



## REQUEST FOR BID

Department of Administration  
Purchasing Division

<b>BID NUMBER</b>	111051	
<b>RFB TITLE</b>	<a href="#">Hydraulics and Controls for Snowplow Trucks</a>	
<b>PURPOSE</b>	The purpose of this RFB is to solicit bids from responsive and responsible bidders to supply and deliver new <a href="#">Hydraulics and Controls</a> . Complete description and technical specifications are included.	
<b>DEADLINE FOR BID SUBMISSIONS</b>	<b>2:00 P.M. Central Time</b> <b>June 15, 2011</b>  <a href="#">LATE, FAXED, ELECTRONIC MAIL OR UNSIGNED BIDS WILL BE REJECTED</a>	
<b>SUBMIT BID TO THIS ADDRESS</b>	DANE COUNTY PURCHASING DIVISION ROOM 425 CITY COUNTY BUILDING 210 MARTIN LUTHER KING JR BLVD MADISON, WI 53703-3345	
<b>REQUIRED BID COPIES</b>	Bidders must submit one (1) original and ( 1 ) copy (Bid forms only)	
<b>PLEASE DIRECT ALL INQUIRES TO</b>	<b>NAME</b>	Francisco Silva
	<b>TITLE</b>	Purchasing Agent
	<b>PHONE #</b>	608/267-3523
	<b>FAX #</b>	608/266-4425
	<b>EMAIL</b>	<a href="mailto:silva@co.dane.wi.us">silva@co.dane.wi.us</a>
	<b>WEB SITE</b>	<a href="http://www.danepurchasing.com">www.danepurchasing.com</a>
<b>THIS RFB IS COMPRISED OF:</b>	<b>RESPONSE CHECKLIST:</b>	
Part 1- General Guidelines & Information	<input type="checkbox"/> Signed Affidavit – Completed Bid Forms  <input type="checkbox"/> Submit one original and required bid copies  <input type="checkbox"/> Label the lower corner of your bid with the Bid number	
Part 2 - Bid Forms		
Part 3- Detailed Specifications		
<b>DATE BID ISSUED: 5/25/2011</b>		

## Part 1- General Guidelines and Information

### 1. Introduction

Dane County invites and will accept bids for item(s) outlined in Part 3 Detail Specifications. The County as represented by Purchasing Division, intends to use the results of this process to purchase item(s).

### 2. Clarification/Questions: (optional note Purchasing to pick one)

Any questions concerning this Bid must be submitted in writing by mail, fax or email at least **FIVE WORKING DAYS** prior to the bid deadline. Requests submitted after that time **WILL NOT** be considered. All inquiries must be directed to the person indicated on the cover page.

### 3. Addendums:

In the event that it becomes necessary to provide additional clarifying data or information, or to revise any part of this RFB, revisions/amendments and/or supplements will be posted on the Purchasing Division web site at [www.danepurchasing.com](http://www.danepurchasing.com). Bidders are reminded to regularly monitor the web site for any such postings. Bidders must acknowledge the receipt/review of any addendum(s) on the bottom of the Signature Affidavit.

The Purchasing Division has the sole authority for modifications of this specifications and or bid.

### 4. Vendor Registration Program:

**All bidders wishing to submit a bid/proposal must be a paid registered vendor with Dane County.** Prior to the bid opening, you can complete a registration form online by visiting our web site at [www.danepurchasing.com](http://www.danepurchasing.com) or you can obtain a Vendor Registration Form by calling 608.266.4131. Your completed Vendor Registration Form and Registration Fee must be received for your bid to be considered for an award.

### 5. Acceptance:

Bid shall remain fixed and valid for acceptance for sixty (60) calendar days starting on the due date of the bid.

Dane County reserves the right to accept any part of this bid deemed to be in the best interest of the County. The County also retains the right to accept or reject any or all bids.

### 6. Payment Terms And Invoicing:

Unless otherwise agreed, Dane County will pay properly submitted vendor invoices within thirty (30) days of receipt of goods or services, or combination of both. Payment will not be made until goods or services are delivered, installed (if required), and accepted as specified. Invoices presented for payment must be submitted in accordance with instructions contained on the purchase order.

**State Sale Tax/Federal Excise Tax:** Bids should not include Federal Excise and Wisconsin Sales Taxes, as Dane County is exempt from payment of such taxes. Sec. State Statute No. 77.54(9a). Wis. Stats. The Dane County's CES number is ES 41279.

## **7. Delivery**

Quote price FOB destination. Price must include shipping. If there is a freight or transportation increase prior to delivery of the unit, the additional increase must be at the dealer/manufacturer's expense.

## **8. Award:**

The County will award the bid to the responsive and responsible bidder whose bid is most advantageous to the County. In determining the most advantageous bid, the County will consider criteria such as, but not limited to, cost, bidder's past performance and/or service reputation, and service capability, quality of the bidder's staff or services, customer satisfaction, references, the extent to which the bidder's staff or services meet the County's needs, bidder's past relationship with the County, total long term cost to the County, fleet continuity and any other relevant criteria listed elsewhere in this solicitation. The County may opt to establish alternate selection criteria to protect its best interest or meet performance or operational standards.

## **9. Ordering/Acceptance:**

Written notice of award to a vendor in the form of a purchase order or other document, mailed or delivered to the address shown on the bid will be considered sufficient notice of acceptance of bid.

## **10. Government Standards**

All materials, equipment, and supplies provided to the County must fully comply with all safety requirements as set forth by the Wisconsin Department of Commerce and all applicable OSHA Standards. Bidders shall comply with all local, state and federal regulations, directives and laws.

## **11. Warranty**

The length, time, and conditions of warranty must be attached to or stated in the bid document. The seller and/or manufacturer warrants that the goods sold hereunder will be merchantable quality, will conform to applicable specifications, and will be free from defects in material and workmanship and will be fit for the particular purpose intended.

