

TOWN OF MIDDLEBURY
77 MAIN STREET, MIDDLEBURY, VT 05753

INVITATION TO BID

Town of Middlebury

Bid Number # 20200413-1

Sealed competitive bids for a **Commercial Grade Vacuum Street Sweeper** will be received at the office of the Town Manager, 77 Main Street, Middlebury, VT 05753 until

The Town of Middlebury, VT reserves the right to waive any informalities, reject any and all bids, or to accept any bid deemed to be in the best interest of the Town.

Information for Bidders, Specifications and Bid Forms may be obtained by contacting the Department of Public Works at 1020 Route 7 South via email at pkirby@townofmiddlebury.org, by phone at (802) 388-4045 or on the Town's webpage at www.townofmiddlebury.org.

Bill Kernan
Director Public Works Operations



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The Town of Middlebury is seeking bids for a new **Commercial Grade Vacuum Street Sweeper Bid # 20200413-1**. The following specifications describe requirements for the quality and type of equipment to be furnished. **The intent of the detailed specifications is not to restrict manufacturers but to give guidance to the town’s minimum requirements:**

GENERAL:

Minimum 8.5 Cubic yard debris hopper, dual gutter brooms, vacuum street sweeper, truck mounted on a Freightliner M2 conventional chassis (or approved equal). This specification describes an environmentally controlled and silenced street sweeper.

INSTRUCTIONS FOR COMPLETING BID:

The sweeper to be furnished under this proposal shall be a truck chassis mounted type, 8.5 cubic yard (minimum) volumetric capacity vacuum street sweeper, with dual gutter brooms. It shall be the manufacturer’s latest model and design. These specifications shall be regarded as minimum. Bidders must furnish all descriptive literature, manufacturer’s compliance certificates and all other data on the equipment proposed as required in this specification.

Bidder must answer YES or NO to each specification line item except where asked to state specific data. Failure to answer correctly, or failure to respond, may deem your bid as non-responsive.

All line items with a “NO” response, shall be explained in detail on the “Exceptions to Bid Specifications” page provided at the end of this document.

SPECIFICATIONS:

BIDDER PROPOSED

YES / NO

1. Sound Control (Bidders MUST furnish compliance certificate)

1.1 The external sound pressure level shall be a maximum of 79 dB(A) average at 16 meters per noise test code ISO 3746: 1996, while the impeller fan is rotating at 3,400 RPM.

1.2 The In-Cab sound level shall not exceed 68 dB(A) max per noise test code ISO 3746:1996 while the impeller fan is rotating at 3,400 RPM in sweeping mode.

TRUCK CAB & CHASSIS

2. **Make/Model** YES / NO
- 2.1 Chassis Make: _____
- 2.2 Chassis Model: _____
- 2.3 Sweeper Make: _____
- 2.4 Sweeper Model: _____
3. **Vehicle Weight**
- 3.1 GVWR: 33,000 lbs. minimum. _____
- 3.2 Wheel Base maximum 178". _____
- 3.3 Cab shall be conventional type. _____
- 3.4 G.V.W.R of chassis bid: _____
- 3.5 Empty weight of chassis bid: _____
- 3.6 Empty weight of sweep equipment: _____
4. **Axles**
- 4.1 Front axle shall be 12,000 lbs. minimum. _____
- 4.2 Rear axle shall be a two speed Meritor RS-21-230, 21,000 lbs. Capacity with ratio of 5.86 / 8.17:1. _____
- 4.3 Front & Rear oil seals shall be provided. _____
- 4.4 Front & Rear dust shields shall be provided _____
5. **Suspension**
- 5.1 Front suspension shall be 12,000 lbs. minimum at ground load rating. _____
- 5.2 Front shock absorbers shall be supplied. _____
- 5.3 Rear suspension shall be 23,000 lbs. minimum with multi-leaf springs. _____

