS pump (6.0) W/Elect shut down installed
Parker Chelsea, 280 Series Hot Shift PTO
Temp/Low oil indicator system 30 GAL STD, w/light in cab installed
Pressure Release Valve (C10190)

6100 SPREADER CONTROL
FLOOR MOUNT
SWITCH BOX
HOIST LIMIT - Mercury Limit switch must be adjustable
ELECTRIC DRIVEN PREWET HARNESS

#1-S/A-TELESCOPIC HOIST
#2-S/A-PLOW LIFT WITH POWER FLOAT
#3-D/A-PLOW REVERSE
#4-D/A-AUGER / AUGER REVERSE
#5-SPINNER SECTION

Special Notes:
- Qty Two (2) ea Aeroquip 5601-8-10S & Two(2) ea Aeroquip 5602-8-10S needed for plow reversing cylinders. ***Location and Mounting instructions per Sarpy County Fleet Service.**
### Quote Response Form

#### End User:
GEORGE FUNDERBURK  
SARPY CTY FLEET SERVICE DEPARTMENT  
15100 SOUTH 84TH STREET  
PAPILLION NE 68046

#### Customer:
Customer: 106040

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**Taken By:** Shane Bretzman  
**Phone:** 402-537-6980  
**Fax:** 402-537-6990

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<td></td>
<td>3.00 1651001</td>
<td>FRONT MUDFLAPS INS</td>
<td>222.00</td>
<td>666.00</td>
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<td>3.00 2031891</td>
<td>MAB SOUNDOFF STROBES, PAIR INST</td>
<td>575.00</td>
<td>1,725.00</td>
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Two (2) Sound Off-Signal (ENT3B3A) Surface mounted strobe lights mounted on rear piller at 45 degree angle. Rear pillar to have surface for light to mount to.

|          |               | 3.00 2031892 | MAB FEDERAL SIGNAL 454101HL-25 INST | 516.00 | 1,548.00 |

Strobe mounted on roof of Cab.

|          |               | 3.00 1649853 | ELECTRONIC BRAKE CONT. VOYAGER PKG INS | 407.00 | 1,221.00 |

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### OPTIONS

**DEDUCT $68 FOR PRESSED HORIZONTAL SIDE BRACE IN LIEU OF VERTICAL BRACING**

**DEDUCT $218 TO DELETE SIDE VERTICAL BRACING AND HAVE SMOOTH SIDE WALLS (LIGHTER BODY AND LESS BRACING ALLOWS MATERIAL TO FLEX)**

---

**Sale Amount:** 145,772.70  
**Freight:** 0.00  
**Sales Tax:** 0.00  
**FET Charges:** 0.00  
**Total Amount:** 145,772.70
COUNTY OF SARPY, NEBRASKA

SPECIFICATIONS

Three (3) New Fourteen Foot (14') Dump Bodies with Hydraulic Systems
For the Public Works Department

PROPOSALS DUE:
10:00 a.m., Thursday, January 18, 2018
General Information

Notice to Vendors

Sarpy County is seeking proposals for Three (3) New Fourteen Foot (14') Dump Bodies with Hydraulic Systems for the Public Works Department. The dump bodies will be mounted on 64,000 GVWR Tandem Axle Cab Chassis.

Sealed bids will be received Monday through Friday 8:00 a.m. to 4:45 p.m. except holidays, until Thursday, January 18, 2018 at 10:00 a.m. Bids shall be in a sealed envelope, clearly marked “Sealed Bid – Three (3) New Fourteen Foot (14') Dump Bodies with Hydraulic Systems” and shall have the name of the Vendor, and the time and date of the bid opening. Do not fax bids, only sealed bids will be accepted.

Requests for information and clarification questions must be received by 12:00 p.m. on January 11, 2018 in order for Sarpy County to have time to issue an addendum.

Bidding criteria must be received from Beth Garber, Purchaser, 1210 Golden Gate Drive Suite 1220, Papillion, NE 68046, (402) 593-4476, bgarber@sarpy.com or via the internet at www.sarpy.com.

Vendors that obtain specifications from the internet sites are responsible for obtaining any addenda that may be added at a later time.

Bids must be sent to:

Deb Houghtaling
Sarpy County Clerk's Office
1210 Golden Gate Drive, Suite 1250
Papillion, NE 68046

Bids not addressed and delivered to the above person will not be considered. Bids received after the above stated time and date will not be considered.

The bid opening will be at 10:00 a.m., Thursday, January 18, 2018 and will be a public opening to be held in the Sarpy County Administration Conference Room at 1210 Golden Gate Drive, Papillion, NE.

All bids submitted shall be valid for a period of sixty (60) days following the final date for submission of bids.

Sarpy County will not be liable for costs incurred by Vendors for proposal preparation, printing, demonstration, or any other costs associated with or incurred in reliance on proposal creation. All such costs shall be the responsibility of the Vendor.

The bids shall include all charges and applicable taxes, F.O.B., 15100 S. 84th Street, Papillion, Nebraska. The Vendor need not include sales tax in the bid. Sarpy County will, upon request, furnish the successful Vendor with a completed State of Nebraska Tax Exempt Form 13 upon acceptance of the successful Vendor's proposal.
The Sarpy County Board of Commissioners reserves the right to reject any or all bids and to waive minor informalities.

In the event of conflict between unit price and extended price, unit price shall prevail.

**Procedures for Evaluation and Awarding of Bid**

Evaluation will be done by Beth Garber, Sarpy County Purchaser along with personnel from the Public Works and Fleet Services Departments. After evaluation the Purchaser will make a recommendation to the County Board of Commissioners for award. This recommendation and pending award will be made at a public meeting of the Board of Commissioners. Agendas are available each Friday afternoon on our internet site www.sarpy.com. The Commissioners award the bid by majority vote.

The following factors will be used to consider the award of the bid, where applicable:

a) Compliance with all requirements.
b) Price.
c) The ability, capability, and skills of the Vendor to perform.
d) The character, integrity, reputation, judgment, experience, and efficiency of the Vendor.
e) The quality of previous performance.
f) Whether the Vendor can perform within the time specified.
g) The previous and existing compliance of the supplier with laws.
h) The life-cost of the personal property or services in relation to the purchase price and specified use.
i) The performance of the personal property or service taking into consideration any commonly accepted tests and standards of product, service, usability and user requirements.
j) The energy efficiency ratio as stated by the supplier.
k) The life-cycle costs between alternatives for all classes of equipment, the evidence of expected life, the repair and maintenance costs, and the energy consumption on a per year basis.
l) Such other information as may be secured having a bearing on the decision.

**Terms and Conditions**

1. **Information, Discussion, and Disclosures**

Any information provided by Sarpy County to any Vendor prior to the release of this Request for Proposal ("RFP"), verbally or in writing, is considered preliminary and is not binding on Sarpy County.

The Vendor must not make available nor discuss any cost information contained in the sealed copy of the proposal to or with any employee of Sarpy County from the date of issuance of this RFP until the contract award has been announced, unless allowed by the Sarpy County Purchasing Department in writing for the purpose of clarification or evaluation.

No interpretation of the meaning of the specifications, or other bidding documents, nor correction of any ambiguity, inconsistency, or error therein will be made orally to any Vendor.
Every request for such interpretation or correction should be in writing, addressed to the Sarpy County Purchaser, Beth Garber, 1210 Golden Gate Drive, Papillion, NE 68046 or bgarber@sarpy.com. Requests must be received by 12:00 p.m., January 11, 2018 in order for Sarpy County to have time to issue an addendum. Requests received after deadline may not be considered. In case Sarpy County finds it expedient to supplement, modify, or interpret any portion of the bidding documents prior to the proposed bid date, such procedure will be accomplished by the issuance of written addenda to the RFP which will be mailed or delivered to all prospective Vendors at the respective addresses furnished for such purpose.

2. Addenda

All addenda will become part of this RFP and must be responded to by each Vendor.

All addenda must be acknowledged in writing in the bid submitted by the Vendor.

This RFP, any subsequent addenda, and any written responses to questions take precedence over any information previously provided.

3. Confidentiality of Documents

Sarpy County considers all information, documentation and other materials requested to be submitted in response to this proposal to be of a non-confidential and/or non-proprietary nature and therefore shall be subject to public disclosure under Neb. Rev. Stat. § 8A-712.05(3).

Vendors are hereby notified that Sarpy County strictly adheres to all statutes, court decisions, and opinions of the Nebraska Attorney General with respect to disclosure of RFP information.

Any “proprietary, trade secret, or confidential commercial or financial” information must be clearly identified, in a separate sealed envelope, at the time of bid/proposal submission. **Pricing information is not considered financial information and therefore is not considered Confidential.** Please note: even if Vendor believes pricing information is confidential and includes it in a separate, sealed envelope, such information will be read aloud and entered into record during the public bid opening. For all other appropriately identified proprietary, trade secret, or confidential commercial or financial information, the Vendor will be required to fully defend, in all forums, Sarpy County’s refusal to produce such information; otherwise, Sarpy County will make such information public upon request.

4. Non-Discrimination Clause

Pursuant to Neb. Rev. Stat. §73-102 (Reissue 1996), Vendor declares, promises, and warrants it has and will continue to comply fully with Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C.A. §1985, et seq.), and the Nebraska Fair Employment Practice Act, Neb. Rev. Stat. §48-1101, et seq. (Reissue 2004), in that there shall be no discrimination against any employee who is employed in the performance of this Contract, or against any applicant for such employment, because of age, color, national origin, race, religion, creed, disability or sex.
5. Conflict of Interest Clause

Pursuant to Neb. Rev. Stat. §23-3113 (Reissue 1997), the parties hereto declare and affirm that no officer, member, or employee of the County, and no member of its governing body, and no other public official of the County who exercises any functions or responsibilities in the review or approval of the undertaking described in this Contract, or the performing of services pursuant to this Contract, shall participate in any decision relating to this Contract which affects his or her personal interest, or any corporation, partnership, or association in which he or she is directly or indirectly interested; nor shall any employee of the County, nor any member of its governing body, have any interest, direct or indirect, in this Contract or the proceeds thereof.

6. Payment Terms

The successful Vendor shall submit a monthly itemized invoice for payment. Sarpy County will make payment to the successful Vendor within thirty (30) days after receipt of invoice and satisfactory delivery.

7. Supplemental Terms and Conditions/Modifications

Any supplemental terms, conditions, modifications, or waiver of these terms and conditions must be in writing and signed by the Sarpy County Board Chairman and the Vendor.

8. Termination

Either party may terminate the Contract with ninety (90) days' written notice to the other.

9. Residency Verification

The Vendor agrees to comply with the residency verification requirements of Neb. Rev. Stat. §4-108 through §4-114. The Vendor is required and hereby agrees to use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska. A federal immigration verification system means the electronic verification of the work authorization program authorized by the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324a, known as the E-Verify Program, or an equivalent federal program designated by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of a newly hired employee.

If the Vendor is an individual or sole proprietorship, the following applies:

a) The Vendor must complete the United States Citizenship Attestation Form, available on the Department of Administrative Services website at www.das.state.ne.us.

b) If the Vendor indicates on such attestation form that he or she is a qualified alien, the Vendor agrees to provide the U.S. Citizenship and Immigration Services documentation.
required to verify the Vendor’s lawful presence in the United States using the Systematic Alien Verification for Entitlements (SAVE) Program.

c) The Vendor understands and agrees that lawful presence in the United States is required and the Vendor may be disqualified or the contract terminated if such lawful presence cannot be verified as required by Neb. Rev. Stat. Sect. 4-108.

10. Breach

Should Vendor breach, violate, or abrogate any term, condition, clause or provision of this agreement, the County shall notify Vendor in writing that such an action has occurred. If satisfactory provision does not occur within ten (10) days from such written notice the County may, at its option, terminate this agreement and obtain an alternate provider to provide all required materials. This provision shall not preclude the pursuit of other remedies for breach of contract as allowed by law.

11. Assignment

The Vendor may not assign this Contract without the prior written consent of the County.

12. Subcontracting

Vendor may not subcontract the work to be performed, without prior written consent of the County. If such consent is granted, Vendor will retain responsibility for all work associated with the Contract. The Vendor must identify any subcontractors it intends to use in the execution of this Contract. The Vendor must identify subcontractors in writing within the proposal.

13. Independent Contractor

The Vendor shall in the performance of the Contract at all times be an independent contractor and not an employee or agent of the County. The Vendor, its officers, employees and agents shall at no time represent the Vendor to be other than an independent contractor or represent themselves to be other than employees of the Vendor.

14. Indemnity

The Vendor shall indemnify and save harmless Sarpy County, its officers, employees and agents from all loss, claims, suits or actions of every kind and character made upon or brought against Sarpy County, its officers, employees, or agents, for or sustained by any party or parties as a result of any act, error, omission or negligence of said Vendor or its servants, agents, and subcontractors; and also from all claims of damage in fulfilling this Contract.

Specifications

The dump body with hydraulic system shall be a new current model of proven performance and under standard production by the manufacturer. Units are to be of standard design, complete as regularly advertised and marketed. All necessary parts for satisfactory operation of the dump boxes with
hydraulic systems shall be furnished whether or not they may be specifically mentioned below.

The chassis provided by Sarpy County is a 2018 Volvo VHD64F300

1. **Company Information:**

Vendor will provide the following company information on the bid form:

   1. Years in business
   2. Number of employees
   3. Total sales for last three (3) years.

2. **References:**

Each Vendor must include with its proposal a list of no less than three (3) references that have purchased the specified product or service within the last two (2) years. The list must include the name of the company and the name and phone number of a contact person for each company.

3. **Literature:**

One (1) set of detailed specifications or advertising literature shall be furnished with the RFP.

ANY INFORMATION NECESSARY TO SHOW COMPLIANCE WITH THESE REQUIREMENTS NOT GIVEN ON THE ATTACHED ADVERTISING DATA SHEETS SHALL BE SUPPLIED IN WRITING AND ATTACHED TO THE BID PROPOSAL.

4. **Deviations:**

Once the bid has been accepted by Sarpy County, no deviations from the specifications will be accepted without prior written approval of Sarpy County.

5. **Delivery:**

Delivery is to be coordinated with Sarpy County Fleet Services, 15100 S 84th Street, Papillion Nebraska. The equipment will be accepted by a representative of the Fleet Services Department. State approximate delivery date in the space provided on the Bid Form. Delivery can be taken Monday through Friday, except holidays, 7:00 a.m. to 3:30 p.m. Vendor will provide with the Bid delivery date to Sarpy County. Contact Fleet Service at 402-537-6980, 24 hours prior to delivery.

6. **Exceptions:**

These specifications are minimum acceptable specifications. Vendor may bid other than what is specified if it is of higher specification than what is requested. Vendor must list any exceptions to the bid specifications on the exceptions/clarification/comment page provided. Indicate acceptance or exception by marking YES / NO for each specification listed. Any unmarked YES / NO line will be noted as “exception to the specification”.

