

Roeland Park Public Works Update Report/Agenda Discussion

February 8, 2010

6 pm

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RC12-14

- A preconstruction meeting was held at City Hall on Thursday January 7th.
- A public Information meeting was held on for Tuesday January 12th. This served as a “Get to know” the contractor meeting as representatives of the company were there to answer questions regarding schedules and locations.
- Contract and insurance requirements have been fulfilled and the notice to proceed has been issued to the contractor.

CARS Program

- Agreements with the County, Fairway and the engineer were approved at the January 4th Council meeting. The design of the project will begin with field work when weather permits. The goal is to have plans available for a late spring letting and a summer construction schedule.

2011-2015 CARS Report

- A submittal for the 2011-2015 CARS streets will be prepared for submittal to the County for potential funding. Larkin and Public Works staff will meet soon to have discussions about the priority of the streets to be included.

2010 Street Improvements

- Bids were taken for the program. 13 bids were received. Bids ranged from \$397,059 to \$569,148 with an engineer’s estimate of \$507,964. The low bidder was Odonnel Way construction with a bid of \$397,059. The bids and references are being checked in order to make recommendation for award to Council on the 15th.

RC12-12

- A site walk through has been conducted with the Contractor, Larkin and City staff. A few items were added to the punch list for completion. All in all the quality of the project is good. Rose-Lan Construction Company is working on finishing the project. Punch list items. Some items pertaining to asphalt and sod may not be addressed until this spring when weather warms.

Miscellaneous

- Roeland Park Elementary School Demolition.
- Street Sweeper

CITY OF ROELAND PARK
TECHNICAL SPECIFICATIONS
FOR
PURE VACUUM STREET SWEEPER WITH BROOM ASSIST

Section A – Chassis

CHASSIS

Chassis to be new and unused and cannot be a discontinued model of chassis. Chassis models bid that have been discontinued, will not be acceptable.

COMPLY
Yes No

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|-----|--|-------|-------|
| 1.1 | Chassis shall be cab-over-engine design with 32,000 GVW rating. | _____ | _____ |
| 1.2 | Wheelbase shall be not more than 156 inches. | _____ | _____ |
| 134 | Yield strength of the frame shall be 51,200 PSI minimum, RBM 1,828,000 | _____ | _____ |
| 1.5 | One- (1) 50-gallon fuel tank shall be shared by both engines and shall be easily accessible without raising or shifting any components. A fuel gauge, in cab, shall be supplied. Sight tube is not acceptable. | _____ | _____ |

COMPLY
Yes No

2.0 CHASSIS ENGINE

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|-----|---|-------|-------|
| 2.1 | Truck engine shall be direct injection turbocharged diesel, 230 Hp @ 2500 RPM, 506 ft-lbs. @ 1500 RPM. | _____ | _____ |
| 2.2 | Truck engine shall be equipped with a single vertical exhaust system with a transverse mounted diesel particulate filter. | _____ | _____ |
| 2.3 | The cooling system shall be protected to -30° F. | _____ | _____ |
| 2.4 | Engine shall be equipped with dual stage dry-type air cleaner, spin-on fuel filter, full flow oil filter, and fuel/water separator. | _____ | _____ |
| 2.5 | Radiator fan shall be viscous drive type. | _____ | _____ |

COMPLY
Yes No

3.0 TRANSMISSION, AXLES, WHEELS & BRAKES

- | | | | |
|-----|--|-------|-------|
| 3.1 | An Allison 2500RDS (or approved equal) automatic transmission with oil heavy duty oil cooler shall be provided. An external spin on transmission oil filter is to be included with the Allison transmission. | _____ | _____ |
| 3.2 | The 2-speed rear axle shall have a ratio of 5.86/8.17:1 for proper sweeping speeds. | _____ | _____ |
| 3.3 | The 11,900 lb. front axle shall be equipped with 11,900 lb. springs and shock | _____ | _____ |

absorbers.