6.	<u>Brake System – ABS</u>	<u>YES / NO</u>
6.1.	To ensure brake system performance, safety and service life of chassis a WABCO 4S/4M ABS brake system will be supplied (or approved equal).	_____
6.2.	Front & Rear service brakes shall be “full air” “S” cam type. Front with 15”x4” and Back with 16.5”x7” brake linings.	_____
6.3.	Automatic slack adjusters shall be supplied on front and rear brakes.	_____
6.4.	Parking brake shall be spring set on rear axle and cab controlled.	_____
6.5.	Low air warning indicator shall be supplied.	_____
6.6	To provide clean, dry air to the chassis brake system, increase life of and reduce maintenance costs, a Wabco 1200 SS Brake Line Air dryer with heater will be provided (or approved equal).	_____
6.7.	A Cummins 18.7 CFM air compressor shall be supplied.	_____
 7.	 <u>Steering</u>	
7.1	Complete OEM dual cross-over power steering system with complete dual gauges at each operator’s position shall be furnished to permit operation from either side of cab.	_____
7.2	The following gauges and controls shall be furnished at the LEFT SIDE operator’s position: oil pressure gauge, water temperature gauge, tachometer voltage digital display, speedometer, odometer, dual air pressure gauges, transmission oil temperature gauge, fuel gauge, hour meter, DEF gauge, and centrally located ignition switch.	_____
7.3	The following gauges and controls shall be furnished at the RIGHT SIDE operator’s position: oil pressure gauge, water temperature gauge, tachometer speedometer, dual air pressure gauges, transmission oil temperature gauge, fuel gauge, DEF gauge, and centrally located ignition switch.	_____

8.	<u>Engine</u>	<u>YES / NO</u>
8.1	Engine shall be a four cycle diesel, turbo-charged and after cooled.	_____
8.2	Engine shall be rated at 200 H.P. @ 2300 RPM with 6.7 liters of displacement minimum.	_____
8.3	Engine shall have a minimum torque rating of 520 ft lbs. at 1,600 RPM.	_____
8.4	Engine shall be water cooled with antifreeze protection to -30 degrees Fahrenheit.	_____
8.5	Engine shall have vertical muffler and exhaust pipe and be equipped with a Diesel Particulate Filter & SCR system for 2010 EPA emission requirements.	_____
8.6.	Integral electronic protection shutdown system for low oil pressure and high water temperature.	_____
9.	<u>Transmission</u>	
9.1.	Transmission shall be an Allison 2500 Series automatic with return line filtration.	_____
9.2	Transmission shall come installed with synthetic transmission fluid.	_____
10.	<u>Engine Equipment</u>	
10.1.	12 volt alternator shall have a minimum of 160 amp output rating.	_____
10.2.	Three (3) batteries shall be maintenance free and each rated at 700 CCA (2,100 total).	_____
10.3.	A heavy duty dry air cleaner with dash mounted in-cab restriction indicator with graduations shall be supplied.	_____
10.4.	A Horton HT650 frontal air on/off clutch engine fan shall be supplied with automatic controls.	_____
10.5.	A full flow oil filter shall be supplied.	_____

11.	<u>Cab</u>	<u>YES / NO</u>
11.1.	Cab shall have two (2) air suspension fully adjustable bucket seats with approved seat belts.	_____
11.2.	Seats construction shall be of heavy duty cloth upholstery over foam rubber seat cushion.	_____
11.3.	Sun visors shall be supplied on both sides.	_____
11.4.	Door armrests shall be supplied on both sides.	_____
11.5.	Heater with full width defrosters, fresh air ducts and two-speed fan shall be supplied.	_____
11.6.	Dual, two speed electric intermittent windshield wipers with washers, operable from either side, shall be supplied.	_____
11.7.	Two (2) bright finish heated and remote West Coast type mirrors, 7" x 16" and 8" convex mirrors shall be supplied.	_____
11.8.	Two (2) 8" stainless steel fender mounted convex mirrors shall be supplied to allow full view of sweeping equipment.	_____
11.9.	Factory A/C shall be supplied and mounted in cab.	_____
11.10.	AM/FM/WB radio shall be supplied.	_____
11.11.	Two (2) independent accelerator pedals shall be installed in cab to facilitate operation from either side.	_____
11.12.	A full 'cross-over' system to change steering control, throttle and all gauges, from left to right hand side and vice versa shall be supplied.	_____
11.13.	All cross-over functions shall be controlled by a single switch on the central console. This circuit shall be inter-locked to the parking brake and shall only be capable of being activated with the parking brake applied.	_____
 12.	 <u>Fuel Tank</u>	
12.1.	Minimum 42 gallon fuel tank shall supply chassis engine. Tank shall be manufactured from aluminum and located under side of the cab.	_____