7 | Page
Technical Specifications

Any reference to brand names and/or number in the Request for Proposal is intended to be descriptive, but not restrictive, unless otherwise specified. Other brands, of approved equal quality, may be considered for award. In the event of substitution, your proposal must clearly describe the article and the proposal must state the brand name and product number of the substitution offered. The determination of the Sarpy County Purchasing Department, in consultation with the ordering office, shall be final and conclusive in determining the equality of alternates.

YES/NO

I. DUMP BOX BODY

A. Dump body shall be a heavy duty steel western style with a non-cross-member type design.

1. Body shall be a minimum 180,000 P.S.I. tensile strength, 3/16” AR400 steel.
   - Specify body thickness: 3/16” AR400
   - Specify tensile strength: 205,000 lbs

2. Body shall be sloping running board type with non-cross-member sub frame.

3. Dump body shall be a minimum of fourteen feet (14’) long.
   - Specify body length: 14

4. Inside width of dump body shall be a minimum of seven feet (7’).
   - Specify body width: 7

5. Sides shall be a minimum of forty-four inches (44”) in height.
   - Specify side height: 44

6. Body ends shall be a minimum of ten inches (10”) higher than the sides with pockets for extension sideboards.
   - Specify height: 10

7. Pockets shall accept a 2” x 10” composite plank, pockets shall be made of ⅜” steel x 10” inch high. Placement of pockets shall be front, middle and rear.

8. High density poly side boards shall be install and bolted into front, middle and rear side pockets. Poly side board shall be 10” wide. Poly side boards shall have 2” long notches cut into them were they are bolted down to allow for expansion.
and contraction of material.

9. Two (2) body props: one (1) left hand and one (1) right hand are required.

10. Left front body side shall have a pull out adjustable drop down ladder for access from the ground. Upper body ladder shall be designed to have the proper steps and hand holds for safe operator access to top of body. Left front lower corner of box shall have step added for safe transition from cab step to box. Left front inside of box shall have a minimum of two steps for operator to exit from inside of box safely. All steps shall be made of extruded grip-strut type material.

B. Body Floor

1. 1/4 inch AR 400 steel.

2. One (1) piece floor design.

3. 180,000 P.S.I. minimum tensile strength.

4. Floor to side joint shall have a radius design.

Specify floor thickness: 1/4" AR450
Specify tensile strength: 205,000 lbs

C. Body Sides

1. 3/16 inch AR400 steel.

2. 180,000 P.S.I. tensile strength minimum.

3. Each side shall be reinforced by vertical box sections and have sloped angles to shed dirt and debris. Please see "Options" for additional body options. AR450 needs little to no bracing due to the fact it is flexible(to an extent). Bracing the panel actually takes away the flexability.

4. Side top rails shall be formed to a boxed section.

5. Rear corner post shall be of the one piece design. Rear corner post shall be full depth from the top of the gate to the bottom of the rear cross member and fabricated of one sheet to a box section.

6. Upper and lower chain slot banjo brackets shall be include on rear corner post.

Specify body side thickness: 3/16" AR450
Specify tensile strength: 205,000 lbs
D. Front Panel

1. 3/16 inch AR400 steel.

2. 180,000 P.S.I. tensile strength steel.

3. One piece design.

4. Upper inside stiffener of front panel shall have sander mounting tubes welded to the bottom side of stiffener. Tubes shall be placed 25" in from the inside edge of the dump box. The tube diameter shall be 2" outside diameter with 3/8 wall x 3" long. **Contact Fleet Service with any questions.**

 Specify front panel thickness: \[ \frac{3}{16} \text{ AR400} \] Specify tensile strength: \[ 265,000 \text{ lbs} \]

E. Tailgate

1. 3/16 inch AR400 steel

2. 180,000 P.S.I. tensile strength steel.

3. Tailgate seams to be continuously welded. Skip welding will not be accepted.

4. Top horizontal brace shall be full width boxed type design and welded to tailgate frame.

5. Tailgate shall have horizontal or vertical braces. All horizontal sections shall be tapered to shed debris.

6. Tailgate upper hinges shall be offset type constructed.

7. Tailgate shall have vertical end braces extending from offset hinge to 1-1/4 inch diameter lower pins.

8. Spreading chains shall be **welded** below the top horizontal brace on the inside edge of the tailgate. The chains will extend 72" to reach the lower brackets on the inside edge of the tailgate. The chains will go through the brackets to the lower chain slot brackets to secure and adjust the tailgate. Spreading chains shall be a minimum of 3/8 inch.

9. Tailgate shall have solenoid activated air operated bottom latch with control in cab. Solenoid shall be mounted separate from cylinder behind truck cab on bracket for easy access and repair.
10. Bottom latch shall be over the center type with steel or cast iron hardware. Latching mechanism shall be independently adjustable.

11. Air cylinder to be double acting type and retracted when tailgate is closed. Air cylinder rod shall be stainless steel.

12. A warning light mounted in the dash shall indicate when tail gate is released.

Specify tailgate thickness: __3/16__ AR450
Specify tensile strength: __205,000 lbs__

F. Cab Protector Shield

1. 7 gauge A1101 steel.

2. 65,000 P.S.I. tensile strength steel.

3. Half cab protection.

4. Cab protector shield shall be reasonably close to top of cab.

5. Cab protector shield shall be minimum 84".

6. All joints to be continuously welded. Skip welding will not be accepted.

7. Cab protector shall meet all OSHA standards.

8. Cab protector shall have provisions that will allow draining of water.

9. Cab protector installation and alterations shall be provided as needed for chassis provided.

Specify cab protector thickness: __7ga__
Specify tensile strength: __65,000 lbs__
Specify cab shield length: __24" x 84"__

G. Hoist System

1. Bailmount front mounted cylinder

2. NTEA class 120 cylinder or approved equal

Specify Manufacturer and Model of Hoist:

Hoist Manufacturer: __Hyva__
Hoist Model: __FC 145-5.5-4__
3. Operating pressure of 2500 psi

4. 50-degree dump angle

5. Cylinder shall have the length of stroke as required by the body manufacturer

6. Lifting capacity minimum 35 tons

7. A lift limit mercury switch shall be provided to stop the flow of hydraulic oil to the cylinder. Lift limit switch shall be adjustable to obtain the correct box lift dump angle.

8. Critical rotating pivot points equipped with composite bearings.

9. Cylinder shall be equipped with an auto bleed or manual bleed valve.

Note: Box location and mounting will be inspected prior to welding in place by Fleet Service.

Body Finish

1. Dump body, cab protector, understructure, piping, pump and hydraulic components must be thoroughly cleaned and metal treated per paint manufacturer's recommendation.

2. Metal will be completely primed with rust inhibitive primer/sealer that is recommended by the paint manufacturer and compatible with top coat. Minimum of two (2) coats primer on all components is required.

3. Automotive seam sealer will be applied to all open seams.

4. Top coat shall be multiple coats of activator hardened acrylic or polyurethane paint and be two (2) mil to three (3) mil thickness. Color shall match cab chassis body white.

5. Under-structure of dump body, piping, pumps, hinge plates, brackets, tail light panels or any other area that has been changed from factory frame must be painted with two (2) coats of black paint.

6. Bidder must submit information on brand, type of paint and primer:

Paint manufacturer: Sherwin Williams

Paint type: Genesis G2, 3.5 VOC, 2 component acrylic polyurethane

Primer: Two types of primer are used. 1st coat is a 2k urethane primer, used on all AR450 bodies. 2nd coat is 2 two component epoxy primer.
I. Lights/Equipment

1. Lights to comply with D.O.T. Federal and State safety regulations.

2. Rear oval stop/turn signal, marker lights and oval backup lights - one (1) each side in rear vertical end braces mounted in rubber grommets. All lights shall be LED design.

3. Rear oval stop/turn signal lights and three pin style led marker lights shall be mounted between box hinges. Mounting plate shall be made of stainless steel.

4. Two (2) Sound Off-Signal (ENT3B3A) strobe lights or prior approved equal shall be recessed into each rear vertical end brace above the Banjo chain slot brackets at a 45 degree angle.

5. One (1) Federal Signal (4S4101L-25) Highlighter or prior approved equal LED Amber strobe mounted on roof of truck cab.

6. Two (2) Sound Off-Signal (ENT3B3A) surface mounted strobe lights or prior approved equal shall be mounted on lower front body seam of cab. One on each side of truck cab. Brackets shall be made of stainless steel for mounting of lights. Contact Fleet Service for placement of lights.

7. All wiring, light fixtures and connections mounted to protect from adverse weather operating conditions in snow, mud, rock, etc.

8. All electrical connections shall be properly soldered and weather sealed with heat shrink. If wiring connections are not properly soldered and weather sealed the truck will not be accepted.

9. Body shall be equipped with four (4) rubber anti-sail mud flaps mounted in front and back of tandems. Front mud flaps can either be mounted to the dump body or the chassis frame with steel supports.

II. HYDRAULIC SYSTEM

A. Hydraulic system

1. The hydraulic system shall provide hydraulic power for the operation of the hoist and dump body operation, salt/sanding hopper system, and snow plow operation.

2. All individual components of the hydraulic system shall be equipped with pressure limiters which will supply only the necessary working pressure required by the manufacturer.
B. Hydraulic Pump

1. The hydraulic pump shall be a U.S. manufactured axial piston pressure and flow compensated load-sensing type. The pump shall be cast iron construction and rated to 6.00 cubic inches per revolution at maximum stroke which will deliver 19.2 GPM @ 1000 RPM. The pump shall have a 2" inch suction line and ¾" case drain line plumbed directly back to the reservoir. The pump shall be rated for 4000 PSI maximum and 3500 PSI continuous. The pump shall have a severe duty, high pressure outboard Teflon shaft seal that protects the pump shaft bearing and seal from external contamination and salt spray. The pump shall have a 1¼" keyed drive shaft and SAE type C mounting flange. The pump shall be a Force America FASD45R or prior approved equal.

State make, model, size and type of pump

Oilgear brand, FASD45R, 6.00 CID, Load Sense Piston Pump

Pump is rated for 3000 PSI max / 2500 PSI continuous operation.

C. PTO

1. The power take off (PTO) shall be mounted to an Allison automatic 4500 RDS transmission. The PTO shall be a hotshift type and rated to run at 90-110% of engine RPM. The PTO shall be rated to handle a constant torque of 200 ft/lb. The output shaft shall be 1-1/4" keyed. The PTO shall be a Parker Chelsea 277 series or approved equal.

PTO will be connected to transmission with a wiring harness and will interface with Transmission ECM for PTO control. PTO will be engaged by rocker switch on control console in cab with red pilot light indicating PTO engagement. PTO to be engaged only when the engine speed is at idle and vehicle speed is less than twelve (15) mph. PTO is to disengage when vehicle speed exceeds fifty (45) mph.

State manufacturer, model and type of PTO:

Parker Chelsea, 280 Series hot shift PTO

D. Shut Down

1. Shut down System: There shall be a sensor for low oil mounted in the reservoir. It will be a normally open circuit. When oil reaches a critical level this circuit will close sending a signal to the hot shift powering it off, disengaging the pump and shutting off the flow of oil to the system. At the same time a signal will be sent to an indicator mounted in the
control center alerting the operator of system shutdown. A low level oil manual override switch will allow the operator to momentarily override the system shutdown to raise the plow or lower the dump body in order to return to a maintenance facility.

E. Mounting

1. The hydraulic pump shall be mounted with shaft centerline parallel to the PTO output shaft centerline and at a level to create not more than a three-degrees of angle on the driveline. The pump mounting shall be incorporated with a bracket fabricated to mount in the frame rails of the truck.

F. Driveline

1. The hydraulic pump shall be driven directly off the PTO output shaft via a spined driveline to allow for movement. The driveline shall include grease fittings on both u-joints. Driveline shall be a Model 1310 series with Spicer 4 bolt Flange Yokes for easy removal of PTO shaft.
P TO-PUMP Flange part # N2-1-13134.
Drive Shaft Flange part # 2-2-329

G. Reservoir/Valve Enclosure

1. The hydraulic reservoir will be of 35 gallons nominal capacity.

2. The hydraulic reservoir will be constructed of 10-gauge stainless steel and be internally baffled.

3. Mounting bracket is to be designed and supplied by the reservoir supplier.

4. Mounting system should allow for a 1" frame clearance for frame obstructions.

5. Tank shall be mounted in a manner as to not transmit any truck torsional loads through the tank.

6. The enclosure will use a gasket-less passive technology. (No rubber seals, gaskets, or weather stripping.)

7. The enclosure lid will be removable within seconds by one person without the use of tools.

8. All valve fittings, hose ends, filter, filler breather, sending units and any
9. The reservoir supplier will provide all valve fittings (JIC connections) and plumb the return line from the valve to the filter.

10. The cover will protect from both road and pressure washer spray.

11. The use of bulkhead fittings is not permitted.

12. The directional control valve must be easily accessible from all (6) sides without the use of tools.

13. Hose exit and entrance must allow for components to be mounted adjacent to the enclosure.

14. A 2" full flow brass ball valve shall be plumbed at the suction port of the tank.

15. A low oil/high temp sending unit shall be mounted in the reservoir.

16. The valve/tank assembly shall be a Force America Model “VT35 Valve/Tank Assembly” or prior approved equal.

H. Hydraulic Filter System

1. Hydraulic oil filter shall be mounted in the reservoir. Hydraulic filter shall be a 16-micron absolute and rated for no less than 60 GPM. Filter shall be model TS160025150/2SRE40910E or prior approved equal and include visual and electrical bypass indicators. A warning light shall be mounted in the cab and wired to the electrical indicator. The system shall be delivered with one spare filter element.

I. Hydraulic Control Valve

1. The hydraulic valve shall be of modular manifold design. Each hydraulic function requires an individual manifold stacked together to form the manifold base. The manifold base shall consist of an inlet section with SAE #16 inlet porting, SAE #20 outlet porting, and SAE #4 load sense porting. There shall be a main system relief in the inlet section to protect the system from high pressure in case the pump compensators fail. The dump body manifold shall be stacked next to the inlet section, and capable of 40 GPM with SAE #12 porting. The hydraulic control valves shall be pulse-width modulated, proportionally controlled. Each hydraulic valve segment shall be individually mounted to the manifold base assembly and be serviceable without removing any hydraulic hoses or any other hydraulic valve segments. Each hydraulic valve segment shall have individual pressure compensation to achieve independent
simultaneous operations. All segments shall have heavy-duty continuous duty coils and connections shall be with Din connectors. All coils shall operate at 12 VDC and require a maximum of 1400 milli-amps. Each segment shall be equipped with a manual override except for the auger and spinner sections. The dump body segment shall be rated to 40 GPM, with all other segments rated to 20 GPM. If a double acting hoist is utilized, the dump body segment shall be equipped with a down side relief to protect the body down function. This relief shall be set to the hoist manufacturer's specifications. Valve segments shall be Force America Add-A-Fold® 4020 model or prior approved equal.