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|-----|--|-------|-------|
| 3.4 | The 21,000 lb. rear axle shall be equipped with 21,000 lb multi leaf suspension with auxiliary springs. | _____ | _____ |
| 3.5 | For safety and to allow the emergency interchange of tires at a job site and front and rear tires and rims shall all be interchangeable. | _____ | _____ |
| 3.6 | Tires shall be tubeless radial tires 14 ply 11R22.5 "14PR" load rated. The rear axle shall include dual tires for load capacity; singles will not be acceptable. | _____ | _____ |
| 3.7 | Rims shall be steel disc type 22.5 x 8.25 | _____ | _____ |
| 3.8 | Brakes shall be full air brakes with a 20.8 CFM capacity compressor, and with automatic slack adjusters. | _____ | _____ |
| 3.9 | Parking brake shall be spring applied rear wheel drum and shoe. | _____ | _____ |

Cab to include front mounted tow hooks

Air system to be equipped with a heated air dryer, Bendix AD-9 preferable

4.0 CAB

COMPLY
Yes No

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|------|---|-------|-------|
| 4.1 | 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 98 th percentile size operator. | _____ | _____ |
| 4.2 | Steering shall be full power with dual operator controls. | _____ | _____ |
| 4.3 | Each steering column shall be fully independent and shall include separate steering gear boxes, separate drag links and separate pitman arms. | _____ | _____ |
| 4.4 | Both right and left seats shall be full-air ride, high-back adjustable, covered with cloth for air circulation and include 3 point seat belts. | _____ | _____ |
| 4.5 | Sweeper shall include two (2) heated, electrically controlled mirrors with lower 12 inch convex lens for easy viewing of the side broom during sweeping. Controls for mirrors are to accessible from both sides of the cab. | _____ | _____ |
| 4.6 | To maximize operator visibility of the curb and sweeping gear, outside mirrors shall be mounted forward of the front wheels. | _____ | _____ |
| 4.7 | For safety during night sweeping, switches shall be illuminated so that they can be readily identified without the use of the cab dome light. | _____ | _____ |
| 4.8 | Switches shall be clearly identified by name and international symbol. | _____ | _____ |
| 4.9 | Cab interior environment shall be fully air-conditioned including a fresh air heater/ventilator/ defroster. | _____ | _____ |
| 4.10 | Cab shall have full flow through ventilation for optimal temperature control and | _____ | _____ |

operator comfort.

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|------|--|-------|-------|
| 4.11 | Windshield wiper shall be two-speed with washer. | _____ | _____ |
| 4.12 | Wipers shall have intermittent feature. | _____ | _____ |
| 4.13 | Interior of cab shall have acoustical insulation for low operating noise, automotive type trim, and center sweeper console. | _____ | _____ |
| 4.14 | Dash shall be faced with soft molded plastic. | _____ | _____ |
| 4.15 | All glass shall be tinted safety glass. | _____ | _____ |
| 4.16 | Each operator position shall have adjustable sun visor. | _____ | _____ |
| 4.17 | Doors shall be key locked. | _____ | _____ |
| 4.18 | Door windows shall be electric roll down type. Right side door to have both windows up/down controls and left door to have both windows up/down control. | _____ | _____ |
| 4.19 | Cab shall have lighter and ashtray. | _____ | _____ |
| 4.20 | Side windows shall have defogger. | _____ | _____ |

5 Lb. Fire Extinguisher to be included

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|------|--|-------|-------|
| 4.21 | Auto-Lube system for chassis lube points to be included. However, this system will be for both chassis and sweeper module, and shall be set up for one fill point. System must be Midwest Auto-Lube. | _____ | _____ |
|------|--|-------|-------|

