

MISSOURI DEPARTMENT OF TRANSPORTATION
GENERAL SERVICES - FLEET
830 MoDOT Drive, Jefferson City, MO
65109

REQUEST NO.	3-120208RJ
DATE	January 23, 2012
PAGE NO.	1

SEALED BIDS, SUBJECT TO THE ATTACHED CONDITIONS WILL BE RECEIVED AT THIS OFFICE UNTIL

2:00 pm., Local Time, February 8, 2012

AND THEN PUBLICLY OPENED AND READ FOR FURNISHING THE FOLLOWING SUPPLIES OR SERVICES.

BIDS TO BE BASED F.O.B. MISSOURI DEPARTMENT OF TRANSPORTATION

Submit net bid as cash discount stipulations will not be considered
Various End User Delivery Locations

DEFINITE DELIVERY DATE SHOULD BE SHOWN. THE BIDDER MUST SIGN AND RETURN BEFORE DATE AND TIME SET FOR OPENING.

BUYER: Reva Jones

BUYER TELEPHONE: 573-526-2744

BUYER EMAIL: reva.jones@modot.mo.gov

EQUIPMENT

Skid Mounted Spray Units

To establish a contract to furnish "skid mounted spray units" in accordance with the following pages.

Components of Agreement: The Agreement between MHTC and the successful Bidder shall consist of: the RFB and any written amendments thereto, the "Standard Bid Provisions, General Terms and Conditions and Special Terms and Conditions" that are attached to this RFB, the bid submitted by the Bidder in response to the RFB and the post-award contract agreement signed between the parties. However, MHTC reserves the right to clarify any relationship in writing and such written clarification shall govern in case of conflict with the applicable requirements stated in the RFB or the Bidder's bid. The Bidder is cautioned that its bid shall be subject to acceptance by MHTC without further clarification.

Return sealed bid to the address shown at the top of this page.

(SEE ATTACHED FOR TERMS, CONDITIONS, AND INSTRUCTIONS)

In compliance with the above Request For Bid, and subject to all conditions thereof, the undersigned bidder agrees to furnish and deliver any or all the items on which prices were bid within the timeframe specified herein, after receipt of formal purchase order.

Date: _____
 Telephone No.: _____
 Fax No.: _____
 Federal I.D. No. _____
 Email Address: _____

Firm Name: _____
 Address: _____

 By (Signature): _____
 Type/Print Name _____

Is your firm MBE certified? Yes No

Title: _____
Is your firm WBE certified? Yes No

1. INTRODUCTION AND GENERAL INFORMATION

1.1 Introduction:

- 1.1.1 This Request for Bid (RFB) seeks bids from qualified organizations to provide **skid mounted spray units** for the locations in the State of Missouri (listed on page 2 of this document), to the Missouri Highways and Transportation Commission (MHTC) and Missouri Department of Transportation (MoDOT). Each bid must be in a sealed envelope, be mailed or delivered by courier to the RFB Coordinator at the below listed address, on or before the date and time listed herein for receipt of bids/proposals. All questions regarding the RFB shall be submitted to the RFB Coordinator. **Bids must be returned to the office of the RFB Coordinator no later than 2:00 p.m., CDT, February 8, 2012.**

RFB COORDINATOR:

Reva Jones, Senior General Services Specialist
Missouri Department of Transportation, General Services
830 MoDOT Drive
Jefferson City, MO 65109

PHONE: 573-526-2744

FAX: 573-526-1218

1.2 General Information:

- 1.2.1 This document constitutes an invitation for competitive, sealed bids for the procurement of skid mounted spray units as set forth herein.
- 1.2.2 Organization: This RFB is divided into the following parts:
- 1) Introduction and General Information
 - 2) Scope of Work
 - 3) Bid Submission
 - 4) Pricing Page(s)
 - 5) Vendor Information and Preference Certification Form
 - 6) Anti-Collusion Statement
 - 7) Specifications
 - 8) Terms and Conditions

2. SCOPE OF WORK

2.1 General Requirements:

- 2.1.1 The contractor shall provide skid mounted spray units on an as needed, if needed basis for the MHTC and MoDOT, in accordance with the provisions and requirements stated herein.
- 2.1.2 The contractor shall provide all deliverables/services to the sole satisfaction of MoDOT.
- 2.1.3 MoDOT does not guarantee how many units will be ordered.
- 2.1.4 Unless otherwise specified herein, the contractor shall furnish all material, labor, facilities, equipment, and supplies necessary to provide the deliverables/services required herein.
- 2.1.5 MoDOT reserves the right to reject any or all bids, and to accept or reject any items thereon, and to waive technicalities. In case of error in the extension of prices in the bid, unit prices will govern.

2.2 Specific Requirements:

- 2.2.1 The contractor shall provide MoDOT with skid mounted spray units, in accordance with the attached specifications.

2.3 Required Specifications:

- a. All materials, equipment, and/or services bid upon must comply with the attached MoDOT Specification and any other provisions outlined in the solicitation documents.

2.4 Delivery Requirements:

- 2.4.1 The following delivery requirements shall apply:

- a. Unless otherwise specified on the solicitation documents or purchase order, suppliers shall give at least 24 hours advance notice of each delivery. Delivery will only be received between the hours of 8:00 a.m. to 3:00 p.m., Monday through Friday. Material arriving after 3:00 p.m. will not be unloaded until the following workday. No material will be received on Saturday, Sunday or state holidays.
- b. If the prices bid herein include the delivery cost of the material, the Contractor agrees to pay all transportation charges on the material as FOB - Destination. Freight costs must be included in the unit price bid and not listed as a separate line item.
- c. Any demurrage is to be paid by the Contractor direct to the railroad or carrier.

