



# CITY OF MANITOWOC

WISCONSIN, USA

[www.manitowoc.org](http://www.manitowoc.org)

September 4, 2025

TO: Mayor and Common Council

FROM: Board of Public Works

SUBJECT: 2025 Single Engine Sweeper  
QE-25-8

Dear Mayor and Common Council:

At the September 3, 2025 Board of Public Works meeting, the Board met to receive quotes for a 2025 Single Engine Sweeper, Quote #QE-25-8. City Clerk reported having received one (1) quote. Same was opened and accepted in the City Clerk's Office, and are as follows:

Bidder	Quotes
MacQueen	\$421,440.00

"Moved by Nycz, seconded by Beeman and unanimously carried to refer the quotes to the Director of Public Infrastructure for tabulation and recommendation. Ayes, 7. Nays, none."

Very Truly Yours,

MACKENZIE REED  
Secretary Board of Public Works

Tabulation Of Quotations  
2025 NEW STREET SWEEPER

QUOTE #QE-25-8

						Recommended Bidder
Name of Company Submitting Quotation	Unit #	BRUSH CHIPPER	DISCOUNT	TRADE IN ALLOWANCE	ADDITION TO CONTRACT	TOTAL
MACQUEEN	1	\$486,110.00	-\$64,670.00	-\$13,800.00	\$1,200.00 Added rear door decant option	
	TOTAL					\$408,840.00

Award to MacQueen  
J.J.M.  
9/12/25



**MACQUEEN™**

Ship To: CITY OF MANITOWOC  
900 QUAY STREET  
MANITOWOC WI 54220

Invoice To: CITY OF MANITOWOC  
900 Quay St  
Manitowoc WI 54220

MacQueen  
N60 W15835 Kohler Lane  
Menomonee Falls, WI 53051  
262-252-4744 • 800-252-4799

Branch 02 - MENOM FALLS WI		
Date 09/10/2025	Time 14:23:25 (O)	Page 1
Account No MANIT004	Phone No 9206866962	Est No 02 Q01545
Ship Via	Purchase Order VERBAL	
Tax ID No		
BRIAN WALDER		Salesperson 392

**EQUIPMENT ESTIMATE - NOT AN INVOICE**

--- Description      \*\* Q U O T E \*\*      EXPIRY DATE: 09/26/2025      Amount

NEW ELGIN WHIRLWIND 1      408840.00  
NEW M2 CHASSIS  
VPD FOR SINGLE ENGINE  
WANDERING HOSE  
SIDEBROOM TILT  
12 CONVEX MIRRORS  
URETHANE LINED HOPPER  
LED BUMPER  
LED ARROW BOARD  
3RD CASTER WHEEL  
AUTO SHUTTER DOOR  
AIR PURGE  
VARIABLE SPEED SIDE BROOMS  
DELIVERY AND TRAINING  
9/8/2025 Update  
Added rear door decant option: \$1,200  
Previous total: \$421,440  
New total: \$422,640  
9/9/2025 Update: Trade value of old sweeper: -\$13,800  
Revised total: \$410,040  
Original Pricing: Retail amount before decant add: \$486,110  
Applied discount: \$64,670

Authorization: \_\_\_\_\_      Subtotal: 408840.00  
Quote Total: 408840.00

QUOTED PRICES ARE BASED ON CURRENT COSTS AND THEREFORE SUBJECT TO CHANGE  
WITH WRITTEN NOTICE TO ACCOUNT FOR PRICING CHANGES BEYOND SELLER'S CONTROL

**QUOTATION FOR ONE (1) 2025 NEW STREET SWEEPER**

**QUOTATION #QE-25-8**

**QUOTATION SUBMITTED BY:**

MACQUEEN

**SWEEPER LIST PRICE**

\$ 486,110

**DEDUCT DISCOUNT**

- 64,670

**TRADE-IN ALLOWANCE**

- 13,800

MANITOWOC FLEET #120

2009 Elgin Whirlwind MV Sweeper

99,958 Hours

Serial # 1GDM7F1B19F404012

**NET QUOTATION**

\$ 407,640

STATE AND FEDERAL TAX EXEMPT - F.O.B.