5.0 INSTRUMENTS

COMPLY
Yes No

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|-----|---|-------|-------|
| 5.1 | Chassis left side operator instrument panel shall be chassis OEM, full vision illuminated with tachometer, speedometer, odometer, trip odometer, fuel gauge, water temperature gauge and pressure gauge. | _____ | _____ |
| 5.2 | Chassis right side operator instrument panel shall be chassis OEM, full vision illuminated with tachometer, speedometer, odometer, trip odometer, fuel gauge, water temperature gauge and air pressure gauge. | _____ | _____ |
| 5.3 | Chassis engine instruments/warning lights and buzzers 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, ABS warning lights, alternator low charge light, engine control system light, engine glow plug light, exhaust brake indicator light, external air restriction indicator, hazard warning flashers and high beam indicator. Console shall have left/right primary driver switch. | _____ | _____ |

6.0 ELECTRICAL

COMPLY
Yes No

- 6.1 Batteries should be located in an enclosed accessible environment for long life and ease of service. _____
- 6.2 Chassis shall have two (2) maintenance free batteries rated at not less than 622 CCA, 12 volt. _____
- 6.3 Chassis engine shall have a 130 amp. alternator. _____
- 6.4 Chassis lighting shall include sealed multi-beam halogen head-lights, stop lights, tail lights, backup lights, license plate lights, clearance lights, signal lights, illuminated gauges and instrument panel, and directional lights with hazard switch _____

Section B - Sweeper Module

COMPLY
Yes No

1.0 INTENT

X

It is the intent of this specification to provide for the purchase or lease purchase of one (1) new and unused vacuum street sweeper having a six wheeled, cab-over truck chassis with dual diesel engines, sweeper controls and switches, 8.0 cubic yard hopper, automatic transmission, 330 gallon water tank, right and left side broom with variable down pressure controlled from cab. Recirculating or regenerative type sweeper will not be acceptable..

COMPLY
Yes No

2.0 EQUIVALENT PRODUCT

X

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 City of Roaland Park's 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.

COMPLY
Yes No

3.0 INTERPRETATIONS

X

In order to be fair to all bidders, no oral interpretations will be given to any bidder as to the meaning of the specification documents or any part thereof. Every request for such a consideration shall be made in writing to the City Clerk. Based upon such inquiry, the City may choose to issue an Addendum.

COMPLY
Yes No

4.0 GENERAL

X

The specification herein states the minimum requirements of the City. All bids must be

regular in every respect. Unauthorized conditions, limitations, or provisions shall be cause for rejection. The City of Roeland Park will consider 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 the City 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 (COMPLY: YES NO) will cause the proposal to be rejected without review as "non-responsive". All variances, exceptions and/or deviations shall be fully described in the appropriate section. Deceit in responding to the specification will be cause for rejection.

		COMPLY	
		<u>Yes</u>	<u>No</u>
<u>5.0 SWEEPER ENGINE</u>			
5.1	Diesel engine shall be 4 cylinder, turbocharged, dynamically counter balanced 276 CID (John Deere 4045T or equal).	_____	_____
5.2	Horsepower rating shall be 99 HP (75 kW) @ 2500 RPM, torque 274 lb-ft @1400 RPM.	_____	_____
5.3	For greater heat dissipation, less noise and lower cost of maintenance, engine shall have individually replaceable wet sleeve cylinder liners.	_____	_____
5.4	Engine shall be protected by a dual safety element dry type air cleaner & restriction indicator that indicates it is time to service the filter element.	_____	_____
5.5	Engine shall be filled with 50/50 mixture anti-freeze/water for cold weather storage and or operation.	_____	_____
5.6	Sweeper engine shall have an auto shutdown for high coolant temperature or low oil pressure with an alarm to avoid engine damage should either situation occur.	_____	_____
5.7	Radiator shall be mounted in highest part of the machine between cab and sweeper module with fold-open access doors with stainless steel hinges for ease of cleaning without raising hopper. The radiator location shall be high mounted to also keep it out of the dusty, wet environment of a street sweeper.	_____	_____
5.8	Sweeper engine shall drive the blower fan by a heavy-duty fluid coupling, without the use of a step-up auxiliary gearbox. The fluid coupler will allow the engine to make soft starts and stops and will allow the blower/fan to turn the same RPM as the output shaft of the engine. The fluid coupler will provide ease of maintenance and is more cost effective than using a step-up gearbox.	_____	_____
5.9	To minimize noise and vibration, the entire joined engine, coupling and fan assembly shall be isolation mounted on the auxiliary frame.	_____	_____
5.1	The engine compartment shall be easily accessible from left or right sides using electrically operated "gull wing" style doors. Gull-Wing doors shall not rely on	_____	_____