- 2.4.2 The contractor shall deliver the products specified herein to the following MoDOT locations:

- a. St. Joseph, Missouri 64502
- b. Macon, Missouri 63552
- c. Hannibal, Missouri 63401
- d. Lee's Summit, Missouri 64064-8002
- e. Jefferson City, Missouri 65102
- f. Chesterfield, Missouri 63017-5712
- g. Joplin, Missouri 64802
- h. Springfield, Missouri 65801
- i. Willow Springs, Missouri 65793
- j. Sikeston, Missouri 63801

2.5 Contract/Purchase Order:

2.5.1 The contract expresses the complete agreement of the parties and performance shall be governed solely by the specifications and requirements contained therein. Any change, whether by modification and/or supplementation, must be accomplished by a formal contract amendment signed and approved by and between the duly authorized representative of the Contractor and the duly authorized representative of the MHTC, by a modified purchase order prior to the effective date of such modification. The Contractor expressly and explicitly understands and agrees that no other method and/or no other document, including correspondence, acts, and oral communications by or from any person, shall be used or construed as an amendment or modification.

2.6 Invoicing and Payment Requirements:

2.6.1 The contractor shall submit an itemized invoice to the applicable requesting address for the completion of deliverables, as specified herein.

Missouri Department of Transportation
830 MoDOT Drive
P.O. Box 270
Attn: Stephanie Green
Jefferson City, MO 65102

2.6.2 Each invoice should be itemized in accordance with items listed on the purchase order and/or contract. The statewide financial management system has been designed to capture certain receipt and payment information. Therefore, each invoice submitted must reference the purchase order number and must be itemized in accordance with items listed on the purchase order. Failure to comply with this requirement may delay processing of invoices for payment.

2.6.3 The contractor shall understand and agree MoDOT reserves the right to make contract payments to the contractor through electronic funds transfer (EFT). Therefore, prior to any payments becoming due under the contract, the contractor must return a completed state Vendor Input ACH/EFT Application, which is downloadable from the Vendor Services Portal at: <https://www.vendorservices.mo.gov/vendorservices/Portal/Default.aspx>. Each contractor invoice must be on the contractor's original descriptive business invoice form and must contain a unique invoice number. The invoice number will be listed on the state's Vendor Payment Website to enable the contractor to properly apply state payments to invoices. The contractor must comply with all other invoicing requirements stated in the RFB.

2.6.4 The contractor shall be paid in accordance with the firm, fixed prices stated on the pricing page of this document after completion of deliverables specified herein and acceptance by MoDOT.

2.6.5 Other than the payment specified above, no other payments or reimbursements shall be made to the contractor for any reason whatsoever.

2.6.6 Unless otherwise provided for in the solicitation documents, payment for all equipment, supplies, and/or services required herein shall be made in arrears. The MHTC shall not make any advance deposits.

2.6.7 The MHTC assumes no obligation for equipment, supplies, and/or services shipped or provided in excess of the quantity ordered. Any authorized quantity is subject to the MHTC's rejection and shall be returned at the contractor's expense.

2.7 Other Contractual Requirements:

2.7.1 Contract Period - The contract shall commence from the date of award until February 28, 2013 with up to three (3) one-year renewal option periods, or any portion therein. If the option for renewal is exercised by MoDOT, the contractor shall agree to all terms and conditions of the RFB and all subsequent amendments. Renewal options are at the sole discretion of MoDOT.

2.7.2 Renewal Periods - If the option for renewal is exercised by MoDOT, the contractor shall agree to all terms and conditions of the RFB and all subsequent amendments. Renewal options are at the sole discretion of MoDOT.

2.7.3 Escalation Clause - In the event the contractor requests a price increase during the contract period, either the original contract period or any contract renewal period, the contractor must provide a written request and documentation justifying the need for a price increase, and the amount of such price increase. MoDOT will review the contractor's written request and documentation, and decide if a price increase is to be granted at that particular time. The contractor shall understand and agree that MoDOT's decision shall be final and without recourse.

- a. No price increase shall be granted during the original contract period.
- b. In the event a price increase is granted due to an approved escalation, the renewal percentage shall be based upon the current contract value.

2.7.4 Inspection and Acceptance: MoDOT reserves the right to inspect the equipment at the point of manufacture, intermediate storage point, or at a destination which shall be at the discretion of MoDOT.

- a. No equipment, supplies, and/or services received by MoDOT pursuant to a contract shall be deemed accepted until MoDOT has had reasonable opportunity to inspect said equipment, supplies, and/or services.
- b. All equipment, supplies, and/or services which do not comply with the specifications and/or requirements or which are otherwise unacceptable or defective may be rejected. In addition, all equipment, supplies, and/or services which are discovered to be defective or which do not conform to any warranty of the Contractor upon inspection (or at any later time if the defects contained were not reasonably ascertainable upon the initial inspection) may be rejected.
- c. The MHTC reserves the right to return any such rejected shipment at the Contractor's expense for full credit or replacement and to specify a reasonable date by which replacements must be received.
- d. The MHTC's right to reject any unacceptable equipment, supplies, and/or services shall not exclude any other legal, equitable or contractual remedies the MHTC may have.

2.8 Additional Notifications:

2.8.1 Bidders are encouraged to obtain minority business enterprise (MBE) and women business enterprise (WBE) participation in this work through the use of subcontractors, suppliers, joint ventures, or other arrangements that afford meaningful participation for M/WBEs. Bidders are encouraged to obtain 10% MBE and 5% WBE participation.

2.8.2 Equipment Trade-In Allowance:

- a. If equipment trade-ins are offered as an option, the trade-in(s) must be negotiated between the District, Division and vendor.
- b. The vendor must be currently under contract with MoDOT.

- c. It will be the responsibility of the vendor to examine the condition of the equipment offered for trade. The vendor must not impose any mandatory requirements or restrictions on equipment disposal.
- d. If the value offered is less than the Division's pre-established minimum price, the Division and District must both approve the trade in value.
- e. Allowance for trade-in(s) will be deducted from the full purchase price in computing the net purchase price. Trade-in(s) will not be available until the receipt and acceptance of the new equipment unless agreed upon by the District.

Trade-In Worksheet Example:

Make/Model of New Equipment:
Full Purchase Price: \$
Make/Model of Trade-In:
Less Trade-In (Deduct): \$
Net Purchase Price: \$

2.8.3 Equipment Refurbishments:

- a. If equipment refurbishments are available, the refurbishment(s) must be negotiated between the district and vendor. The vendor must be currently under contract with MoDOT. It will be the responsibility of the vendor to examine the condition of the equipment offered for refurbishment. The districts must keep accurate records verifying the process.