12.2 SCR system tank shall be 6 gallons and located to the rear of the chassis fuel tank.

13. Lights

13.1. All lamps and reflectors shall comply with federal regulations.

13.2. Four-way hazard warning lights shall be supplied.

13.3 The following lights to be LED type: stop/tail/turn/back-up/marker.

14. Frame

14.1. Heavy Duty frame with a minimum RBM of 1,015,000 lb/in.

14.2 Frame Section Modulus of 12.69 minimum

14.3 Frame shall be tensile steel, 120,000 psi, minimum

14.4 Front tow hooks shall be supplied.

14.5 Steel front & rear bumpers shall be supplied (front shall have flexible plastic ends).

14.6 A weight load indicator shall be installed on frame

15. Wheels & Tires

15.1. All wheel rims shall be disc type 22.5 X 8.25.

15.2. Tires: two (2) front and four (4) rear premium radial tires; type 11.00R 22.5-14 ply rated.

15.3. Rear tire sets to be protected by Heavy Duty replaceable plastic fenders.

16. Warranty

16.1. The basic truck chassis & drive train shall be warranted by the manufacturer for two (2) years, unlimited miles unless otherwise specified.

SWEEPER

17. <u>Power Pack</u>	<u>YES / NO</u>
17.1 Power shall be supplied by a heavy-duty turbo charged industrial diesel engine and fuel supplied from a minimum 50 gallon molded high strength composite fuel tank.	_____
17.2 Engine shall be four cylinder, four cycle, water cooled and antifreeze protected to -30 degrees Fahrenheit.	_____
17.3 Engine shall be 125 horse power @ 1600 RPM minimum.	_____
17.4 The engine must conform minimally to EPA Tier 4 regulations.	_____
17.5 The unit shall be capable of operating within a temperature range of -30 degrees to +126 degrees Fahrenheit with the manufacturer's full warranty approval.	_____
17.6 Separate heavy duty, dry dual element air filtration with restriction indicator and Turbo III pre cleaner to be provided.	_____
17.7 Fuel system will have a primary filter & sediment bowl as first stage filtration from the fuel tank.	_____
17.8 All daily engine inspections of oil level, coolant level and air filter restriction to be checked and monitored from inside the cab.	_____
17.9 Engine water pump shall be a direct drive to eliminate possibility of engine damage due to drive belt breakage.	_____
17.10 A 12 volt 55 amp alternator shall be furnished.	_____
17.11 High coolant temperature and low oil pressure shutdown system shall be supplied.	_____
17.12 The engine shall be sound suppressed and pod mounted in a low profile tub with a bolt-on heavy duty cowling liner and seal for maximum sound attenuation.	_____
17.13 Engine tub shall be separately mounted from the body and shall be capable of being readily removed from the entire sweeper framework.	_____
17.14 To reduce vibration & sound, ONLY the engine, transmission and turbine shall be "live" mounted and free floating.	_____
17.15 The engine compartment shall be completely sealed with a bolt-on sound suppressing liner of 1.25 inch minimum thickness to reduce noise levels and protect against dust contaminants.	_____

YES / NO

- 17.16 Engine shall have four (4) remote fluid drains accessible from ground level for coolant, hydraulic oil, engine oil and gearbox oil to allow for easy and cleaner maintenance. _____
- 17.17 For greater corrosion protection the engine muffler and exhaust pipe must be stainless steel. _____
- 17.18 Auxiliary engine fuel consumption shall not exceed 5.4 G.P.H (gallons per hour) while producing a continuous impeller fan speed of 3,400 RPM
GPH: _____
- 17.19 Required engine RPM to generate an impeller fan speed of 3,400 RPM
RPM: _____
- 17.20 Throttle control of power output shall be adjusted by means of an electronic, infinitely variable actuator. _____
- 17.21 In- cab tachometer and hour meter shall be supplied. _____
- 17.22 Radiator shall have a sealed and dedicated air intake duct. to ensure the air is the cleanest possible the air intake duct shall be located in the roof of sweeper cowling. _____
- 17.23 Both a keyless start with integral cold weather start aid and a anti-crank device to prevent re-engagement of starter while engine is running shall be furnished. _____
- 17.24 All sweeping controls shall be easily accessible to the operator from either side driving position. _____
- 17.25 Two position rocker switches shall be supplied for gutter brooms, nozzles and main broom. Position one shall be for raising and lowering, while position two shall activate water system for sweep gear. _____
- 17.26 Warning lights shall be furnished for low oil pressure, high water temperature, low voltage, body weight limit, low hydraulic oil level and low sweeper water tank level. _____
- 17.27 All of the above controls in addition to the chassis engine ignition, parking brake control, and gutter broom speed control shall be centrally mounted in cab. _____

