

City of Portsmouth
Portsmouth, New Hampshire
Public Works Department

INVITATION TO BID

Sealed bid proposals, **plainly marked** "Highway Department Diesel Powered 7.3 CU YD Capacity Heavy Duty Street Sweeper, Bid #02-08" **on the outside of the envelope**, addressed to the Finance/Purchasing Department, City Hall, 1 Junkins Avenue, Portsmouth, New Hampshire, 03801, will be accepted until July 30, 2007 @ 2:00 p.m. at which time all bids will be publicly opened and read aloud.

Scope: The Portsmouth Highway Department is seeking to purchase a Diesel Powered 7.3 CU YD Capacity Heavy Duty Street Sweeper.

Bid Specifications may be obtained from the Finance/Purchasing Department on the third floor at the above address, on-line at **www.cityofportsmouth.com**, or by calling the Purchasing Coordinator at 603-610-7227.

Please continue below for the complete bid document.

The City of Portsmouth reserves the right to reject any or all bids, to waive technical or legal deficiencies, and to accept any bid that it may deem to be in the best interest of the City.

Questions may be directed to the Purchasing Coordinator at 603-610-7227.

INSTRUCTION TO BIDDERS

I. Preparation of Bid Proposal

- A. The Bidder shall submit its proposal upon the form furnished by the City (attached). Prices shall be given in both in words and figures.
- B. Corrections made to amounts or information requested on the bid form should be made by crossing out the error and entering the new price or information above or below it. The correction must be initialed. In case of discrepancy between the prices written in words and those written in figures, the prices written in words shall govern.
- C. The bidder's proposal must be signed by the individual, by one or more members of the partnership, by one or more members or officers of each firm representing a joint venture; by one or more officers of a corporation, or by an agent of the contractor legally qualified and acceptable to the owner. If the proposal is made by an individual, his name and post office address must be shown, by a partnership the name and post office address if each partnership member must be shown; as a joint venture, the name and post office address of each must be shown; by a corporation, the name of the corporation and its business address must be shown, together with the name of the state in which it is incorporated, and the names, titles, and business addresses of the President, Secretary, and Treasurer.
- D. All words, figures, corrections shall be in ink or typed. All signatures shall be in ink.

II. Delivery of Bid Proposals

When sent by mail, the sealed proposal shall be addressed to the owner at the address and in the care of the official in whose office the bids are to be received. All proposals shall be filed prior to the time and at the place specified in the invitation for bids. Proposals received after the time for opening of the bids will be returned to the bidder, unopened. Faxed bid proposals are not acceptable.

III. Withdrawal of Bid Proposals

A bidder will be permitted to withdraw his proposal unopened after it has been deposited if such request is received in writing prior to the time specified for opening the proposals.

IV. Public Opening of Bid Proposals

Proposals will be opened and read publicly at the time and place indicated in the invitation for bids. Bidders, their authorized agents, and other interested parties are invited to be present.

V. Irregular Proposals and Disqualification of Bidders

Bid proposals that are irregular may be rejected. Irregular bid proposals include the following:

- A. Failure to use the bid form provided or alteration of the form.
- B. Unauthorized additions, conditional or alternated bids, incomplete bids, or irregularities of any kind which may tend to make the proposal incomplete, indefinite or ambiguous as to its meaning.

- C. The addition of any provision reserving the right to accept or reject an award, or to enter into a contract pursuant to an award.

Bidders may be disqualified and the bid proposal rejected for the following reasons:

- D. More than one proposal for the same work from an individual, firm, or corporation under the same or different name;
- E. Evidence of collusion among bidders;
- F. Failure to submit all required information requested in bid specifications;
- G. Bidder is not qualified or able to provide the services or product(s) described in the bid specifications; or
- H. Disqualification is in the best interest of the City of Portsmouth.

AWARD

I. Consideration of Proposals and Award

After the proposals are opened and read, bid results will be available to the public. In case of discrepancy between the prices written in words and those written figures, the prices written in words shall govern.

Within 30 calendar days after the opening of proposals, if an award is made, it will be made to the lowest, responsible, qualified bidder whose proposal complies with all the requirements prescribed. The successful bidder will be notified by mail at the address indicated on the proposal.

III. Reservation of Rights

The City reserves the right to cancel the award at any time before final notification of the successful bidder without any liability against the City. The City of Portsmouth reserves the right to reject any or all bids, to waive technical or legal deficiencies, and to accept any bid that it may deem to be in the best interest of the City.