2655 S. 35TH STREET, MANITOWOC, WISCONSIN 54220

**DELIVERY DATE:**

TBD - 2026

**ADDITIONAL OPTIONS:**

Depending on when order is  
Secured through MacQueen. We have  
available units for 2026 delivery

**NOTES:**

Slotted in production through the 2026  
year.

THE CITY OF MANITOWOC RESERVES THE RIGHT TO REJECT ANY OR ALL QUOTES OR TO ACCEPT ANY QUOTE WHICH MAY BE MOST ADVANTAGEOUS TO THE CITY OF MANITOWOC. MOST ADVANTAGEOUS INCLUDES A COMPARISON OF ABILITY OF VARIOUS QUOTERS TO PERFORM AND A COMPARISON OF PERFORMANCE OF THE MACHINE WITH ANY LIKE OR SIMILAR TYPE OF MACHINE, INCLUDING PROMPTNESS AND SPEED OF MANUFACTURERS AND DEALERS TO DELIVER REPAIR PARTS AND/OR EQUIPMENT IN THE EVENT OF A BREAKDOWN OR THE NEED OF SPEEDY REPAIRS.

1 unit available  
for Feb/March delivery  
with approval soon.

# Detailed Specifications

COMPLY

YES NO

1.0	CHASSIS MUST HAVE TRUE DUAL STEER		
1.01	Cab and Chassis shall be conventional or Cab Over design with 33,000 GVW rating. State chassis make, model and point of manufacture:	/	
1.02	Wheelbase shall not exceed 176 inches.	/	
1.03	Cab to axle shall be not more than 106 inches.	/	
1.04	LIST Yield strength of the Rail, High Strength	/	
1.05	For safety, the rear of the sweeper shall be equipped with a rear panel to provide under ride protection. When dumping debris, material shall not be discharged on top of the rear panel.	/	
1.06	Front tow hooks shall be provided	/	
1.07	One- (1) 50-gallon fuel tank shall be easily accessible without raising or shifting any components. A fuel gauge, in cab, shall be supplied. Sight tube is not acceptable.	/	
1.08	Diesel emissions shall be 2016-Current on-board diagnostics/2010 EPA/CARB/Final GHG17 Configuration, and have a minimum capacity of 6 U.S. gallons diesel emissions fluid.	/	
2.0	CHASSIS ENGINE GENERAL SPEC		
2.01	Truck engine shall be a Cummins with proper state and federal emissions equipment	/	
2.02	Single engine sweeper design preferred but not mandatory	/	
2.03	Truck engine shall be equipped with a single vertical exhaust system.	/	
2.04	The cooling system shall be protected to -34 degrees F.	/	
2.05	Engine shall have optional block heater.	/	
3.0	TRANSMISSION, AXLES, WHEELS & BRAKES GENERAL SPEC		
3.01	An Allison 2500 RDS series (or approved equal) automatic transmission shall be provided.	/	
3.02	The transmission allowing efficient use of chassis engine power for sweeper operation and variable travel speed while sweeping.	/	
3.03	Variable speed device shall produce a 1:1 speed ratio between the chassis engine and the Allison transmission while the sweeper is in "Road Mode".	/	
3.03.a	A Variable speed device shall have a selectable "Road Mode", herein referred to as controlling the chassis engine speed and transmission shifts normally through accelerator pedal(s); i.e. driving the chassis on the road for transport.	/	