Warranty does not commence until after the complete unit has been accepted and placed into service by the user agency.

Bidder shall indicate the name and the geographical location of the nearest authorized dealer to perform subsequent warranty service. This information shall be stated in the pricing section of bid or otherwise specified.

## STANDARD TERMS AND CONDITIONS

(Request For Bids/Proposals/Contracts)

DCO CHS 19.25 Rev. 07/07

1.0 **APPLICABILITY:** The terms and conditions set forth in this document apply to Requests for Proposals (RFP), Bids and all other transactions whereby the County of Dane acquires goods or services, or both.

1.1 **ENTIRE AGREEMENT:** These Standard Terms and Conditions shall apply to any contract, including any purchase order, awarded as a result of this request. Special requirements of a resulting contract may also apply. Said written contract with referenced parts and attachments shall constitute the entire agreement, and no other terms and conditions in any document, acceptance, or acknowledgment shall be effective or binding unless expressly agreed to in writing by the County.

1.2 **DEFINITIONS:** As used herein, "vendor" includes a provider of goods or services, or both, who is responding to an RFP or a bid, and "bid" includes a response to either an RFP or a bid.

2.0 **SPECIFICATIONS:** The specifications in this request are the minimum acceptable. When specific manufacturer and model numbers are used, they are to establish a design, type of construction, quality, functional capability or performance level, or any combination thereof, desired. When alternates are proposed, they must be identified by manufacturer, stock number, and such other information necessary to establish equivalency. Dane County shall be the sole judge of equivalency. Vendors are cautioned to avoid proposing alternates to the specifications which may result in rejection of their bid.

3.0 **DEVIATIONS AND EXCEPTIONS:** Deviations and exceptions from terms, conditions, or specifications shall be described fully, on the vendor's letterhead, signed, and attached to the bid. In the absence of such statement, the bid shall be accepted as in strict compliance with all terms, conditions, and specifications and vendor shall be held liable for injury resulting from any deviation.

4.0 **QUALITY:** Unless otherwise indicated in the request, all material shall be first quality. No pre-owned, obsolete, discontinued or defective materials may be used.

5.0 **QUANTITIES:** The quantities shown on this request are based on estimated needs. The County reserves the right to increase or decrease quantities to meet actual needs.

6.0 **DELIVERY:** Deliveries shall be FOB destination freight prepaid and included unless otherwise specified. County will reject shipments sent C.O.D. or freight collect.

7.0 **PRICING:** Unit prices shown on the bid shall be the price per unit of sale, e.g., gal., cs., doz., ea., etc., as stated on the request or contract. For any given item, the quantity multiplied by the unit price shall establish the extended price, the unit price shall govern in the bid evaluation and contract administration.

7.1 Prices established in continuing agreements and term contracts may be lowered due to market conditions, but prices

shall not be subject to increase for the term specified in the award. Vendor shall submit proposed increases to the contracting department thirty (30) calendar days before the proposed effective date of the price increase. Proposed increases shall be limited to fully documented cost increases to the vendor that are demonstrated to be industry wide. Price increases may not be granted unless they are expressed in bid documents and contracts or agreements.

7.2 Submission of a bid constitutes bidder's certification that no financial or personal relationship exists between the bidder and any county official or employee except as specially set forth in writing attached to and made a part of the bid. The successful bidder shall disclose any such relationship which develops during the term of the contract.

8.0 **ACCEPTANCE-REJECTION:** Dane County reserves the right to accept or reject any or all bids, to waive any technicality in any bid submitted and to accept any part of a bid as deemed to be in the best interests of the County. Submission of a proposal or a bid constitutes the making of an offer to contract and gives the County an option valid for 60 days after the date of submission to the County.

8.1 Bids **MUST** be dated and time stamped by the Dane County Purchasing Division Office on or before the date and time that the bid is due. Bids deposited or time stamped in another office will be rejected. Actual receipt in the office of the purchasing division is necessary; timely deposit in the mail system is not sufficient. **THERE WILL BE NO EXCEPTIONS TO THIS POLICY.**

9.0 **METHOD OF AWARD:** Award shall be made to the lowest responsible, responsive vendor conforming to specifications, terms, and conditions, or to the most advantageous bid submitted to the County on a quality versus price basis. Among other things, quantities, time of delivery, purpose for which required, competency of vendor, the ability to render satisfactory service and past performance will be considered in determining responsibility.

10.0 **ORDERING/ACCEPTANCE:** Written notice of award to a vendor in the form of a purchase order or other document, mailed or delivered to the address shown on the bid will be considered sufficient notice of acceptance of bid. A formal contract containing all provisions of the contract signed by both parties shall be used when required by the Dane County Purchasing Division.

11.0 **PAYMENT TERMS AND INVOICING:** Unless otherwise agreed, Dane County will pay properly submitted vendor invoices within thirty (30) days of receipt of goods or services, or combination of both. Payment will not be made until goods or services are delivered, installed (if required), and accepted as specified. Invoices presented for payment must be submitted in accordance with instructions contained on the purchase order.

11.1 **NO WAIVER OF DEFAULT:** In no event shall the making of any payment or acceptance of any service or product required by this Agreement constitute or be construed

as a waiver by County of any breach of the covenants of the Agreement or a waiver of any default of the successful vendor, and the making of any such payment or acceptance of any such service or product by County while any such default or breach shall exist shall in no way impair or prejudice the right of County with respect to recovery of damages or other remedy as a result of such breach or default.

12.0 TAXES: The County and its departments are exempt from payment of all federal tax and Wisconsin state and local taxes on its purchases except Wisconsin excise taxes as described below. The State of Wisconsin Department of Revenue has issued tax exempt number ES41279 to Dane County.