“GENERAL SWEEPER AND CHASSIS SPECIFICATIONS”

ONE (1) DIESEL POWERED, 7.3 CU. YD. CAPACITY HEAVY-DUTY STREET SWEEPER (REGENERATIVE AIR DESIGN WITH TWIN GUTTER BROOMS & DUAL STEERING)

BIDDING REQUIREMENTS

GENERAL INFORMATION

- a) It is the intent of these specifications to describe a heavy-duty street sweeper in sufficient detail to assure that product reliability, design integrity, technical soundness and sweeping performance are provided.
- b) The unit provided shall be new, of current manufacturing design, and the model and series being bid shall have been in production a minimum of five (5) years.
- c) Bidder shall provide a list of ten (10) customers using specific model as bid. All parts not specifically mentioned, which are necessary to provide a complete street sweeper, shall be included in the bid and shall conform in strength and quality of material and workmanship to what is normally provided to the trade in general.
- d) The unit shall be delivered completely assembled, serviced and ready to operate. The bidder shall have a qualified service representative in attendance during start up operation to make adjustments and give instructions to assure proper operation of sweeper.
- e) The sweeper shall be warranted to be free from defective materials and workmanship for a period of 12 months or 1,000 hours from date of delivery.
- f) The following specification is based on a diesel powered, dual engine design “Regenerative Air” Heavy-Duty Street Sweeper mounted on a diesel powered commercially manufactured cab over truck chassis. (Single engine designs have been determined as unacceptable for intended use.) Different types of sweepers have been evaluated and it has been determined that this design is best suited for the intended requirements in safety, quality, performance, and standardization.
- g) This specification is not to be interpreted as restrictive, but rather as a measure of the safety, quality and performance against which all sweeper bids will be compared.
- h) The City reserves the right to test models. Sweepers whose specifications are equal or superior to these specifications shall be considered qualified.

COMPLIANCE TO SPECIFICATIONS

It shall be bidder’s responsibility to carefully examine each item of specification. The bidder shall indicate compliance by checking “YES”. Any deviation from the specification as written must be marked “NO” for each line item. Failure to offer a properly completed bid or failure to respond accurately to each individual item of the technical specification may cause the bid to be rejected. Where the bidder answers “NO”, all such variances, exceptions, and/or deviations shall be fully described in writing, identified by section, sub-section and line item, on attachment marked “Exceptions/Deviations – Notations Sheet”. Any space left blank shall be considered non-compliant. In addition NO deviations below “minimum” specifications as written will be accepted. Bidders shall not use deceit or false statements in responding to written specifications as such may be cause for rejection of bid and/or other penalties.

“SWEEPER SPECIFICATIONS SECTION”

SECTION	SPECIFICATION DETAILS	COMPLY
01)POWER UNIT	a) The sweeper power unit shall be a diesel fueled, water-cooled, turbocharged Tier-2 industrial engine.	YES [] NO []
	b) Piston displacement shall be not less than 276 cubic inch.	YES [] NO []
	c) Engine shall develop not less than 99 HP @ 2500 RPM and 274 ft. lbs. torque @ 1400 RPM.	YES [] NO []
	d) Engine shall be inline, 4 cycle, 4.19-inch bore and 5.00 inch stroke.	YES [] NO []
	e) Cylinder construction shall be wet sleeve type.	YES [] NO []
	f) Spin-on replacement type oil filter to be supplied.	YES [] NO []
	g) 12-volt ignition, electric starter and minimum 95-amp alternator with charge indicator gauge mounted on sweeper control console in cab.	YES [] NO []
	h) Auxiliary engine shall have an automatic shutdown system when coolant temperature is too high, coolant level is too low or oil pressure is too low.	YES [] NO []
	i) Unit shall share a 50-gallon fuel tank and batteries with chassis.	YES [] NO []
	j) Unit shall have a replaceable element, heavy-duty dry type air cleaner.	YES [] NO []
	k) Injector pump shall have centrifugal type variable speed governor for speed control.	YES [] NO []
	l) A sound suppression package with full engine enclosure shall be provided.	YES [] NO []

SECTION	SPECIFICATION DETAILS	COMPLY
02)DUST SEPARATOR (HIGH CAPACITY)	a) Separation of dirt and refuse from the air stream shall be accomplished within the hopper by means of a multi-pass cylindrical centrifugal dust separator with a minimum size of 20" diameter and 61" width to insure proper separation efficiency.	YES [] NO []
	b) Separator shall be a high capacity centrifugal system with oversized void space to capture separated dust and fine particles.	YES [] NO []
	c) Separator shall be designed so that it will not plug with normally encountered debris.	YES [] NO []
	d) The combination skimmer door/hood shall be lightweight with a welded frame and wear liner for long life.	YES [] NO []
	e) Entire dust separator inlet area shall be lined with a bolt-in replaceable wear resistant liner for long life operation.	YES [] NO []
	f) A 61" x 84" stainless steel woven hopper screen of not less than 13 gauge shall be provided to allow air to move freely from the hopper into the centrifugal dust separator.	YES [] NO []
	g) Filters and baffles are not acceptable due to increased cost of replacement and cleaning.	YES [] NO []