COMPLY  
YES NO

3.04	A Variable speed device shall allow chassis accelerator pedal(s) control input speed to the Allison transmission while chassis engine speed remains constant when the sweeper is in "Work Mode".	/	
3.04.a	A Variable speed device shall have a selectable "Work Mode", herein refined to as controlling and operating the sweeper using variable speed device to allow complete utilization of sweeper system.	/	
3.07	For ease of operation, the variable speed device shall be in-cab controlled via singular push-button switch located on control console.	/	
3.08	Engaging either "Work Mode" or "Road Mode" shall NOT require the parking brake to be engaged or the chassis to be placed into neutral. A variable speed device increases operator productivity through the elimination of predecessor transfer cases or split-shaft single-engine technology; perceived as having operationally cumbersome procedures.	/	
3.09	Single-speed rear axle shall have a ratio of _____ for proper sweeping speeds. <b>5.57:1</b>	/	
3.10	Front axle shall be 12,000 and be equipped with taper leaf front suspension and shock absorbers.	/	
3.11	The rear axle shall be 21,000 lb.	/	
3.12	For safety, and to allow the emergency interchange of tires at a job site, the front and rear tires and rims shall be interchangeable.	/	
3.13	Tires shall be tubeless radial tires 14 ply 11R22.5 "G" load rated. The rear axle shall include dual tires for load capacity; singles will not be acceptable.	/	
3.14	Rims shall be aluminum hub piloted 22.5 x 8.25	/	
3.15	Parking brake shall be spring applied rear wheel drum and shoe.	/	
3.16	Brakes shall be full air brakes S Cam with a 18.7 CFM capacity compressor, with automatic slack adjusters and ABS.	/	
3.17	Air system shall include an air dryer with heater.	/	
4.0	<b>CAB GENERAL SPEC</b>		
4.01	Maximum visibility, forward line of sight from the chassis front bumper to the point on the ground visible to the operator shall not exceed 8 feet for an SAE 98th percentile size operator.	/	
4.02	Steering shall be full power with dual operator controls.	/	
4.03	Seats shall be basic adjustable, high back air suspension, covered with cloth for air circulation and include 3-point seat belts.	/	
4.04	Sweeper shall include two (2) heated and remote control, outside west coast type mirrors with lower 8-inch convex lens for easy viewing of the side broom during sweeping.	/	
4.05	To maximize operator visibility of the curb and sweeping gear, an 8 inch outside RH and LH fender mirrors shall be mounted forward of the front wheels.	/	
4.06	For safety during night sweeping, switches shall be illuminated so that they can be readily identified without the use of the cab dome light.	/	
4.07	Switches shall be clearly identified by name and symbol.	/	

COMPLY  
YES NO

4.08	Cab interior environment shall be fully air-conditioned including a fresh air heater/ventilator/defroster. With proper cabin filtration.	/	
4.09	Cab shall have full flow through ventilation for optimal temperature control and operator comfort.	/	
4.10	Wipers shall have intermittent feature.	/	
4.11	Interior of cab shall have acoustical insulation for low operating noise, automotive type trim, and center sweeper console.	/	
4.12	Dash shall be faced with soft molded plastic.	/	
4.13	All glass shall be tinted safety glass.	/	
4.14	Each operator position shall have adjustable sun visor.	/	
4.15	Doors shall be keyed alike with electric locks.	/	
4.16	Door windows shall be electric open/close type.	/	
4.17	Side windows shall have defogger	/	
4.18	Cab shall include 12V power supply	/	
4.19	Cab shall include an AM/FM/WB Radio, Bluetooth and Microphone, USB, Front and Rear Aux. Inputs. Speakers and antenna shall be included.	/	
4.20	Dual Electric/Air horns shall be provided.	/	
5.0	<b>INSTRUMENTS GENERAL SPEC</b>		
5.01	Chassis left side operator instrument panel shall be chassis OEM, full vision illuminated with tachometer, speedometer, odometer, trip odometer, hour meter, trip hour meter, fuel gauge, water temperature gauge, oil pressure gauge, transmission temperature gauge, air pressure gauge, and volt gauge.	/	
5.02	Chassis right side operator instrument panel shall be chassis OEM, full vision illuminated with tachometer, speedometer, odometer, trip odometer, fuel gauge, water temperature gauge, oil pressure gauge, transmission temperature gauge, air pressure gauge, and volt gauge.	/	
5.03	Chassis engine instruments shall include warning light and chime for low coolant level and high coolant temperature to warn the operator of a potential problem before any damage to the engine occurs.	/	
5.04	Console shall have left/right primary driver switch.	/	
5.05	Hydraulic functions shall be controlled by rocker switches located in the cab mounted control panel.	/	
5.06	Truck instruments shall include warning lights for battery.	/	
5.07	All console switches including transmission controls and all gauges shall be illuminated.	/	
5.08	Intake mounted air restriction indicator with graduations.	/	
6.0	<b>ELECTRICAL GENERAL SPEC</b>		
6.01	Batteries should be located in an enclosed accessible environment for long life and ease of service.	/	
6.02	Chassis shall have two (2) maintenance free batteries rated at not less than 1850 CCA total, 12- volt system	/	
6.03	Chassis engine shall have a 160-amp alternator to match voltage system	/	