12.1 The County is required to pay the Wisconsin excise or occupation tax on its purchase of beer, liquor, wine, cigarettes, tobacco products, motor vehicle fuel and general aviation fuel. The County is exempt from Wisconsin sales or use tax on these purchases. The County may be subject to other states' taxes on its purchases in that state depending on the laws of that state. Vendors performing construction activities are required to pay state use tax on the cost of materials.

13.0 GUARANTEED DELIVERY: Failure of the vendor to adhere to delivery schedules as specified or to promptly replace rejected materials shall render the vendor liable for all costs in excess of the contract price when alternate procurement is necessary. Excess costs shall include administrative costs.

14.0 APPLICABLE LAW AND VENUE: This contract shall be governed under the laws of the State of Wisconsin, and venue for any legal action between the parties shall be in Dane County Circuit Court. The vendor shall at all times comply with and observe all federal and state laws, local laws, ordinances, and regulations which are in effect during the period of this contract and which in any manner affect the work or its conduct.

15.0 ASSIGNMENT: No right or duty in whole or in part of the vendor under this contract may be assigned or delegated without the prior written consent of Dane County.

16.0 NONDISCRIMINATION/AFFIRMATIVE ACTION: During the term of this Agreement the vendor agrees, in accordance with sec. 111.321, Wis. Stats., and Chapter 19 of the Dane County Code of Ordinances, not to discriminate against any person, whether an applicant or recipient of services, an employee or applicant for employment, on the basis of age, race, ethnicity, religion, color, gender, disability, marital status, sexual orientation, national origin, cultural differences, ancestry, physical appearance, arrest record or conviction record, military participation or membership in the national guard, state defense force or any other reserve component of the military forces of the United States, or political beliefs. The vendor shall provide a harassment-free work environment. These provisions shall include, but not be limited to, the following: employment, upgrading, demotion, transfer, recruitment, advertising, layoff, termination, training, including apprenticeships, rates of pay or other forms of compensation.

16.1 Vendors who have twenty (20) or more employees and a contract of twenty thousand dollars (\$20,000) or more must submit a written affirmative action plan to the County's Contract Compliance Officer within fifteen (15) working days of

the effective date of the contract. The County may elect to accept a copy of the current affirmative action plan filed with and approved by a federal, state or local government unit.

16.2 The vendor agrees to post in conspicuous places, available for employees and applicants for employment, notices setting forth the provisions of this Agreement as they relate to affirmative action and nondiscrimination.

16.3 Failure to comply with these Terms and Conditions may result in the vendor being debarred, termination of the contract and/or withholding of payment.

16.4 The vendor agrees to furnish all information and reports required by Dane County's Contract Compliance Officer as the same relate to affirmative action and nondiscrimination, which may include any books, records, or accounts deemed appropriate to determine compliance with Chapter 19, D.C. Ords., and the provisions of this Agreement.

16.5 *Americans with Disabilities Act*: The vendor agrees to the requirements of the ADA, providing for physical and programmatic access to service delivery and treatment in all programs and activities.

17.0 PATENT, COPYRIGHT AND TRADEMARK INFRINGEMENT: The vendor guarantees goods sold to the County were manufactured or produced in accordance with applicable federal labor laws, and that the sale or use of the articles described herein do not infringe any patent, copyright or trademark. The vendor covenants that it will, at its own expense, defend every suit which shall be brought against the County (provided that such vendor is promptly notified of such suit, and all papers therein are delivered to it) for any alleged infringement of any patent, copyright or trademark by reason of the sale or use of such articles, and agrees that it will pay all costs, damages, and profits recoverable in any such suit.

18.0 SAFETY REQUIREMENTS: All materials, equipment, and supplies provided to the County must fully comply with all safety requirements as set forth by the Wisconsin Department of Commerce and all applicable OSHA Standards.

18.1 MATERIAL SAFETY DATA SHEET: If any item(s) on an order(s) resulting from this award(s) is a hazardous chemical, as defined under 29 CFR 1910.1200, provide one (1) copy of the Material Safety Data Sheet for each item with the shipped container(s) and one (1) copy with the invoice(s).

19.0 WARRANTY: Unless specifically expressed otherwise in writing, goods and equipment purchased as a result of this request shall be warranted against defects by the vendor for one (1) year from date of receipt. An equipment manufacturer's standard warranty shall apply as a minimum and must be honored by the vendor. The time limitation in this paragraph does not apply to the warranty provided in paragraph 27.0.

20.0 INSURANCE RESPONSIBILITY: The successful vendor shall:

20.1 Maintain worker's compensation coverage as required by Wisconsin Statutes, for all employees engaged in the work. The successful vendor shall furnish evidence of adequate worker's compensation insurance.

20.2 Indemnify, hold harmless and defend County, its boards, commissions, agencies, officers, employees and representatives against any and all liability, loss (including, but not limited to, property damage, bodily injury and loss of life), damages, costs or expenses which County, its officers, employees, agencies, boards, commissions and representatives may sustain, incur or be required to pay by reason of the successful vendor furnishing the services or goods required to be provided under the contract with the County, provided, however, that the provisions of this paragraph shall not apply to liabilities, losses, charges, costs, or expenses caused by or resulting from the acts or omissions of County, its agencies, boards, commissions, officers, employees or representatives. The obligations of the successful vendor under this paragraph shall survive the expiration or termination of any contract resulting from the successful vendor's bid.