SECTION	SPECIFICATION DETAILS	COMPLY
03)HOPPER	a) Hopper size to be approximately seven and three tenths (7.3) cubic yards volumetric measurement with an operating load capacity of not less than 6.0 cubic yards.	YES [] NO []
	b) Stainless Steel Hopper Package: Package will have the following minimum components fabricated out of chrome-nickel, non-hardening Austenitic stainless steels UNSS 30400 with a minimum chromium content of 18-20% and UNSS 20400 with a minimum chromium content of 15-17%, where appropriate for strength and maximum corrosion, salt spray, and rust resistance.	YES [] NO []
	1) Hopper weldment including entire floor, sides and roof.	YES [] NO []
	2) Hopper dump door with port covers.	YES [] NO []
	3) Hopper side inspection doors.	YES [] NO []
	4) Hopper screen and screen supports.	YES [] NO []

	5) Raker plate.	YES ☐	NO ☐
	6) Skimmer hood.	YES ☐	NO ☐
	7) Dust separator door.	YES ☐	NO ☐
	c) Manufacturer must supply at time of bid a letter certifying the entire body is made of stainless steel, stating type, grade, manufacturer, origin and chromium content which must be a minimum of 15-17%.	YES ☐	NO ☐
	d) Hoppers requiring coatings and/or stainless steel liners in lieu of all stainless steel construction are unacceptable for intended service.	YES ☐	NO ☐
	e) Dumping shall be accomplished by means of hydraulically actuated cylinders attached to a rear door which shall have a minimum opening of 84" x 44" with a raker bar moving inside hopper as door is opened and closed to dump debris behind the rear wheels. (Raker bar dump design preferred over raise to dump designs for operator safety, unit stability, and decreased maintenance requirements.)	YES ☐	NO ☐
	f) Hydraulic cylinder movement shall be controlled with the use of electric toggle switch located on the side of the hopper so discharging of debris may be viewed during dumping for maximum safety.	YES ☐	NO ☐
	g) In addition to standard dump switch mounted on left side of sweeper a dump switch will be mounted on sweeper control panel inside cab.	YES ☐	NO ☐
	h) Hopper floor shall have a minimum 22-degree slope.	YES ☐	NO ☐
	i) Hopper dump door shall be opened and closed hydraulically and be held in the closed position by means of a lock valve located in the hydraulic dump circuit.	YES ☐	NO ☐
	j) An auxiliary electric over hydraulic system to dump unit without need to run auxiliary engine shall be supplied.	YES ☐	NO ☐
	k) An inspection door (9.75" x 29" minimum) shall be provided on both left and right side of hopper for operator safety, easy viewing inside hopper and insertion of large debris.	YES ☐	NO ☐
	l) Hopper shall be maintained airtight through use of rubber seals on all doors and openings.	YES ☐	NO ☐
	m) Hopper inlet roof area shall have a bolt on replaceable wear resistant liner with a 3/8" minimum thickness x 11" W x 10'L.	YES ☐	NO ☐
	n) Suction inlet shall be fitted with a set of bolt-in wear liners to increase wear resistance and reduce unit maintenance in severe sweeping conditions.	YES ☐	NO ☐
	o) A bolt-on replaceable wear flange shall be attached at hopper suction between hopper inlet flange and suction transition for added wear resistance in severe sweeping conditions.	YES ☐	NO ☐
	p) Hopper drain supplied allowing continuous draining of water picked up during unit operation. Mounts on lower right panel of dump door.	YES ☐	NO ☐
	q) A high volume four (4) nozzle hopper deluge cleanout system shall attach to fire hydrant for flushing hopper interior. Includes quick disconnect fittings on nozzle system connection and filler hose.	YES ☐	NO ☐
	r) Hopper shall include a hopper screen suction wall partition extension.	YES ☐	NO ☐
	s) A frame-mounted sensor with indicator light & audible alarm that signals full load, by weight, shall be mounted at sweeper control panel.	YES ☐	NO ☐
	t) An amber high-powered strobe light with 2,300,000+ candlepower, a minimum input of 23 Joules and 60 flashes per minute shall be mounted on rear of hopper roof.	YES ☐	NO ☐
	u) A heavy-duty protective limb guard shall be supplied for strobe light.	YES ☐	NO ☐
	v) Two (2) work lights shall be mounted at rear of hopper to illuminate the dump area rear of sweeper.	YES ☐	NO ☐
	w) Two (2) amber flashing warning lights shall be mounted at rear of the hopper.	YES ☐	NO ☐
	x) To ensure proper lubrication, all grease fittings and non-sealed bearings on sweeper unit must be lubricated through independent lines by a pre-approved Auto-Lube-System.	YES ☐	NO ☐