COMPLY  
YES NO

6.04	Chassis lighting shall include sealed multi-beam halogen head-lights, stop lights with daytime running feature, tail lights, backup lights, license plate lights, clearance lights, signal lights, illuminated gauges and instrument panel, and directional lights with hazard switch.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7.0	<b>OTHER CHASSIS ACCESSORIES GENERAL SPEC</b>		
7.01	The standard 8" diameter convex mirrors or replacement with 12" diameter convex mirrors.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7.02	LED rear brake, turn, and tail lamps provide a high degree of lamp visibility as well as significantly longer service life. These LED lamps are designed to have a usable life of up to 100,000 hours.	<input checked="" type="checkbox"/>	<input type="checkbox"/>



## SECTION B - SWEEPER MODULE

COMPLY  
YES      NO

1.0	INTENT		
1.01	<p>the is the intent of this specification to provide for the purchase (1) new and unused vacuum street sweeper having a six-wheeled, truck chassis with variable travel speed while sweeping, sweeper controls and switches, <u>8</u> cubic yard hopper, automatic transmission, <u>335</u> gallon water tank, and left and right-side broom with variable down pressure controlled from cab. The following specification is based upon a street sweeper, mounted on a Conventional or Cab-over Chassis, with an in-cab controlled singular push-button, variable speed device located between the chassis engine and the automatic transmission; allows the chassis engine to delivering the power to the sweeper components while creeping the vehicle.</p>	/	
2.0	EQUIVALENT PRODUCT		
2.01	<p>Bids will be accepted for consideration on any make or model that is equal or superior to the sweeper specified. Decisions of equivalency will be at the sole interpretation of the Department of Public Works. A blanket statement that equipment proposed will meet all requirements will not be sufficient to establish equivalence. Original manufacturer's brochures of the proposed unit are to be submitted with the proposal. All modifications made to the standard production unit described in the manufacturer's brochures must be certified by the manufacturer and submitted with the bid, or the bid will be deemed "non-responsive" and rejected without further review. Bidder must be prepared to demonstrate a unit similar to the one proposed, if requested.</p>	/	

COMPLY  
YES NO

4.0	GENERAL		
4.01	All bids must be regular in every respect. Unauthorized conditions, limitations, or provisions shall be cause for rejection. These will be considered as "irregular" or "non-responsive" any bid not prepared and submitted in accordance with the bid document and specification, or any bid lacking sufficient technical literature to enable them to make a reasonable determination of compliance to the specification. It shall be the bidder's responsibility to carefully examine each item of the specification. Failure to offer a completed bid or failure to respond to each section of the technical specification.	/	
5.0			
5.01	The single engine sweeper models shall be equipped with a variable speed device. A variable speed device eliminates the need for an auxiliary diesel engine in applications where a second power source have traditionally been required. The variable speed device uses the chassis engine to power the chassis propulsion and the sweeper components.	/	
5.01.a	The variable speed device shall be located between the chassis engine and the Allison transmission for maximum efficiency.	/	
5.01.b	The variable speed device shall be capable of directly driving hydraulic pumps.	/	
5.01.c	The variable speed device shall be a planetary gearbox design; varies the input to output ratio. The system provides variable sweep speed operation through the chassis Allison transmission and also directs engine powered PTO for the sweeper components.	/	
5.01.d	The variable speed device "speed" control pump shall operate directly off the chassis engine coupling in all modes - "Work Mode" or "Road Mode". This pump shall provide variable operating flow - managing the ratio of input to output - for the variable speed device. The system shall include an electronic control module which manages pump flow.	/	
5.01.e	The variable speed device shall operate directly off of the chassis engine coupling in all modes - "Work Mode" or "Road Mode". For the sweeper, the variable speed device PTO shall power a blower drive and sweeper pump through a conventional drive shaft.	/	
5.02	Sweeper with variable speed device shall not require an auxiliary engine and their associated EPA Tier 4 final emissions systems; Diesel Oxidation Catalyst (DOC), Diesel Particulate Filter (DPF) and/or Selective Catalytic Reduction (SCR) systems- maximizing cost avoidance for emissions systems maintenance and eliminating the need for untimely auxiliary engine emission regenerations.	/	

