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February 28, 2012

Reva Jones, GS Specialist/Buyer
MODOT
P.O. Box 270
Jefferson City, MO 65102

Dear Reva,

Thank you for the opportunity to provide all MODOT Districts the 2012 Elgin Eagle Twin Engine Four Wheel Mechanical Street Sweeper. Key Equipment and Supply Company is proud to provide the safest, durable and most dependable street sweepers on the market today.

Please review the following standard features:

Air conditioning	Hopper window and skylight
Air cleaner, dry type with safety element and restriction indicator, truck & sweeper engines	Hose, hydrant fill, 16'8" (5080 mm) with strainer and coupling
Air dryer, Bendix AD-9	Lights, automatic backup
Alternator, 120 amp, sweeper	Lights, 2 combination, tail/stop lights
Alternator, 130 amp, truck	Lights, flood light, one per broom
Auxiliary engine, John Deere 4024TF270, in-line 4 cylinder	Lights, headlights, 2 dual rectangular
Camera, Rear View (Color Camera)	Light, water level
Horsepower: 49 HP (36.7 kW) at 2800 RPM	Manuals, operator and parts
Displacement: 149 cu. in. (2.3 L)	Mirrors, West Coast type with 8" diameter convex, both sides
Torque: 127 lb ft (172 Nm) at 1680 RPM	Signals, self-canceling directional with hazard switch
Axle, rear, two-speed	Sun visors
Back-up alarm, electric	Tachometer, engine, truck and sweeper
Battery, maintenance free, two	Touch controls for all sweep hydraulic functions
Brakes, full air	Tow loops or tow pins, front only; tie-down hooks, rear
Broom, main air suspension, cab-controlled	Transmission, Allison, standard with oil cooler
Broom, main, position indicator	Water spray, anti-siphon fill
Broom, main, prefab disposable	Water tank, molded polyethylene, 280 gallon nominal capacity
Conveyor, flushing system	Wheels, dual rear with tubeless radial tires
Conveyor, lower roller washout	Windshield washer
Engine, block heater, chassis	Windshield wipers, two-speed, intermittent feature
Engine, hour meter, sweeper	
Fresh air ventilator/heater/defroster	
Fuel tank, 50 gallon	
Hopper inspection door	

In addition to the standard features, the following product enhancements meet and or exceed the current MODOT specifications:

- Robert Shaw automatic lubrication system with an individual pump for each zerk
- Complete hopper constructed of grade 304 Stainless Steel
- Front and rear LED strobe lights with limb protectors
- Left and Right gutter broom tilt angle control from in cab
- All brooms raise when vehicle is placed in reverse
- AM/FM stereo weatherband with CD player and two speakers
- Cab painted yellow to match sweeper
- Sweeper painted yellow
- Heated remote controlled West Coast mirrors
- Alternating LED strobe lights flush mounted to rear of sweeper
- Sweep resume after transport
- Turbo II air precleaner
- Front spray bar
- (2) Bostrom 905 mid-back air suspension seats
- Low hydraulic oil level / high temperature automatic engine shutdown
- Service, parts and operators manuals to meet specifications
- Chassis hour meter, aux. engine hour meter, side broom hour meter
- MODOT special arrowboard

Delivered Price per Unit **\$254,295.00**

Price is good through February 28, 2013

Includes on site factory certified training by Key Equipment for service and operation

Payment Terms are Net 10

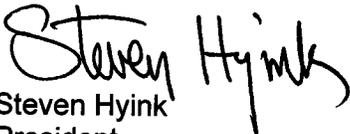
Delivery in approximately 90 days A.R.O.

Bases chassis bid is for a 2012 Freightliner M2 with dualization. Subject to availability – other chassis are available.

Other product enhancements are available to add to these specifications...see enclosure.

If you need any information, please call our Kansas City office at 800-262-0149 or our St. Louis office at 800-325-4323. If I am traveling and you have an urgent need for information, a message will be forwarded immediately to my mobile phone. I am also available by e-mail at steve@keyequipment.com.