hydraulic power to raise. Gull-Wing doors shall be such that when raised, they create a bonnet for operator in adverse weather conditions so he/she can check fluid levels regardless of weather. A ladder providing access to the engine compartment will be supplied and easily stored on the unit. This easy access allows an operator to have full access to auxiliary engine without the need to start engine or raise hopper. Units, which expose the engine compartment during operation or during dumping, will not be acceptable.

- 5.1 Auxiliary engine shall have under engine environmental safety trough to catch any fluids, or materials with an outside drain. The purpose of this tray, is to keep any fluids from spilling onto the street during operation.
- 5.11 The engine compartment shall be totally enclosed and surrounded with insulation material for significantly reduced noise levels and a dust and water free environment. The enclosed compartment will keep the engine and all auxiliary equipment free of debris and water, especially when the machine is cleaned after operation. An auxiliary engine that is not fully enclosed shall not be acceptable. _____
- 5.12 A sound insulation package shall be provided. At normal operating levels out, in cab shall not exceed 80 dBA at 1800 RPM, per ISO/SAE 6393 hemispherical standards. _____

6.0 CONTROLS

COMPLY
Yes No

- 6.1 All sweeper controls shall be mounted on a central rotating and swiveling terminal for use from either right or left positions. This allows the operator to view all important auxiliary engine information from either operating position. _____
- 6.2 Controls shall include all sweep, dump, spray water, and hydraulic functions. _____
- 6.3 Controls for sweep, dump and spray water systems shall be conventional rocker switches. _____

7.0 BLOWER

COMPLY
Yes No

- 7.1 The blower shall be rated at not less than 15,560 CFM. The fan shall be rated by an independent test facility. _____
- 7.2 Blower shall be 16 vane, 35 in. diameter, constructed of abrasion resistant steel and fully balanced for longevity of fan and bearing life. _____
- 7.3 Blower shall be direct driven through a heavy-duty fluid coupler for maximum performance and maintenance concerns, soft starts and stops and simplicity of its construction. Units using an auxiliary gearbox, pulleys, belt drives will not be acceptable. _____
- 7.4 The blower housing shall be constructed of 10 gauge abrasion resistant steel and _____

lined with Linatex (or equal) for maximum extended wear in abrasive environments.

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|-----|--|-------|-------|
| 7.5 | Blower housing shall have an inspection door for quick inspections without removing the blower housing or looking into the air exhaust opening. | _____ | _____ |
| 7.6 | Blower housing shall be fully isolated and insulated to reduce structure born noise. | _____ | _____ |
| 7.7 | Blower housing shall not be an integral part of the hopper. Replacement of the blower housing must be able without any cutting and welding of the housing and or hopper. | _____ | _____ |