COMPLY  
YES NO

6.0	BLOWER SYSTEM: GENERAL SPEC		
6.01	Blower Drive system= <i>Hydraulic drive - VSD</i>	/	
6.02	Blower coupling devise= <i>Direct jaw type flexible coupling</i>	/	
6.03	The single-engine system, driven by the variable speed device, shall provide all horsepower for blower speed of 3300 RPM to effectively convey the bulk of material into the debris hopper; debris types such as but not limited to trash, sand, gravel, dirt, leaves and other organics.	/	
6.04	The single-engine system shall provide all horsepower for effective & efficient use of both suction nozzles for "simultaneous sweeping" during applications requiring the use of dual nozzle sweeping for maximum sweeper productivity.	/	
6.05	Blower Velocity spec= <i>19000 CFM @ 18" of water lift</i>	/	
6.06	The blower construction spec= <i>Hardox abrasion resistant steel</i>	/	
6.07	The blower housing construction= <i>HD 10 ga. steel housing</i>	/	
6.08	The blower Housing Liner = <i>bolt in rubber liner</i>	/	
6.09	Blower housing shall have an inspection door for access to blower without removing the blower housing or looking into the air exhaust opening.	/	
6.10	Blower housing shall not be an integral part of the hopper. Replacement of the blower housing must be possible without any cutting and/or welding of the housing and or hopper.	/	
6.11	The blower shall be mounted and supported on both sides by heavy-duty greaseable bearings. Greasing of the bearings must be possible from ground level, without tilting the hopper. Only greaseable bearings are capable of tolerating the blower speeds required to produce simultaneous high air flow and high vacuum levels.	/	
7.0	SUCTION NOZZLES AND HOSES GENERAL SPEC		
7.01	List all nozzle and hose specs below:	/	

COMPLY  
YES NO

7.11	The suction nozzle shall be equipped with a front mounted shutter. This shutter allows easy entry of large objects and large quantities of leaves. The shutter must be replaceable as a separate part, rather than replacing the entire suction nozzle. Suction nozzles that pivot in the back creating a shutter opening in the front.	/	
7.12	List Sweeping paths in Inches= <u>144"</u>	/	
7.12	List Number of spray Nozzles = <u>(7 inside suction nozzle) (4 Ext broom) (3 broom)</u>	/	
7.12	List Number of Side broom and nozzles = <u>3 per side broom</u>	/	
7.12	Number of side brooms and pickup head = <u>2, 2</u>	/	
7.12	Number of Extension broom and nozzle = <u>1 broom, 4 nozzle</u>	/	
7.12	Number of Side broom, extension broom and nozzle = <u>2 side 1 main</u>	/	
7.12	Dual side brooms, extension broom and dual nozzle =	/	
8.0	<b>SIDE BROOMS GENERAL SPEC</b>		
8.01	List all side broom Specs Below:	/	
9.0	<b>EXTENSION BROOM GENERAL SPEC</b>		
9.01	List all extension broom spec below:	/	
10.0	<b>HOPPER GENERAL SPEC</b>		
10.01	Volumetric capacity shall be <u>8</u> cubic yards minimum.	/	
10.02	Hopper shall be constructed of <u>10</u> -gauge steel sides, and a quarter inch steel floor.	/	
10.03	A weight actuated full load indicator shall be mounted in the cab on the control panel.	/	
11.0	<b>SPRAY WATER SYSTEM GENERAL SPEC</b>		
11.01	The water system shall consist of two water tanks. Both shall be removable for service and shall have a total capacity of 335 gallons. Both tanks shall be constructed of rust proof polyethylene.	/	
11.02	The water tank shall be frame mounted with no part sharing any common wall with the hopper and shall not rise during hopper dumping for better weight distribution.	/	
11.03	Two (2) electric 12-volt, diaphragm type pumps will provide a capacity for 8 GPM @ 40 PSI to the suction nozzle, the side broom and the extension broom. Belt driven pumps are not acceptable.	/	