Yours truly,



Steven Hyink
President

MODOT EAGLE OPTIONS

Part No.	Options for Dual Eagle Red denoted items are included in 2009 MODOT Bid	Add/Delete
special	MODOT SPECIAL ARROW BOARD FOR EAGLE	\$6,500.00
	TURBO II AIR PRECLEANER	\$250.00
special	FRONT SPRAY BAR	\$275.00
1054361	SIDE BROOM TILT FROM CAB - RIGHT	\$750.00
1054362	SIDE BROOM TILT FROM CAB - LEFT	\$750.00
1090605	AM/FM/CD RADIO	\$500.00
1091284	PAINT OUTSIDE CAB- YELLOW CHASSIS	\$1,850.00
1082364	RESUME SWEEP AFTER TRANSPORT	\$475.00
Speical	COMPLETE 304 STAINLESS STEEL HOPPER	\$10,000.00
special	FRONT AND REAR LED STROBES W/GUARDS	\$1,000.00
special	ALTERNATING FLUSH MOUNT LED STROBES AT REAR	\$800.00
1091286	RH/LH HEATED REMOTE CONTROLLED MIRRORS	\$1,500.00
special	PAINT SWEEPER RAL1037 YELLOW	\$0.00
1078563	AUTO SHUTDWN-OILPRSS/HI TEMP/HYD TEMP/ HYD OIL LEVEL	\$250.00
1061150	AUTO LUBE-SWEEPER (DUAL) ROBERT SHAW	\$3,600.00
702126	EAGLE SERVICE MANUAL	\$100.00
Special	(2) BOSTROM MID-BACK AIR SUSPENSION SEATS	\$900.00
Special	2012 FREIGHTLINER M2/106 CHASSIS	\$70,000.00
Special	2012 AUTOCAR EXPERT CAB-OVER CHASSIS	\$96,000.00
Special	2013 FREIGHTLINER M2/106 CHASSIS	\$74,000.00
Special	2013 AUTOCAR EXPERT CAB-OVER CHASSIS	\$98,500.00
	ALARMS	
1035625	CONVEYOR STALL ALARM	\$645.00
1038264	ECCO SMART ALARM	\$250.00
1048753	BACK UP ALARM - PRECO	\$250.00
1049403	BACKUP ALARM - SMART	\$0.00
	----- AUTO SHUTDOWN -----	\$0.00
1078562	LOW OIL PRESSURE, HIGH COOLANT	\$565.00
1078563	OIL PRESSURE, COOLANT TEMPERATURE, OIL LEVEL, W/ALARM	\$660.00
1078564	OIL PRESS, COOLANT TEMPERATURE & LEVEL, HYDRAULIC OIL LEVEL, W/ALARM	\$755.00
	----- BROOMS -----	\$0.00
1035616	DOUBLE WRAP MAIN BROOM	\$425.00
1035617	POLY/WIRE WAFER MAIN BROOM	\$495.00
1035618	POLY WAFER MAIN BROOM	\$325.00
1035619	WIRE WAFER MAIN BROOM	\$330.00
1035621	(1) ALUMINUM SIDE BROOM SEGMENT PER SIDE	\$450.00
1035921	CABLE WRAP CORE ASSEMBLY	\$650.00
1058156	STRIP MAIN BROOM (MILWAUKEE)	\$0.00
1058158	STRIP MAIN BROOM (URB)	\$0.00
1077151	URB STRIP MAIN BROOM W/CENTER SWEEP MANDREL	\$0.00
1095046	ALUMINUM SIDE BROOM SEGMENTS - BLUE STEEL	\$510.00
	----- CONVEYOR/ELEVATOR -----	\$0.00
1044103	HEAVY DUTY CONVEYOR LOWER ROLLER	\$750.00