20.3 At all times during the term of this Agreement, keep in full force and effect comprehensive general liability and auto liability insurance policies (as well as professional malpractice or errors and omissions coverage, if the services being provided are professional services) issued by a company or companies authorized to do business in the State of Wisconsin and licensed by the Wisconsin Insurance Department, with liability coverage provided for therein in the amount of at least \$1,000,000 CSL (Combined Single Limits). Coverage afforded shall apply as primary. County shall be given ten (10) days advance notice of cancellation or non-renewal. Upon execution of this Agreement, the successful vendor shall furnish County with a certificate of insurance listing County as an additional insured and, upon request, certified copies of the required insurance policies. If the successful vendor's insurance is underwritten on a Claims-Made basis, the Retroactive Date shall be prior to or coincide with the date of this Agreement, the Certificate of Insurance shall state that coverage is Claims-Made and indicate the Retroactive Date, the successful vendor shall maintain coverage for the duration of this Agreement and for two years following the completion of this Agreement. The successful vendor shall furnish County, annually on the policy renewal date, a Certificate of Insurance as evidence of coverage. It is further agreed that the successful vendor shall furnish the County with a 30-day notice of aggregate erosion, in advance of the Retroactive Date, cancellation, or renewal. It is also agreed that on Claims-Made policies, either the successful vendor or County may invoke the tail option on behalf of the other party and that the Extended Reporting Period premium shall be paid by the successful vendor. In the event any action, suit or other proceeding is brought against County upon any matter herein indemnified against, County shall give reasonable notice thereof to the successful vendor and shall cooperate with the successful vendor's attorneys in the defense of the action, suit or other proceeding.

20.4 The County reserves the right to require higher or lower insurance limits where County deems necessary.

20.5 In case of any sublet of work under this Agreement, the successful vendor shall furnish evidence that each and every subvendor has in force and effect insurance policies providing coverage identical to that required of the successful vendor.

21.0 CANCELLATION: County reserves the right to terminate any Agreement due to non-appropriation of funds or failure of performance by the vendor. This paragraph shall not

relieve County of its responsibility to pay for services or goods provided or furnished to County prior to the effective date of termination.

22.0 PUBLIC RECORDS ACCESS: It is the intention of the County to maintain an open and public process in the solicitation, submission, review, and approval of procurement activities. Bid openings are public unless otherwise specified. Records are not available for public inspection prior to issuance of the notice of intent to award or the award of the contract. Bid results may be obtained by visiting the Dane County Purchasing Office Monday – Friday, between 8:00 a.m. and 4:00 p.m. Prior appointment is advisable.

22.1 PROPRIETARY INFORMATION: If the vendor asserts any of its books and records of its business practices and other matters collectively constitute a trade secret as that term is defined in s. 134.90(1)(c), Wis. Stats., County will not release such records to the public without first notifying the vendor of the request for the records and affording the vendor an opportunity to challenge in a court of competent jurisdiction the requester's right to access such records. The entire burden of maintaining and defending the trade secret designation shall be upon the vendor. The vendor acknowledges and agrees that if the vendor shall fail, in a timely manner, to initiate legal action to defend the trade secret designation or be unsuccessful in its defense of that designation, County shall be obligated to and will release the records.

22.2 Data contained in a bid, all documentation provided therein, and innovations developed as a result of the contracted commodities or services cannot be copyrighted or patented. All data, documentation, and innovations shall be the property of the County.

22.3 Any material submitted by the vendor in response to this request that the vendor considers confidential and proprietary information and which vendor believes qualifies as a trade secret, as provided in section 19.36(5), Wis. Stats., must be identified on a designation of Confidential and Proprietary Information form. In any event, bid prices will not be held confidential after award of contract.

23.0 RECYCLED MATERIALS: Dane County is required to purchase products incorporating recycled materials whenever technically and economically feasible. Vendors are encouraged to bid products with recycled content which meet specifications.

24.0 PROMOTIONAL ADVERTISING: Reference to or use of Dane County, any of its departments or sub-units, or any county official or employee for commercial promotion is prohibited.

25.0 ANTITRUST ASSIGNMENT: The vendor and the County of Dane recognize that in actual economic practice, overcharges resulting from antitrust violation are in fact usually borne by the County of Dane (purchaser). Therefore, the successful vendor hereby assigns to the County of Dane any and all claims for such overcharges as to goods, materials or services purchased in connection with this contract.

26.0 RECORDKEEPING AND RECORD RETENTION-PUBLIC WORKS CONTRACTS: The successful bidder on a public works contract shall comply with the State of Wisconsin prevailing wage scale and shall establish and maintain

adequate payroll records for all labor utilized as well as records for expenditures relating to all subcontracts, materialmen and suppliers. All records must be kept in accordance with generally accepted accounting procedures. The County shall have the right to audit, review, examine, copy, and transcribe any such records or documents. The vendor will retain all documents applicable to the contract for a period of not less than three (3) years after final payment is made.

26.1 RECORDKEEPING AND RECORD RETENTION-COST REIMBURSEMENT CONTRACTS: Where payment to the vendor is based on the vendor's costs, vendor shall establish and maintain adequate records of all expenditures incurred under the contract. All records must be kept in accordance with generally accepted accounting procedures. The County contracting agency shall have the right to audit, review, examine, copy, and transcribe any pertinent records or documents relating to any contract resulting from this bid/proposal held by the vendor. The vendor will retain all documents applicable to the contract for a period of not less than three (3) years after final payment is made.

27.0 YEAR 2000 COMPLIANT: Vendor warrants that: a) all goods, services and licenses sold otherwise provided pursuant to this procurement have been tested for and are fully year 2000 compliant, which means they are capable of correctly and consistently handling all date-based functions before, during and after the year 2000; b) the date change from 1999 to 2000, or any other date changes, will not prevent such goods, services or licenses from operating in a merchantable manner, for the purposes intended and in accordance with all applicable plans and specifications and without interruption before, during and after the year 2000; and c) vendor's internal systems, and those of vendor's vendors, are year 2000 compliant, such that vendor will be able to deliver such goods, services and licenses as required by this procurement.