18. Sweeper Hopper Body

YES / NO

18.1 The **entire** hopper body shall be fabricated from (9) gauge high content chromium stainless steel. All seams shall be continuously welded. To permit longer life and lower the cost of operation, the entire debris hopper, excluding inlet wear plates and exhaust screens, shall carry a **LIFETIME WARRANTY** as long as the customer owns the sweeper. The warranty shall include, but not be limited to, the floor, sides, roof, and rear door. The warranty shall cover rust, corrosion and abrasion perforation, including normal wear and tear. Vendors will be financially responsible for all repairs, parts and labor, including protective coatings for the life of the sweeper. 100% parts and labor with no pro-rating or hour limitations. Vendors shall supply with their bids, warranty statements from the manufacturer in complete compliance with the published warranty specifications. Failure to do so, will deem your bid as non- responsive.

18.2 Body volume capacity shall be not less than 8.5 cubic yards with payload capacity of not less than 7.5 cubic yards.

18.3 A hydraulically operated, fully sealed, full width, top hinged rear door with 6 inch long rear discharge chute with side splash guards.

18.4 The door shall be opened, closed and latched hydraulically.

18.5 To prevent damage to the door and door seal, when dumping, the door must open a minimum of 125 degrees.

18.6 The door cylinder shall incorporate a counterbalance valve to prevent accidental closing in the event of a hydraulic hose or cylinder failure.

18.7 To prevent physical injury, the sweeper hopper body prop shall automatically engage and disengage when the hopper is raised and lowered. And the prop is to be the same width as the frame to provide full and even weight support.

18.8 To prevent physical injury, the sweeper shall incorporate a warning beeper anytime the debris hopper or rear door is being raised or lowered.

18.9 To prevent physical injury due to unintentional operation, a master safety switch must be depressed and simultaneously held while the operator activates the controls to raise/lower the debris hopper or rear door.

18.10 For maximum abrasion resistance the body intake tube shall be constructed of (10) gauge A/R steel and have bolt-in seals.

18.11 To prevent the body from being stuck in the raised position, the raise/lower cylinder shall be power up and power down.

YES / NO

18.12 To ensure complete emptying of the debris hopper, the hopper discharge angle must be 55 degrees minimum. _____

18.13 The hopper body shall incorporate an inter-connecting transfer port to the water tank that will enable the machine to additionally function as a either a water tanker or flusher with a total water capacity of 1,700 gallons. _____

18.14 Body intake tubes shall have equal distant mounting holes to permit quarter, half or three quarter turn rotation for extended life and even wear compensation. _____

18.15 To permit cleaning of the rear screens, and placement of large objects in the hopper, two (2) heavy duty inspection doors with heavy duty lever lock handles and recessed seals that fit snugly over a raised flange on the body, providing a positive seal against leaking shall be provided on each side of the hopper with step and handle for operator safety. _____

18.16 Body shall have full width mesh filter screens which are at least 48" away from suction inlet tubes to allow for adequate material separation and reduce carryover into tunnel vent. _____

18.17 The screens shall be "one-handed" operation removable from ground level without entering the hopper and without the use of tools. _____

18.18 Body roof shall incorporate an externally mounted, removable plate to permit inspection and cleaning of upper air tunnel area. _____

18.19 The rear door shall have two (2) drain ports at staggered heights to enable water to be drained off. One 3" located in upper door with a hose stowed on its own stowage bracket. One located in center bottom of rear door with a 1 1/2" ball valve. _____