8.0 HYDRAULIC SYSTEM

COMPLY
Yes No

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|-----|---|-------|-------|
| 8.1 | Hydraulic pump shall be a direct gear pump for maintenance free operation, having a flow capacity of 16 GPM @ 2500 rpm. A belt driven or PTO driven hydraulic pump is not acceptable. | _____ | _____ |
| 8.2 | Reservoir capacity shall be not less than 23 gallons and have an exterior sight gauge. The reservoir must be located in the fully enclosed auxiliary engine compartment for quick inspections and a dust free environment to keep the reservoir and breather clean. | _____ | _____ |
| 8.3 | All hydraulic circuits shall have quick disconnect pressure check ports for safety and ease of maintenance. | _____ | _____ |
| 8.4 | To minimize the hazards of potential leakage, all high pressure fittings shall be "O" ring type. Other systems shall not be acceptable. | _____ | _____ |
| 8.5 | Hydraulic system shall include world standard DO3 single subplate spool directional valves. Other system shall not be acceptable. | _____ | _____ |
| 8.6 | Hydraulic system shall include a single counterbalance load locking flow control on rear door and dual counterbalance flow control on hopper hoist to avoid sudden movement of either component in case of a hydraulic line malfunction. | _____ | _____ |
| 8.7 | There shall be a 10 micron spin-on hydraulic filter with restriction indicator in the cab. Exchange of the filter must be possible without tilting the hopper. | _____ | _____ |
| 8.8 | To further reduce the chance of hydraulic system contamination use of standard pipe threads requiring pipe dope shall not be acceptable. | _____ | _____ |

9.0 SUCTION NOZZLES

COMPLY
Yes No

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|-----|--|-------|-------|
| 9.1 | Right and left suction nozzle pick-up area each shall be not less than 174 sq./in. with suction nozzle width a minimum of 30". | _____ | _____ |
|-----|--|-------|-------|

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|------|---|-------|-------|
| 9.2 | Suction hose shall have a quick disconnect coupling, not requiring any tools, at the lower area, near the suction nozzle. This is to allow easy access to both the suction nozzle and suction hose for inspection and cleaning when obstructions occur. The quick disconnect must be accessible without tilting the hopper. | _____ | _____ |
| 9.3 | All metal components, nozzle, tube, etc. shall be constructed of abrasion resistant steel for longer life in an abrasive environment. Cast aluminum components or components using rubber liners are not acceptable due to shorter service life. | _____ | _____ |
| 9.31 | Each nozzle shall include 3 heavy-duty swiveling casters. Casters that do not swivel, shall not be acceptable due to shorter service life. | | |
| 9.4 | Suction hose shall be not less than 11 inches in inside diameter. | _____ | _____ |
| 9.5 | Suction hose shall be smooth bore for increased performance and reduced turbulence and less chance of material build-up around the hose corrugations. | _____ | _____ |
| 9.6 | Each nozzle shall extend 12 inches beyond the wheel track for increased performance closer to the curb and better visibility of the nozzle from the cab. The nozzle shall have a replaceable wear edge for running against the curb. | _____ | _____ |
| 9.7 | Sweeping paths: | | |
| | Nozzle only = 30 inches | _____ | _____ |
| | Side broom and nozzle = 49 inches | _____ | _____ |
| | Extension broom and nozzle = 83 inches | _____ | _____ |
| | Total reach = 102 inches | _____ | _____ |

10.0 HOPPER

COMPLY
Yes No

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|------|---|-------|-------|
| 10.1 | Volumetric capacity shall be 8 cubic yards minimum. The hopper shall be separate from the engine compartment cover and raise for dumping without exposing the auxiliary engine. Hopper to raise off of power from the rear engine. | _____ | _____ |
| 10.2 | Hopper shall be constructed of 7 gauge steel side, door, and floor. The hopper shall be lined with a Life-Liner hopper liner that will insure prolonged life of the hopper. All ductwork shall have this lining applied. There shall be a lifetime hopper warranty included with bid. | _____ | _____ |
| 10.3 | Hopper shall include an integral fan outlet attenuator to minimize system noise levels. The attenuator is to be located in the roof of the hopper and connect to the attenuator located in the hopper rear door. | _____ | _____ |
| 10.4 | Hopper shall include rear door fan exhaust to minimize system noise levels. With this exhaust location, it will keep low, overhanging trees to be affected by top mounted exhaust locations. | _____ | _____ |
| 10.5 | A weight actuated full load indicator shall be mounted in the cab mounted center control panel. | _____ | _____ |