MODOT EAGLE OPTIONS

1081776	HIGH SPEED CONVEYOR MOTOR	\$430.00
-----DECALS-----		
1037647	YELLOW CHEVRON STRIPE BROOM COVER	\$195.00
1048959	BLACK CHEVRON STRIPE	\$205.00
1048960	YELLOW & BLACK "V" STRIPE BROOM COVER	\$405.00
1078488	RED LOG/SWOOSH-EAGLE	\$0.00
1078489	WHITE LOGO/SWOOSH - EAGLE	\$0.00
-----GAUGES-----		
1035620	SIDE BROOM PRESSURE GAUGE (SINGLE BROOM)	\$355.00
1035647	WATER FILL GAUGE	\$640.00
1035662	SIDE BROOM PRESSURE GAGE (DUAL BROOM)	\$465.00
1037643	HYDRAULIC OIL TEMP GAUGE (IN CAB)	\$325.00
1047352	HYDRAULIC PUMP GAGE	\$810.00
1061886	HYDRAULIC OIL LEVEL GAUGE W/THERMOMETER	\$155.00
1071015	MAIN BROOM DUAL REGULATORS	\$570.00
1078561	LOW HYDRALULIC OIL LEVEL LIGHT- (AUX. ENG.)	\$210.00
1098353	IN-CAB AIR RESTRICTION GAUGE	\$575.00
1102649	DUAL SIDE BROOM POSITION INDICATORS	\$1,300.00
-----HOPPER-----		
1063707	HOPPER INTERIOR LIGHT	\$705.00
1078353	REAR ENGINE COMPARTMENT COVER	\$3,495.00
-----MANUALS-----		
0701480	EAGLE OPERATORS MANUAL	\$65.00
0702126	EAGLE SERVICE MANUAL	\$120.00
0700773	EAGLE PARTS BOOK	\$120.00
0701506	JOHN DEERE PARTS MANUAL	\$60.00
0701507	JOHN DEERE OPERATOR MANUAL	\$60.00
0701508	JOHN DEERE SERVICE MANUAL	\$165.00
---LIFE LINER SYSTEM---		
1092648	LIFELINER HOPPER SYSTEM W/WARRANTY	\$3,750.00
-----LIGHTS-----		
1035637	REAR FLOOD LIGHT	\$195.00
1037442	BEACON/STROBE PROTECTOR	\$150.00
1048298	ARROWBOARD	\$1,205.00
1048458	LIGHT GUARD REAR	\$150.00
1048467	STROBE- WHELEN	\$355.00
1048468	AMBER BEACON LIGHT	\$205.00
1055272	STROBE LIGHT - FEDERAL SIGNAL	\$335.00
1070369	(2) REAR 7" ALTERNATING FLASHERS	\$580.00
1094465	HOPPER/FRONT ; HOPPER/REAR LED STROBES & GUARDS	\$1,765.00
1094466	HOPPER/FRONT ; HOPPER/REAR BEACONS & GUARDS	\$1,255.00
1094467	HOPPER/FRONT ; HOPPER/REAR STROBES & GUARDS	\$1,630.00
1094468	WIRE/MOUNT - HOPPER/FRONT ; HOPPER/REAR	\$550.00
1095362	HOPPER/FRONT LED BEACON	\$685.00
1095363	HOPPER/FRONT BEACON	\$705.00
1095364	HOPPER/FRONT STROBE	\$875.00
1095365	WIRE/MOUNT HOPPER/FRONT	\$360.00

MODOT EAGLE OPTIONS

1095547	WIRE/MOUNT - HOPPER/FRONT ; (2) HOPPER/REAR	\$890.00
1095710	WIRE/MOUNT - HOPPER/FRONT ; HOPPER/REAR LEFT HAND	\$620.00
-----MAGNET-----		
1042725	HYDRAULIC TANK MAGNET	\$175.00
-----PM10-----		
1100419	PM10 COMPLIANT M2	\$2,710.00
-----SAFETY-----		
1035641	REFLECTORS, SET OF 6	\$100.00
1048642	SLOW MOVING VEHICLE SIGN	\$105.00
1095548	LEFT HAND SIDE CAMERA	\$470.00
9306848	TRIANGLE REFLECTIVE FLARES (3)	\$65.00
-----SWEEP COMPONENTS--		
1053522	MAIN BROOM ROTATION INTERLOCK	\$95.00
1054271	CARBIDE DIRT SHOES (ILO STD)	\$650.00
1079808	BORON DRAG SHOES	\$305.00
1088120	VARIABLE SPEED SIDE BROOMS	\$1,560.00
1091586	2-PLY CONVOYOR BELT	\$190.00
1092237	CHEVRON BELT 216.0	\$410.00
-----SWEEPER ENGINE-----		
1069136	AUXILIARY ENGINE BATTERY DISCONNECT SWITCH	\$480.00
1078464	SILICONE HOSE - JOHN DEERE	\$205.00
1078875	JOHN DEERE BLOCK HEATER	\$335.00
1079525	EXTRA KEY	\$25.00
1082929	AUXILIARY WATER FILTER - PERRY	\$450.00
1095134	SY-KLONE PRE CLEANER	\$605.00
-----TIRES/WHEELS-----		
1081901	GOODYEAR SPARE TIRE & WHEEL, BALANCED	\$870.00
-----TOOLS/TOOLBOXES-----		
1036150	HYDRANT WRENCH	\$75.00
1053426	TOOL KIT	\$565.00
1057687	TOOL BOX W/TOOLS	\$635.00
-----VANDALISM PROTECTION-----		
1069245	ANTI GRAFFITI COATING	\$3,415.00
-----WATER-----		
1032484	25' WATER FILL HOSE	\$155.00
-----PAINT-----		
SPECIAL	SWEEPER PAINTED ANY STANDARD RAL COLOR	\$655.00
SPECIAL	SWEEPER PAINTED NON RAL	\$3,705.00
SPECIAL	CAB PAINTED SPECIAL COLOR	\$2,710.00
----- M2 CHASSIS OPTIONS -----		
1070639	LED/STOP/TAIL/REAR TURN LIGHT	\$550.00
1071626	PAINT TRUCK RIMS	\$960.00
1080756	LEFT HAND FENDER MOUNTED MIRROR	\$480.00
1080977	12" CONVEX MIRRORS -ILO STD.	\$255.00
1081188	EXTRA KEY	\$30.00
1081746	(1) BOSTROM 905 VINYL MID-BACK	\$810.00
1081747	(2) BOSTROM AIR 905 CLOTH HI-BACK	\$1,750.00