J. Integrated Plow Power Float

1. The plow power float shall be counterbalance valve that has the ability to take some of the plows weight off the blade and on to the front of the plow truck. The valve shall work by supplying pressure to the lift cylinder to partially lift the Plow. The same valve works for both single and double acting plow lift cylinders. Unused ports are plugged.

Electrical switching shall be provided in the control console to automatically turn the valve off in order to hold the plow in the raised position. If the counterbalance valve is not turned off the plow will drift down after it is raised. Float pressure will need to be adjusted to insure that the plow drifts down at the right speed. The valve shall use a pressure reducing/relieving valve to control the float lift pressure. Two solenoid valves wired together turn the valve off and on. One solenoid valve opens the inlet pressure valve to the pump. The other solenoid valve opens the outlet of the pressure reducing/relieving valve to the lift port.

Oil flowing in and out of the lift port is restricted with an orifice. The plow power float shall be integrated into the main control valve stack. Externally plumbed valves are not acceptable.

K. Plow Pressure Release Valve

1. There shall be a pressure release valve mounted on the front plow frame for easy access. The valve shall release the pressure in the plow lift circuit to allow connection & disconnection of quick couplers. The valve shall be an aluminum manifold with a pull type release valve. The valve shall have SAE #8 o ring ports. The exhaust line shall be plumbed directly back to the reservoir. The valve shall be Force America C10190 or approved equal.
The valve is to be arranged as follows:

- **Hoist:** 40 GPM, 3-way valve
- **Plow lift:** 21 GPM, 3-way with integrated plow power float
- **Plow angle:** 21 GPM, 4-way
- **Auger:** 14 GPM, 4-way auger/auger reverse
- **Spinner:** 7 GPM, 2-way proportional cartridge

L. **Hydraulic - Piping, Fittings, Coupler, Hoses**

1. All hydraulic lines and plumbing shall be of sufficient capacity so as not to create heat or turbulence within hydraulic system. Suction line between reservoir and pump shall be a minimum of 2 in. I.D. with a minimum SAE 100-R4 rating and shall be secured on both ends via heavy duty banding straps, radiator hose clamps unacceptable. All pressure hoses, including signal sense to pump shall have swivel fittings on both ends and have a minimum SAE 100-R2 rating. Return lines and case drain shall have minimum SAE 100-R1 rating.

2. Hydraulic lines shall be routed to minimize interference with equipment and chassis components requiring periodic servicing. Support brackets, grommets, and tie wraps shall be provided where appropriate to protect lines from damage by abrasion, cutting or impact.

3. Hoses shall not be routed near exhaust manifold pipes, bolts, sharp edges, and exhaust system to prevent wear, fatigue or fire. Pipe fittings are not acceptable in any high-pressure line. Maximum distance between support clamps on all hydraulic lines shall be 24 inches.

4. Installer shall provide hydraulic quick couplers for plow reversing cylinders. Two (2) Aeroquip 5601-8-10S and two (2) Aeroquip 5602-8-10S or prior approved equal.

**NOTE:** Location and mounting instructions per Sarpy County Fleet Service.

5. Velocity fuse on main hydraulic line by pump to lock up if failure of hydraulic hoses. Per Addendum 2, Electric shut off is sufficient

6. Installer shall provide hydraulic quick couplers for sander/spreader. Coupler shall be securely mounted for ease of coupling at rear of dump body. The preferred location is between rear frame rails.
M. Hitch/Hydraulic coupler mount

1. The hitch/hydraulic coupler mount will be mounted from the underside of the box hinge plate. The hydraulic coupler box shall be 6" deep x 5 1/2" High with the bottom plate set at a 30 degree angle for salt and sand to slide off. The lower section of the mount will incorporate a heavy duty tailor made hitch to match to towing capacity of the truck. The hitch plate will contain a heavy duty pintle hitch, two safety chain D-ring hangers, one smaller D-ring hanger for the trailer brake away cable and two 7 pin connectors. The sander connector shall be a Phillips 15-740 or prior approved equal. The trailer connector shall be a Phillips 16-713 or prior approved equal and will require a trailer brake controller to be installed in the cab.

NOTE: See attachment C for sander plug wiring.

Aeroquip brand.
(1) 5602-16-165 - Male end on return line.
(1) 5601-12-125 - Female end on conveyor feed.
(1) 5601-8-105 - Female end conveyor reversing valve
(1) 5602-8-105 - Male end on spinner feed.

NOTE: See attachment A for spreader hose and coupler configuration.

III. CAB CONTROL CENTER

1. Controls for all valve functions and electronic spreader control will be integrated into a single, self-contained control center. The control center shall be a padded armrest style that is ergonomically designed. Control center shall be modular in design for ease of installation and service, and wiring and connectors shall be keyed and color-coded throughout. All components must be durable for long life and trouble free operation.

2. The electronic controller shall be a fully proportional multi-stick controller to operate all cylinder functions. Multi-stick PWM driver electronics shall include as standard the capability to control at least 9 proportional outputs simultaneously. The control is available in a 3-stick or 4-stick configuration. Controls for spreader must be located on armrest at the operators fingertips. There shall also be four auxiliary rocker switches available with an additional fifth switch being the main power switch for the spreader control. The switches shall be located between the joysticks and spreader control interface and each shall be rated for 15 amps continuous current minimum. Console options shall be capable of supplying full rated power to switch outputs when all four auxiliary switches are at full 15 amp load.
SWITCHES

1. PTO: on/off
2. Strobe lights: on/off
3. Plow lights: on/off
4. Tail gate: open/closed
5. Spreader: on/off

For ease of operation the multi-stick control shall include the following features: LED-backlit nomenclature for all joystick functions and a momentary push-button at the top of the hoist stick to provide hoist-interlock. The “Hoist” decal shall be illuminated amber while disabled, and change to green backlighting when the driver engages the hoist interlock button. The green “Hoist” LEDs shall remain illuminated while the hoist is under operation and shall time-out after a period of hoist inactivity that is selectable from 0 to 15 seconds. To ensure longevity of performance all lighting to be solid-state LED technology. The use of incandescent lamps or EL backlighting is unacceptable.

The plow, wing, scraper, or other joysticks shall have the option to include a momentary pushbutton for activation of remote spreader standby, remote spreader blast, or electric joystick interlock. The multi-stick communication hardware/software shall include 4 integral float options. The use of add-on float modules is unacceptable. For flexibility of use the integral float programming shall have the following standard features:

1. (4) axis functional float on any or all of the outputs with selectable forward/back, right/left functionality
2. 3-way or 4-way functionality
3. Selectable (3) second float delay timer
4. Optional float enable switch inputs
5. When float output for a given joystick function is active, the LED backlit nomenclature shall blink ON/OFF to provide visual feedback to the operator that the float function is engaged.

All function joysticks shall be of contact-less Hall-effect design and offer up to a 5-Million cycle life. The use of potentiometers is unacceptable. To increase safety of operation, joystick communication hardware/software shall include the following standard features:

1. Input power monitor circuitry with power quality diagnostics
2. Redundant dual-reference joystick signals for each joystick axis

3. Joystick input off-center checking on all axes and output shutdown on system power-up

4. Joystick out-of-range fault condition checking and output shutdown

5. True outputs off with joystick centered

6. LED backlit nomenclature shall illuminate and flash RED when any error condition exists and an audible alarm shall sound

7. Technology that is capable of using a supervisor key to provide access to the calibration parameters without the access code. The entire operator interface shall be backlit and encased in flexible silicone material with wear-limiting coating applied to the base silicone material. The LED-backlit nomenclature shall blink ON/OFF with increasing frequency as the corresponding function is increased in speed to give the operator visual feedback of each joystick output.

Multi-stick control shall communicate all joystick data over the spreader control CAN bus. For ease of service and diagnostics the multi-stick control shall have the following easily accessible through the spreader control calibration menus:

1. Unique MIN/MAX adjustments for each joystick function (forward, back, left and right)

2. On-screen output status indicators for each PWM output

3. Audible and visible output error status indicators with flashing error codes for each joystick function

4. The multi-stick control joystick outputs shall be communicated over the spreader control CAN bus to the Valve Module. Spreader control outputs and joystick control outputs shall be operated on the same Valve Module, or multiple modules as necessary.

**NOTE:** See attachment B for joystick configuration.

The electronic spreader control shall be designed for precise, closed-loop control of granular and pre-wet liquid applications and operate on a CAN Bus protocol. The Central Processing Unit (CPU) shall have keyed and color coded connections to prevent incorrect installation. The CPU shall be mounted in the cab with visual access to diagnostic LED's. Mounting of the CPU unit outside of...
The cab is unacceptable. The unit shall have USB connectivity for file and data transfer, Ethernet connection, a J1939 communication port for connection to the vehicle bus, a second CAN bus communication port for spreader-only data use, a J1708 connection for a temperature sensor, and a RS-232 connection for AVL communication. The CPU shall have on-board diagnostics, which provide real-time status of CAN bus communication, processor activity, and power status. The CPU shall have a built-in audible alarm for diagnostic purposes. The CPU operating system shall NOT be Windows-based.

8. The spreader control interface shall have two, color-coded, continuous rotation encoders for granular and spinner control. These encoders shall have integrated push buttons for blast mode and stand-by. The controller shall have a third multifunction 4-way joystick that has an integrated rotary encoder and push button, that can be used for menu navigation, pre-wet liquid control or an additional conveyor function. There shall be four, two-way soft keys included in the interface that are generically labeled and user-configurable for different functions depending on the equipment needs. One of the soft keys shall be set up for auger reversing. The controller shall also utilize iButton technology that is capable of using a Supervisor key to provide access to the calibration parameters without the access code. The entire operator interface shall be backlit and encased in flexible silicone material with wear-limiting coating applied to the base silicone material. The operator interface shall communicate on the spreader control system CAN bus.

9. The spreader control display shall be a remotely-mounted, 7” diagonal Color TFT LCD, with a low-profile 16:9 widescreen format and minimum of 800X480 pixel resolution. LCD shall have variable LED backlighting. CCFL backlighting is unacceptable. The display shall include a scratch resistant polycarbonate lens with anti-glare coating. A power status LED shall be immediately visible on the front of the display and shall report display diagnostics including loss of CAN communication. Display unit shall have a built-in audible alarm. To avoid driver distraction, the display shall have no integrated dials or pushbuttons and shall not be touch screen. LCD shall communicate on the spreader control system CAN bus.

10. The operator menus shall be color-coded to match the encoder knobs on the operator interface. The display shall be capable of displaying the following on-screen simultaneously: Granular material name, granular material set point and actual application rate including units of measure, pre-wet liquid name, pre-wet liquid set point and actual application rate including units of measure, spread width, road temperature, air temperature, material usage total, liquid usage total, vehicle speed, and current date and time. The operator shall have the option of selecting five data items to be displayed on screen during operation. The display will also provide four warning light indicators for low oil level, body up, oil temp, and filter bypass. These warning lights are to be functional regardless of spreader operation or status.
11. The display must provide visual indication that the spreader control is connected to a compatible AVL device, if equipped. The spreader control shall warn operator if communication with the AVL device fails at power-up.

12. A proportional PWM driver and input module (Valve Module) shall be remotely mounted inside the hydraulic valve enclosure for control of both spreader control and joystick control outputs. The entire Valve Module shall be of rugged design for the mobile environment, and must meet p68 requirements for dust and water ingestion. The Valve Module shall include a minimum of eight proportional PWM outputs with potted valve output connections. All outputs shall be protected against short-circuits. Outputs shall be current-compensated and have adjustable PWM frequency. There shall be a minimum of five switch-to-ground type inputs for monitoring hydraulic system inputs such as oil level, body up, Hi and low filter bypass, and oil temperature warnings. A minimum of two switch-to-ground type pulse train inputs shall be included in the Valve Module for connection of feedback sensors such as auger feedback and pre-wet liquid flow meter feedback. A keyed and color-coded connection shall be provided for CAN bus connection to the CPU module inside the cab. A second CAN bus connection must be provided for daisy-chaining of multiple Valve Modules within the valve enclosure. Diagnostic LED's shall be included for every input and output on the Valve Module, as well as a power status LED and CAN bus activity LED's. The Valve Module shall be potted. The Valve Module shall include a stainless steel legend plate with engraved text for easy cleaning and identification of Valve Module connections.

13. The integrated spreader control and joystick control system shall be equipped with a qualified ESTOP device that immediately disconnects battery power from all outputs. All spreader control and joystick-operated outputs shall immediately cease to function and the system display shall inform the operator that the ESTOP device has been activated. The ESTOP device must remove power from all output devices, while maintaining power to the display and CPU for diagnostic purposes. Resetting of the ESTOP device shall not result in spreader control and joystick-operated outputs returning to an ON state without operator acknowledgement.

14. The control center arm shall be mounted to the floor via a switch base cabinet that contains at least 8 rocker type switches rated to 15 amps each. The switch base shall be supplied an 80 amp contact relay. Each switch shall be protected via an auto reset breaker. Each rocker switch shall have a custom backlit LED legend.

The Control Center shall be equipped with a 6100 series spreader controller.

IV. INSTALLATION

1. The installer shall be responsible to ensure the proper location of the body on the truck to obtain the best working results.
2. Dump body hinge shall be recessed into the chassis frame and solidly welded.

3. The cylinder saddle shall be solidly welded to angles that are bolted to the frame.

4. Battery on chassis will be disconnected anytime that welding is performed on chassis.

5. All required components shall be supplied by the installer.

6. Professional techniques and workmanship are required.

7. No welding or cutting of chassis frame rails except as stated elsewhere in the specification.

8. Welds must be chipped free of slag and thoroughly protected with white or black paint as appropriate.

9. Improper mountings, poor welding practices, the presence of slag, hydraulic oil leaks or inadequate paint coverage will be cause for rejection.

V. MANUALS AND TRAINING

1. Two (2) Operator Manuals CD/Flash Drive.

2. Two (2) Service Manuals CD/Flash Drive.

3. Two (2) Parts Manuals CD/Flash Drive. ALL Manuals that come with components for build will be in a folder in the cab. J-Craft does not have a "Parts Manual"

Note: Service and parts manuals on CD will be acceptable.

4. A minimum of two (2) hours of operation and service/repair training for the hydraulic and spreader systems and control units for the Sarpy County Fleet Service Staff (five (5) Personnel) is required.

5. A minimum of two (2) hours of operator training for Sarpy County Public Works Department Staff is required.

VI. WARRANTY/GUARANTEE

1. Full five (5) year warranty on body, hoist. Full two (2) year warranty on pump, lines, reservoir, valves, controls and installation.

J-Craft standard warranty is 2 year
2. Regular manufacturer's standard warranty, manufacturers statement of origin and complete pre-delivery inspection certificates required with truck at delivery.

3. The manufacturer's standard warranty shall be stated in the bid.

4. All warranty work shall be performed within one hundred fifty (150) miles of Sarpy County Fleet Shop at 15100 So. 84th Street, Papillion, NE 68046.

5. Mechanical or body repair required under manufacturer's warranty prior to use of the vehicle by the County shall be the responsibility of the selling dealer, including the transportation thereof.