3. BID SUBMISSION

3.1 Bid Submission Information:

3.1.1 All bids must be received in a sealed envelope/package clearly marked "Skid Mounted Spray Units".

3.1.2 All bids must be received at the office of the RFB Coordinator as outlined in Section 1. "INTRODUCTION AND GENERAL INFORMATION".

3.1.3 The bidder may withdraw, modify or correct his/her bid after it has been deposited with MoDOT provided such request is submitted in writing and received at the location designated for the bid opening prior to the date and time specified for opening bids. Such a request received as specified will be attached to the bid and the bid will be considered to have been modified accordingly. No bid may be modified after the date and time specified for the opening of bids.

3.1.4 Open Competition / Request For Bid Document:

a. It shall be the bidder's responsibility to ask questions, request changes or clarification, or otherwise advise MoDOT if any language, specifications or requirements of an RFB appear to be ambiguous, contradictory, and/or arbitrary, or appear to inadvertently restrict or limit the requirements stated in the RFB to a single source. Any and all communication from bidders regarding specifications, requirements, competitive bid process, etc., must be directed to the buyer from MoDOT, unless the RFB specifically refers the bidder to another contact. Such communication should be received at least three (3) working days prior to the official bid opening date.

b. Every attempt shall be made to ensure that the bidder receives an adequate and prompt response. However, in order to maintain a fair and equitable bid process, all bidders will be advised, via the issuance of an amendment to the RFB, of any relevant or pertinent information related to the procurement. Therefore, bidders are advised that unless specified elsewhere in the RFB, any questions received less than three (3) working days prior to the RFB opening date may not be answered.

c. Bidders are cautioned that the only official position of the MoDOT is that which is issued by MoDOT in the RFB or an amendment thereto. No other means of communication, whether oral or written, shall be construed as a formal or official response or statement.

d. MoDOT monitors all procurement activities to detect any possibility of deliberate restraint of competition, collusion among bidders, price-fixing by bidders, or any other anticompetitive conduct by bidders which appears to violate state and federal antitrust laws. Any suspected violation shall be referred to the Missouri Attorney General's Office for appropriate action.

3.1.5 Bid Review: Bids will be reviewed to determine if the bid complies with the mandatory requirements, and to determine the lowest and best bid.

3.1.6 Cost Determination: The low bid shall be determined by the base price only for the original contract period.

3.1.7 Contract Award: The contract will be awarded to the lowest responsive bidder determined as specified above.

a. Award of this bid will be made on an "Item by Item" basis using the "lowest and best" principle of award.

4. PRICING PAGES

4.1 The bidder shall provide a firm, fixed price below for the original contract period for providing the deliverables/services in accordance with the provisions and requirements of this RFB. All costs associated with providing the required deliverables/services shall be included in the prices stated below. Sign where indicated below and return with all required solicitation documents.

Item # 1 - Skid Mounted Chemical Spray Injection Unit - Meeting the attached MoDOT specification , **NET DELIVERED PRICE** to any location in the State of Missouri (See page 2).

MAKE/MODEL _____ EACH \$ _____

OPTIONS

OPTION	DESCRIPTION	PRICE
	<i>Please list any vendor-recommended options relevant to this operation. Use additional sheets if necessary.</i>	EACH
Option 1	Cab Mounted Pedestal - Shall include a double articulated arm must allow either the driver or passenger to operate controls comfortable and conveniently this includes installation.	
Option 2	GPS - Shall include a Data Link (compatible with Mid-Tech TASC 6300 controls), MC-3000 computer with RMS software and RX400p GPS receiver	
Option 3	Rear Spray bar - Shall be an 8-ft. by 1/2in. brass tube with four (4) brass ball valves, check valves, and nozzles. Each nozzle will produce a 2 1/4-ft. spray width for a total of 9 ft.	
Option 4	Third chemical tank - Will include one 12 gallon, rectangular, UV stabilized, poly tank and one model #150 chemical injection pump.	
Option 5	Second bloomless spray head - Shall be a Norstar NS20111 with all components and features to operate spray heads individually and simultaneously.	
Option 6		
Option 7		
Option 8		
Option 9		
Option 10		

Item # 2 - Skid Mounted Roadside Spray Unit - Meeting the attached MoDOT specification , **NET DELIVERED PRICE** to any location in the State of Missouri (See page 2).

MAKE/MODEL _____ EACH \$ _____

OPTIONS

OPTION	DESCRIPTION	PRICE
	<i>Please list any vendor-recommended options relevant to this operation. Use additional sheets if necessary.</i>	EACH
Option 1		
Option 2		
Option 3		
Option 4		
Option 5		

Please submit a complete parts and options list with detailed pricing information for each make/model of chemical spray injection units your company would be willing to provide. Please indicate below the percent (%) discount off Manufacturers' Suggested Retail Prices (MSRP) for all air compressor equipment options available in your data book or pricing guides.

% discount off MSRP for all Data Book or Pricing Guide Options: - % Discount - _____

Delivery will be made _____ days after receipt of order.

4.2 Service

All vendors shall provide toll free numbers for technical assistance on all components of the items bid. Toll free numbers shall be manned during normal working hours (8 AM to 5 PM).

Training

For each unit sold, MoDOT shall have the minimum mandatory training supplied as outlined below.

Vendors shall allow MoDOT technicians to attend any in-depth factory technical training as deemed necessary by MoDOT. Training shall be the same as received by dealership personnel with content tailored to cover specific units sold. Vendor must supply training to MoDOT at the same cost as dealership personnel.

Optional Training

Four (4) hours of safe operation and routine/preventive maintenance for mechanics and operators. Training time and location shall be coordinated with district personnel. The vendor shall supply training within one month of acceptance by MoDOT. All costs associated with training and materials supplied shall be the responsibility of the vendor. Training shall be provided by factory or dealership personnel. Training content shall be tailored to cover the specific units sold.