SECTION	SPECIFICATION DETAILS	COMPLY
04)HYDRAULIC SYSTEM	a) The hydraulic system shall be adequate for use within the design requirements of the sweeper meeting minimum requirements listed. b) Hydraulic reservoir shall be a minimum of 25-gallons capacity. c) A combination temperature and level gauge shall be mounted on reservoir within easy view of operator. d) An 80-mesh suction strainer and two (2) spin-on replaceable full flow 10-micron oil filters shall be supplied. e) Air-cooled hydraulic oil cooler shall be supplied in system. f) Hydraulic cylinders, gutter broom drive motors, solenoid actuated control valves, relief valves, hydraulic hoses and standard J.I.C. fittings shall be incorporated in system. g) Hydraulic pump shall be engine mounted, gear driven by auxiliary engine. h) Hydraulic pump shall be of a double piggyback configuration. i) Dual hydraulic pump provides for dual hydraulic systems consisting of the standard sweeper system and a separate center broom system. j) Sweeper hydraulic system shall have a primary operating pressure of up to 2500 PSI for gutter brooms and 1500 PSI for pick-up head and dump door. k) The center broom system shall have only a primary operating pressure of up to 2500 PSI. l) An auxiliary hydraulic system that electrically operates hydraulic system to raise gutter brooms and pick-up head and facilitate all dumping functions without auxiliary engine running shall be supplied.	YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐

SECTION	SPECIFICATION DETAILS	COMPLY
05)BLOWER	a) Heavy-duty die cast, wear resistant, high strength cast aluminum alloy turbine type open face blower shall be provided to create air pressure and suction. b) Blower shall be computer balanced to within 4 grams. c) Blower shall be coated with ¼" wear resistant rubber bonded to each paddle for long life. d) Blower shall be mounted on self-aligning anti-friction bearings, sealed and lubricated for bearing life. If bearings are not sealed, then an automatic lube system must be furnished on sweeper unit. e) Blower shall be driven from PTO off auxiliary engine by heavy-duty power belt, which shall be adjustable for tension. f) Auxiliary engine assembly shall be adjustable for tensioning the power band without removal utilizing a simple jack bolt system. g) Blower housing shall be bolt-on design for ease of maintenance. h) Blower housing shall be lined with a bolt-in wear resistant, replaceable rubber liner, minimum ½" thick, and solid forged steel blower lid, for long life. i) Blower speed not to exceed 3000 RPM to insure smooth efficient performance.	YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐

SECTION	SPECIFICATION DETAILS	COMPLY
06)PICK-UP HEAD	a) A spring balanced all steel fabricated pick-up head with maximum length and width of 87" x 41" I.D. shall be provided. b) Pick-up head shall have separate upper and lower chamber where pressurized air is blasted from the upper chamber through an elongated blast orifice to street surface. c) Blast orifice flange shall be bolt-on design so flange is easily replaced. d) Adjustment mechanism shall be provided so blast orifice gap can be	YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐

	easily adjusted without removing pick-up head from sweeper.	
e)	Pick-up head shall have a minimum 14" diameter pressure inlet ring located on left side of pick-up head.	YES [] NO []
f)	A minimum 14" diameter pressure hose attached between pick-up head and blower housing shall be provided.	YES [] NO []
g)	A bolt-on pressure inlet ring with turning vanes shall be provided for efficient performance and easy cost effective serviceability.	YES [] NO []
h)	A cleanout port with quick disconnect that matches fill and hopper deluge connections shall be supplied at pressure inlet ring area to facilitate flushing of pick-up head interior and blast orifice areas.	YES [] NO []
i)	A minimum 14" diameter suction hose, attached to a quick disconnect transition at the hopper for ease of cleaning, shall extend down to the right side of pick-up head and shall be attached to the pick-up head suction nozzle inlet ring which shall be constructed of 1/4" steel.	YES [] NO []
j)	Suction inlet ring shall be supplied with a steel reinforced wear resistant liner, minimum 3/8" thick for long life.	YES [] NO []
k)	Suction and pressure hoses shall be heavy-duty in construction with minimum 3/8" thick wall construction for long life.	YES [] NO []
l)	Pick-up head shall be equipped with 2" wide adjustable side mounted integral alloy steel carbide runners for maximum pick-up ability and long life.	YES [] NO []
m)	Skid runners to be warranted for two (2) years/2,000 hours prorated.	YES [] NO []
n)	Side plates shall be symmetrical for optimum life.	YES [] NO []
o)	Pick-up head shall be raised and lowered hydraulically by a single switch on in-cab sweeper control panel.	YES [] NO []
p)	Pressure inlet ring shall be equipped with an adjustable pressure relief for optimum leaf and light debris sweeping.	YES [] NO []
q)	Pressure relief control shall be centrally mounted inside cab.	YES [] NO []
r)	A broom shall be mounted at the rear of the pick-up head and shall be fully enclosed.	YES [] NO []
s)	Control of the rotation and positioning shall be accomplished by a single toggle switch located on the sweeper control console in the cab.	YES [] NO []
t)	Broom shall be driven hydraulically at 230 RPM.	YES [] NO []
u)	A separate hydraulic pump will be provided for all broom functions.	YES [] NO []
v)	The broom shall be 79" (200cm) long and 12" (305mm) in diameter.	YES [] NO []
w)	Broom pattern shall be easily adjustable by mechanisms on top of pick-up head	YES [] NO []
x)	Nominal broom replacement shall be 15 minutes.	YES [] NO []
y)	Design of broom suspension shall provide automatic independent adjustment of each broom end to surface being swept.	YES [] NO []
z)	Two (2) hydraulic cylinders shall be incorporated to provide positioning and the independent suspension of the broom ends.	YES [] NO []
aa)	Down pressure and broom pattern shall be hydromechanically controlled to provide maximum broom performance and life.	YES [] NO []
bb)	Chain reverse system shall be supplied allowing sweeper pick-up head to stay in down position while backing up. If chain reverse system not supplied then an auto reverse pick up system must be supplied to protect pick-up head when unit shifted into reverse.	YES [] NO []