19. Vacuum Impeller Fan

19.1 Shall be single stage centrifugal type, direct drive, dynamically balanced. And capable of producing 59" of negative water column at the suction nozzle. _____

19.2 Impeller shall have a minimum 30" diameter and be 3" wide, made of stainless steel construction. _____

19.3 Impeller shall incorporate eight (8) hardened stainless steel vanes with built-in "wear safe" characteristics. _____

19.4 Impeller housing shall have a port for inspection and be constructed of A/R steel. _____

19.5 The connection of blower to drive system and engine via fluid coupler shall permit the blower to freely spin within its housing. _____

19.6 The impeller shall be driven via an adjustment free 'step-up' gear-box. (BELTS ARE NOT ACCEPTABLE.) Step-up gear-box ratio shall be a minimum of 1:1.79 permitting higher impeller speeds at low engine RPM.

19.7 The purchaser has demonstrated various types of vacuum sweepers and has determined that a minimum impeller fan speed of 3,400 RPM is required to effectively convey the bulk of material into the debris hopper.
State engine RPM required to generate an impeller fan speed of 3,400 RPM

Engine speed: _____ RPM

Impeller speed: _____ RPM

Step up ratio: _____

19.9 **Blower drive system:** To permit longer life and lower cost of operation, the entire blower drive system, excluding the auxiliary engine and impeller, **shall be guaranteed for 5 years.** Warranty shall include all components between the engine flywheel and the blower. Warranty shall cover all components, including normal wear items, such as, but not limited to, belts, pulleys, bearings, shafts, fluid couplings, clutches, seals, etc. Warranty shall include all parts and labor for a period of 5 years. 100% parts and labor. No pro-rating or hour limitations acceptable. Vendors shall submit warranty statements from the manufacturer with their bids, in strict compliance with the published warranty specifications. Failure to do so will deem your bid as non-responsive.

19.10 Blower exhaust port is to be sealed and air is to be exhausted rearwards over full width of the body through a sound suppressed roof tunnel vent.

20. Intake System

20.1 The intake system shall be a minimum of 10" I.D. diameter featuring straight inlet tubes (no bends or curves) into the debris hopper to maximize air speed up to 300 mph.

20.2 To permit cleaning and removal of blockages the intake system shall separate when the debris hopper is raised. The make break inlet point shall be no more than 48 inches off of ground.

Gutter broom- Right and Left Side

YES / NO

- 21.1 Gutter brooms shall be one piece, of steel
tine construction with 28" inch minimum diameter. _____
- 21.2 Gutter brooms shall be direct hydraulic drive type
and relief valve protected. _____
- 21.3 Gutter brooms shall have variable speed from within the cab.
Rotational speed from 0 -140 RPM independent of engine RPM. _____
- 21.4 Gutter brooms shall pneumatically raise/lower. _____
- 21.5 Gutter brooms shall incorporate a lock for transport
activated automatically from within the cab. _____
- 21.6 Gutter brooms and components shall be free floating,
of trailing arm configuration with adjustable "kick back"
feature to avoid damage if contact is made with
high curbs or other immovable objects. _____
- 21.7 Four (4) water spray jets shall be provided at each gutter broom
along with a LED work light. _____
- 21.8 Two (2) water spray jets to be mounted on lower
rear corners of cab. They are to be wired and
activated separately to provide additional dust
suppression when required. _____
- 21.9 Gutter brooms shall be capable of being operated
independently of all other sweep gear. _____
- 21.10 Gutter brooms shall be capable of sweeping on top of
sidewalk edge for the purpose of cleaning weeds, etc.
This feature shall also be used to trim grass edges on
curbs, edged parkways, etc. _____
- 21.11 The right and left side gutter broom components must
be identical to permit interchangeability from side to side. _____

21. Wide Sweep Broom

- 21.1. Polypropylene under-body broom shall be supplied. _____
- 21.2. Broom shall be 16" diameter minimum. _____
- 21.3. Broom length shall be 50" minimum. _____
- 21.4. To reduce the potential for damage, the wide sweep
broom shall be towed and not pushed when operating. _____