Price per student: \$ _____

VENDOR INFORMATION & PREFERENCE CERTIFICATION FORM

Vendor Information

All bidders must furnish **ALL** applicable information requested below

Vendor Name/Mailing Address:	Vendor Contact Information (including area codes):
Email Address:	Phone #:
Printed Name of Responsible Officer or Employee:	Cellular #:
For Corporations - State in which incorporated:	Fax #:
For Others - State of domicile:	Signature:
If the address listed in the Vendor Name/Mailing Address block above is not located in the State of Missouri, list the address of Missouri offices or places of business:	
<i>If additional space is required, please attach an additional sheet and identify it as Addresses of Missouri Offices or Places of Business.</i>	
M/WBE INFORMATION: List all certified Minority or Women Business Enterprises (M/WBE) utilized in the fulfillment of this bid. Include <u>percentages</u> for subcontractors and identify the M/WBE certifying agency:	
<u>M/WBE Name</u>	<u>Percentage of Contract</u>
<u>M/WBE Name</u>	<u>M/WBE Certifying Agency</u>
<i>If additional space is required, please attach an additional sheet and identify it as M/WBE Information</i>	

Preference Certification

All bidders must furnish **ALL** applicable information requested below

GOODS/PRODUCTS MANUFACTURED OR PRODUCED IN USA: If any or all of the goods or products offered in the attached bid which the bidder proposes to supply to the MHTC are <u>not</u> manufactured or produced in the "United States", or imported in accordance with a qualifying treaty, law, agreement, or regulation, list below, by item or item number, the country other than the United States where each good or product is manufactured or produced.	
Item (or item number)	Location Where Item is Manufactured or Produced
<i>If additional space is required, please attach an additional sheet and identify it as Location Products are Manufactured or Produced.</i>	
MISSOURI SERVICE-DISABLED VETERAN BUSINESS: Please complete the following if applicable. Additional information may be requested if preference is applicable. See below definitions for qualification criteria:	
Service-Disabled Veteran is defined as any individual who is disabled as certified by the appropriate federal agency responsible for the administration of veterans' affairs.	
Service-Disabled Veteran Business is defined as a business concern:	
a. Not less than fifty-one (51) percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than fifty-one (51) percent of the stock of which is owned by one or more service-disabled veterans; and	
b. The management and daily business operations of which are controlled by one or more service-disabled veterans.	
<u>Veteran Information</u>	<u>Business Information</u>
Service-Disabled Veteran's Name (Please Print)	Service-Disabled Veteran Business Name
Service-Disabled Veteran's Signature	Missouri Address of Service Disabled Veteran Business

NOTICE OF COOPERATIVE PURCHASING

MODOT IS INTERESTED IN ASSISTING MISSOURI GOVERNMENTAL ENTITIES, ETC. IN PURCHASING EQUIPMENT, VARIOUS MATERIALS, AND SUPPLIES THAT MEET THE MISSOURI DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.

Each bidder is asked to indicate below whether they would be willing to offer **Skid Mounted Spray Units** listed in the attached "Request for Bid" for sale to these local political entities at the same bid price offered to MoDOT.

It is understood MoDOT will not issue purchase orders, accept delivery nor make payment for these items ordered by any of these agencies. It is further understood the price is based on the **Skid Mounted Spray Units** meeting MoDOT specifications. Any added options, deletions, or extra freight costs would be negotiated between the local agency and the successful vendor.

Indicate below whether your company is willing to offer such cooperative purchasing for Missouri counties, cities or other political entities.

YES _____ NO _____

If the price varies throughout the state on MoDOT bids because of different delivery destinations, please indicate the price F.O.B. your location that would be offered as described.

F.O.B. Location _____

Indicate the deadline date that orders will be accepted. _____

COMPANY NAME _____

ADDRESS _____

E-MAIL _____

PHONE NUMBER _____

SIGNATURE _____

TITLE _____

DATE _____

ANTI-COLLUSION STATEMENT

STATE OF _____)

COUNTY OF _____)

SS.

_____ being first

duly sworn, deposes and says that he is _____

Title of Person Signing

of _____

Name of Bidder

that all statements made and facts set out in the bid for the above project are true and correct; and that the bidder (The person, firm, association, or corporation making said bid) has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with such bid or any contract which may result from its acceptance.

Affiant further certifies that bidder is not financially interested in, or financially affiliated with, any other bidder for the above project.

By _____

By _____

By _____

Sworn to before me this _____ day of _____, 20_____.

Notary Public

My Commission Expires _____

Missouri Department of Transportation
Skid Mounted Roadside Spray Unit Minimum Specifications

TANK UNIT

- 750 or 1000 gallon elliptical tank. 78" w X 90" l X 49" h, bottom withdrawal, must have a 1-1/2 brass swing check valve in suction line to pump. Manual ball valve on agitation line to set pressure minimum 1"-1 1/2" suction strainer with 20 mesh screen.
- Hypro 9303C-HM5C-SP hydraulic drive cast iron self-priming centrifugal pump 1 1/2 X 1 1/4, 122 gpm max or 120 psi. 16 gpm hydraulic pump.
- Drift control induction unit with shut off valve installed in suction line for adding drift agent.
- All hose connection will be brass reusable type quick connect fitting on pump, hose reel, and front end unit.
- 1 (one) 4' section of 3/4" hose with brass quick connects.
- Spray gun hold.
- Spraying systems 43H with assortment of 6 nozzles size (#2 thru #12).
- 15 gallon fresh water tank with shut off valve and 1' hose – labeled for clean water.
- Mounted on 6" channel iron skid, no longer than 108".
- Hannay electric rewind hose reel with 50' of 1/2" 600 psi spray hose.

WATER PUMP POWER - OPTIONAL FEATURE

- Will be a 9-HP Honda model GX270 QAE engine with in cab electric start/stop. A group 24 battery must be supplied and installed. The mounting location for the pumping system and battery must not limit access for normal maintenance.

FRONT END SPRAYER

- Warner D12 10A5-04 actuator to control vertical arm.
- Spraying Systems 440 series ball valve manifold with 1" ball valves.
- Swivel mounted pressure gauge, 0-100 psi, visible from cab.
- 24' of 3/4" 200 psi hose with reusable hose ends and 90 degree brass elbow, 2 (two) 3/4" brass quick connect plugs and caps.

FRONT END SPRAYER CONT'D

- Actuator and nozzles mounted on welded steel unit from center pivot point at 6" intervals to a maximum of 64" from center and 36" height.
- Front end unit will include pivot point mount that can be installed on any given vehicle.
- School bus mirror.
- Fabrication of mounting supports will be MoDOT's responsibility.
- Includes boom buster nozzles to spray 6', 10', and 20' swath.