SECTION	SPECIFICATION DETAILS	COMPLY
07)GUTTER BROOMS	a) Dual gutter brooms shall be minimum 43" diameter, wire filled vertical digger type for removing debris from gutter area.	YES [] NO []
	b) Gutter brooms shall be hydraulic motor driven and shall be positioned laterally and vertically by one hydraulic cylinder.	YES [] NO []
	c) Gutter broom down pressure shall be automatically adjusted to load by a pressure sensing sequence valve inline with gutter broom torque motor.	YES [] NO []
	d) Each gutter broom shall have adjustment for bristle contact pattern and	YES [] NO []

	wear.	
	e) Each gutter broom shall have lateral flexibility to swing rearward 15" when encountering the impact of an immovable object thus avoiding damage to the broom assembly.	YES [] NO []
	f) Each gutter broom shall have a single spring adjustment to allow downward compensation for bristle wear and shall be free floating to follow street contour.	YES [] NO []
	g) Each gutter broom shall be held in the up and transit position by use of an electric lock valve attachment. (Broom designs requiring chains or similar mechanical devices, levers, etc. for travel support are unacceptable due to operator safety concerns.)	YES [] NO []
	h) Adjustable flow control valves shall regulate upward motion of gutter brooms.	YES [] NO []
	i) Each gutter broom shall be controlled from inside the cab by a single electric toggle switch.	YES [] NO []
	j) Right (curb side) gutter broom shall additionally incorporate a hydraulically actuated tilt capability of 27 degrees, remotely controlled from the operator's control panel in cab to allow instant angle adjustment for removal from deep gutters (such as those resulting from multiple overlays of blacktop).	YES [] NO []
	k) Each gutter broom shall be supplied with extensions to enhance placement in gutter areas.	YES [] NO []
	l) A floodlight shall be supplied for both left and right gutter brooms. Each light will have an independent in cab control switch.	YES [] NO []
	m) A 12" parabolic mirror shall be supplied for both left and right gutter brooms.	YES [] NO []
	n) Unit shall have capability of operating both gutter brooms simultaneously with pick-up head for a sweeping path of up to 142".	YES [] NO []

SECTION	SPECIFICATION DETAILS	COMPLY
08)DUST CONTROL SYSTEM	a) Water tank(s) shall have 330-gallon minimum capacity, constructed of recyclable polyethylene for strength and puncture resistance.	YES [] NO []
	b) Tank(s) shall be 100% rustproof.	YES [] NO []
	c) Tank(s) shall be bolt-in design for easy removal.	YES [] NO []
	d) Water tank must have baffles built-in for vehicle safety or be multiple tank design for same effect.	YES [] NO []
	e) A sight level gauge shall be supplied for water tank(s).	YES [] NO []
	f) Water from tank(s) to be filtered by 80-mesh cleanable filter located between tank(s) and water pump.	YES [] NO []
	g) Pump shall be belt driven triplex design delivering minimum of 3.5 GPM @ 1200 PSI with an electronic solid state level sensor to automatically shut off pump and turn on low water warning lamp when water depleted.	YES [] NO []
	h) Electric solenoid water control valves shall be in-cab controlled.	YES [] NO []
	i) Spray nozzle system shall use 55 PSI system relief pressure setting.	YES [] NO []
	j) Minimum of two (2) nozzles shall be supplied for each gutter broom.	YES [] NO []
	k) One (1) nozzle shall be located in hopper inlet.	YES [] NO []
	l) An additional hopper inlet nozzle shall be supplied. This nozzle shall be controlled by separate control switch to open and close extra nozzle as required by varied sweeping conditions.	YES [] NO []
	m) Water nozzles to be located on outside of pick-up head and suction tube for easy inspection and superior dust control.	YES [] NO []
	n) High output water system shall be supplied as follows for increased dust control during peak sweeping conditions:	YES [] NO []
	1) A front debris deflector assembly consisting of two curtains clamped to a mounting bracket shall be supplied under chassis.	YES [] NO []
	2) Two (2) spray nozzles shall be mounted to each end of this mounting bracket, total of four (4), directed at gutter brooms.	YES [] NO []