28.0 LIVING WAGE REQUIREMENT: The vendor shall, where appropriate, comply with the County's Living Wage requirements as set forth in section 25.015, Dane County Ordinances.

28.01 In the event its payroll records contain any false, misleading or fraudulent information, or if the vendor fails to comply with the provisions of s. 25.015, D.C. Ords., the County may withhold payments on the contract, terminate, cancel or suspend the contract in whole or in part, or, after a due process hearing, deny the vendor the right to participate in bidding on future County contracts for a period of one (1) year

after the first violation is found and for a period of three (3) years after a second violation is found.

- 28.02 Bidders are exempt from the above requirements if:
- The maximum value of services to be provided is less than \$5,000;
  - The bid involves only the sale of goods to the County;
  - The bid is for professional services;
  - The bid is for a public works contract where wages are regulated under s. 62.293, Wis. Stats.;
  - The bidder is a school district, a municipality, or other unit of government;
  - The service to be provided is residential services at an established per bed rate;
  - The bidder's employees are persons with disabilities working in employment programs and the successful bidder holds a current sub-minimum wage certificate issued by the U.S. Department of Labor or where such a certificate could be issued but for the fact that the employer is paying a wage higher than the minimum wage;
  - The bidder is an individual providing services to a family member; or
  - The bidder's employees are student interns.

28.03 COMPLIANCE WITH FAIR LABOR STANDARDS. During the term of this Agreement, PROVIDER shall report to the County Contract Compliance Officer, within ten (10) days, any allegations to, or findings by the National Labor Relations Board (NLRB) or Wisconsin Employment Relations Commission (WERC) that PROVIDER has violated a statute or regulation regarding labor standards or relations within the seven years prior to entering this Agreement. If an investigation by the Contract Compliance Officer results in a final determination that the matter adversely affects PROVIDER'S responsibilities under this Agreement, and which recommends termination, suspension or cancellation of this agreement, the County may take such action.

28.04 PROVIDER may appeal any adverse finding by the Contract Compliance Officer as set forth in sec. 25.015(11)(c) through (e).

28.05 PROVIDER shall post the following statement in a prominent place visible to employees: "As a condition of receiving and maintaining a contract with Dane County, this employer shall comply with federal, state and all other applicable laws prohibiting retaliation or union organizing."

<b>BIDDER COVER PAGE SIGNATURE AFFIDAVIT</b>	
<b>NAME OF FIRM:</b>	
<b>STREET ADDRESS:</b>	
<b>CITY, STATE, ZIP</b>	
<b>CONTACT PERSON:</b>	
<b>PHONE #:</b>	
<b>FAX #:</b>	
<b>EMAIL:</b>	

In signing this bid, we also certify that we have not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise taken any action in restraint of free competition; that no attempt has been made to induce any other person or firm to submit or not to submit a bid; that this bid has been independently arrived at without collusion with any other bidder, competitor or potential competitor; that this bid has not been knowingly disclosed prior to the opening of bids to any other bidder or competitor; that the above statement is accurate under penalty of perjury.

The undersigned, submitting this bid, hereby agrees with all the terms, conditions, and specifications required by the County in this Request for Bid, and declares that the attached bid and pricing are in conformity therewith.

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Title**

\_\_\_\_\_  
**Name (type or print)**

\_\_\_\_\_  
**Date**

**Addendums** -This firm hereby acknowledges receipt / review of the following addendum(s) (If any)

Addendum # \_\_\_\_\_ Addendum # \_\_\_\_\_ Addendum # \_\_\_\_\_ Addendum # \_\_\_\_\_

**VENDOR REGISTRATION CERTIFICATION**

**Per Dane County Ordinance, Section 62.15, “Any person desiring to bid on any county contract must register with the purchasing manager and pay an annual registration fee of \$20.”**

Your completed Vendor Registration Form and Registration Fee must be received for your bid to be considered for an award. Your bid/proposal may not be evaluated for failure to comply with this provision.

Complete a registration form online by visiting our web site at [www.danepurchasing.com](http://www.danepurchasing.com). You will be prompted to create a username and a password and you will receive a confirmation message, then log back in and complete the registration. Once your registration is complete you will receive a second confirmation. Retain your user name and password for ease of re-registration in future years.

Payment may be made via credit card on-line or by check in the mail or in person at the Purchasing Division office. If paying by check make check payable to Dane County Treasurer and indicate your federal identification number (FIN) on the subject line.

**CERTIFICATION**

The undersigned, for and on behalf of the **PROPOSER, BIDDER OR APPLICANT** named herein, certifies as follows:

- This firm is a paid, registered vendor with Dane County in accordance with the bid terms and conditions.

Vendor Number # \_\_\_\_\_

Paid until \_\_\_\_\_

Date Signed: \_\_\_\_\_

\_\_\_\_\_  
Officer or Authorized Agent

\_\_\_\_\_  
Business Name

**PRICE PROPOSAL**

<b>NAME OF FIRM:</b>	
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For the price(s) listed below, our firm hereby offers to provide the following item(s) in accordance with the specifications of this bid. Pricing must include delivery

<b>ITEM</b>	<b>EACH</b>	<b>TOTAL NET BID</b>
For furnishing and delivering six (6), Hydraulics and Controls for Snowplow Trucks in accordance with the detailed specifications.	\$ _____	\$ _____
<b>OPTION:</b> Additional cost for the hydraulics and controls for addition of another wing to the system.		\$ _____

**Future Pricing:**

**Do you agree to provide the same pricing for years: (Check Yes or No**

Year 2012 Yes _____	No _____
Year 2013 Yes _____	No _____
Year 2014 Yes _____	No _____
Year 2015 Yes _____	No _____

**The following questionnaire shall be filled in completely.**

Hydraulics and Controls for Snowplow Trucks: Make \_\_\_\_\_  
Model/ Year \_\_\_\_\_

**Specifications:** Detail any items not in compliance with the detailed specifications:

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**Additional items/options:** If you would like to have any additional items, options, etc. considered in connection with this bid, please indicate the specific item(s) and costs(s) in the space below.