LOWER BOOM UNIT

- The lower boom will mount to brackets on center pivot mount of truck. Boom is adjustable from 18" to 24" from road surface. The boom will be 10' side and 23" fold up ends. The boom will have (qty. 6) spraying systems #8015 stainless steel flat spray tips on 20" centers. The lower boom will have (qty. 4) brass manual valves to operate each end and each center section independently. All hose and quick attach hook up brackets will be standard spraying systems boom set up. Flow to boom valves and beyond will be controlled from cab of vehicle.

CAB CONTROL

- (Qty. 1) Raven SCS103B control unit with built-in mounting tabs and holes for mounting optional Calc-An-Acre unit on top.
- The controller will include three switches for upper OC nozzle, lower OC nozzles and lower boom.
- (Qty. 1) Double Pole, double throw spring loaded switch for actuator control (center off).
- The cab control will have 15 ft. of wiring, a 20 AMP fuse and four (4) 7-point sockets for connection of spraying units.

COLOR

- Color to be manufacturer's standard safety coat.

Skid Mounted Right-of-Way Sprayer

It is the intent of these specifications to describe a complete and operable skid mounted chemical injection spraying system for the controlled application of herbicides. The spray system will be designed and constructed for convenient operation and simple installation on a flatbed or in a dump body.

Only new (unused) current standard production models built for the U.S. market will be considered acceptable.

Minimum Specifications Called For	Check If As Specified	Describe Fully If Not As Specified
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General Description: Shall be a spray system that includes but is not limited to a water tank, centrifugal sprayer pump, chemical tank(s), skid, spray head(s), and computerized chemical injection control and pumping system. All plumbing and related components in the water and chemical systems must be non-corrosive type, compatible with chemicals currently used in vegetation management program.

1a. Water Tank: Shall be elliptical shape with 1000-gallon capacity (no exception). The tank shall have a removable, anti-surge "Butterfly Baffle" system (indentation in tank not acceptable) that reduces tank volume by no more than 1.5%. The tank and baffle material must be UV stabilized polyethylene. The tank will be saddle mounted and secured with a minimum of 3 heavy duty, flat 10-gauge stainless steel bands. The front and rear bands must have "D" ring tie-downs on each side of the tank. The hose connecting the tank to sprayer pump to be a 1½-in. non-collapsible suction type.

The feed line must include a 1½-in. glass filled poly ball valve installed in a convenient location (below the bottom of tank to serve as the shutoff and drain). The tank lid shall be 16-in. diameter minimum, positive locking type with an air vent to prevent damage from excessive pressure or vacuum. The lid shall also include an anti-siphon fill system with a 4-in. minimum air gap. The fill hose shall be 2-in. by 25-ft. long with a 2-in. male camlock.

1b. Skid and Saddle Assembly: Shall be designed and constructed as an integral unit with 10-gauge formed steel for maximum weight reduction and the stress of frequent lifts on and off carrier vehicles. The saddle shall consist of 3 12-in. wide flat steel sections formed to fit the contour of the water tank. The side jack supports between the saddle sections and skid shall be 1½-in. square steel tubing. The skid longitudinals shall be 137in. long, hot rolled, sheet steel with break-formed flanges top and

bottom (top flange to fit the contour of the saddle sections). The cross members between the longitudinals shall be a minimum of 3 and be 2-in. by 6-in. tube steel. Both sides of the skid shall have 4-in. by 8-in. forklift pockets and a heavy-duty tailgate latch bar (loose) with 1-in. steel roll pins. The skid shall have lifting eyes on each corner. The saddle and skid assembly shall be powder coat finished black.

2a. Sprayer Pump: Shall be a Hypro model 9303C-HM heavy-duty centrifugal type, capable of 90 PSI and 60 GPM. The pump must be driven with a direct mount hydraulic motor. The pumping system must maintain constant required water pressure to the spray head regulators when operating nozzle assemblies individually and simultaneously. An 80 mesh filter with a replaceable stainless steel screen will be installed in the pump pressure line. Mounting location for the pump and related components must not limit access for normal maintenance.

2b. Water Pump Power: Shall be supplied from carrier sand spreader circuit. The sprayer hydraulics must be compatible with carrier load-sensing hydraulic system and include all necessary hoses and quick disconnects installed in a protected and easy access area at the rear of the skid. MoDOT will supply hose and fittings between carrier and skid.

3. Boomless Spray Head: Shall be a Norstar Model NSC-20108-V2 or comparable make/model. The spray head must produce a 28-ft. wide minimum, no-streak spray pattern, using all solid stream nozzles (no exception). The spray head must have seven (7), adjustable nozzle assemblies that produce seven spray swath widths of 2-ft., 2-ft., 4-ft., 4-ft., 4-ft., 6-ft., 6-ft. The nozzles must be sized to apply 35-gallons per acre at 11 MPH. The spray head will have removable steel side panels to reduce wind shear and protect components from roadside obstructions. The spray head assembly will include minimum of nine (9) direct acting solenoid valves, (diaphragm type solenoids are not acceptable), and nine (9) adjustable pressure regulators with 2 ½-in. diameter liquid filled gauges mounted horizontally, in a row across the rear of the skid. All of the spray head hoses connected to the solenoid/regulator assembly will have ¾-in. camlock type quick disconnects. The spray head will be attached to a swing

post (2 ½-in. schedule 40 pipe) that will mount in one of two heavy duty sockets located on each side at the rear of the skid and shall include ball valves, hose quick disconnects and electrical connections required for transferring and operating a single spray head on either side of skid. Each socket must have a grease fitting and a manually adjustable brake that allows the spray head to swing a minimum of 90 degrees from the stowed to work position and also provide breakaway protection. In the work position the face (nozzles) of the spray head will be approximately 24-in. outside the skid. The spray head will have power swing and tilt features electrically from the cab control center.