- 21.5. Wide sweep broom shall be enclosed within its own hood to prevent debris from being ejected. _____
- 21.6. Broom shall be hydraulically driven at a constant speed with adjustable pressure and flotation system. _____
- 21.7. Wide sweep broom shall have a minimum of four (4) water spray nozzles mounted at front bumper for early dust control. _____
- 21.8. Wide sweep broom shall be capable of being changed without removing any parts other than the broom side cover plate. _____
- 21.9. Wide sweep broom shall be capable of being operated independently of all other sweep gear. _____
- 22.10 The wide sweep broom down pressure can be accomplished from inside or outside cab via the pendant control. _____
- 22.11 Wide sweep broom shall have a road crown compensation pivot with remote greasing provision to provide simple, easy lubrication. _____

- 23. Suction Nozzles- Right and Left Side**
- 23.1 Shall be alloy construction, rubber lined for increase life and low noise. And will include curb guards and rubber skirts. _____
- 23.2 Nozzles shall raise/lower pneumatically. _____
- 23.3 Nozzles shall have four (4) internal water jets to provide dust suppression and lubrication for debris conveying tubes and sweeper internal components. _____
- 23.4 Nozzle carriages shall each be provided with two (2) adjustable heavy duty rubber tired, 10" diameter wheels. Should the nozzle not meet this requirement, then a third wheel must be provided. _____
- 23.5 Nozzle wheels shall be capable of being independently adjusted. _____
- 23.6 An in-cab control, shall permit the operator to remotely tilt the nozzle backwards to accommodate the ingestion of large items. _____
- 23.7 The right and left nozzle components must be identical (unhanded) to permit interchangeability from side to side. _____

23.8 Nozzle assemblies are to be attached to the sweep gear framework via tool free, detachable, self-aligning draw bar and track independently of chassis. _____

23.9 Nozzles shall be capable of being operated independently of other sweeping gear. _____

24. Hydraulic System

24.1 The hydraulic system shall operate the following: wide sweep broom rotation, gutter broom rotation, wide sweep broom swiveling and lateral positioning _____

24.2 To ensure adequate cooling, reservoir capacity to pump output shall be minimum of 2:1 ratio. State pump output at recommended auxiliary engine operating speed.

GPM: _____

RPM: _____

24.3 Hydraulic oil reservoir capacity shall be 18.5 gallons minimum and capable of maintaining continuous operation without overheating. _____

24.4 All hydraulic circuits shall be protected by relief valves. _____

24.5 Hydraulic reservoir shall have a fluid level sight glass. _____

24.6 The hydraulic system shall incorporate two (2) filters. A 125 micron suction filter and a 25 micron return filter. _____

24.7 The body raise/lower shall be powered off the auxiliary engine. An electric over hydraulic back up system shall be furnished in the event the auxiliary engine does not start. _____

24.8 The body dump controls shall be controlled via a handheld pendant to permit operation from within the cab or outside the cab. The pendant shall have a 15' reach from the cab. _____

24.9 All sweeping gear functions shall be powered from its timing gear power take-off feature. _____

24.10 All hydraulic valves for sweep gear shall be equipped with LED status indicators for fast, easy diagnostics. _____

24.11 The hydraulic system shall have a quick disconnect test port. _____

25. Water System

YES / NO

- 25.1 Water tank shall be integral with the hopper body and shall be fabricated of stainless steel. To permit longer life and a lower cost of operation, the sweeper's water tank shall carry a **LIFETIME WARRANTY** as long as the customer owns the sweeper. Warranty shall include and not be limited to rust, corrosion and abrasion perforation, cracking, warping, melting, UV damage etc. Vendor will be financially responsible for all repairs, parts and labor. 100% parts and labor with no pro-rating or hour limitations acceptable. Vendors shall supply warranty statements from the manufacturer with their bids in complete compliance with the published warranty specification. Failure to do so will deem your bid non-responsive _____
- 25.2 Water tank capacity shall be 400 gallons minimum with an in-cab gauge and tank must be baffled to minimize stress related movement. _____
- 25.3 Water pump drive and related systems shall have an air purge protection system against freeze-up _____
- 25.4 Water pump is to be driven hydraulically from a direct coupled motor and be self priming and not subject to damage when operated dry. _____
- 25.5 A 25' hydrant hose with quick connect coupling and wrench shall be furnished. Storage compartment shall be provided for both the hose and wrench when not in use. _____
- 25.6 Machine shall be equipped with a 25' wash down hose with an adjustable spray nozzle. _____
- 25.7 All water valves shall have manual drain provisions. _____
- 25.8 The water tank shall have three (3) drain and flush out ports. _____
- 25.9 Provision shall be made to enable water tank filling to be accomplished by either hydrant or garden type hose and be filled from either side of unit. _____
- 25.10 All water system rigid lines shall be constructed of non ferrous materials. _____
- 25.11 An external water filter shall be provided. The filter must be accessible with body lowered. A shut off (isolation) valve must be provided to facilitate servicing. _____
- 25.12 Water manifold shall be constructed of stainless steel. _____