MODOT EAGLE OPTIONS

1081748	BOSTROM AIR 905 CLOTH HI-BACK	\$960.00
1081901	GOODYEAR SPARE TIRE & WHEEL , BALANCED	\$870.00
1081909	SINGLE ARM REST - VINYL	\$340.00
1081910	DUAL ARM REST - VINYL	\$650.00
1081911	SINGLE ARM REST - CLOTH	\$340.00
1081912	DUAL ARM REST - CLOTH	\$650.00
1082931	AIR RESTRICTOR GAUGE	\$895.00
1090653	DUAL AIR HORN	\$1,100.00
1093020	5 LB. FIRE EXTINGUISHER	\$210.00
1093997	EXTENDED SB REACH - RIGHT HAND	\$1,285.00
1093998	EXTENDED SB REACH - LEFT HAND	\$1,285.00
1095901	AUTO LUBE TRUCK/SWEEPER	\$6,765.00
1098148	2 1/2 LB. FIRE EXTINGUISHER	160
1098149	5 LB. FIRE EXTINGUISHER	\$210.00
1098834	EXTENDED SB REACH - RIGHT HAND & LEFT HAND	\$2,570.00
1098835	EXTENDED SB REACH - RIGHT HAND (use w/ resume sweep)	\$1,285.00
1098836	EXTENDED SB REACH - LEFT HAND (use w/ resume sweep)	\$1,285.00
1098837	EXTENDED SB REACH - RIGHT HAND & LEFT HAND (use w/ resume sweep)	\$2,570.00

Mechanical Broom Truck Mounted Street Sweeper – Item #4

General

- The intent of this specification is to secure the latest model and design “Mechanical Broom Street Sweeper”, high dump mechanical street sweeper capable of removing litter, debris, etc. from street surfaces that shall effectively control dust with use of water. All items appearing in Manufacturer’s published literature and specifications as standard are assumed to be included in bidder’s proposal.

Cab/Chassis

- Must be diesel engine; Shatterproof safety glass, tinted windshield and all windows; Dual two-speed windshield wipers with intermittent feature and washers; factory installed AC/Heater and defroster; high back air suspension bucket seats or mid-back in air ride seats for both operator positions.
- Dual operating controls, RH and LH Operator positions with all O.E.M. components, AM/FM radio, LH and RH grab handles, seatbelts, LH and RH electric remote West Coast type outside mirrors, with 8” convex spot mirrors.
- RH gauge package shall be identical to original LH gauge package on dash
- Controls for all drive and sweeping functions shall be in-cab mounted.
- Engine protection system utilizing coolant temperature, oil pressure, etc.
- Minimum H.P. on chassis engine to be 200
- Chassis must have a minimum 32,000 pound GVWR and meet all current emission and motor vehicle standards

Auxiliary Engine

- Turbocharged diesel; minimum 4 cylinder minimum Tier 4 emission, fuel injected; dry type air cleaner
- A shutdown shall be supplied which stops the engine when the hydraulic oil in the reservoir falls below the acceptable level required.
- A shutdown shall be supplied which stops the engine when the engine temperature and oil pressure falls below the acceptable level required.