6. Warranty to be effective from date of issuance of first assignment.

Specify terms of warranty See Warranty Policy (Attached)

VII. DELIVERY

1. Specify delivery time of box: 120 days or less from order date.

2. Specify delivery time of hydraulics: 120 days or less from order date.
Attachment B

Plow and Dump Body Hoist Control Joysticks

Snow Plow
Left Control

Lower
Raise

Dump Body
Right Control

Lower
Raise

Left

Right

Lift to Unlock
Attachment C

SANDER PLUG TRUCK SIDE

1. WHITE------------------ MAIN GROUND
2. BLACK----------------- CLEARANCE/WORK LIGHT
3. WHITE------------------ WHITE WIRE SANDER SENSOR
4. GREEN----------------- RED WIRE SANDER SENSOR
5. BLACK----------------- BLACK WIRE SANDER SENSOR
6. GREEN/BLACK-------- LOW FLUID PREWET
7. RED/WHITE---------- PREWET ON-OFF

LOOKING AT BACK OF PLUG
Addendum #1

Three (3) New Fourteen Foot (14') Dump Bodies with Hydraulic Systems
For the
Public Works Department

Clarification #1: Sealed bids will be received Monday through Friday 8:00 a.m. to 4:45 p.m. except holidays, until **Tuesday, January 23, 2018 at 10:00 a.m.** Bids shall be in a sealed envelope, clearly marked "Sealed Bid – Three (3) New Fourteen Foot (14') Dump Bodies with Hydraulic Systems" and shall have the name of the Vendor, and the time and date of the bid opening.

Question 1: Page 8, Item 2 "Body shall be sloping running board type with non-cross-member sub frame". Can you provide more description/explanation on this? My dump body specialist is not sure what you need.

Response: Sloping running board type is an oversight on my part. The side of the box shall be the same height from the front to the back were the poly side boards will be placed.

Response: The underside of the box will be smooth.
Question 2: Can you look at the attached picture of our standard end cap and see if this can be approved or if this would meet your spec (14' dump body system)? We use the OEM lights or also can supply LED if needed. I can swap out the OEM lights for ovals if that is what I need to do. Please let me know. Can I see what you are referring to in the spec? Do you have a picture you can share? Can I also get a picture of the 45° surface mounted strobes in the front and rear? This way I can have an idea what I need to do on my end. Please let me know if you have any questions.

Response: Image of rear of truck hitch setup.
Response: Lights mounted to the side of the cab. Some installations may need brackets.

Response: recessed light mount.
Question 3: Can you provide any pictures of dump bodies Sarpy County already have which these specs are based off showing options you are asking for in spec; as in the spreading chains (E-8), tailgate hinges (E-6 and 7), mounting tubes for sander (D-4) and confirm hoist design (G-1); my supplier is needing better clarification. What is brand of dump body that the spec is based off; this would help as well.

Response: (E-6 and E-7) Picture of the spreading chains. (E-8) Tailgate hinges and lower 1-1/4 pins for the latches. Look at top corners for recessed lights.
Response: (D-4) Tubes mounted on front brace for sander hookup.

Response: (G-1) The lift cylinder shall be mounted to the front of the dump box to completely eliminate the doghouse for excellent clean-out and increased capacity.
Response: The spec is based off of Crysteel Select Bodies. Any reference to brand names and/or number in the Request for Proposal is intended to be descriptive, but not restrictive, unless otherwise specified. Other brands, of approved equal quality, may be considered for award. In the event of substitution, your proposal must clearly describe the article and the proposal must state the brand name and product number of the substitution offered. The determination of the Sarpy County Purchasing Department, in consultation with the ordering office, shall be final and conclusive in determining the equality of alternates.

All other terms and conditions remain unchanged. Addendum must be acknowledged on the Bid Form.
Addendum #1

Three (3) New Fourteen Foot (14') Dump Bodies with Hydraulic Systems
For the
Public Works Department

Question 1: On page 18 of the bid specs for the 14' dump packages, section L, line #5. You are requesting a velocity fuse on the main hydraulic line in case of hose failure. Does the electric shut off on the pump count towards this, or do you need both? On doing some research I have found that a velocity fuse "shuts down" when the flow exceeds the setting of the valve (velocity fuse). Can I get an explanation of where it is used if I need to supply this as well as the electric shutoff?

Response: Electric shutoff is sufficient.

All other terms and conditions remain unchanged.
Addendum must be acknowledged on the Bid Form.
J-Craft, Inc., Warranty Policy
Updated February 2015

J-Craft, Inc., offers a comprehensive warranty that warrants your J-Craft product against defects in material and workmanship for 2 years from the in-service date.

J-Craft's warranty is limited to truck bodies and accessories manufactured by J-Craft, Inc, and installation only of purchased accessories, including but not limited to snow plows, tarps, sanders, and spreaders.

**J-Craft's 2-Year Warranty Includes:**
- J-Craft Manufactured product
- The repair of warranted product
- Labor to replace warranted product
- Freight for replacement product
- Warranted product return freight (if required)

OEM Products or accessories purchased by J-Craft (such as Henke Plows) as part of i or offered with our product will carry the OEM manufacturer's warranty.

**Paint Warranty of J-Craft bodies includes:**
- Factory applied top coat paint has a one year warranty.
- Paint warranty does not include any primer or paint applied to the inside or understructure of any J-Craft dump body.

**This warranty does not cover:**
- Diagnostics time
- Loss of use or any other downtime expense
- Travel Time or Rental unit
- Maintenance fluids
- Repairs due to inadequate diagnostics

No warranty of any kind applies to products which have been damaged, have failed because of neglect, lack of maintenance, service, lubrication, wear, misuse, or accidental overloading. Repair or replacement is at J-Craft's discretion.

Complete warranty information is available by contacting J-Craft at (800) 763-6017 or sales@j-craftinc.com.
J-Craft Warranty Claim Procedure  
Updated: February 2015

J-Craft, Inc. will work with you on any product issues that may arise. In order to process your claims most efficiently, please follow the steps outlined below. However, you can Contact Us at any time if you have any concerns or issues that arise with our procedure.

1. If product is purchased directly through J-CRAFT please contact the Technical Services Department at J-Craft, furnish the truck body serial number or truck VIN, and describe the situation.

   J-Craft's Technical Service phone number is: 800-883-9191.
   a. Technical Services will determine if the repair(s) merit warranty consideration.
   b. If Technical Services determines the repair(s) are warrantable, they will assign a warranty claim number, send the customer a Return Authorization (RA) form, and advise the customer on how to proceed. NO REPAIR OR MODIFICATION IS TO BE CONDUCTED WITHOUT A WARRANTY CLAIM NUMBER BEING ASSIGNED.

2. All warranty repairs require pre-approval. Failure to receive pre-authorization may result in the claim being denied.

3. An order to replace the warranted product will be created and labor credit will be determined. The part(s) will then be shipped "no charge".

4. You will receive a separate Return Authorization (RA) letter for each product being returned. The RA letter will contain return shipping instructions of the defective product.

5. If required, affix the provided shipping label on the packaged part to be returned and ship as instructed in RA letter (must be within 5 days).
6. If you have been asked to return product by LTL freight, you must advise 
J-Craft's Warranty Department. Please contact them via fax or email with the 
tracking number as soon as the product has been shipped.
   J-Craft Warranty Dept
   Fax: 507-726-2559
   Email: dwolle@tbei.com

   This will insure the issuance of any labor credit due and will avoid invoicing for 
any non-returned product (must be returned within 5 days).

7. If you were mailed or faxed a prepaid UPS label, apply label to container and 
take to nearest UPS shipping location (must be returned within 5 days).

8. Failure to ship product authorized for return will result in an invoice being sent for 
the full price of the shipped product.

9. The original warranty period is still in effect and will not be extended due to the 
part replacement.

** No warranty repair or invoice will be considered unless prior approval has 
been issue by the J-Craft warranty department.
Designed with Vision in Mind

FORCE America understands the importance of engineering with a vision for the future. That is why the 6100 Control System is considered the industry's premier integrated joystick and spreader control system. The 6100 features a vivid 7" color LCD and true CAN bus connectivity. It can be customized for use today and expanded to accompany new developments in snow and ice fighting techniques down the road. The 6100 Control System is truly designed for today with tomorrow in mind.

High Resolution 7" Color LCD Screen
Displays information-rich graphical representations providing operators a comprehensive view of their snow and ice operation.

CAN Bus Central Processing Module
Slim design provides centralized connections to AVL devices, USB fobs and other in-cab peripherals with a path for future expansion.

Connectivity
Offers ability to plug-and-play with a single connector system to 12 VDC spreader body and trailer systems.

Visible Integration
Integrated AVL/GPS System collects and reports complete information on: Route, Vehicle, Location and Material Application (available separately).

Patrol Commander Ultra
Offers intuitive user interface on the joystick armrest for ease of operator sight and reach.

Quality Assurance
CAN Bus control system is designed for and tested against the harsh environment of winter road maintenance with multiple levels of fault protection.
Its visionary design reduces the amount of wiring needed, offering an unmatched ease of use and flexibility. In addition, through the use of ISOBUS connectivity, the single connector system supplies CAN signals and 60A of 12VDC power to equipped spreader bodies and trailer systems. Best of all, the LCD’s graphic-rich mode-specific screens allow for easy viewing of comprehensive information.

**Multi-Lane Direct Liquid Application**  When connected to a 3-lane liquid anti-icing system, the display adapts to show live status of spray bar activity and liquid levels in the tank.

**Slurry Application**  Connect to a granular spreader body with high-flow liquid capability to apply a slurry mixture that hits—and sticks—to the road.

**Precision Spread Pattern Control**  Individually controls the spinner RPM and direction as the system automatically maintains the chosen application rate per lane mile.

**Tow Plow**  Simultaneously drive two closed loop granular and/or liquid spreaders—one on the truck, and one on the tow plow.
Available Options

**Patrol Commander™ Ultra 6100 Cab Mounting Options**

*One to Five Joystick Configurations.* The popular SSC6100 Patrol Commander Ultra series controller is now available with one to five mini-joystick configurations to meet your specific needs.

**Spartan SPJC® CommandAll® Controller**

The fully proportional, single-stick control is an integrated spreader control with ergonomic design, allowing one-handed, finger-tip control of all hydraulic functions. Individual mini-joysticks on the handle offer superior control to push-button designs and simultaneous proportional control of today’s most popular functions.

**PreCise™ Mobile Resource Management**

As a part of the FORCE America family, the PreCise MRM solution is integrated deeply with the SSC6100 control system. Accurate material usage reporting, controller error alerts, and vehicle accessory details are all available as a part of a total system approach. PreCee MRM goes beyond AVL/GPS to provide a complete fleet management solution.
The Add-A-Fold® valve is a multifunctional valve originally designed to control cylinders and motors on truck applications. The enclosure is a cost effective solution to protect the valve from typical corrosion problems of "exposed" valves. A simple rubber latched cover employs a gasketless weather resistant seal design that stops harmful salt spray.

**FEATURES**

- **Manifold mounted valve sections**
  - Unsurpassed serviceability with bolt-on style valve sections

- **Modular Sub-base design**
  - Provides unlimited configurations of valve sizes, including optional pressure compensation and work port reliefs

- **Rack and pinion manual handle overrides**
  - Assists in troubleshooting and repair, with the added security of a robust manual control

- **Unique self-piloted electric actuators**
  - Pilot coils use full internal system pressure, no pilot lines, filters, or reducing valves required

- **Gear pump or load-sensing versions available**

- **Optional manifolds**
  - Dual 2-way and zero leak three and four way elements provide enhanced performance

- **Pre-wired valve harnesses**

- **Level ports all exit on the bottom side**
Hydraulic Valve
Add-A-Fold \textsuperscript{®} Valve and Enclosure

Installation Information

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<th>Dim.</th>
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<tr>
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All dimensions are approximate.

Specifications

Valve Specifications
- Nominal Inlet flow rating: 50 gpm
- Operating Pressure (maximum):
  - Model 30: 3000 psi
  - Model 45: 4500 psi
- Temperature Range: -40°F to +180°F
- Fluid requirement: petroleum based 35-1750 ssu
- Filtration Requirements: ISO 4406 18/14
- Seals: BUNA-N
- Mounting sensitivity: none

Electrical Specifications
- Rated Voltage: 12 VDC
- Coil resistance (at 68°C): 6.5 ohms
- Current: 2.2 amps
- Power: 24 watts
- Duty cycle: 100%
- Frequency: 50 Hz pwm
- Electrical connector: Din 43650A

Load Sense (SAE 4)
Optional Power Beyond (SAE 16)
Inlet (SAE 18)
Outlet (SAE 20)
High Flow Functions (SAE 12)
Low Flow Functions (SAE 10)

Add-A-Fold \textsuperscript{®} valves are also available in the VT-35 Valve/tank assembly

The VT-35 valve tank assembly combines the valve enclosure and tank into one easy to install assembly. All components: tank, valve, filter, filler/breather, sensors, cables, valve fittings and hose ends are under one rubber latched cover

Service Centers and Sales

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<td>800-624-7568</td>
<td>Fort Dodge, IA</td>
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<td>800-786-3598</td>
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<tr>
<td>Denver, CO</td>
<td>888-853-7711</td>
<td>Salt Lake City, UT</td>
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</table>
The VT35 assembly combines a tank and valve enclosure in one. Integrated components include: valve, tank, filter, breather, sensors, electrical connections, and hose fittings.

The VT35 offers more protection with improved serviceability.

- **Integral Valve and Reservoir**
- **Thermoformed Poly Lid**
  Lightweight yet durable for maximum component protection
- **Passive Seal**
  Protects valve and electrical controls from the environment
- **Three Point Mounting**
  Prevents tank failures caused by frame flex
- **Swing-Out Valve Mounting**
  Easy access for maintenance and hose replacement
- **High Capacity 10 Micron Filtration**
  Exceeds requirements with extended fluid life
- **External Mounted Sight Gauge**
  Simple fluid level monitoring
- **High Capacity Suction Strainer**
  Protects pump from debris
- **Uses Add-A-Fold® Actuation with Cable, Air, or Electronic Controls**

Manufactured in the USA by FORCE America, Inc.
U.S. Patent Numbers 6,688,328 and 6,782,915

888-99FORCE

www.forceamerica.com
Product Specifications
VT35 - 35 Gallon Reservoir

- Lightweight, durable poly lid
- TS1600 filter with Enduraguard™ coating
- Patented integral hose routing and swing-out valve mounting for easy access
- Patented three-point mounting prevents frame flex
- Angled filler-breather for better fill access

4020 Add-A-Fold® Electric Actuated

- Flow Range: 40 gpm
- Operating Pressure (maximum): 3000 psi cont. (standard)
- Tank Pressure (maximum): 500 psi
- Seals: BUNA-N
- Duty Cycle: 100%
- Coil Resistance: 6.5 ohms
- Current Rating: 2 amps
- Frequency: 50 hz

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<td>800-492-6621</td>
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<tr>
<td>Salt Lake City, UT</td>
<td>877-230-0505</td>
</tr>
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FORCE America model FASD variable volume load sense piston pumps are specifically designed for severe duty mobile truck applications.