25.13 The water system shall have a quick connect test port. _____

25.14 The water system shall have an adjustable relief valve. _____

25.15 The water system connectors shall be push-in type for easy repair or replace. _____

26. Air System

26.1 The sweeper air system shall incorporate a safety device which will ensure that in the event of a pneumatic failure, the chassis braking system will be automatically protected and air brake pressure will be maintained. _____

26.2 A self purging air dryer shall be provided with a built in timer to expel condensation. _____

26.3 Cold Weather Water Purge System to easily and quickly allow operator to drain all air lines by operating a simple in-cab switch. _____

26.4 The regulator shall have a shut off valve to purge only the sweeper system while maintaining chassis air pressure. _____

26.5 All sweep system pneumatic valves shall be housed in a weather proof systems locker and activated by cab mounted rocker switches. _____

26.6 The pneumatic system shall have a quick connect test port. _____

26.7 All pneumatic hose connectors shall be "tool free" push-in type to facilitate easy servicing, removal or replacement. _____

26.8 Nozzle, and wide sweep broom pneumatic cylinders shall have a common seal repair kit to defray parts stocking cost. _____

26.9 Pneumatic system air lines shall be color coded for easy recognition of "live supply," "switched supply" and "exhaust" _____

26.10 The pneumatic system shall operate the following functions:

26.11 Wide sweep raise/lower/road pressure. _____

26.12 Nozzle raise/lower/tilt for large debris. _____

26.13 Gutter broom raise, lower and latch _____

27. System Controls Locker

YES / NO

27.1 All controlling elements for the sweeper's pneumatics, water and hydraulics shall be centrally housed in a single easily accessible, sealed, and weatherproof locker.

27.2 Systems Locker will have an internal LED light for visibility and a recessed garage style door.

27.3 Each system shall be equipped with L.E.D. status indicators on all solenoids for fast, easy diagnostics.

27.4 Test ports shall be provided for each system.

27.5 All electrical wiring shall be contained within flame retardant conduit.

27.6 All wiring shall be color coded and numbered for easy troubleshooting.

27.7 All internal wiring shall conform to an IP65 standard, to insure protection against dust and sprayed water intrusion.

27.8 All external wiring shall conform to an IP67 standard, to insure protection against migration of dust and immersion into water.

27.9 Can-Bus Control System to provide easy fault diagnostics and data capture of daily and cumulative sweeping performance, such as fuel consumption, average RPM, engine hours and hours to next service.

28. Safety

28.1 Two (2) rear LED Strobes with limb guards shall be supplied.

28.2 A back up alarm of not less than 107 dB(A) shall be installed and shall sound when reverse gear is selected.

28.3 A "two footed" access ladder with 3 points of contact with sure grip treads shall be installed for the purpose of gaining safe access to auxiliary engine compartment.

28.4 Automatic pickup in reverse gear of all sweeping equipment shall be supplied.

28.5 A pre-programmed single master override sweep switch shall control all sweep gear. The sweeping gear shall raise and the water shall shut off when switch is moved out of "work" position. All functions shall resume their previously programmed settings when the switch is returned to "work" position.

29. Paint

YES / NO

29.1 Sweeper components are to be aluminum oxide bead prior to the application of a corrosion resistant primer (60 micron nominal). The gloss top coat is to be two part epoxy paint finish, standard white (60 micron nominal).