	3) Two (2) additional nozzles, one each side, shall be mounted to chassis frame in front of pick-up head directed at gutter brooms.	YES ☐ NO ☐
	4) Nozzles to be controlled by switches located inside cab on sweeper control panel. Two (2) switches (L & R) are to be supplied for this system, each controlling three (3) nozzles.	YES ☐ NO ☐
	o) Water tank shall have anti-siphon/anti-pressure filler neck with air gap.	YES ☐ NO ☐
	p) Flexible 20 ft. long water fill hose for filling water reservoir and fill hose storage rack shall be provided.	YES ☐ NO ☐
	q) Fill hose shall have quick disconnect fitting for attachment to sweeper fill assembly, 2-1/2", size with self-cleaning cone filter screen.	YES ☐ NO ☐
	r) Water fill hose shall include a 100 mesh stainless cleanable filter.	YES ☐ NO ☐
	s) Wash down handgun system using 3.5 GPM @ 1200 PSI with a 50-ft. wash down hose mounted on sweeper with retractable/locking hose reel shall be supplied.	YES ☐ NO ☐
	t) Wash down system supplied with trigger controlled wash down gun.	YES ☐ NO ☐
	u) Wash down gun shall be supplied with a 36" removable lance assembly that includes a spray tip protector.	YES ☐ NO ☐
	v) In addition the spray gun shall be supplied with a 48" extension that easily attaches between the gun and 36" lance for a total length of 84".	YES ☐ NO ☐
	w) Hydrant wrench shall be supplied.	YES ☐ NO ☐
	x) An air purge system to facilitate purging dust control system during freezing conditions will be supplied.	YES ☐ NO ☐

SECTION	SPECIFICATION DETAILS	COMPLY
09)OPERATING CONTROLS	a) All operating controls for sweeper shall be mounted inside truck cab and readily accessible to operator in either right or left driving positions.	YES ☐ NO ☐
	b) All main electrical systems. i.e. ignition, lights, hydraulic and water shall be separately fused to isolate electrical problems to fused area to simplify and speed service.	YES ☐ NO ☐
	c) Auxiliary engine controls and gauges shall be mounted on centered console panel, and consist of, but not limited to, ignition switch, linear actuator auxiliary engine throttle, oil pressure gauge, water temperature gauge, volt meter, and tachometer.	YES ☐ NO ☐
	d) Sweeper controls, meters and gauges shall consist of, but not be limited to, right gutter broom, left gutter broom, right gutter broom tilt, in-cab dump switch, pick-up head, center broom, warning lights, water system switches, and work light, lighted paddle type switches.	YES ☐ NO ☐
	e) A low water light, hour meter, and leaf pressure bleeder control shall also be supplied on centered sweeper control panel.	YES ☐ NO ☐
	f) A dump control switch shall be located on the exterior of sweeper just above the left fender for operator safety and control.	YES ☐ NO ☐
	g) An additional external pump on/off switch shall be located on the exterior of sweeper near connection for wash down gun just above the right fender for operator control.	YES ☐ NO ☐

SECTION	SPECIFICATION DETAILS	COMPLY
10)ADDITIONAL EQUIPMENT	a) Abrasion Protection Package: Hopper screen baffles, suction inlet liner, protective hopper wall liners, separator and blower housing wall liners, pressure side pick-up head wear protection pads, suction nozzle liner, and heavy duty minimum 3/8" thick pressure and suction hoses shall be supplied.	YES ☐ NO ☐
	b) Special Wiring Package: Unit shall be fitted with a Severe Weather Sealed Wiring Package:	YES ☐ NO ☐
	1) All external electrical wiring, harnesses and terminations shall be of a sealed, weather-tight design utilizing heat-shrinkable	YES ☐ NO ☐