- 10.6 The hopper tilt angle when dumping shall be a minimum of 60°. Dumping shall be accomplished by tilting the hopper via a power up/power down hoist lift. Telescopic cylinder lifts without complete power up/power down shall not be acceptable. _____
- 10.7 A removable, adjustable, abrasion resistant "scoop" style steel deflector shall be located at the suction inlet. This scoop is to direct material to the center of the hopper for optimal loading conditions. _____
- 10.8 Integral automatic gate valves shall prevent material from dropping back down the nozzle tubes when the vacuum is stopped. The gate valves also prevent material/debris from being sprayed onto the sweeper components when the hopper is cleaned internally. _____
- 10.9 The hopper rear door shall have a minimum of 105-degree opening angle for maximum clearance when dumping. _____
- 10.10 The hopper rear door shall be top opening by means of a hydraulic cylinder. Activated from inside the cab. No exceptions to this requirement will be acceptable. _____
- 10.11 The hopper rear door shall include an automatic lock mechanism for a tight fit and optimal sealing between the hopper and the rear door. _____
- 10.12 The rear door seal shall be a water-resistant heavy-duty reinforced D-style rubber seal for optimal sealing. Foam seals that can absorb moisture and freeze are not acceptable. _____
- 10.13 Provisions for rake and shovel storage shall be provided between hopper and chassis. _____
- 10.14 A debris body scraper bar is to be included and shall be stored in an enclosed compartment at the rear of the unit. _____
- 10.15 For maximum operator safety the rear hopper door shall have an internal door prop. No exception to this safety requirement shall be accepted. _____
- 10.16 An 8 in. (203 mm) inside diameter, 9.5 ft. (2896 mm) long hydraulic wandering hose located on the top of the rear door of the machine, this allows the hopper to be filled completely. It shall be activated from the cab and capable of deep cleaning catch basins shall be provided. This system is approved for the addition of (4) 4 ft. aluminum wandering hose extensions.
It shall have an 8-in. diameter x 4-ft. long catch basin nozzle with water injection system for dust control.
It shall be equipped with dual push button fingertip hydraulic control on the nozzle handles to raise and lower movement of the nozzle and control the blower speed.

It shall be equipped with a rear auxiliary engine throttle control.

The hose shall be constructed of heavy-duty rubber.

Plastic hoses will not be acceptable.

Hydraulic inlet changeover plates shall accomplish conversion from sweeper to catch basin operation. Manual plates are not acceptable due to safety concerns.

- 10.17 A 4-ft. aluminum nozzle extension mounted at the rear of the sweeper for the wandering hose shall be provided.
- 10.18 A high pressure pump with 24 in. (610 mm) hand lance and 30 ft. (9m.140mm.) hose shall be provided. It provides 4.2 GPM (15.9 L/m) at 1500 PSI. Designed for washing down and for loosening up catch basin materials and for efficient cleaning of the hopper and the sweeper exterior. Hose shall have an attached spray wand with on/off trigger and two nozzle settings allowing the operator to spray fine or wide. The quick disconnect for the high pressure wash down shall be easily accessible on the right side of the sweeper.