**Features**

- High flow rates: 34-45 GPM (at 1800 RPM) 2400 RPM maximum speed
- High Pressure: intermittent pressure to 4000 PSI on FASD34, 3000 PSI on FASD45
- Severe duty high pressure (2000 PSI) outboard Teflon Shaft seal protects pump shaft bearing and seal from external contamination and salt spray
- Special hardening process on all wear surfaces
- Steel piston shoes for proven rotating group design
- O-ring housing seals, no gaskets!
FASO - Severe Duty Load Sense Piston Pump

Speed Versus Flow

The single pump flow curves are based on an oil temperature of 125°F (160SSU)

Available Models

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<th>Rotation</th>
<th>Shaft Size</th>
<th>Mount Type</th>
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<tr>
<td>Chicago, IL</td>
<td>800-432-5785</td>
<td>Milwaukee, WI</td>
<td>800-722-5644</td>
</tr>
<tr>
<td>Columbus, OH</td>
<td>888-449-6366</td>
<td>Minneapolis, MN</td>
<td>800-328-2732</td>
</tr>
<tr>
<td>Dallas, TX</td>
<td>800-893-7225</td>
<td>Philadelphia, PA</td>
<td>800-492-6621</td>
</tr>
<tr>
<td>Denver, CO</td>
<td>888-833-7711</td>
<td>Salt Lake City, UT</td>
<td>877-230-6508</td>
</tr>
</tbody>
</table>

FASD - Severe Duty Load Sense Piston Pump
Chelsea® 280 Series
Powershift Hydraulic 10-Bolt

Overview:
The NEW 280 Series is a new P.T.O. design utilizing the best of our technology and innovations from our current Hot Shift P.T.O.'s. The 280 Series combines our 277 and 278 Series into one model of P.T.O. It will feature a single continuous duty torque rating. No more intermittent rating. Pump clearance issues have been improved with rotatable cast iron flanges and the Wet Spline Pump Flange option provides 7 to 10 times greater shaft life. Broader coverage of speed ranges expands from 5 ratios to 9 ratios and includes lower and higher speeds that were never available in the past. The standard output shaft features a new positive stop for Driveline outputs that eliminates the ability for shaft couplings to damage Oil Seals. Three option positions for the integrated solenoid valve. Plus, a remote mounted option provides maximum clearance under the truck. The pressure / lube hose will be included with the NEW 280 Series. No need to order separately. Versatility, power, ease of maintenance and installation makes the new 280 Series the only choice for your vocational truck requirements.

Product Features and Benefits:
- It will feature a single continuous duty torque rating. No more intermittent rating.
- Torque capacity ratings have been increased.
- Pump clearance issues have been improved with rotatable cast iron flanges.
- New positive stop for driveline outputs; eliminates ability for shaft couplings to damage oil seals.
- Wet Spline Pump Flange option provides 7 to 10 times greater shaft life.
- Broader coverage of speed ranges expanding from 5 ratios to 9 ratios.
- Lower and higher speed now available.
- The pressure / lube hose will be included with the new 280 Series. No need to order separately.
- Three option positions for the integrated solenoid valve. Plus, a remote mounted option provides maximum clearance.

Contact Information:
Parker Hannifin Corporation
Chelsea Products Division
8225 Hacks Cross Road
Olive Branch, MS 38654 USA

Phone: 1-888-PH4-TRUK
(1-888-744-8785)
Fax: 1-662-895-1069
chelseacustserv@parker.com

www.parker.com/chelsea

ENGINEERING YOUR SUCCESS.
### 280 SERIES POWER TAKE-OFF MODEL NUMBER DESIGNATOR & SPECIFICATIONS

#### Basic Model
- **280**

#### Mounting Option
- **G** = Standard Mount

#### Gear Ratio
- **B** = 22/50
- **C** = 25/50
- **D** = 28/47
- **G** = 31/44
- **K** = 33/39
- **M** = 35/40
- **P** = 37/35
- **S** = 39/36
- **T** = 41/31

#### Input Option
- **FJ** = Allison
- **KV** = Caterpillar

#### Lube Option
- **P** = Pressure Lube Only
- **R** = Valve Cap Rotated 120°
- **S** = Valve Cap Rotated 240°
- **W** = Wet Spline
- **V** = Valve Cap Rotated 120° with Wet Spline
- **Y** = Valve Cap Rotated 240° with Wet Spline

#### Output Option
- **AB** = DIN 120 Flange
- **AC** = DIN 100 Flange
- **BA** = 1410 Flange with Shaft Brake
- **BD** = 1.250° Keyed with Shaft Brake
- **RF** = Class “B” 2 & 4-Bolt Rotatable Pump Mount, 15T
- **RK** = Class “B” 2 & 4-Bolt Rotatable Pump Mount, 13T
- **RS** = Class “C” 2 & 4-Bolt Rotatable Pump Mount, 14T
- **RV** = DIN 5462 Pump Mount, 8T
- **RZ** = Class “B” 2 & 4-Bolt Pump Flange, Class “C” Shaft
- **UN** = UNI 8953 3-Bolt Pump Flange, 6T
- **XD** = 1.250° Round Shaft Keyed
- **XE** = 1-1/2” - 10T Spline Shaft with 1410 Flange

#### Assembly Arrangement
- 3 - Gear Forward, Shaft Rear, Bulge Up Left Side, Bulge Down Right Side
- 5 - Gear Forward, Shaft Rear, Bulge Up Right Side, Bulge Down Left Side
- 6 - Gear Forward, Shaft Rear

#### Shift Option
- **B** = 12V Hydraulic Valve
- **D** = 24V Hydraulic Valve
- **G** = 12V Remote Valve w/o E.O.C.
- **H** = 24V Remote Valve w/o E.O.C.
- **K** = 12V Hydraulic Valve w/E.O.C.
- **L** = 24V Hydraulic Valve w/E.O.C.
- **M** = 12V w/o Installation Kit
- **N** = 24V w/o Installation Kit

#### Specifications Chart

<table>
<thead>
<tr>
<th>Standard Output Shaft Size</th>
<th>280*B</th>
<th>280*C</th>
<th>280*D</th>
<th>280*G</th>
<th>280*K</th>
<th>280*M</th>
<th>280*P</th>
<th>280*S</th>
<th>280*T</th>
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<tbody>
<tr>
<td>Intermittent &amp; Continuous Torque Rating (Lbs. ft.)</td>
<td>300</td>
<td>390</td>
<td>390</td>
<td>360</td>
<td>340</td>
<td>318</td>
<td>290</td>
<td>265</td>
<td>240</td>
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<tr>
<td>(N.m.)</td>
<td>407</td>
<td>529</td>
<td>529</td>
<td>488</td>
<td>461</td>
<td>431</td>
<td>393</td>
<td>359</td>
<td>325</td>
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<tr>
<td>Horsepower Rating for Intermittent &amp; Continuous Service</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>At 500 R.P.M. of Output Shaft (HP)</td>
<td>29</td>
<td>37</td>
<td>37</td>
<td>34</td>
<td>32</td>
<td>30</td>
<td>28</td>
<td>25</td>
<td>23</td>
</tr>
<tr>
<td>At 1000 R.P.M. of Output Shaft (HP)</td>
<td>57</td>
<td>74</td>
<td>74</td>
<td>69</td>
<td>65</td>
<td>61</td>
<td>55</td>
<td>50</td>
<td>46</td>
</tr>
<tr>
<td>At 500 R.P.M. of Output Shaft (Kw)</td>
<td>21</td>
<td>28</td>
<td>28</td>
<td>26</td>
<td>24</td>
<td>23</td>
<td>21</td>
<td>19</td>
<td>17</td>
</tr>
<tr>
<td>At 1000 R.P.M. of Output Shaft (Kw)</td>
<td>43</td>
<td>56</td>
<td>56</td>
<td>51</td>
<td>48</td>
<td>45</td>
<td>41</td>
<td>38</td>
<td>34</td>
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<tr>
<td>Approximate Weight</td>
<td>49 lbs. [22 kg]</td>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>

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ENGINEERING YOUR SUCCESS.
COUNTY OF SARPY, NEBRASKA

SPECIFICATIONS

Three (3) New Fourteen Foot (14') Dump Bodies with Hydraulic Systems

For the

Public Works Department

PROPOSALS DUE:
10:00 a.m., Thursday, January 18, 2018
General Information

Notice to Vendors

Sarpy County is seeking proposals for Three (3) New Fourteen Foot (14') Dump Bodies with Hydraulic Systems for the Public Works Department. The dump bodies will be mounted on 64,000 GVWR Tandem Axle Cab Chassis.

Sealed bids will be received Monday through Friday 8:00 a.m. to 4:45 p.m. except holidays, until Thursday, January 18, 2018 at 10:00 a.m. Bids shall be in a sealed envelope, clearly marked “Sealed Bid – Three (3) New Fourteen Foot (14’) Dump Bodies with Hydraulic Systems” and shall have the name of the Vendor, and the time and date of the bid opening. **Do not fax bids, only sealed bids will be accepted.**

Requests for information and clarification questions must be received by 12:00 p.m. on January 11, 2018 in order for Sarpy County to have time to issue an addendum.

Bidding criteria must be received from Beth Garber, Purchaser, 1210 Golden Gate Drive Suite 1220, Papillion, NE 68046, (402) 593-4476, bgarber@sarpy.com or via the internet at www.sarpy.com.

Vendors that obtain specifications from the internet sites are responsible for obtaining any addenda that may be added at a later time.

Bids must be sent to:

Deb Houghtaling
Sarpy County Clerk’s Office
1210 Golden Gate Drive, Suite 1250
Papillion, NE 68046

Bids not addressed and delivered to the above person will not be considered. Bids received after the above stated time and date will not be considered.

The bid opening will be at 10:00 a.m., Thursday, January 18, 2018 and will be a public opening to be held in the Sarpy County Administration Conference Room at 1210 Golden Gate Drive, Papillion, NE.

All bids submitted shall be valid for a period of sixty (60) days following the final date for submission of bids.

Sarpy County will not be liable for costs incurred by Vendors for proposal preparation, printing, demonstration, or any other costs associated with or incurred in reliance on proposal creation. All such costs shall be the responsibility of the Vendor.

The bids shall include all charges and applicable taxes, F.O.B., 15100 S. 84th Street, Papillion, Nebraska. The Vendor need not include sales tax in the bid. Sarpy County will, upon request, furnish the successful Vendor with a completed State of Nebraska Tax Exempt Form 13 upon acceptance of the successful Vendor’s proposal.
The Sarpy County Board of Commissioners reserves the right to reject any or all bids and to waive minor informalities.

In the event of conflict between unit price and extended price, unit price shall prevail.

**Procedures for Evaluation and Awarding of Bid**

Evaluation will be done by Beth Garber, Sarpy County Purchaser along with personnel from the Public Works and Fleet Services Departments. After evaluation the Purchaser will make a recommendation to the County Board of Commissioners for award. This recommendation and pending award will be made at a public meeting of the Board of Commissioners. Agendas are available each Friday afternoon on our internet site www.sarpy.com. The Commissioners award the bid by majority vote.

The following factors will be used to consider the award of the bid, where applicable:

a) Compliance with all requirements.

b) Price.

c) The ability, capability, and skills of the Vendor to perform.

d) The character, integrity, reputation, judgment, experience, and efficiency of the Vendor.

e) The quality of previous performance.

f) Whether the Vendor can perform within the time specified.

g) The previous and existing compliance of the supplier with laws.

h) The life-cost of the personal property or services in relation to the purchase price and specified use.

i) The performance of the personal property or service taking into consideration any commonly accepted tests and standards of product, service, usability and user requirements.

j) The energy efficiency ratio as stated by the supplier.

k) The life-cycle costs between alternatives for all classes of equipment, the evidence of expected life, the repair and maintenance costs, and the energy consumption on a per year basis.

l) Such other information as may be secured having a bearing on the decision.

**Terms and Conditions**

1. **Information, Discussion, and Disclosures**

   Any information provided by Sarpy County to any Vendor prior to the release of this Request for Proposal (“RFP”), verbally or in writing, is considered preliminary and is not binding on Sarpy County.

   The Vendor must not make available nor discuss any cost information contained in the sealed copy of the proposal to or with any employee of Sarpy County from the date of issuance of this RFP until the contract award has been announced, unless allowed by the Sarpy County Purchasing Department in writing for the purpose of clarification or evaluation.

   No interpretation of the meaning of the specifications, or other bidding documents, nor correction of any ambiguity, inconsistency, or error therein will be made orally to any Vendor.
Every request for such interpretation or correction should be in writing, addressed to the Sarpy County Purchaser, Beth Garber, 1210 Golden Gate Drive, Papillion, NE 68046 or bgarber@sarpy.com. **Requests must be received by 12:00 p.m., January 11, 2018 in order for Sarpy County to have time to issue an addendum. Requests received after deadline may not be considered.** In case Sarpy County finds it expedient to supplement, modify, or interpret any portion of the bidding documents prior to the proposed bid date, such procedure will be accomplished by the issuance of written addenda to the RFP which will be mailed or delivered to all prospective Vendors at the respective addresses furnished for such purpose.

2. **Addenda**

All addenda will become part of this RFP and must be responded to by each Vendor.

All addenda must be acknowledged in writing in the bid submitted by the Vendor.

This RFP, any subsequent addenda, and any written responses to questions take precedence over any information previously provided.

3. **Confidentiality of Documents**

Sarpy County considers all information, documentation and other materials requested to be submitted in response to this proposal to be of a non-confidential and/or non-proprietary nature and therefore shall be subject to public disclosure under Neb. Rev. Stat. § 84-712.05(3).

Vendors are hereby notified that Sarpy County strictly adheres to all statutes, court decisions, and opinions of the Nebraska Attorney General with respect to disclosure of RFP information.

Any “proprietary, trade secret, or confidential commercial or financial” information must be clearly identified, in a separate sealed envelope, at the time of bid/proposal submission. **Pricing information is not considered financial information and therefore is not considered Confidential.** Please note: even if Vendor believes pricing information is confidential and includes it in a separate, sealed envelope, such information will be read aloud and entered into record during the public bid opening. For all other appropriately identified proprietary, trade secret, or confidential commercial or financial information, the Vendor will be required to fully defend, in all forums, Sarpy County’s refusal to produce such information; otherwise, Sarpy County will make such information public upon request.

4. **Non-Discrimination Clause**

Pursuant to Neb. Rev. Stat. §73-102 (Reissue 1996), Vendor declares, promises, and warrants it has and will continue to comply fully with Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C.A. §1985, et seq.), and the Nebraska Fair Employment Practice Act, Neb. Rev. Stat. §48-1101, et seq. (Reissue 2004), in that there shall be no discrimination against any employee who is employed in the performance of this Contract, or against any applicant for such employment, because of age, color, national origin, race, religion, creed, disability or sex.
5. **Conflict of Interest Clause**

Pursuant to Neb Rev. Stat. §23-3113 (Reissue 1997), the parties hereto declare and affirm that no officer, member, or employee of the County, and no member of its governing body, and no other public official of the County who exercises any functions or responsibilities in the review or approval of the undertaking described in this Contract, or the performing of services pursuant to this Contract, shall participate in any decision relating to this Contract which affects his or her personal interest, or any corporation, partnership, or association in which he or she is directly or indirectly interested; nor shall any employee of the County, nor any member of its governing body, have any interest, direct or indirect, in this Contract or the proceeds thereof.