	components.	
	2) Additionally, where feasible, all connectors shall utilize solid, cold formed, nickel-plated copper alloy contacts with gas tight crimps (Deutsch Type).	YES ☐ NO ☐
	c) Low Emissions Package, SCAQMD, Rule 1186 Compliant PM-10 particulate dust control system supplied, to meet varied environments:	YES ☐ NO ☐
	1) System will consist of a pressure transition mounted hopper type injection nozzle with independent in-cab control switch..	YES ☐ NO ☐
	2) In addition a high capacity dust separator door/hood assembly shall be supplied to increase efficiency of separation. Details of separator detailed in section #02, page #2.	YES ☐ NO ☐
	d) Work Platform: A suitable size work platform will be provided to allow safe access to auxiliary engine area:	YES ☐ NO ☐
	1) Access will be accomplished from ground level by steel steps covered with anti skid grating and proper size grab handle to insure maximum safe entry and exit from work platform.	YES ☐ NO ☐
	2) Work platform shall have suitable safety rails to provide safe work area.	YES ☐ NO ☐
	e) A steel constructed storage box shall be supplied for tools, etc. mounted on an independent frame assembly between the auxiliary engine and truck cab.	YES ☐ NO ☐
	1) Storage box to be constructed of a minimum #12 gauge steel, and shall be approximately 46"L x 16"H x 32"W with an access door located on each side.	YES ☐ NO ☐
	2) Storage box shall have two (2) access doors; a full access hinged door on the right (curbside) and a smaller hinged door on left (street side) for easy access.	YES ☐ NO ☐
	3) Storage box shall be painted black.	YES ☐ NO ☐

SECTION	SPECIFICATION DETAILS	COMPLY
11)MANUALS	a) Successful bidder shall supply two (2) sweeper operator and two (2) sweeper parts and service manuals with each unit.	YES ☐ NO ☐
	b) Manufacturer shall have available certifiable training course for complete maintenance and operation of sweeper.	YES ☐ NO ☐
	c) Published training school schedule must be enclosed at time of bid.	YES ☐ NO ☐
	d) Bidder shall provide operator instruction/safety/maintenance procedures on DVD/CD with the unit at time of delivery.	YES ☐ NO ☐

SECTION	SPECIFICATION DETAILS	COMPLY
12)PAINT	a) The entire sweeper unit shall be painted with standard white paint applied over a suitable primer system.	YES ☐ NO ☐
	b) Entire unit shall be painted white to match chassis standard white.	YES ☐ NO ☐
	c) Pick-up head, gutter brooms, and chassis frame shall be painted black.	YES ☐ NO ☐

SECTION	SPECIFICATION DETAILS	COMPLY
13)WARRANTIES	a) The sweeper unit shall be free from defective materials and workmanship for a period of 12 months or 1000 hours.	YES ☐ NO ☐
	b) Pick-up head skid plates carry a 2-year/2000 hour prorated warranty.	YES ☐ NO ☐
	c) Water tank(s) carry lifetime rust through warranty.	YES ☐ NO ☐
	d) Chassis warranties detailed in chassis specification section.	YES ☐ NO ☐

“CHASSIS SPECIFICATIONS SECTION”

SECTION	SPECIFICATION DETAILS	COMPLY
01)GENERAL	a) Cab and chassis shall be commercially manufactured and fully equipped for highway operation, and totally compatible in size, weight capacity, and function for use with the sweeper unit proposed.	YES ☐ NO ☐
	b) Chassis shall be a “2007” or newer, GMC F7B042 “T” Series cab over, tilt cab design or approved equal.	YES ☐ NO ☐
	a. Chassis Make/Model Bid: _____	YES ☐ NO ☐
	b. Chassis Model Year Bid: _____	YES ☐ NO ☐
	c) Steel Frame to be 12.501SM (50,000 PSI), with 625,000 RBM.	YES ☐ NO ☐
	d) Gross vehicle weight rating to be not less than 32,000 GVW.	YES ☐ NO ☐
	e) Chassis cab enclosed and equipped with tinted safety glass all around. (Sliding windows not acceptable).	YES ☐ NO ☐
	f) Two (2) front tow hooks shall be supplied.	YES ☐ NO ☐

SECTION	SPECIFICATION DETAILS	COMPLY
02)WARRANTY	a) Total chassis coverage is 24 months/unlimited mileage.	YES ☐ NO ☐
	b) Engine (Diesel) coverage is 24 months/unlimited mileage.	YES ☐ NO ☐
	c) Drive train coverage is 24 months/unlimited mileage.	YES ☐ NO ☐
	d) Frame coverage is 60 months/unlimited mileage.	YES ☐ NO ☐
	e) Cab corrosion coverage is 60 months/unlimited mileage.	YES ☐ NO ☐
	f) Towing package is 12 month warranty.	YES ☐ NO ☐
	g) Warranty is 100% parts and labor unless otherwise noted as provided by chassis manufacturer.	YES ☐ NO ☐

SECTION	SPECIFICATION DETAILS	COMPLY
03)WHEELBASE	a) Shall be 170” and shall provide 115” between back of cab and center of rear axle for proper load distribution.	YES ☐ NO ☐