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**Warranty:** Detail warranty for the Hydraulics and Controls for Snowplow Trucks .

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**Person responsible for warranty work:** Name \_\_\_\_\_

Phone \_\_\_\_\_

**Delivery time to Madison Garage:** \_\_\_\_\_

**Delivery is extremely important on this purchase. Therefore, the best and most realistic delivery time will weigh heavily in our purchase decision process.**

**A manufacturer specification sheet must be submitted with the bid.**

**Sales Tax**

Bids should not include Federal Excise and Wisconsin Sales Taxes, as Dane County is exempt from payment of such taxes. Sec.State Statute No. 77.54(9a). Wis. Stats. The Dane County's CES number is ES 41279.

Payment terms: Net 30

Quote/Bid price delivered FOB Destination To:

Dane County Highway and Transportation Department  
2302 Fish Hatchery Road  
Madison, WI 53713-2495

**VENDOR REGISTRATION PROGRAM**

Per Dane County Ordinance, Section 62.15, “Any person desiring to bid on any county contract must register with the purchasing manager and pay an annual registration fee of \$20.”

Your completed Vendor Registration Form and Registration Fee must be received for your bid to be considered for an award. Your bid/proposal may not be evaluated for failure to comply with this provision.

Complete a registration form online by visiting our web site at [www.danepurchasing.com](http://www.danepurchasing.com).. You will prompted to create a username and a password and you will receive a confirmation message, than log back in and complete the registration. Once your registration is complete you will receive a second confirmation. Retain your user name and password for ease of re-registration in future years.

Payment may be made via credit card on-line or by check in the mail or in person at the Purchasing Division office. If paying by check make check payable to Dane County Treasurer and indicate your federal identification number (FIN) on the subject line.

**CERTIFICATION**

The undersigned, for and on behalf of the **PROPOSER, BIDDER OR APPLICANT** named herein, certifies as follows:

- This firm is a paid, registered vendor with Dane County in accordance with the bid terms and conditions.

Vendor Number # \_\_\_\_\_

Paid until \_\_\_\_\_

Date Signed: \_\_\_\_\_

\_\_\_\_\_  
Officer or Authorized Agent

\_\_\_\_\_  
Business Name

**FAIR LABOR PRACTICES CERTIFICATION**

Dane County Ordinance 25.11(28)

The undersigned, for and on behalf of the PROPOSER, BIDDER OR APPLICANT named herein, certifies as follows:

1. That he or she is an officer or duly authorized agent of the above-referenced PROPOSER, BIDDER OR APPLICANT, which has submitted a proposal, bid or application for a contract with the county of Dane.

2. That PROPOSER, BIDDER OR APPLICANT has: (Check One)

\_\_\_\_\_ not been found by the National Labor Relations Board ("NLRB") or the Wisconsin Employment Relations Commission ("WERC") to have violated any statute or regulation regarding labor standards or relations in the seven years prior to the date this Certification is signed.

\_\_\_\_\_ been found by the National Labor Relations Board ("NLRB") or the Wisconsin Employment Relations Commission ("WERC") to have violated any statute or regulation regarding labor standards or relations in the seven years prior to the date this Certification is signed

Date Signed: \_\_\_\_\_

\_\_\_\_\_  
Officer or Authorized Agent

\_\_\_\_\_  
Business Name

**NOTE: You can find information regarding the violations described above at:**  
[www.nlr.gov](http://www.nlr.gov) and <http://werc.wi.gov>.

**For Reference Dane County Ord. 28.11 (28) is as follows:**

**(28) BIDDER RESPONSIBILITY. (a)** Any bid, application or proposal for any contract with the county, including public works contracts regulated under chapter 40, shall include a certification indicating whether the bidder has been found by the National Labor Relations Board (NLRB) or the Wisconsin Employment Relations Committee (WERC) to have violated any statute or regulation regarding labor standards or relations within the last seven years. The purchasing manager shall investigate any such finding and make a recommendation to the committee, which shall determine whether the conduct resulting in the finding affects the bidder's responsibility to perform the contract.

If you indicated that you have been found by the NLRB or WERC to have such a violation, you must include a copy of any relevant information regarding such violation with your proposal, bid or application.

## Part 3 – Detailed Specifications

[Bid Forms](#)  
[Submit With Bid](#)

### Specifications Overview

Dane County as represented by the Purchasing Division will accept bids for the purchase of specified item(s) as described further in this document.

The intended user agency is: Highway & Transportation

Bidder shall complete every space in the area provided with either a check mark to indicate the item being bid is exactly as specified (**Comply**), or deviates from bid specification (**Does Not Comply**). Any deviation from the minimum specifications stated herein must be identified in detail on the form provided and must include a description of how the proposed item/s differ from the bid requirements, along with detailed justification for such deviation. Bidder shall include photos and schematics as necessary, for complete clarification.

The specifications below describe an acceptable unit(s) /item(s). Minor variations in specification may be accepted if, in the opinion of County staff, they do not adversely affect the quality, maintenance or performance of the items). Dane County reserves the right to accept or reject any and all bids, to waive informalities and to choose the bid that best meets the specifications and needs of the County.

If no variations are listed, it will be assumed that all specifications are met.