6. **Payment Terms**

The successful Vendor shall submit a monthly itemized invoice for payment. Sarpy County will make payment to the successful Vendor within thirty (30) days after receipt of invoice and satisfactory delivery.

7. **Supplemental Terms and Conditions/Modifications**

Any supplemental terms, conditions, modifications, or waiver of these terms and conditions must be in writing and signed by the Sarpy County Board Chairman and the Vendor.

8. **Termination**

Either party may terminate the Contract with ninety (90) days' written notice to the other.

9. **Residency Verification**

The Vendor agrees to comply with the residency verification requirements of Neb. Rev. Stat. §4-108 through §4-114. The Vendor is required and hereby agrees to use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska. A federal immigration verification system means the electronic verification of the work authorization program authorized by the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324a, known as the E-Verify Program, or an equivalent federal program designated by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of a newly hired employee.

If the Vendor is an individual or sole proprietorship, the following applies:

a) The Vendor must complete the United States Citizenship Attestation Form, available on the Department of Administrative Services website at [www.das.state.ne.us](http://www.das.state.ne.us).

b) If the Vendor indicates on such attestation form that he or she is a qualified alien, the Vendor agrees to provide the U.S. Citizenship and Immigration Services documentation...
required to verify the Vendor’s lawful presence in the United States using the Systematic Alien Verification for Entitlements (SAVE) Program.

c) The Vendor understands and agrees that lawful presence in the United States is required and the Vendor may be disqualified or the contract terminated if such lawful presence cannot be verified as required by Neb. Rev. Stat. Sect. 4-108.

10. Breach

Should Vendor breach, violate, or abrogate any term, condition, clause or provision of this agreement, the County shall notify Vendor in writing that such an action has occurred. If satisfactory provision does not occur within ten (10) days from such written notice the County may, at its option, terminate this agreement and obtain an alternate provider to provide all required materials. This provision shall not preclude the pursuit of other remedies for breach of contract as allowed by law.

11. Assignment

The Vendor may not assign this Contract without the prior written consent of the County.

12. Subcontracting

Vendor may not subcontract the work to be performed, without prior written consent of the County. If such consent is granted, Vendor will retain responsibility for all work associated with the Contract. The Vendor must identify any subcontractors it intends to use in the execution of this Contract. The Vendor must identify subcontractors in writing within the proposal.

13. Independent Contractor

The Vendor shall in the performance of the Contract at all times be an independent contractor and not an employee or agent of the County. The Vendor, its officers, employees and agents shall at no time represent the Vendor to be other than an independent contractor or represent themselves to be other than employees of the Vendor.

14. Indemnity

The Vendor shall indemnify and save harmless Sarpy County, its officers, employees and agents from all loss, claims, suits or actions of every kind and character made upon or brought against Sarpy County, its officers, employees, or agents, for or sustained by any party or parties as a result of any act, error, omission or negligence of said Vendor or its servants, agents, and subcontractors; and also from all claims of damage in fulfilling this Contract.

Specifications

The dump body with hydraulic system shall be a new current model of proven performance and under standard production by the manufacturer. Units are to be of standard design, complete as regularly advertised and marketed. All necessary parts for satisfactory operation of the dump boxes with
hydraulic systems shall be furnished whether or not they may be specifically mentioned below.

The chassis provided by Sarpy County is a 2018 Volvo VHD64F300

1. **Company Information:**

Vendor will provide the following company information on the bid form:

1. Years in business
2. Number of employees
3. Total sales for last three (3) years.

2. **References:**

Each Vendor must include with its proposal a list of no less than three (3) references that have purchased the specified product or service within the last two (2) years. The list must include the name of the company and the name and phone number of a contact person for each company.

3. **Literature:**

One (1) set of detailed specifications or advertising literature shall be furnished with the RFP. Any information necessary to show compliance with these requirements not given on the attached advertising data sheets shall be supplied in writing and attached to the bid proposal.

4. **Deviations:**

Once the bid has been accepted by Sarpy County, no deviations from the specifications will be accepted without prior written approval of Sarpy County.

5. **Delivery:**

Delivery is to be coordinated with Sarpy County Fleet Services, 15100 S 84th Street, Papillion Nebraska. The equipment will be accepted by a representative of the Fleet Services Department. State approximate delivery date in the space provided on the Bid Form. Delivery can be taken Monday through Friday, except holidays, 7:00 a.m. to 3:30 p.m. Vendor will provide with the Bid delivery date to Sarpy County. Contact Fleet Service at 402-537-6980, 24 hours prior to delivery.

6. **Exceptions:**

These specifications are minimum acceptable specifications. Vendor may bid other than what is specified if it is of higher specification than what is requested. Vendor must list any exceptions to the bid specifications on the exceptions/clarification/comment page provided. Indicate acceptance or exception by marking YES / NO for each specification listed. Any unmarked YES / NO line will be noted as “exception to the specification”.

---

7 | Page
Technical Specifications

Any reference to brand names and/or number in the Request for Proposal is intended to be descriptive, but not restrictive, unless otherwise specified. Other brands, of approved equal quality, may be considered for award. In the event of substitution, your proposal must clearly describe the article and the proposal must state the brand name and product number of the substitution offered. The determination of the Sarpy County Purchasing Department, in consultation with the ordering office, shall be final and conclusive in determining the equality of alternates.

YES/NO

I. DUMP BOX BODY

A. Dump body shall be a heavy duty steel western style with a non-cross-member type design.

___/___ 1. Body shall be a minimum 180,000 P.S.I. tensile strength, 3/16” AR400 steel.

   Specify body thickness: __________________________
   Specify tensile strength: _________________________

___/___ 2. Body shall be sloping running board type with non-cross-member sub frame.

___/___ 3. Dump body shall be a minimum of fourteen feet (14’) long.
   Specify body length: __________________________

___/___ 4. Inside width of dump body shall be a minimum of seven feet (7’).
   Specify body width: __________________________

___/___ 5. Sides shall be a minimum of forty-four inches (44”) in height.
   Specify side height: __________________________

___/___ 6. Body ends shall be a minimum of ten inches (10”) higher than the sides with pockets for extension sideboards.
   Specify height: ______________________________

___/___ 7. Pockets shall accept a 2” x 10” composite plank, pockets shall be made of ¼” steel x 10” inch high. Placement of pockets shall be front, middle and rear.

___/___ 8. High density poly side boards shall be install and bolted into front, middle and rear side pockets. Poly side board shall be 10” wide. Poly side boards shall have 2” long notches cut into them were they are bolted down to allow for expansion.
and contraction of material.

___/___ 9. Two (2) body props: one (1) left hand and one (1) right hand are required.

___/___ 10. Left front body side shall have a pull out adjustable drop down ladder for access from the ground. Upper body ladder shall be designed to have the proper steps and hand holds for safe operator access to top of body. Left front lower corner of box shall have step added for safe transition from cab step to box. Left front inside of box shall have a minimum of two steps for operator to exit from inside of box safely. All steps shall be made of extruded grip-strut type material.

B. Body Floor

___/___ 1. 1/4 inch AR 400 steel.

___/___ 2. One (1) piece floor design.

___/___ 3. 180,000 P.S.I. minimum tensile strength.

___/___ 4. Floor to side joint shall have a radius design.

Specify floor thickness: ____________________________________
Specify tensile strength: ____________________________________

C. Body Sides

___/___ 1. 3/16 inch AR400 steel.

___/___ 2. 180,000 P.S.I. tensile strength minimum.

___/___ 3. Each side shall be reinforced by vertical box sections and have sloped angles to shed dirt and debris.

___/___ 4. Side top rails shall be formed to a boxed section.

___/___ 5. Rear corner post shall be of the one piece design. Rear corner post shall be full depth from the top of the gate to the bottom of the rear cross member and fabricated of one sheet to a box section.

___/___ 6. Upper and lower chain slot banjo brackets shall be include on rear corner post.

Specify body side thickness: _________________________________
Specify tensile strength: _________________________________
D. Front Panel

___/___ 1. 3/16 inch AR400 steel.
___/___ 2. 180,000 P.S.I. tensile strength steel.
___/___ 3. One piece design
___/___ 4. Upper inside stiffener of front panel shall have sander mounting tubes welded to the bottom side of stiffener. Tubes shall be placed 25” in from the inside edge of the dump box. The tube diameter shall be 2” outside diameter with 3/8 wall x 3” long. Contact Fleet Service with any questions.

Specify front panel thickness: _______________________________
Specify tensile strength: _______________________________

E. Tailgate

___/___ 1. 3/16 inch AR400 steel
___/___ 2. 180,000 P.S.I. tensile strength steel.
___/___ 3. Tailgate seams to be continuously welded. Skip welding will not be accepted.
___/___ 4. Top horizontal brace shall be full width boxed type design and welded to tailgate frame.
___/___ 5. Tailgate shall have horizontal or vertical braces. All horizontal sections shall be tapered to shed debris.
___/___ 6. Tailgate upper hinges shall be offset type constructed.
___/___ 7. Tailgate shall have vertical end braces extending from offset hinge to 1-1/4 inch diameter lower pins.
___/___ 8. Spreading chains shall be welded below the top horizontal brace on the inside edge of the tailgate. The chains will extend 72” to reach the lower brackets on the inside edge of the tailgate. The chains will go through the brackets to the lower chain slot brackets to secure and adjust the tailgate. Spreading chains shall be a minimum of 3/8 inch.
___/___ 9. Tailgate shall have solenoid activated air operated bottom latch with control in cab. Solenoid shall be mounted separate from cylinder behind truck cab on bracket for easy access and repair.
10. Bottom latch shall be over the center type with steel or cast iron hardware. Latching mechanism shall be independently adjustable.

11. Air cylinder to be double acting type and retracted when tailgate is closed. Air cylinder rod shall be stainless steel.

12. A warning light mounted in the dash shall indicate when tailgate is released.

Specify tailgate thickness: _____________________________
Specify tensile strength: _____________________________

F. Cab Protector Shield

1. 7 gauge A1101 steel.

2. 65,000 P.S.I. tensile strength steel.

3. Half cab protection.

4. Cab protector shield shall be reasonably close to top of cab.

5. Cab protector shield shall be minimum 84”.

6. All joints to be continuously welded. Skip welding will not be accepted.

7. Cab protector shall meet all OSHA standards.

8. Cab protector shall have provisions that will allow draining of water.

9. Cab protector installation and alterations shall be provided as needed for chassis provided.

Specify cab protector thickness: _____________________________
Specify tensile strength: _____________________________
Specify cab shield length: _____________________________

G. Hoist System

1. Bailmount front mounted cylinder

2. NTEA class 120 cylinder or approved equal

Specify Manufacturer and Model of Hoist:

Hoist Manufacturer _____________________________
Hoist Model _____________________________
3. Operating pressure of 2500 psi

4. 50-degree dump angle

5. Cylinder shall have the length of stroke as required by the body manufacturer

6. Lifting capacity minimum 35 tons

7. A lift limit mercury switch shall be provided to stop the flow of hydraulic oil to the cylinder. Lift limit switch shall be adjustable to obtain the correct box lift dump angle.

8. Critical rotating pivot points equipped with composite bearings.

9. Cylinder shall be equipped with an auto bleed or manual bleed valve.

Note: Box location and mounting will be inspected prior to welding in place by Fleet Service.

H. Body Finish

1. Dump body, cab protector, understructure, piping, pump and hydraulic components must be thoroughly cleaned and metal treated per paint manufacturer’s recommendation.

2. Metal will be completely primed with rust inhibitive primer/sealer that is recommended by the paint manufacturer and compatible with top coat. Minimum of two (2) coats primer on all components is required.

3. Automotive seam sealer will be applied to all open seams.

4. Top coat shall be multiple coats of activator hardened acrylic or polyurethane paint and be two (2) mil to three (3) mil thickness. Color shall match cab chassis body white.

5. Under-structure of dump body, piping, pumps, hinge plates, brackets, tail light panels or any other area that has been changed from factory frame must be painted with two (2) coats of black paint

6. Bidder must submit information on brand, type of paint and primer:

Paint manufacturer

Paint type

Primer
I. Lights/Equipment

___/___ 1. Lights to comply with D.O.T. Federal and State safety regulations.

___/___ 2. Rear oval stop/turn signal, marker lights and oval backup lights - one (1) each side in rear vertical end braces mounted in rubber grommets. All lights shall be LED design

___/___ 3. Rear oval stop/turn signal lights and three pin style led marker lights shall be mounted between box hinges. Mounting plate shall be made of stainless steel.

___/___ 4. Two (2) Sound Off-Signal (ENT3B3A) strobe lights or prior approved equal shall be recessed into each rear vertical end brace above the Banjo chain slot brackets at a 45 degree angle.

___/___ 5. One (1) Federal Signal (454101L-25) Highlighter or prior approved equal LED Amber strobe mounted on roof of truck cab.

___/___ 6. Two (2) Sound Off-Signal (ENT3B3A) surface mounted strobe lights or prior approved equal shall be mounted on lower front body seam of cab. One on each side of truck cab. Brackets shall be made of stainless steel for mounting of lights. Contact Fleet Service for placement of lights.

___/___ 7. All wiring, light fixtures and connections mounted to protect from adverse weather operating conditions in snow, mud, rock, etc.

___/___ 8. All electrical connections shall be properly soldered and weather sealed with heat shrink. If wiring connections are not properly soldered and weather sealed the truck will not be accepted.

___/___ 9. Body shall be equipped with four (4) rubber anti-sail mud flaps mounted in front and back of tandems. Front mud flaps can either be mounted to the dump body or the chassis frame with steel supports.

II. HYDRAULIC SYSTEM

A. Hydraulic system

___/___ 1. The hydraulic system shall provide hydraulic power for the operation of the hoist and dump body operation, salt/sanding hopper system, and snow plow operation.

___/___ 2. All individual components of the hydraulic system shall be equipped with pressure limiters which will supply only the necessary working pressure required by the manufacturer.
B. Hydraulic Pump

1. The hydraulic pump shall be a U.S. manufactured axial piston pressure and flow compensated load-sensing type. The pump shall be cast iron construction and rated to 6.00 cubic inches per revolution at maximum stroke which will deliver 19.2 GPM @ 1000 RPM. The pump shall have a 2” inch suction line and ¾” case drain line plumbed directly back to the reservoir. The pump shall be rated for 4000 PSI maximum and 3500 PSI continuous. The pump shall have a severe duty, high pressure outboard Teflon shaft seal that protects the pump shaft bearing and seal from external contamination and salt spray. The pump shall have a 1¼” keyed drive shaft and SAE type C mounting flange. The pump shall be a Force America FASD45R or prior approved equal.