SECTION	SPECIFICATION DETAILS	COMPLY
04)AXLES	a) Front axle to be a minimum 12,000 lbs., with suspension of 12,000 lbs.	YES ☐ NO ☐
	b) Front shock absorbers to be supplied.	YES ☐ NO ☐
	c) Rear axle shall be 21,000 lbs., single speed.	YES ☐ NO ☐
	d) Bolted rear suspension to be a minimum of 21,000 lbs., multi-leaf w/single tapered auxiliary springs.	YES ☐ NO ☐

SECTION	SPECIFICATION DETAILS	COMPLY
05)STEERING	a) Dual operator controlled integral power steering with cruise control and tilt/telescopic steering columns shall be supplied.	YES ☐ NO ☐
	b) Cab shall be supplied with factory installed dual chassis gauge package.	YES ☐ NO ☐
	c) Diameter of steering wheels to be a minimum of 18”.	YES ☐ NO ☐

SECTION	SPECIFICATION DETAILS	COMPLY
06)BRAKES	a) Service brakes are to be full air with 13.2 CFM air compressor. (Air over hydraulic not acceptable).	YES ☐ NO ☐
	b) Brake system shall have automatic slack adjusters – front and rear.	YES ☐ NO ☐
	c) Four-channel anti-lock brake system shall be supplied.	YES ☐ NO ☐
	d) Parking brake shall be spring actuated.	YES ☐ NO ☐
	e) Rear dust shields supplied.	YES ☐ NO ☐

SECTION	SPECIFICATION DETAILS	COMPLY
07)CAB	a) Both driver and passenger seats shall be individual, air suspension, high-back, adjustable type with safety seat belts. b) Gauges shall consist of voltmeter, oil, water, fuel, air pressure, and electronic speedometer with trip odometer and chassis hour meter. c) Warning indicators shall be supplied to indicate low oil pressure, and high coolant temperature. d) Warning light and buzzer shall be supplied for low brake air pressure. e) Chassis hour meter shall be furnished to record truck engine hours. f) Chassis shall be equipped with manufacturer's factory installed air conditioner for operator safety and comfort. After market air conditioners are unacceptable. g) Chassis shall be equipped with a fresh air heater, defroster, electric intermittent windshield wipers with washers, coat hook, storage pocket on driver's door, dual sun visors, ashtray and single electric horn. h) An air horn shall be supplied. i) An AM/FM Stereo radio provided. j) Chassis shall be equipped with 7" x 16" dual painted retractable mirrors, two (2) 8" parabolic mirrors. k) An amber high-powered strobe light with 2,300,000+ candlepower, a minimum input of 23 Joules, and 60 flashes per minute shall be mounted on chassis cab. l) A heavy-duty protective limb guard shall be supplied for strobe light. m) A cab mounted refillable Dry chemical, DOT approved fire extinguisher shall be supplied. n) A hazard triangle reflector kit shall be supplied. o) Cab to be painted Navistar standard white. (Sweeper painted to match chassis).	YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐

SECTION	SPECIFICATION DETAILS	COMPLY
08)ELECTRICAL	a) Shall consist of two (2) multiple beam headlights with dash beam indicator, instrument panel, taillights, and stoplights. b) Front and rear turn signals, self-canceling signal switch, equipped for four way flashing. Taillights, stop lights, and signal lamps may be in combination. c) Chassis shall be supplied with two (2) 12 volt 750 CCA heavy-duty maintenance free batteries for a total of 1500 CCA. d) Chassis supplied with a 100-amp alternator.	YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐

SECTION	SPECIFICATION DETAILS	COMPLY
09)ENGINE	a) Engine shall be Duramax heavy-duty diesel with a minimum of 200 HP with 7.8L displacement. b) Dry type single element air cleaner with restriction indicator mounted on intake with safety element. c) Integral shutdown protection system shall be furnished. d) A fuel/water separator shall be supplied.	YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐ YES ☐ NO ☐

SECTION	SPECIFICATION DETAILS	COMPLY
10)FUEL	a) A 50 gallon steel tank shall be supplied and supply fuel to both engines.	YES ☐ NO ☐

SECTION	SPECIFICATION DETAILS	COMPLY
11)TIRES AND	a) Heavy-duty first line quality tubeless tires to be minimum 11R x 22.5, 14	YES ☐ NO ☐

WHEELS	ply, with duals in rear for adequately carrying full load of sweeper and for maximum stability. b) Wheels to be 10-hole disc – 22.5 x 8.25.	YES ☐ NO ☐
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SECTION	SPECIFICATION DETAILS	COMPLY
12)TRANSMISSION	a) Shall be a heavy-duty Allison 2500RDS-P electronic automatic with five (5) forward speeds, and one (1) reverse speed with external oil filter.	YES ☐ NO ☐

“EXCEPTIONS/DEVIATIONS – NOTATIONS SHEET”

Section #/Item #	<i>Deviations/Exceptions Notations/Details</i>