4. Chemical Concentrate Tank(s): Will be polyethylene, tapered cone bottom, design with 70 gallon capacity. The tanks must be ultra-violet stabilized and have 10-in. diameter positive locking lids. Molded gallonage markers shall be easily visible on the tanks. Two (2) ½-in. brass ball valves (full open) shall be installed at the bottom of each tank. The shut-off valve for the tanks will be hard plumbed directly to the tank bottom (no exception). The second valve, a three valve, will be installed as a tank drain, to the peristaltic pumps and to the closed loading system. Each tank will be mounted in a stand on a heavy duty base plate and secured with a 1/8-in. by 4-in. adjustable steel band around the top, vertical portion of the tank. All tanks shall have low-level sensors with indicator lights in the cab control center.

5a. Chemical Tank Agitators: Will be **Norstar NSC-40500-V2 series or comparable make/model** with 12 VDC drive motors mounted to the tank stand. Through the tank lid type agitators are unacceptable. The propeller shaft and propeller must be 304 stainless steel. The agitators shall have remote on and off and two speed cab controls. All cone bottom tanks will have agitators.

5b. Closed Chemical Tank Loading System: Will be a **Norstar NSC-90158 or comparable make/model** with a 10GPM pump and flow meter installed as an integral part of the sprayer. The controls will be located for convenient operation while standing on the ground. All chemical tanks will be

plumbed for bottom filling. The chemical tanks and the water tank shall be plumbed to the "Closed Loading Station" with ¾-in hose. The "Closed Loading Station" will include individual 1-in. poly ball valves for each chemical tank and the water tank. The ball valves will direct chemical or water to the desired chemical tank, transfer products between chemical tanks, and off-load chemical from chemical tanks. The valves will be clearly labeled for function and action. The loading pump shall be a dual diaphragm, self-priming type with thermal-overload protection. Each of the diaphragms will have two inlet and outlet check valves. The flow meter for the closed loading system shall have a liquid crystal display.

6. Closed Chemical Tank Loading System (cont.):

and air sensing capability to distinguish between air and liquid flow. The system will include a ¾-in. by 12-ft. long suction/discharge hose with 4-ft. long, plastic, remote tank extraction probe. The suction and discharge hose will have a 1-in. dripless, male quick disconnect matching the inlet/outlet at the closed loading station.

7a. Remote Cab Control Center: Must have a computer console and separate electro-mechanical console. All sprayer controls must be either in the computer console or mechanical console (no exception). Both consoles will be mounted in a common steel frame. The mounting frame must be designed for installation on either a floor-mounted pedestal or loose on the seat next to an operator. The control system must include all necessary cables for use on intended vehicle. An insulated heavy-duty electrical cable will be provided with battery lugs and plug to fit receptacle at the front of the skid. Twenty-five feet of cable shall extend from the front edge of the skid to allow for quick connect to two-foot cables extending from the rear of both the Computer and Mechanical Control Consoles.

7b. Computer Console: Will be a Norstar/Mid-Tech TASC model 6300 or comparable make/model with a six foot quick connect designed to connect the 25 foot cable extension from the front of the skid. The computer will automatically maintain operator programmed output rates for each chemical injection pump within a range of plus or minus 2%. The console shall have the capacity to operate a minimum of three chemical

injection pumps. When the spray width or vehicle speed changes, the computer will automatically adjust the chemical output (speed) of each injection pump within 5-tenths of a second. The computer shall maintain primary and secondary application rates for each chemical injection pump and allow the operator to manually change rates on the go. The console shall monitor spray width for a minimum of nine (9) spray swaths (sections). Each section must be programmable in 1-inch increments from 0 to 99 feet. The computer console will receive ground speed and distance input from a skid mounted radar unit.

8a. Computer Console:

1. During normal operation the computer will display the following:
 - A. Number of each open solenoid valve.
 - B. Width for each spray head/boom section.
 - C. Preprogrammed primary and secondary application rate for each chemical injection pump in ounces per acre.
 - D. Total ounces of chemical dispensed by each injection pump.
 - E. Actual and simulated test speed of vehicle.
 - F. Distance traveled in feet/miles.
 - G. Total area sprayed in acres.
 - H. GPM of carrier when stationary and gallons per acre when moving.
 - I. Automatically scan information available on LCD screen.
2. When an uncontrolled condition occurs, the computer will display the following fault diagnostic information:
 - A. Identify malfunctioning chemical pump.
 - B. Indicate shutdown of chemical pump.
 - C. Indicate pump running out of reprogrammed operating range.

8b. Mechanical Control Console: Will be a **Norstar RS6000 RS6000** or comparable make/model with a six-foot quick connect designed to connect the 25-foot cable extension from the front of the skid. The console must include switches and or lights for dual spray head tilt and fold, beacon warning light, water pump on/off, engine start/stop, nine spray head solenoid switches, six chemical tank level indicators and six chemical tank agitators. The agitator switches must have high/low speed.

All switches will be labeled for function and action and indicator lights where necessary.

9. Chemical Injection Pumping System: Will be achieved with computer controlled, DC powered, peristaltic pumps (no exception). The pump drive motors and controllers will be protected with rugged weather tight enclosures. The pumps will inject chemicals directly into the carrier (water) at the inlet of the water pump. The required pumps are 2 Mid-Tech Legacy Model with a range of 0-350 ounces per minute. A 3-way ball valve will be installed in each chemical pump pressure line to direct flow to the injection point or calibration port. Each pump will include one each 3/16, 1/4, 3/8 and 1/2 inch color coded hoses.

10. Hand Wash Tank: Shall be 3-gallon polyethylene tank, mounted on deck in a convenient location on the rear of the skid.

11. Drift Control: Drift control induction unit with shut-off valve installed in suction line for adding drift agent.

12. Plumbing: Any excessive pressure drop or back pressure due to restrictions from undersized components will not be acceptable in the chemical, or water pumping systems. All hoses and fittings will be rated to exceed by 50 percent any maximum operating pressures possible in their respective systems. Any hoses installed in locations where chaffing or other damage may occur must have protective coverings. All hoses will be adequately supported throughout the system.

13. Field Maintenance & Calibration Kit: Shall include one set chemical pump tubes, one (1) pt. tube lube, three (3) pump cover nuts, nozzle pressure test kit, assorted hose clamps, calibration container, fill system bag filter, water pump system filter screens, miscellaneous gaskets, electrical fuses, four (4) nylon nozzle elbows, and clear vinyl calibration hoses, brass extension for spray nozzles number 7 and 8 and an extra by-pass hose and fittings for the pump. All items will be contained in a heavy duty, corrosive resistant plastic toolbox.