State make, model, size and type of pump

C. PTO

1. The power take off (PTO) shall be mounted to an Allison automatic 4500 RDS transmission. The PTO shall be a hotshift type and rated to run at 90-110% of engine RPM. The PTO shall be rated to handle a constant torque of 200 ft/lb. The output shaft shall be 1-1/4” keyed. The PTO shall be a Parker Chelsea 277 series or approved equal.

2. PTO will be connected to transmission with a wiring harness and will interface with Transmission ECM for PTO control. PTO will be engaged by rocker switch on control console in cab with red pilot light indicating PTO engagement. PTO to be engaged only when the engine speed is at idle and vehicle speed is less than twelve (15) mph. PTO is to disengage when vehicle speed exceeds fifty (45) mph.

State manufacturer, model and type of PTO:

D. Shut Down

1. Shut down System: There shall be a sensor for low oil mounted in the reservoir. It will be a normally open circuit. When oil reaches a critical level this circuit will close sending a signal to the hot shift powering it off, disengaging the pump and shutting off the flow of oil to the system. At the same time a signal will be sent to an indicator mounted in the
control center alerting the operator of system shutdown. A low level oil manual override switch will allow the operator to momentarily override the system shutdown to raise the plow or lower the dump body in order to return to a maintenance facility.

E. Mounting

1. The hydraulic pump shall be mounted with shaft centerline parallel to the PTO output shaft centerline and at a level to create not more than a three-degrees of angle on the driveline. The pump mounting shall be incorporated with a bracket fabricated to mount in the frame rails of the truck.

F. Driveline

1. The hydraulic pump shall be driven directly off the PTO output shaft via a splined driveline to allow for movement. The driveline shall include grease fittings on both u-joints. Driveline shall be a Model 1310 series with Spicer 4 bolt Flange Yokes for easy removal of PTO shaft. PTO-PUMP Flange part # N2-1-13134. Drive Shaft Flange part # 2-2-329

G. Reservoir/Valve Enclosure

1. The hydraulic reservoir will be of 35 gallons nominal capacity.
2. The hydraulic reservoir will be constructed of 10-gauge stainless steel and be internally baffled.
3. Mounting bracket is to be designed and supplied by the reservoir supplier.
4. Mounting system should allow for a 1” frame clearance for frame obstructions.
5. Tank shall be mounted in a manner as to not transmit any truck torsional loads through the tank.
6. The enclosure will use a gasket-less passive technology. (No rubber seals, gaskets, or weather stripping.)
7. The enclosure lid will be removable within seconds by one person without the use of tools.
8. All valve fittings, hose ends, filter, filler breather, sending units and any
electrical connections are to be protected by enclosure cover.

9. The reservoir supplier will provide all valve fittings (JIC connections) and plumb the return line from the valve to the filter.

10. The cover will protect from both road and pressure washer spray.

11. The use of bulkhead fittings is not permitted.

12. The directional control valve must be easily accessible from all (6) sides without the use of tools.

13. Hose exit and entrance must allow for components to be mounted adjacent to the enclosure.

14. A 2” full flow brass ball valve shall be plumbed at the suction port of the tank.

15. A low oil/high temp sending unit shall be mounted in the reservoir.

16. The valve/tank assembly shall be a Force America Model “VT35 Valve/Tank Assembly” or prior approved equal.

H. Hydraulic Filter System

1. Hydraulic oil filter shall be mounted in the reservoir. Hydraulic filter shall be a 16-micron absolute and rated for no less than 60 GPM. Filter shall be model TS160025150/2SRE40910E or prior approved equal and include visual and electrical bypass indicators. A warning light shall be mounted in the cab and wired to the electrical indicator. The system shall be delivered with one spare filter element.

I. Hydraulic Control Valve

1. The hydraulic valve shall be of modular manifold design. Each hydraulic function requires an individual manifold stacked together to form the manifold base. The manifold base shall consist of an inlet section with SAE #16 inlet porting, SAE #20 outlet porting, and SAE #4 load sense porting. There shall be a main system relief in the inlet section to protect the system from high pressure in case the pump compensators fail. The dump body manifold shall be stacked next to the inlet section, and capable of 40 GPM with SAE #12 porting. The hydraulic control valves shall be pulse-width modulated, proportionally controlled. Each hydraulic valve segment shall be individually mounted to the manifold base assembly and be serviceable without removing any hydraulic hoses or any other hydraulic valve segments. Each hydraulic valve segment shall have individual pressure compensation to achieve independent
simultaneous operations. All segments shall have heavy-duty continuous duty coils and connections shall be with Din connectors. All coils shall operate at 12 VDC and require a maximum of 1400 milli-amps. Each segment shall be equipped with a manual override except for the auger and spinner sections. The dump body segment shall be rated to 40 GPM, with all other segments rated to 20 GPM. If a double acting hoist is utilized, the dump body segment shall be equipped with a down side relief to protect the body down function. This relief shall be set to the hoist manufacturer’s specifications. Valve segments shall be Force America Add-A-Fold® 4020 model or prior approved equal.

J. Integrated Plow Power Float

1. The plow power float shall be counterbalance valve that has the ability to take some of the plows weight off the blade and on to the front of the plow truck. The valve shall work by supplying pressure to the lift cylinder to partially lift the Plow. The same valve works for both single and double acting plow lift cylinders. Unused ports are plugged.

Electrical switching shall be provided in the control console to automatically turn the valve off in order to hold the plow in the raised position. If the counterbalance valve is not turned off the plow will drift down after it is raised. Float pressure will need to be adjusted to insure that the plow drifts down at the right speed. The valve shall use a pressure reducing/relieving valve to control the float lift pressure. Two solenoid valves wired together turn the valve off and on. One solenoid valve opens the inlet pressure valve to the pump. The other solenoid valve opens the outlet of the pressure reducing/relieving valve to the lift port.

Oil flowing in and out of the lift port is restricted with an orifice. The plow power float shall be integrated into the main control valve stack. Externally plumbed valves are not acceptable.

K. Plow Pressure Release Valve

1. There shall be a pressure release valve mounted on the front plow frame for easy access. The valve shall release the pressure in the plow lift circuit to allow connection & disconnection of quick couplers. The valve shall be an aluminum manifold with a pull type release valve. The valve shall have SAE #8 o ring ports. The exhaust line shall be plumbed directly back to the reservoir. The valve shall be Force America C10190 or approved equal.
The valve is to be arranged as follows:

Hoist: 40 GPM, 3-way valve
Plow lift: 21 GPM, 3-way with integrated plow power float
Plow angle: 21 GPM, 4-way
Auger: 14 GPM, 4-way auger/auger reverse
Spinner: 7 GPM, 2-way proportional cartridge

L. Hydraulic - Piping, Fittings, Coupler, Hoses

1. All hydraulic lines and plumbing shall be of sufficient capacity so as not to create heat or turbulence within hydraulic system. Suction line between reservoir and pump shall be a minimum of 2 in. I.D. with a minimum SAE 100-R4 rating and shall be secured on both ends via heavy duty banding straps, radiator hose clamps unacceptable. All pressure hoses, including signal sense to pump shall have swivel fittings on both ends and have a minimum SAE 100-R2 rating. Return lines and case drain shall have minimum SAE 100-R1 rating.

2. Hydraulic lines shall be routed to minimize interference with equipment and chassis components requiring periodic servicing. Support brackets, grommets, and tie wraps shall be provided where appropriate to protect lines from damage by abrasion, cutting or impact.

3. Hoses shall not be routed near exhaust manifold pipes, bolts, sharp edges, and exhaust system to prevent wear, fatigue or fire. Pipe fittings are not acceptable in any high-pressure line. Maximum distance between support clamps on all hydraulic lines shall be 24 inches.

4. Installer shall provide hydraulic quick couplers for plow reversing cylinders. Two (2) Aeroquip 5601-8-10S and two (2) Aeroquip 5602-8-10S or prior approved equal.

NOTE: Location and mounting instructions per Sarpy County Fleet Service.

5. Velocity fuse on main hydraulic line by pump to lock up if failure of hydraulic hoses.

6. Installer shall provide hydraulic quick couplers for sander/spreader. Coupler shall be securely mounted for ease of coupling at rear of dump body. The preferred location is between rear frame rails.
M. Hitch/Hydraulic coupler mount

1. The hitch/hydraulic coupler mount will be mounted from the underside of the box hinge plate. The hydraulic coupler box shall be 6” deep x 5 1/2” High with the bottom plate set at a 30 degree angle for salt and sand to slide off. The lower section of the mount will incorporate a heavy duty tailor made hitch to match to towing capacity of the truck. The hitch plate will contain a heavy duty pintle hitch, two safety chain D-ring hangers, one smaller D-ring hanger for the trailer brake away cable and two 7 pin connectors. The sander connector shall be a Phillips 15-740 or prior approved equal. The trailer connector shall be a Phillips 16-713 or prior approved equal and will require a trailer brake controller to be installed in the cab.

NOTE: See attachment C for sander plug wiring.

Aeroquip brand.

(1) 5602-16-16S - Male end on return line.
(1) 5601-12-12S - Female end on conveyor feed.
(1) 5601-8-10S - Female end conveyor reversing valve
(1) 5602-8-10S - Male end on spinner feed.

NOTE: See attachment A for spreader hose and coupler configuration.

III. CAB CONTROL CENTER

1. Controls for all valve functions and electronic spreader control will be integrated into a single, self-contained control center. The control center shall be a padded armrest style that is ergonomically designed. Control center shall be modular in design for ease of installation and service, and wiring and connectors shall be keyed and color-coded throughout. All components must be durable for long life and trouble free operation.

2. The electronic controller shall be a fully proportional multi-stick controller to operate all cylinder functions. Multi-stick PWM driver electronics shall include as standard the capability to control at least 9 proportional outputs simultaneously. The control is available in a 3-stick or 4-stick configuration. Controls for spreader must be located on armrest at the operators fingertips. There shall also be four auxiliary rocker switches available with an additional fifth switch being the main power switch for the spreader control. The switches shall be located between the joysticks and spreader control interface and each shall be rated for 15 amps continuous current minimum. Console options shall be capable of supplying full rated power to switch outputs when all four auxiliary switches are at full 15 amp load.
SWITCHES

1. PTO: on/off
2. Strobe lights: on/off
3. Plow lights: on/off
4. Tail gate: open/closed
5. Spreader: on/off

3. For ease of operation the multi-stick control shall include the following features: LED-backlit nomenclature for all joystick functions and a momentary push-button at the top of the hoist stick to provide hoist-interlock. The “Hoist” decal shall be illuminated amber while disabled, and change to green backlighting when the driver engages the hoist interlock button. The green “Hoist” LEDs shall remain illuminated while the hoist is under operation and shall time-out after a period of hoist inactivity that is selectable from 0 to 15 seconds. To ensure longevity of performance all lighting to be solid-state LED technology. The use of incandescent lamps or EL backlighting is unacceptable.

4. The plow, wing, scraper, or other joysticks shall have the option to include a momentary pushbutton for activation of remote spreader standby, remote spreader blast, or electric joystick interlock. The multi-stick communication hardware/software shall include 4 integral float options. The use of add-on float modules is unacceptable. For flexibility of use the integral float programming shall have the following standard features:

1. (4) axis functional float on any or all of the outputs with selectable forward/back, right/left functionality
2. 3-way or 4-way functionality
3. Selectable (3) second float delay timer
4. Optional float enable switch inputs
5. When float output for a given joystick function is active, the LED backlit nomenclature shall blink ON/OFF to provide visual feedback to the operator that the float function is engaged.

5. All function joysticks shall be of contact-less Hall-effect design and offer up to a 5-Million cycle life. The use of potentiometers is unacceptable. To increase safety of operation, joystick communication hardware/software shall include the following standard features:

1. Input power monitor circuitry with power quality diagnostics
2. Redundant dual-reference joystick signals for each joystick axis
3. Joystick input off-center checking on all axes and output shutdown on system power-up
4. Joystick out-of-range fault condition checking and output shutdown
5. True outputs off with joystick centered
6. LED backlit nomenclature shall illuminate and flash RED when any error condition exists and an audible alarm shall sound
7. Technology that is capable of using a supervisor key to provide access to the calibration parameters without the access code. The entire operator interface shall be backlit and encased in flexible silicone material with wear – limiting coating applied to the base silicone material. The LED-backlit nomenclature shall blink ON/OFF with increasing frequency as the corresponding function is increased in speed to give the operator visual feedback of each joystick output.

6. Multi-stick control shall communicate all joystick data over the spreader control CAN bus. For ease of service and diagnostics the multi-stick control shall have the following easily accessible through the spreader control calibration menus:
   1. Unique MIN/MAX adjustments for each joystick function (forward, back, left and right)
   2. On-screen output status indicators for each PWM output
   3. Audible and visible output error status indicators with flashing error codes for each joystick function
   4. The multi-stick control joystick outputs shall be communicated over the spreader control CAN bus to the Valve Module. Spreader control outputs and joystick control outputs shall be operated on the same Valve Module, or multiple modules as necessary.

   **NOTE:** See attachment B for joystick configuration.

7. The electronic spreader control shall be designed for precise, closed-loop control of granular and pre-wet liquid applications and operate on a CAN Bus protocol. The Central Processing Unit (CPU) shall have keyed and color coded connections to prevent incorrect installation. The CPU shall be mounted in the cab with visual access to diagnostic LED’s. Mounting of the CPU unit outside of
the cab is unacceptable. The unit shall have USB connectivity for file and data transfer, Ethernet connection, a J1939 communication port for connection to the vehicle bus, a second CAN bus communication port for spreader-only data use, a J1708 connection for a temperature sensor, and a RS-232 connection for AVL communication. The CPU shall have on-board diagnostics, which provide real-time status of CAN bus communication, processor activity, and power status. The CPU shall have a built-in audible alarm for diagnostic purposes. The CPU operating system shall NOT be Windows-based.

___/___ 8. The spreader control interface shall have two, color-coded, continuous rotation encoders for granular and spinner control. These encoders shall have integrated push buttons for blast mode and stand-by. The controller shall have a third multifunction 4-way joystick that has an integrated rotary encoder and push button, that can be used for menu navigation, prewet liquid control or an additional conveyor function. There shall be four, two-way soft keys included in the interface that are generically labeled and user-configurable for different functions depending on the equipment needs. One of the soft keys shall be set up for auger reversing. The controller shall also utilize iButton technology that is capable of using a Supervisor key to provide access to the calibration parameters without the access code. The entire operator interface shall be backlit and encased in flexible silicone material with wear-limiting coating applied to the base silicone material. The operator interface shall communicate on the spreader control system CAN bus.