11.0 SIDE BROOMS

COMPLY
Yes No

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|------|---|-------|-------|
| 11.1 | Right and left side brooms each shall be a free floating trailing arm design with inward motion safety to prevent damage when sweeping. The trailing arm design shall be a parallelogram for constant bristle contact and wear pattern. | _____ | _____ |
| 11.2 | Each side broom shall be 28-inch diameter minimum, with hydraulically driven rotation, and have variable speed control, independent of auxiliary engine rpm. | _____ | _____ |
| 11.3 | The side broom assemblies shall be pneumatically raised, lowered and suspended. | _____ | _____ |
| 11.4 | Adjustable down pressure shall be pneumatically controlled by the operator from the cab. | _____ | _____ |
| 11.5 | The broom hydraulic motor drive shall provide not less than 4500 in/lbs. of torque for superior digging power. | _____ | _____ |
| 11.6 | The side brooms shall have at least 12 in. ground clearance when in transport mode. | _____ | _____ |
| 11.7 | The side broom assemblies shall have grease-less pivot pins. | _____ | _____ |
| 11.8 | To prevent exposure to accidental laceration by the bristle tips, gutter brooms shall retract with wire bristle tips unexposed. No exception to this safety requirement will be accepted. | _____ | _____ |
| 11.9 | Broom rotation shall stop and all sweeping functions shall raise automatically, when transmission is placed into reverse or when the sweeper is put in transport | _____ | _____ |

mode.

- 11.10 Broom distance between the rear wheels and the outer broom edge shall not be less than 12". _____
- 11.11 Tilting of right side broom shall be variable from the cab. An electrically controlled linear actuator shall allow the operator to tilt the side broom inward and outward from the cab, while sweeping. Tilting shall be accomplished without starting engines, this allows changing center broom or side broom without starting engines. _____

COMPLY
Yes No

12.0 EXTENSION BROOM

- 12.1 The extension broom shall be 60 inches long, 16 inches in diameter, disposable, and non-reversible. _____
- 12.2 Broom shall be hydraulically driven (with relief valve), pneumatically raised, lowered, and suspended. _____
- 12.3 Broom shall operate at a 24 degree windrow angle minimum for quicker sideways movement of debris. _____
- 12.4 The broom hydraulic motor drive shall provide not less than 4500 in/lbs. of torque for superior digging power. _____
- 12.5 Suspension shall be by pneumatic lift with one cylinder and pivot in the middle. This allows the center broom to conform to crowned road conditions, without operator input. Systems that have dual cylinders require constant adjustment from the operator to keep the center broom from coning. Unit must have in-cab variable down pressure control for maximum digging power and wear control. _____
- 12.6 Broom shall have a grease-less pivot pin. _____
- 12.7 Broom rotation shall stop and all sweeping functions shall raise automatically, when transmission is placed into reverse or when the sweeper is put in transport mode. _____
- 12.8 A broom cover shall be provided _____

COMPLY
Yes No

13.0 SPRAY WATER SYSTEM

- 13.1 Water tanks shall be twin removable, 165 gal. each, total capacity of 330 gal. And constructed of rust proof polyethylene. _____
- 13.2 Tanks shall be frame mounted with no part sharing any common wall with the hopper and shall not raise during hopper dumping. _____
- 13.3 Tanks shall be forward mounted for optimum balance and axle loading. _____

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|-------|--|-------|-------|
| 13.4 | Pump shall be self-priming, centrifugal type, capable of running dry without damage. This water pump shall be belt driven type and not electrical. | _____ | _____ |
| 13.5 | Pump capacity shall be not less than 5 GPM @ 40 PSI. | _____ | _____ |
| 13.6 | Water flow shall be adjustable with in-cab controls. Controls shall allow water to be activated at each different sweeping point; side brooms, extension broom or the nozzles. | _____ | _____ |
| 13.7 | A 25-ft. wash-down hose with quick disconnects shall be provided. | _____ | _____ |
| 13.8 | A 16 ft. 8 inch fill hose with quick disconnect coupling and anti-siphon connector with strainer shall be supplied. | _____ | _____ |
| 13.9 | A low water indicator shall be provided within the cab. | _____ | _____ |
| 13.10 | Two (2) water spray nozzles are located at each broom for dust control. | _____ | _____ |
| 13.11 | Four (4) water spray nozzles are located at the extension broom. | _____ | _____ |
| 13.12 | Seven (7) water spray nozzles are located in the suction nozzles. | _____ | _____ |
| 13.13 | A front mounted spray bar shall be provided for increased water supply during extreme sweeping conditions. | _____ | _____ |