**Technical Specifications**

**HYDRAULIC PUMP:**

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 4.00 cubic inches per revolution at maximum stroke which will deliver 16.4 gpm @ 1000 engine rpm. The pump shall have a 2" inch suction line and ½ " control drain line plumbed directly back to the reservoir. The pump shall be rated for 3600 PSI maximum and 3000 PSI continuous. The pump shall have a 1 1/4" keyed drive shaft and SAE type C mounting flange. The pump shall be a Parker 65 pump (part # PAVC6592L4AP12X3221).. A 1" high-pressure steel ball valve shall be at the outlet of the pump.

Does your bid comply? Yes \_\_\_\_\_ No \_\_\_\_\_

**MOUNTING:**

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

Does your bid comply? Yes \_\_\_\_\_ No \_\_\_\_\_

**DRIVE LINE:**

The hydraulic pump shall be driven directly off the engine crankshaft via a glide coat splined driveline to allow for movement. The driveline shall include grease fittings on both u-joints. Driveline shall be an Engineering & Mfg model FD-13 series with FSMA131-14B kit including 2-4-533 and 2-2-479 yokes.

Does your bid comply? Yes \_\_\_\_\_ No \_\_\_\_\_

**RESERVOIR:**

Hydraulic reservoir shall be Dane County Special RES-45-Dane  
Basket type filler breather cap  
K-25-MO1  
¾" Magnetic drain plug  
2" x 2" male ext. mount NPT suction strainer w/100-mesh screen type filter w/3  
PSI bypass Separate return port for case drain line  
5" Sight temperature gauge externally mounted  
Intank return line filter part number TEF31016VG16SP-UG60E115 #20 ports  
6801-LL-2020 JIC x O'Ring elbow extra long  
PS-25-WP weather pack connector style 25 psi pressure switch no exceptions.  
KN-2.00-P nipple  
PS-25-WP

B4030N-93NR-NC oil level temp sender  
5606A001 Diodes

The hydraulic reservoir shall be equipped with an electric level or level/temperature sending unit to be wired to a panel and back lit for designated warning.

**Does your bid comply? Yes \_\_\_\_\_ No \_\_\_\_\_**

**FILTER:**

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 a TEF31016VG16SP-UG60E115 or prior approved equal. The filter will come with both a visual and electrical bypass indicator PS-25-WP. The electrical indicator shall be wired to a warning light in the Patrol CommanderUltra control center.

**Does your bid comply? Yes \_\_\_\_\_ No \_\_\_\_\_**

**HIGH PRESSURE FILTER:**

There shall be a high-pressure filter plumbed between the hydraulic pump and the control valve assembly. The hydraulic filter shall be a 25-micron absolute and rated for 6000 psi. The filter shall be a HP17125VG30EPUG5S2AE7050P or a prior approved equal. The filter shall be equipped with a visual and electrical bypass indicator. A warning light and buzzer shall be mounted in the cab and wired to the electrical indicator. The electrical indicator shall be wired to a warning light in the MA control.

**Does your bid comply? Yes \_\_\_\_\_ No \_\_\_\_\_**

**CONTROL CENTER:**

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. The Control Center must be an integral center for controlling all hydraulic functions including all automated salt controls and auxiliary lighting. All components must be durable for long life and trouble free operation. Four solid-state warning light options illuminated in red for low oil, body up, return filter bypass and high pressure filter bypass must also be supplied. A solid yellow color wire shall be run for the Tarper section both internally to the control center and external of the control center and be marked accordingly. A guarded toggle shall be installed for the air tailgate. Provide wiring to allow for switching prewet between the left spinner and right spinner.

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 operator's 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.

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.

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:

- (4) axis functional float on any or all of the outputs with selectable forward/back, right/left functionality
- 3-way or 4-way functionality
- Selectable (3) second float delay timer
- Optional float enable switch inputs.
- 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.

To ensure longevity of performance all lighting to be solid-state LED technology. The use of incandescent lamps or EL backlighting is unacceptable.

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:

- Input power monitor circuitry with power quality diagnostics,
- Redundant dual-reference joystick signals for each joystick axis
- Joystick input off-center checking on all axes and output shutdown on system power-up
- Joystick out-of-range fault condition checking and output shutdown
- True outputs off with joystick centered
- LED-backlit nomenclature shall illuminate and flash RED when any error condition exists and an audible alarm shall sound.
- 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:

- Unique MIN/MAX adjustments for each joystick function (forward, back, left and right)
- On-screen output status indicator's for each PWM output
- Audible and visible output error status indicators with flashing error codes for each joystick function

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.

The electronic spreader control shall be designed for precise, closed-loop control of granular and prewet 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 road and air 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.

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. 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.

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.

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, prewet liquid name, prewet 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.

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.

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 IP68 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 prewet liquid flowmeter 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.

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.

The Control Center shall be a FORCE America Patrol Commander MPJC Ultra series with a 6100 model spreader control.

**Does your bid comply? Yes \_\_\_\_\_ No \_\_\_\_\_**

**HYDRAULIC VALVE:**

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 mille-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 Add-A-Fold® model. The valve is to be arranged as follows:

Hoist	4-way with 500 PSI down side work port relief valve
Plow lift	4-way
Plow angle	4-way
Wing toe	4-way
Wing heel	4-way with 1500-psi (A) port relief valve
Auger	4-way
Spinner	4-way
Liquid	2-way

Does your bid comply? Yes \_\_\_\_\_ No \_\_\_\_\_

**WING LOC:**

The wing heel cylinder shall be equipped with an anti-drift “Wing Loc” device to prevent the wing from settling.

Does your bid comply? Yes \_\_\_\_\_ No \_\_\_\_\_

**TRAINING ONLINE:**

Online training program shall be available for all Hydraulic parts and for the spreader controls. Calibration and operation instructions shall be made available online at no additional charge.

Does your bid comply? Yes \_\_\_\_\_ No \_\_\_\_\_

**FORCE AMERICA DATACOMMANDER:**

A Mobile Data Collection System (MDC) with AVL/GPS system shall be supplied with each vehicle.