___/___ 9. The spreader control display shall be a remotely-mounted, 7” diagonal Color TFT LCD, with a low-profile 16:9 widescreen format and minimum of 800x480 pixel resolution. LCD shall have variable LED backlighting. CCFL backlighting is unacceptable. The display shall include a scratch resistant polycarbonate lens with anti-glare coating. A power status LED shall be immediately visible on the front of the display and shall report display diagnostics including loss of CAN communication. Display unit shall have a built-in audible alarm. To avoid driver distraction, the display shall have no integrated dials or pushbuttons and shall not be touch screen. LCD shall communicate on the spreader control system CAN bus.

___/___ 10. The operator menus shall be color-coded to match the encoder knobs on the operator interface. The display shall be capable of displaying the following on-screen simultaneously: Granular material name, granular material set point and actual application rate including units of measure, pre-wet liquid name, pre-wet liquid set point and actual application rate including units of measure, spread width, road temperature, air temperature, material usage total, liquid usage total, vehicle speed, and current date and time. The operator shall have the option of selecting five data items to be displayed onscreen during operation. The display will also provide four warning light indicators for low oil level, body up, oil temp, and filter bypass. These warning lights are to be functional regardless of spreader operation or status.
11. The display must provide visual indication that the spreader control is connected to a compatible AVL device, if equipped. The spreader control shall warn operator if communication with the AVL device fails at power-up.

12. A proportional PWM driver and input module (Valve Module) shall be remotely mounted inside the hydraulic valve enclosure for control of both spreader control and joystick control outputs. The entire Valve Module shall be of rugged design for the mobile environment, and must meet p68 requirements for dust and water ingress. The Valve Module shall include a minimum of eight proportional PWM outputs with potted valve output connections. All outputs shall be protected against short-circuits. Outputs shall be current-compensated and have adjustable PWM frequency. There shall be a minimum of five switch-to-ground type inputs for monitoring hydraulic system inputs such as oil level, body up, Hi and low filter bypass, and oil temperature warnings. A minimum of two switch-to-ground type pulse train inputs shall be included in the Valve Module for connection of feedback sensors such as auger feedback and pre-wet liquid flow meter feedback. A keyed and color-coded connection shall be provided for CAN bus connection to the CPU module inside the cab. A second CAN bus connection must be provided for daisy-chaining of multiple Valve Modules within the valve enclosure. Diagnostic LED’s shall be included for every input and output on the Valve Module, as well as a power status LED and CAN bus activity LED’s. The Valve Module shall include a stainless steel legend plate with engraved text for easy cleaning and identification of Valve Module connections.

13. The integrated spreader control and joystick control system shall be equipped with a qualified ESTOP device that immediately disconnects battery power from all outputs. All spreader control and joystick-operated outputs shall immediately cease to function and the system display shall inform the operator that the ESTOP device has been activated. The Estop device must remove power from all output devices, while maintaining power to the display and CPU for diagnostic purposes. Resetting of the ESTOP device shall not result in spreader control and joystick-operated outputs returning to an ON state without operator acknowledgement.

14. The control center arm shall be mounted to the floor via a switch base cabinet that contains at least 8 rocker type switches rated to 15 amps each. The switch base shall be supplied an 80 amp contact relay. Each switch shall be protected via an auto reset breaker. Each rocker switch shall have a custom backlit LED legend.

The Control Center shall be equipped with a 6100 series spreader controller.

IV. INSTALLATION

1. The installer shall be responsible to ensure the proper location of the body on the truck to obtain the best working results.
2. Dump body hinge shall be recessed into the chassis frame and solidly welded.

3. The cylinder saddle shall be solidly welded to angles that are bolted to the frame.

4. Battery on chassis will be disconnected anytime that welding is performed on chassis.

5. All required components shall be supplied by the installer.

6. Professional techniques and workmanship are required.

7. No welding or cutting of chassis frame rails except as stated elsewhere in the specification.

8. Welds must be chipped free of slag and thoroughly protected with white or black paint as appropriate.

9. Improper mountings, poor welding practices, the presence of slag, hydraulic oil leaks or inadequate paint coverage will be cause for rejection.

V. MANUALS AND TRAINING

1. Two (2) Operator Manuals CD/Flash Drive.

2. Two (2) Service Manuals CD/Flash Drive.

3. Two (2) Parts Manuals CD/Flash Drive.

Note: Service and parts manuals on CD will be acceptable.

4. A minimum of two (2) hours of operation and service/repair training for the hydraulic and spreader systems and control units for the Sarpy County Fleet Service Staff (five (5) Personnel) is required.

5. A minimum of two (2) hours of operator training for Sarpy County Public Works Department Staff is required.

VI. WARRANTY/GUARANTEE

1. Full five (5) year warranty on body, hoist. Full two (2) year warranty on pump, lines, reservoir, valves, controls and installation.
2. Regular manufacturer’s standard warranty, manufacturers statement of origin and complete pre-delivery inspection certificates required with truck at delivery.

3. The manufacturer’s standard warranty shall be stated in the bid.

4. All warranty work shall be performed within one hundred fifty (150) miles of Sarpy County Fleet Shop at 15100 So. 84th Street, Papillion, NE 68046.

5. Mechanical or body repair required under manufacturer’s warranty prior to use of the vehicle by the County shall be the responsibility of the selling dealer, including the transportation thereof.

6. Warranty to be effective from date of issuance of first assignment.

Specify terms of warranty ______________________________________
_____________________________________________________________
_____________________________________________________________
_____________________________________________________________

VII. DELIVERY

1. Specify delivery time of box: ________________________________

2. Specify delivery time of hydraulics: __________________________
EXCEPTIONS/CLARIFICATIONS/COMMENTS

1. ____________________________________________________________

2. ____________________________________________________________

3. ____________________________________________________________

4. ____________________________________________________________

5. ____________________________________________________________

6. ____________________________________________________________

7. ____________________________________________________________

8. ____________________________________________________________

9. ____________________________________________________________

10. __________________________________________________________

11. __________________________________________________________

12. __________________________________________________________

13. __________________________________________________________

14. __________________________________________________________

15. __________________________________________________________
Sarpy County, Nebraska
Three (3) New Fourteen Foot (14') Dump Bodies with Hydraulic Systems
Bid Form

Company Name: ________________________________________________________________

Make: ___________________________ Model: ___________________________

Year: ___________________

The undersigned, having carefully examined the specifications and other contract documents for furnishing Three (3) new Fourteen Foot (14') Dump Bodies with Hydraulic Systems, mounted on a 64,000 GVWR Tandem Axle Cab Chassis, for Sarpy County Public Works Department use, hereby propose to furnish equipment as specified for a cost as follows:

UNIT PRICE

$___________________________

EXTENDED PRICE

$___________________________

(Unit Price x3)

*Prices are to be F.O.B. - 15100 S. 84th Street, Papillion, NE 68046

DELIVERY DATE: ___________________________

Company Information

Years in business: ___________________________

Number of employees: ___________________________

Total sales last 3 years: ___________________________

___________________________
I certify that this bid is submitted in accordance with the specifications issued by Sarpy County. I affirm that the original Specifications have not been altered in any way. Any alteration of the original Specifications, outside of an alternate bid, may be considered grounds for refusal of the bid.

I acknowledge receipt of the following addenda (if applicable):

Addendum #1
Addendum #2

Attachments: Warranty Information
Literature/Cut-sheets – 1 sets (Detailed specifications or advertising literature with cuts or photographs)

_________________________________  _______________________________________
Company Name                      Company Representative (Please print)

_________________________________
Authorized Signature              Telephone Number

_________________________________
Address                          Fax Number

_________________________________
City, State & Zip                E-Mail Address

*NOTE: Sarpy County is tax exempt and will provide the proper form upon request.
Attachment A

Rear Hydraulic Coupler
Configuration for Spreader

Aeroquip brand:
(1) 5602-16-16S - Male end on return line.
(1) 5601-12-12S - Female end on auger feed.
(1) 5601-8-10S - Female end auger reversing valve
(1) 5602-8-10S - Male end on spinner feed.
Attachment B

Plow and Dump Body Hoist Control Joysticks

Snow Plow
Left Control

Lower

Raise

Left

Dump Body
Right Control

Lower

Raise

Right

Lift to Unlock
SANDER PLUG TRUCK SIDE

1. WHITE----------------- MAIN GROUND
2. BLACK----------------- CLEARANCE/WORK LIGHT
3. WHITE----------------- WHITE WIRE SANDER SENSOR
4. GREEN----------------- RED WIRE SANDER SENSOR
5. BLACK----------------- BLACK WIRE SANDER SENSOR
6. GREEN/BLACK---------- LOW FLUID PREWET
7. RED/WHITE------------ PREWET ON-OFF

LOOKING AT BACK OF PLUG
Addendum #1

Three (3) New Fourteen Foot (14') Dump Bodies with Hydraulic Systems
For the
Public Works Department

Clarification #1: Sealed bids will be received Monday through Friday 8:00 a.m. to 4:45 p.m. except holidays, until Tuesday, January 23, 2018 at 10:00 a.m. Bids shall be in a sealed envelope, clearly marked “Sealed Bid – Three (3) New Fourteen Foot (14’) Dump Bodies with Hydraulic Systems” and shall have the name of the Vendor, and the time and date of the bid opening.

Question 1: Page 8, Item 2 “Body shall be sloping running board type with non-cross-member sub frame”. Can you provide more description/explanation on this? My dump body specialist is not sure what you need.

Response: Sloping running board type is an oversight on my part. The side of the box shall be the same height from the front to the back were the poly side boards will be placed.

Response: The underside of the box will be smooth.
Question 2: Can you look at the attached picture of our standard end cap and see if this can be approved or if this would meet your spec (14’ dump body system)? We use the OEM lights or also can supply LED if needed. I can swap out the OEM lights for ovals if that is what I need to do. Please let me know. Can I see what you are referring to in the spec? Do you have a picture you can share? Can I also get a picture of the 45° surface mounted strobes in the front and rear? This way I can have an idea what I need to do on my end. Please let me know if you have any questions.

Response: Image of rear of truck hitch setup.
Response:  Lights mounted to the side of the cab. Some installations may need brackets.

Response:  recessed light mount.
Question 3: Can you provide any pictures of dump bodies Sarpy County already have which these specs are based off showing options you are asking for in spec; as in the spreading chains (E-8), tailgate hinges (E-6 and 7), mounting tubes for sander (D-4) and confirm hoist design(G-1); my supplier is needing better clarification. What is brand of dump body that the spec is based off; this would help as well.

Response: (E-6 and E-7) Picture of the spreading chains. (E-8) Tailgate hinges and lower 1-1/4 pins for the latches. Look at top corners for recessed lights.
Response: (D-4) Tubes mounted on front brace for sander hookup.

Response: (G-1) The lift cylinder shall be mounted to the front of the dump box to completely eliminate the doghouse for excellent clean-out and increased capacity.
Response: The spec is based off of Crysteel Select Bodies. Any reference to brand names and/or number in the Request for Proposal is intended to be descriptive, but not restrictive, unless otherwise specified. Other brands, of approved equal quality, may be considered for award. In the event of substitution, your proposal must clearly describe the article and the proposal must state the brand name and product number of the substitution offered. The determination of the Sarpy County Purchasing Department, in consultation with the ordering office, shall be final and conclusive in determining the equality of alternates.

All other terms and conditions remain unchanged. Addendum must be acknowledged on the Bid Form.
Addendum #1

Three (3) New Fourteen Foot (14’) Dump Bodies with Hydraulic Systems
For the
Public Works Department

Question 1: On page 18 of the bid specs for the 14’ dump packages, section L, line #5. You are requesting a velocity fuse on the main hydraulic line in case of hose failure. Does the electric shut off on the pump count towards this, or do you need both? On doing some research I have found that a velocity fuse “shuts down” when the flow exceeds the setting of the valve (velocity fuse). Can I get an explanation of where it is used if I need to supply this as well as the electric shutoff?

Response: Electric shutoff is sufficient.

All other terms and conditions remain unchanged.
Addendum must be acknowledged on the Bid Form.
Sarpy County, Nebraska is seeking proposals for Three (3) New Fourteen Foot (14') Dump Bodies with Hydraulic Systems for the Public Works Department. Sealed bids will be accepted Monday through Friday, 8:00 a.m. to 4:45 p.m., except holidays, until 10:00 a.m. on Thursday, January 18, 2018. Bids shall be in a sealed envelope, clearly marked “Sealed Bid - Three (3) New Fourteen Foot (14') Dump Bodies with Hydraulic Systems” with the time and date of the bid opening. All bids must be sent to Deb Houghtaling, Sarpy County Clerk's Office, 1210 Golden Gate Drive, Suite 1250, Papillion, NE 68046. Bids will be publicly opened and read aloud in the Administration Conference Room at 10:00 a.m. on Thursday, January 18, 2018 at the above address.

Bidding criteria must be received from Beth Garber, Purchaser, (402) 593-4476, 1210 Golden Gate Drive, Suite 1220, Papillion, NE 68046, on the internet at www.sarpy.com, or by email at bgarber@sarpy.com. Vendors that obtain specifications from the internet sites are responsible for obtaining any addendums that may be added at a later time.

The Sarpy County Board of Commissioners reserves the right to reject any or all bids and to waive minor informalities.

Deb Houghtaling
Sarpy County Clerk

2070724; 12/27, 1/03

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COUNTY OF SARPY, NEBRASKA

SPECIFICATIONS

Three (3) New Fourteen Foot (14') Dump Bodies with Hydraulic Systems
For the Public Works Department

PROPOSALS DUE:
10:00 a.m., Thursday, January 18, 2018
February 8, 2018

Protech
4373 South 19th Street
Council Bluffs, IA 51501

RE: Sarpy County bid for three (3), fourteen foot (14’) dump bodies with hydraulic systems for the Public Works Department

Dear Bidder:

The Sarpy County Board of Commissioners, at the meeting of February 6, 2018, awarded the bid for the above referenced project.

At the direction of the Sarpy County Board your bid received by our office on January 23, 2018 at 10:02 a.m. is to be returned unopened.

If you have questions regarding the unopened bid please contact the Sarpy County Purchaser Beth Garber at 402-593-4476.

Sincerely,

[Signature]

Deb Houghtaling
Sarpy County Clerk

Enclosure: Unopened Bid
Proprietary, not for public release.
1210 Golden Gate Dr, Suite 1250
San Francisco, CA 94123

Deadheading with hydraulic systems

Sealed seal: Three (3) New Fourteen Foot (H) Dump Bodies

Jan 23 2018
10:02
February 8, 2018

Crysteel Truck Equipment
Chad Wiens
52248 Ember Road
Lake Crystal, MN 56055

RE: Sarpy County bid for three (3), fourteen foot (14') dump bodies with hydraulic systems for the Public Works Department

Dear Bidder:

The Sarpy County Board of Commissioners, at the meeting of February 6, 2018, awarded the bid for the above referenced project.

At the direction of the Sarpy County Board your bid received by our office on January 24, 2018 at 11:37 a.m. is to be returned unopened.

If you have questions regarding the unopened bid please contact the Sarpy County Purchaser Beth Garber at 402-593-4476.

Sincerely,

Deb Houghtaling
Sarpy County Clerk

Enclosure: Unopened Bid