COMPLY  
YES NO

12.0	HYDRAULIC SYSTEM GENERAL SPEC		
12.01	A variable speed device shall be capable of directly driving hydraulic pumps without the use of auxiliary PTO's or belt drive systems.	/	
12.02	A variable - piston type - displacement pump shall be used for the sweeper blower system allowing for efficient operation of the blower at desired speeds.	/	
12.03	A gear driven hydraulic pump, for maintenance free operation shall be used for the sweeper brooms and hopper dump functions.	/	
12.04	Blower drive motor shall be hydraulic bent axis compact type, closed loop system, while providing ease-of-alignment with drive coupling.	/	
12.05	Reservoir capacity shall be not less than 23 gallons and have an exterior sight gauge. The reservoir must be located for quick inspections without tilting the hopper.	/	
12.06	All hydraulic circuits shall have quick disconnect pressure check ports for ease of maintenance.	/	
12.07	Hydraulic oil cooler shall be standard, equipped with hydraulically driven cooling fan, to provide adequate cooling with fresh air intake and accessible without raising the hopper. The hydraulic system shall operate below 200F.	/	
12.08	To prevent contamination and the resulting damage to the sweeper functions hydraulic system, return line to have 10-micron absolute spin-on filter as standard.	/	
12.09	To prevent the possibility of contamination and the resulting damage to the blower hydraulic system, charge pump flow filter shall be 6-micron absolute canister type as standard.	/	
12.10	To prevent contamination of the reservoir during the dump cycle, the reservoir vent shall be equipped with 10-micron absolute spin-on breather filter as standard.	/	
12.11	The system shall contain two 100-mesh stainless steel suction strainers.	/	
12.12	To minimize the hazards of potential leakage, all high-pressure fittings shall be O-Ring Face Seal (ORFS) type. Other systems shall not be acceptable.	/	
12.13	An in-cab, control console mounted, low hydraulic oil volume and high hydraulic oil temperature alarm shall be provided.	/	
13.0	PNEUMATIC SYSTEM: IF EQUIPPED GENERAL SPEC		
13.01	The pneumatic system shall have DOT, push to lock fittings for ease of maintenance and service. Any other fittings are not acceptable	/	
13.02	There shall be a PR4 type pressure protector for the chassis air system to protect the chassis air system at air pressures below 85 PSI.	/	
13.03	A separate air tank for all sweeper air components shall be provided.	/	
13.04	All pneumatic cylinders must be rated to 150 PSI and have a separate rod seal and wiper to prevent contamination entering the cylinder.	/	



COMPLY  
YES NO

13.05	Each cylinder shall be controlled by a single, two position, solenoid valve mounted on a manifold with common input and exhaust. A manual override shall be provided on each solenoid valve for trouble shooting and function lockout.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13.06	There shall be a filter with a polycarbonate bowl to filter out contaminants down to 5 microns to prevent contamination in the air system.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13.07	All air lines should be color-coded silver and function stamped for ease of identification maintenance. Non-color-coded lines are not acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14.0	<b>ELECTRICAL SYSTEM GENERAL SPEC</b>		
14.01	Sweeper shall have an electronic back-up alarm for additional warning and safety when chassis is in reverse.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14.02	Sweeper shall have a rear facing back-up camera for additional safety and operator awareness of surroundings.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14.03	Sweeper lighting shall include rear identification lights and rear clearance lights. Rear facing arrow board.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14.04	Sweeper warning lights shall include hopper up, hopper door open and hopper full load.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14.05	Sweeper wiring harnesses shall be color-coded and "function stamped" with appropriate circuit name every four inches, i.e. "Ignition", "Side Broom" on each wire.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14.06	All electrical circuits must be protected by automotive style blade fuses.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15.0	<b>CONTROLS GENERAL SPEC</b>		
15.01	All sweeper controls shall be mounted on a stationary central console that allows for use from either right or left positions.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15.02	For ease of operation, the variable speed device shall be in-cab controlled by a singular push-button switch located on control console.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15.03	Engaging either "Work Mode" or "Road Mode" shall NOT require the parking brake to be engaged or the chassis to be placed into neutral.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15.04	Variable speed device shall increase operator productivity through the elimination of operationally cumbersome procedures used by predecessor transfer cases or split-shaft single-engine technology; providing on-the-fly mode shifts for increased productivity.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15.05	For increased safety and operator productivity, "Work Mode" shall be selectable when vehicle speed is at or below 5 MPH	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15.06	For quick departure from sweeping application(s) or for sweeper transport, "Road Mode" must be selectable while vehicle is moving.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15.07	The controls for sweeping, spray water, and lighting functions shall be rocker switches.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
15.08	Controls for "Mode Select", work throttle, side broom down pressure shall be located on the control console.	<input checked="" type="checkbox"/>	<input type="checkbox"/>