14. Warranty: A minimum one-year parts and service will be furnished. Any components with a longer manufacturer warranty will be listed. Each unit shall include all inspection coupons,

certicards, or warranty identification cards furnished to the trade in general accordance with standard warranty policy.

14a. Warranty:(cont.)

Additionally, the vendor must provide a loaner injection sprayer control (computer) or injection pump within 24 hours from the time user agency and manufacture (vendor) determine repairs cannot be made in the field. Vendor must operate a full time parts and service facility offering factory authorized service.

15. Manuals: Two detailed printed set of parts, service and operators manuals will be delivered with the sprayer. A plumbing and electrical schematic detailing sprayer components and wiring and their location will be supplied at the time of installation.

Minimum Specifications Called For	Check If As Specified	Describe Fully If Not As Specified
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OPTIONAL FEATURES

1) Water Pump Power: Will be a 9-HP Honda model GX270 QAE engine with in cab electric start/stop. A group 24 battery must be supplied and installed. The mounting location for the pumping system and battery must not limit access for normal maintenance.

2) Third Chemical Concentrate Tank: Will be ultra-violet stabilized polyethylene, rectangular in shape with 12-gallon capacity and molded gallonage markers easily visible on the side of the tank. The tank lid must be 5-in. diameter positive locking type. Two (2) ½-in. brass ball valves (full open) shall be installed at the bottom of the tank. One will be hard plumbed directly to the tank bottom (no exception). The third will be installed in the chemical feedline. The second valve will be installed as a tank drain. The tank will require a low level sensor with indicator light in the cab control center. The tank will be mounted between the two cone bottom tanks on a heavy duty base plate.

3) Handgun Hose Reel: Will include a heavy-duty electric reel with 100 ft. of 1/2 in. dia., 600 psi hose and a Spraying Systems 43L handgun. A **Norstar NS6520 or comparable make/model** flow switch will be installed in the reel feed line that turns

Chemical Spray Injection Unit

chemical injection pumps off when handgun trigger is released. A 1/2-in. brass ball valve will also be installed in the feed line at the junction with the spray pump pressure line.

4) Spraybar: Rear Spraybar: Shall be an 8-ft. by 1/2-in. brass tube with four (4) brass ball valves, check valves, and nozzles. Each nozzle will produce a 2 1/4-ft. spray width for a total of 9-ft.

5) Training: Vendor will furnish a minimum of 16 hours training on operation and maintenance of the unit at a time and place designated by Missouri Department of Transportation

6) Optional Tank size

6a) 750 gallon tank

6b) 500 gallon tank

7) Cab Control Mounting Pedestal: Shall include a double articulated arm must allows either the driver or passenger to operate controls comfortably and conveniently. The arm shall be securely attached to the floor mounted 4-in. square, steel pedestal (tube). All control cables connecting the control center to sprayer components may be run through the pedestal. The pedestal will be supplied loose and will require a custom installation in the chassis.

8) GPS: Shall include a Data Link (compatible with Mid-Tech TASC 6300 controls), MC-3000 computer with RMS software and RX400p GPS receiver.

9) Printer option

10) Second Boomless Spray head: Shall be a Norstar NSC-20108 - V2 or a comparable make/model with all features required to operate spray heads either individually or simultaneously. This will include, but not be limited to hoses, 3-way ball valves, hose quick disconnects and electrical connections.

11) Work Light(s): Shall be adjustable, halogen spot type mounted as designated by Missouri Department of Transportation.

Missouri Highways and Transportation Commission
Standard Bid Provisions, General Terms and Conditions and Special Terms and Conditions

STANDARD SOLICITATION PROVISIONS

- a. The solicitation for the procurement of the supplies referenced therein, to which these "Standard Bid Provisions, General Terms and Conditions and Special Terms and Conditions" are attached, is being issued under, and governed by, the provisions of Title 7 – Missouri Department of Transportation, Division 10 – Missouri Highways and Transportation Commission, Chapter 11 – Procurement of Supplies, of the Code of State Regulations. The Missouri Highways and Transportation Commission (MHTC), acting by and through its operating arm, the Missouri Department of Transportation (MoDOT), draws the Bidder's attention to said 7 CSR 10-11 for all the provisions governing solicitation and receipt of bids/quotes and the award of the contract pursuant to this solicitation.
- b. All bids/quotes must be signed with the firm name and by a responsible officer or employee. Obligations assumed by such signature must be fulfilled.

GENERAL TERMS AND CONDITIONS

Definitions

Capitalized terms as well as other terms used but not defined herein shall have the meaning assigned to them in section 7 CSR 10-11.010 Definition of Terms.

Nondiscrimination

- a. The Contractor shall comply with all state and federal statutes applicable to the Contractor relating to nondiscrimination, including, but not limited to, Chapter 213, RSMo; Title VI and Title VII of Civil Rights Act of 1964 as amended (42 U.S.C. Sections 2000d and 2000e, *et seq.*); and with any provision of the "Americans with Disabilities Act" (42 U.S.C. Section 12101, *et seq.*)
- b. **Sanctions for Noncompliance:** In the event of the Contractor's noncompliance with the nondiscrimination provisions of this contract, MHTC shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
 - i. withholding of payments to the Contractor under the contract until the Contractor complies, and/or,
 - ii. cancellation, termination or suspension of the contract, in whole or in part.

Contract/Purchase Order

- a. By submitting a bid/quote, the Bidder agrees to furnish any and all equipment, supplies and/or services specified in the solicitation documents, at the prices quoted, pursuant to all requirements and specifications contained therein.
- b. A binding contract shall consist of: (1) the solicitation documents, amendments thereto, and/or Best and Final Offer (BAFO) request(s) with any changes/additions, (2) the Contractor's bid response, and (3) the MHTC's acceptance of the bid by post-award contract or purchase order.
- c. A notice of award does not constitute an authorization for shipment of equipment or supplies or a directive to proceed with services. Before providing equipment, supplies and/or services, the Contractor must receive a properly authorized notice to proceed and/or purchase order.