29.2 All sweep gear and bracketry are to be hot washed, zinc phosphate and power painted dark grey for maximum protection in a sweeping environment.

30. Warranty

30.1 The sweeper auxiliary engine shall carry a two (2) year warranty, 100% parts and labor minimum. Include warranty statement with your bids.

30.2 Warranty repairs to include all parts and labor, 100% coverage, no pro-rating.

30.3 Sweeper components other than wear items shall carry a standard two-year warranty.

30.4 Hopper warranty shall be for life as per section 18.1 of bid specifications.

30.5 Blower drive warranty shall be five (5) years as per section 19.9 of bid specifications.

30.6 Water tank warranty shall be for life as per Section 25.1 of bid specifications.

31. Manuals

The following documentation shall be supplied upon delivery of unit:

31.1 Sweeper:
1-Driver/ Operator Guide, 1 parts list, 1 service/ maintenance manual and 1 troubleshooting manual

31.2 Truck Chassis:
1-Owner/ Operator's Guide.

31.3 Transmission:
1-Driver's Handbook.

31.4 Sweeper Engine:
1-User's Handbook.

32. <u>Required Options</u>	<u>YES / NO</u>
32.1 Gutter broom pneumatic tilt.	_____
32.2 Pneumatic gutter broom lateral control.	_____
32.3 Gutter broom extension kits.	_____
32.4 Simultaneous sweep allowing both gutter brooms and intakes to be used at the same time for a wider sweep path.	_____
32.5 Bonded intake ducts, tubes, and wear plates. (Provide as option price).	_____
32.6 Stainless hopper screens.	_____
32.7 Pneumatic hopper screen vibrator.	_____
32.8 Hopper flush out system. (Provide as option price): _____	_____
32.9 Supa Wash 8 GPM, 1500 PSI hand lance for high pressure cleaning. Includes a 50' hose and auto reel for storage.	_____
32.10 Top mounted Power Boom for catch basin cleaning. The basin cleaner shall include one six-foot extension, one four foot crown, and a rear door rack and hopper side compartments for storage.	_____
32.11 Provide an option price for extra six-foot and four foot extension. (Option price for six-foot extension): _____ (Option Price for four-foot extension): _____	_____ _____

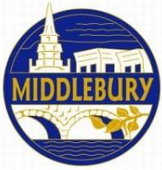
BIDS SHALL INCLUDE:

- Manufacturers catalogs, operating manuals and specifications
- Detailed warranty coverages
- Build time and delivery schedule from date of order
- **Trade-in value for model year 1999 Johnson 3000SP Street Sweeper (viewable by appointment at 1020 US Route 7 South)**

The 1999 Street Sweeper will not be available for trade-in until new sweeper is delivered.

Bids are due on _____ and must be in a sealed envelope, clearly marked "Commercial Grade Vacuum Street Sweeper, Bid # 20200413-1".

Bid will be awarded following review by committee and approval by Selectboard. Pricing for Any Submitted Bid Must Be Guaranteed for 90 days from bid opening.



TOWN OF MIDDLEBURY

77 MAIN STREET, MIDDLEBURY, VT 05753

BID FORM

COMMERCIAL GRADE VACUUM STREET SWEEPER Bid Number # 20200413-1 APRIL 2020

By submitting this proposal, the supplier agrees to furnish all equipment and appurtenances to comply and conform to these documents unless specifically noted otherwise above.

The individual signing this proposal represents that he or she (as applicable) has the authority to bind the entity named herein as the Supplier to the bid price listed below, has inspected any trade-in equipment and agrees to supply said new equipment for the following Lump Sum Bid Price.

The supplier understands that the Town of Middlebury, Vermont reserves the right to waive any informalities in, or reject any and all bids, to make a partial bid award, or accept any bid deemed to be in the best interest of the Town of Middlebury.

Submitted by: _____ Title: _____

Signature: _____

Supplier: _____ Phone: _____

Address: _____

COMMERCIAL GRADE VACUUM STREET SWEEPER:

Make: _____ List Price (w/o Options) \$ _____

Model: _____ Less Trade \$ _____

Year: _____ Net Bid Price \$ _____