Instruments, Inside cab mounted

- Water temperature, oil pressure and diesel gauges for all engines, ammeter, speedometer/odometer, tachometer, electric hour meter for all engines, broom hour meter. All instruments are to be located on dash of cab, centrally located for good vision from operator position(s).

Electrical System, 12 Volt

- Complete 12 volt electrical system with a min. of 100 amp alternator and min. dual 900 CCA batteries
- (Preferred) Wiring harnesses are to be color coded with a preference for hot stamping and labeling a min. of every 12”.
- Battery box/holder(s) shall be mounted to chassis easily accessible

Steering

- Full power hydraulic

Hopper

- Minimum capacity 4 cubic yards; controlled from inside the cab. Dash mounted full load indicator light shall be furnished. Hopper inspection door to be included on the street side of the unit. An auxiliary emergency hopper lift system shall be included if needed for access to engine components.
- Hopper must have the ability to ground dump or dump at infinite levels up to a minimum of 9 ft. 6 inch height for truck loading. Fixed dump height units will NOT be acceptable.

Hydraulic System

- Complete with all pumps and motors for driving elevator, pickup broom, gutter brooms and for operation of lift functions and steering.

Sweeping/Cleaning Equipment

- Hopper and all wear areas are to be stainless steel or equivalent sprayed on LifeLiner coating in entire hopper area.

Pickup Broom

- Full floating with spring or air bag suspension, pneumatically or hydraulically raised and lowered.

Side or Gutter Brooms(LH and RH)

- Free floating spring suspension, pneumatic or hydraulic lift control, automatic retract. The segments shall be disposable and quick replaceable type. Travel width not to exceed 8'. Core and Brooms to be Manufactures standard. Side broom tilt with in-cab controls.

Water System

- Industrial grade polyethylene or stainless steel water tank with filler hose pump, spray bars over each gutter broom and pickup broom; front spray bar; and tank level indicator
- Front mounted spray bar
- Stainless Steel mesh filter required in the water system to prevent spray bars from clogging.
- Hydrant fill hose required, minimum 16 feet.

Automatic Lubrication System

- Complete with individually calibrated injector pumps and lines for each grease point. An electronic controller will allow for adjustment of lubrication cycles. A manual override button will provide for testing.

Engine, Sweeper

- Minimum 4-cylinder turbo charged diesel; engine should have air-cleaner wet pre-cleaner, full flow oil filter, variable RPM control, temperature and oil shut-off, and emergency shut-off
- Engine to be minimum Tier 4 emission standard
- Engine compartment to be easily accessible from left and right for service

Control Panel

- Shall include all sweeping and auxiliary engine controls. The control panel shall be mounted forward in the truck cab on a swivel base to allow easy viewing and access to all controls from either operator's position

Arrow Board

- Arrow board specifications are attached. **LED warning lights shall be utilized.** Please list any alternative method and specifications for less cumbersome arrow signaling that will maintain the 6' X 3' size and effectiveness of safety. Price shall not exceed that of standard specifications. All new provisions subject for review by Missouri Department of Transportations Operations Division. *If any questions, please call the District or General Services.*

Accessories

- A LifeLiner Coating or equivalent epoxy shall be provided to cover the entire interior surface in the hopper in lieu of grade 304 Stainless Steel.
- Pricing shall be listed for a cab jack as an option on the Bid Sheet. Cab jack will assist in raising the cab to prevent bodily damage (e.g. Back strain). Ease of operability will be heavily looked upon.

Safety Systems

- Backup alarm when transmission is placed in reverse, all sweep functions shall stop rotating and rise.
- Two (2) top-mounted **LED warning lights** shall be supplied with light protector. One (1) **LED warning light** to be mounted rear of unit and one (1) **LED warning light** to be mounted rear of cab, but not on cab itself.
- Two (2) flush mounted **LED warning lights** shall be installed in tailgate/bumper, bottom right and left hand corner.
- A back-up camera shall be mounted to rear of hopper with a color monitor mounted in cab to the dash to show Operator performance behind sweeper and for safety when backing up

Paint

- Color to be "Highway Yellow" #13432 or manufacturer's standard safety or industrial yellow over a prime coat. (IF YOU HAVE ANY QUESTIONS REGARDING COLOR PLEASE CONTACT THIS OFFICE.)