COMPLY  
YES NO

15.09	Controls for sweep system shall include sweep/resume feature; allowing the automatic raise when chassis transmission gear selector is put into reverse of side brooms and suction nozzle(s).	/	
15.10	Control for sweeper shall include dump mode; allowing quick unloading of debris without the blower running - minimizes fugitive dust and noise emissions during this operation.	/	
16.0	<b>INSTRUMENTS GENERAL SPEC</b>		
16.01	Sweeper instruments shall include blower tachometer, hour meter, fuel, and voltage for complete information for the operator on the condition of the sweeper system, visible from both operator positions.	/	
16.02	Variable speed device instruments shall include an oil level sight gauge for ease of daily maintenance.	/	
16.03	Sweeper instruments shall include diagnostic information for the sweeper and sweeper functional information to include water level, sweeping mode, transport mode, and dump mode.	/	
16.04	Sweeper instruments shall include a "raised" hopper indicator, an "open" hopper door indicator and a "full" hopper indicator to notify the operator.	/	
17.0	<b>PAINT</b>		
17.01	All visible exterior metallic surfaces shall be coated prior to assembly with powder coat. The paint must be a minimum of 2 mils thick. The uses of acrylic enamels and/or polyurethanes are not acceptable.	/	
17.02	Color shall be the manufacture's standard color of "White".	/	
17.03	Vehicle shall have an accent color of _____ on the components and lower portions of the unit.	/	
17.04	Chassis color shall be the manufacture's standard color of "White".	/	
18.0	<b>MANUALS</b>		
18.01	An operation manual shall be provided.	/	
18.02	A parts manual shall be provided.	/	
18.03	A service manual is supplied with the sweeper.	/	
18.04	DPI Mechanic training shall be offered	/	
19.0	<b>WARRANTY</b>		
19.01	Manufacturer's warranty shall be not less than one (1) year on entire sweeper, including all parts and labor.	/	
19.02	Manufacturer's warranty shall be not less than three (3) years on chassis engine, including all parts and labor.	/	
19.03	Manufacturer's warranty shall be not less than three (3) years on variable speed device (VSD), including all parts and labor.	/	
19.04	Manufacturer's warranty shall be not less than lifetime protection against rust-through of the water tank.	/	

COMPLY  
YES NO

19.05	Bidders submitting literature stating warranties which do not fully comply with warranty requirements of this specification, must submit a letter from the manufacturer certifying warranty compliance as an integral part of their proposal. Failure to comply may cause the proposal shall be deemed "non-responsive" and rejected without further review.	/	
20.0	<b>SERVICE AND TRAINING</b>		
20.01	Vendors shall have a full parts and service facility within a reasonable distance from the City of Manitowoc. State location and distance.	/	
20.02	A qualified technician shall provide complete training to personnel at the garage. Training shall include safety, operation, maintenance and service.	/	
21.0	<b>DELIVERY</b>		
21.01	Sweeper shall be delivered F.O.B. in new operating condition.	/	
21.02	Acceptance shall be subject to the inspection and approval of the.	/	
21.03	Bidder shall state delivery time after receipt of order:	/	
22.0	<b>QUALITY</b>		
22.01	Sweeper shall be manufactured by a company with a registered quality standard no less than ISO 9001.	/	