MDC (Mobile Data Collection System) system shall be fully integrated in all aspects with the FORCE America 5100 MA Patrol Commander Control Center.

- A. The system must support the FORCE America Advanced firmware/protocol. Device Communication must be bi-directional, to include device handshaking with Send/Receive/Delete routine. Data integrity must be protected by a 16-bit Cyclic Redundant Check-sum and allow for dynamic string definition. (This allows for accurate and verified communication between the SSC 5100 series spreader controller and the AVL modem.)
- B. The system must communicate at a 19200 baud rate between the FORCE America SSC 5100 series controller and the AVL modem.
- C. The system must be able to collect and show 37 separate events off the FORCE America 5100.
- D. The communications technology to be used for transmitting data shall be dual mode – 802.11b/g and GPRS. System shall include all necessary hardware items, processors, antennas, etc. (This provides the flexibility to use either 802.11b/g wireless or GPRS to do automatic data downloads if necessary.)
- E. The system shall provide a RS-232 serial connection, six (6) discrete inputs, J1939 and J1708 connections. (The variety of connectors provides flexibility in reading spreader controllers, plow positions, hoist positions, etc. as needed.)
- F. System shall support at least 16MB flash memory for storage of data over extended periods of connectivity loss. (This allows for storing all readings until 802.11b/g or GPRS coverage is re-established then transmitting the stored data to provide an updated history of the vehicle.)

- G. System shall provide Store and Forward capabilities. (System collects vehicle activity data and geo-stamp data and stores onboard until data can be securely transmitted to provide a detailed historical record of activity while in the field.)
- H. The system shall provide ability to detect and report previous power loss if unit is disconnected then reconnected. (This reports if someone was to disable the system during their shift whether inadvertent or intentional.)
- I. GPS receiver shall be accurate to less than 8 meters, for at least 90% of readings. (Provides accurate mapping data for corresponding application rates from spreader controller.)

System shall have less than 8mA typical current draw in key-off mode. (Provides minimal battery discharge when not in use.)

System shall meet SAE J1455 environmental specifications and provide +/- 25g shock rating (Provides a ruggedized solution in the high abuse environment that system will be used in.)

System shall support over-the-air firmware updates. (This allows for updating the system without the need to return to the district shop to be updated.)

System shall support over-the-air configuration updates for the following:

1. Start time report intervals
2. Reporting transmit intervals
3. Reporting power up/down
4. Setting GPS database triggers for distance, time, speed and angle.

System shall include notifications when a vehicle is due for preventive maintenance based on engine hour readings.

The system shall provide hourly usage reports to reflect how many minutes in each hour a vehicle was in use.

The system shall provide mileage reports to reflect how many miles in each day, month, and year vehicle drove.

The system shall provide the ability to draw geo-fences, label fences, and show the accumulation of time and mileage within said fence.

System shall provide user-configurable notifications for excess speeds, excess idle times, and operation after normal operating hours, previous power loss, maintenance exceptions, geo-fence violation, and battery voltage.

The system shall provide user-configurable odometer and hour meter syncing to the vehicle's actual odometer and hour meter. System shall also include the ability to readjust both odometer and hour meters if a variance occurs.

**Does your bid comply? Yes \_\_\_\_\_ No \_\_\_\_\_**

Hardware/Firmware:

- A. Vehicle AVL/GPS system shall be of rugged design, constructed of components intended and suitable for the mobile equipment market. To ensure longevity in harsh mobile environments, the system shall conform to SAE1455 for chassis-mounted devices, as well as not be damaged by mechanical shock of +/- 25g. For guaranteed low-temperature operation, the device must operate without degradation of performance in ambient temperatures of -30°C to 60°C.
- B. The modem shall be dual mode 802.11b/g and GSM/GPRS. It shall include two RS-232 serial connections and one J1939 and J1708 connections. The unit will support a minimum 16MB flash memory for storing data over extended periods of connectivity loss and also provide ability to detect and report previous power loss if unit is disconnected then reconnected.
- C. The AVL/GPS system shall be protected and immune to over-voltage conditions and reverse polarity. System shall utilize a live 12V connection to the vehicle battery. To minimize vehicle battery drain, unit current draw shall not exceed 8mA during sleep mode (key off).
- D. The system shall contain all necessary hardware and on-board memory to log GPS coordinates including (latitude/longitude), speed, heading and time, engine hours (ignition "on" time) and spreader data.
- E. Data strings of outputting data collected by the system from the on-board electronic spreader control shall include comprehensive spreader activity including spreader status, material feed rates, actual materials applied, operating modes, and warning and error conditions and be capable of supporting new spreader functions and features as added. Spreader event data shall be produced and collected based on programmable event triggers that can be based on a field status change. This is to reduce the flow of data and monthly charges due to larger volumes of data being transmitted.
- F. The AVL/GPS system shall also log the status change of (6) discrete digital inputs to allow for monitoring the state and condition of various optional vehicle sensors. Connections to unit shall be made with plug-in connectors (not hardwired) to facilitate simple field replacement of components.
- G. The unit shall come with two antennas. One shall be GPS dual-band and the other is GPRS-850/1900 MHz. The GPS antenna is 3-5Vdc, 23.5-32.5dB of gain, and is equipped with a male SMA connector. The GPRS antenna is 3-5Vdc, has less than 3dBi gain, and is equipped with a RP-SMA connector.

**The AVL/GPS system shall be a Force America Data Commander IX-302 transceiver or approved equal.**

**Does your bid comply? Yes \_\_\_\_\_ No \_\_\_\_\_**

**TRAINING**

All necessary training shall be provided by the successful bidder at no additional charge.

**Does your bid comply? Yes \_\_\_\_\_ No \_\_\_\_\_**