COMPLY
Yes No

14.0 PAINT

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|------|--|-------|-------|
| 14.1 | All visible exterior metallic surfaces shall be painted prior to assembly with polyester powder coat. The paint must be a minimum of 2 mils thick. The uses of acrylic enamels and/or polyurethane's are not acceptable. | _____ | _____ |
| 14.2 | Cab and sweeper module color shall be the City of Roeland Park's color of "Red". Optional pricing shall be given for this on the pricing page. | _____ | _____ |
| 14.3 | Vehicle shall have an accent color of Grey on the lower portions of the unit. | _____ | _____ |

COMPLY
Yes No

15.0 MANUALS

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|------|--|-------|-------|
| 15.1 | An operation manual shall be provided. | _____ | _____ |
| 15.2 | A parts manual shall be provided. | _____ | _____ |

16.0 Special lighting

- 16.1 There shall be two flush mounted alternating yellow L.E.D. Flashers mounted onto back door and two flush mounted alternating yellow L.E.D. Flashers mounted one on each side mid-ship. These flashers shall be engaged and disengaged from the operators position and be activated by one switch.

17.0 Specification requirements

Please enumerate any and all variations of these specifications on a separate sheet. Interpretation of equal to what is specified is of the sole discretion of the City of Roeland Park's Public Works Department.

Please enumerate what percentage of specifications not met in this specification to what is met 100%.

Sweeper to be manufactured in the United States of America. Supporting documentation of this shall be submitted with bid package.

COMPLY
Yes No

16.0 WARRANTY

- 16.1 Manufacturer's warranty shall be not less than one (1) year on entire sweeper, including all parts and labor. _____
- 16.2 Manufacturer's warranty shall be not less than one (3) years on chassis engine, including all parts and labor. _____
- 16.3 Manufacturer's warranty shall be not less than lifetime protection against rust-through of the water tank. _____
- Manufacturer's warranty shall be not less than lifetime protection against rust-through for hopper.
- 16.4 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. _____

COMPLY
Yes No

17.0 SERVICE AND TRAINING

- 17.1 Vendors shall have a full parts and service facility within a reasonable distance from the City Garage. State location and distance. _____
- _____
- 17.2 A qualified technician shall provide complete training to City personnel at the City Garage. Training shall include safety, operation, maintenance and service. _____

COMPLY
Yes No

18.0 ACCESSORIES

- 18.2 An in-cab dash mounted gauge shall be supplied to record chassis engine run hours. _____
- 18.3 An AM/FM radio with cassette player and 2 speakers shall be supplied to the truck. _____

18.11	Top mounted LED strobe lights shall be provided, one cab mounted and one rear mounted. A special metal construction cage is to supplied to protect lights, also, to be included shall be Hide-away front corner LED strobes, rear LED strobes in bottom of Sweeper Hopper door, and side LED strobes located in middle of Sweeper Hopper Body.	_____	_____
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<u>19.0 DELIVERY</u>	COMPLY
	<u>Yes</u> <u>No</u>

19.1	Sweeper shall be delivered F.O.B. City of Roeland Park in first class operating condition.	_____	_____
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19.2	Acceptance shall be subject to the inspection and approval of the City.	_____	_____
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19.3	Bidder shall state delivery time after receipt of order:	_____	_____
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20.0 QUALITY

20.1	Sweeper shall be manufactured by a company with a registered quality standard no less than ISO 9001.	_____	_____
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22.0 OPTIONAL TRADE-IN

The City of Roeland Park may choose, at its sole discretion, to trade in the City's street sweeper, in "AS-IS" condition at the time of bid opening. This vehicle is available for inspection at the City Garage. Bidder shall state the amount of allowance to be deducted from the Bidder's Proposal, should this option be selected.

TRADE-IN ALLOWANCE: \$_____

23.0 EXCEPTIONS AND DEVIATIONS

Bidder shall fully describe every variance, exception and/or deviation. Additional sheets may be used if required.