Applicable Laws and Regulations

- a. The contract shall be construed according to the laws of the State of Missouri. The Contractor shall comply with all local, state, and federal laws and regulations related to the performance of the contract. The exclusive venue for any legal proceeding relating to or arising, out of the contract shall be in the Circuit Court of Cole County, Missouri.
- b. The Contractor must be registered and maintain good standing with the Secretary of State of the State of Missouri, Missouri Department of Revenue, and other regulatory agencies, as may be required by law or regulations. Prior to the issuance of a purchase order and/or notice to proceed, the Contractor may be required to submit to MHTC a copy of their current Authority Certificate from the Secretary of State of the State of Missouri and/or a copy of their Certificate of No Tax Due from the Missouri Department of Revenue.
- c. Prior to the issuance of a purchase order and/or notice to proceed, all **out-of-state** Contractors **providing services** within the state of Missouri must submit to MHTC a copy of their current Transient Employer Certificate from the Missouri Department of Revenue, in addition to a copy of their current Authority Certificate from the Secretary of State of the State of Missouri.

Executive Order:

The Contractor shall comply with all the provisions of Executive Order 07-13, issued by the Honorable Matt Blunt, Governor of Missouri, on the sixth (6th) day of March, 2007. This Executive Order, which promulgates the State of Missouri's position to not tolerate persons who contract with the state engaging in or supporting illegal activities of employing individuals who are not eligible to work in the United States, is incorporated herein by reference and made a part of this Agreement.

- 1) "By signing this Agreement, the Contractor hereby certifies that any employee of the Contractor assigned to perform services under the contract is eligible and authorized to work in the United States in compliance with federal law."
- 2) In the event the Contractor fails to comply with the provisions of the Executive Order 07-13, or in the event the Commission has reasonable cause to believe that the contractor has knowingly employed individuals who are not eligible to work in the United States in violation of federal law, the Commission reserves the right to impose such contract sanctions as it may determine to be appropriate, including but not limited to contract cancellation, termination or suspension in whole or in part or both.
- 3) The Contractor shall include the provisions of this paragraph in every subcontract. The Contractor shall take such action with respect to any subcontract as the Commission may direct as a means of enforcing such provisions, including sanctions for noncompliance.

Preferences

- a. In the evaluation of bids/quotes, preferences shall be applied in accordance with 7 CSR 10-11.020(7). Contractors should apply the same preferences in selecting subcontractors. The attached document entitled "VENDOR INFORMATION AND PREFERENCE CERTIFICATION FORM" must be completed and returned with the solicitation documents.
- b. Bidders are encouraged to obtain minority business enterprise (MBE) and women business enterprise (WBE) participation in this work through the use of subcontractors, suppliers, joint ventures, or other arrangements that afford meaningful participation for M/WBEs. Bidders are encouraged to obtain 10% MBE and 5% WBE participation.

Missouri Highways and Transportation Commission
Standard Bid Provisions, General Terms and Conditions and Special Terms and Conditions

Cancellation of Contract

The MHTC may cancel the Contract at any time for a material breach of contractual obligations or for convenience by providing Contractor with written notice of cancellation. Should the MHTC exercise its right to cancel the contract for such reasons, cancellation will become effective upon the date specified in the notice of cancellation sent to the Contractor.

Bankruptcy or Insolvency

Upon filing for any bankruptcy or insolvency proceeding by or against the Contractor, whether voluntarily, or upon the appointment of a receiver, trustee, or assignee, for the benefit of creditors, the Commission reserves the right and sole discretion to either cancel the Agreement or affirm the Agreement and hold the Contractor responsible for damages.

Warranty

The Contractor expressly warrants that all equipment, supplies, and/or services provided shall: (1) conform to each and every specification, drawing, sample or other description which was furnished to or adopted by the MHTC, (2) be fit and sufficient for the purpose expressed in the solicitation documents, (3) be merchantable, (4) be of good materials and workmanship, and (5) be free from defect.

Status of Independent Contractor

The Contractor represents itself to be an independent Contractor offering such services to the general public and shall not represent itself or its employees to be an employee of the MHTC. Therefore, the Contractor shall assume all legal and financial responsibility for taxes, FICA, employee fringe benefits, workers' compensation, employee insurance, minimum wage requirements, overtime, etc., and agrees to indemnify, save and hold the MHTC, its officers, agents and employees harmless from and against any and all losses (including attorney fees) and damage of any kind related to such matters.

Non-Waiver

If one of the parties agrees to waive its right to enforce any term of this Contract, that party does not waive its right to enforce such term at any other time or to enforce any or all other terms of this Contract.

Indemnification

The Contractor shall defend, indemnify and hold harmless MHTC, including its members and department employees, from any claim or liability whether based on a claim for damages to real or personal property or to a person for any matter relating to or arising out of the Contractor's performance of its obligations under the contract awarded pursuant to this solicitation.

Missouri Highways and Transportation Commission
Standard Bid/Proposal Provisions, General Terms and Conditions and Special Terms and Conditions

SPECIAL TERMS AND CONDITIONS

Tax Exempt Status:

MHTC is exempt from paying Missouri Sales Tax, Missouri Use Tax and Federal Excise Tax. However, the Contractor may themselves be responsible for the payment of taxes on materials they purchase to fulfill the contract. A Project Tax Exemption Certificate will be furnished to the successful Bidder upon request if applicable.

Insurance

The Contractor shall maintain or cause to be maintained at Contractor's own expense commercial general liability, automobile liability, worker's compensation insurance against negligent acts, errors or omissions of the Contractor, or its subcontractors and anyone directly or indirectly employed by any of them. Any insurance policy required as specified in this Section shall be written by a company that is licensed and authorized to issue such insurance in the state of Missouri and shall provide insurance coverage for not less than the following limits of liability:

- 1) General Liability: Not less than \$500,000 for any one person in a single accident or occurrence, and not less than \$3,000,000 for all claims arising out of a single occurrence;
- 2) Automobile Liability: Not less than \$500,000 for any one person in a single accident or occurrence, and not less than \$3,000,000 for all claims arising out of a single occurrence;
- 3) Missouri State Workmen's Compensation policy or equivalent in accordance with state law.

Upon request from the Commission, the Contractor shall provide the Commission with certificates of insurance evidencing the required coverage and that such insurance is in effect.