

Borough of Highlands

VACUUM STREET SWEEPER WITH BROOM ASSIST

Note: Complete and submit only the loose (unbound) copy of this Proposal.

PROPOSAL

BY

BIDDER'S NAME: _____

BIDDER'S ADDRESS: _____

TELEPHONE NO. _____ **FAX NUMBER** _____

E-MAIL ADDRESS (optional) _____

FEDERAL TAX I.D. NO. _____
(SS NUMBER FOR SOLE PROPRIETOR)

TO

OWNER'S NAME: **Borough of Highlands**
OWNER'S ADDRESS **42 Shore Drive Highlands NJ 07732**

FOR

PROJECT NAME: **VACUUM STREET SWEEPER WITH BROOM ASSIST _**

The UNDERSIGNED, as BIDDER, declares 1) that the only persons or parties interested in this proposal as principals are named herein; 2) that this proposal is in all respects fair and without collusion or fraud; 3) that no officer or employee of the OWNER is directly or indirectly interested in this bid or the work of this contract or in any portions of the profits thereof; 4) that the BIDDER has carefully examined and accepts the proposed Forms of Contracts and the Information for Bidders, Notice to Contractors, General Conditions, and Specifications Special Provisions; 5) that the BIDDER or a representative has made an inspection of the site and is familiar with the proposed work; 6) and that the BIDDER proposes and agrees that if this proposal is accepted, the BIDDER will contract with the above-named OWNER, in the form of contract hereto annexed, to provide the necessary machinery, tools, apparatus, and other means of construction, and to furnish all the materials, equipment and labor specified in the contract in the manner and time therein specified, according to the requirements of the Engineer as therein set forth, and 7) that the BIDDER will take in full payment therefor the prices set forth in this Proposal.

(Pursuant to NJSA 40A:11 – 23.2)

The undersigned BIDDER declares that the required documents, as noted below, have been completed, reviewed and/or executed by the BIDDER and are submitted as part of this proposal.

<u>DOCUMENT REQUIRED</u>	<u>DESCRIPTION OF DOCUMENT</u>	<u>BIDDER'S INITIALS</u>
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Failure to submit any of the following documents marked with an “x” with the Proposal will mandate rejection of the bid.

<input type="checkbox"/>	Notice, Revision or Addenda Receipt Acknowledgement Form	_____
<input checked="" type="checkbox"/>	Form of Proposal, completed & signed by appropriate authorized representatives of BIDDER.	_____
<input checked="" type="checkbox"/>	Appropriately completed specification sheet	_____
<input checked="" type="checkbox"/>	A Statement (disclosure) of Ownership pursuant to NJSA 52:25-24.2.	_____
<input type="checkbox"/>	A Bid Guarantee (bid bond or equivalent) pursuant to NJSA 40A:11-21.	_____
<input type="checkbox"/>	A surety company certificate (Consent of Surety) pursuant to NJSA 40A:11-22.	_____
<input checked="" type="checkbox"/>	A Listing of Subcontractors pursuant to NJSA 40A:11-16.	_____
<input type="checkbox"/>	A copy of each listed Subcontractor’s Certificate of Registration pursuant To NJSA 52:32-44 et. Seq. (Contractor Business Registration Act)	_____

Failure to submit any of the following documents with the Proposal will be cause for rejection of the bid unless waived by the OWNER (IB.11), subject to the standard of materiality established by Township of River Vale v. R.J. Longo Construction Co., 127 N.J. Super. 207, 216 (Law Div. 1974).

<input checked="" type="checkbox"/>	A Non-Collusion Affidavit.	_____
<input type="checkbox"/>	Evidence of Registration for the bidder pursuant to NJSA 34:11-56.48, et seq. (Public Works Contractor’s Registration Act)	_____
<input type="checkbox"/>	Bidder’s Buy American Certification pursuant to the American Recovery and Reinvestment Act of 2009.	_____
<input type="checkbox"/>	A Statement of Experience & Qualifications on the forms provided.	_____
<input checked="" type="checkbox"/>	Disclosure of Investment Activities in Iran	_____
<input type="checkbox"/>	Affirmative Action	_____
<input checked="" type="checkbox"/>	N.J. Business Registration Certificate	_____

NOTICE, REVISION OR ADDENDA
RECEIPT ACKNOWLEDGEMENT FORM
(Pursuant To Public Law 1999, Chapter 39)

Bidder's
Initials

[] No revisions and/or Addenda were received.

The BIDDER acknowledges receipt of the below listed revisions and/or addenda:

<u>Notice, Revision or Addendum No.</u>	<u>Date</u>	<u>Title or Description</u>	<u>Bidder's Initials</u>
_____	<u> / /</u>	_____	_____

_____	<u> / /</u>	_____	_____

_____	<u> / /</u>	_____	_____

_____	<u> / /</u>	_____	_____

CONSENT OF SURETY

In consideration of the premises and of one Dollar (\$1.00), lawful money of the United States, it is in hand paid by the CONTRACTOR, the receipt whereof is hereby acknowledged, the undersigned surety consents and agrees that if the contract, for which the preceding estimate and proposal is made, be awarded to the person or persons submitting the same as contracted, it will become bound as surety and guarantor for its faithful performance, in an amount equal to one hundred percent (100%) of the contract price, and will execute it as party of the third part thereto when required to do so by the OWNER, and if the said CONTRACTOR shall omit or refuse to execute such contract, if so awarded, it will pay without proof of notice and on demand to the OWNER any increase between the sum to which the said CONTRACTOR would have been entitled upon the completion of the said contract and the sum which the said OWNER may be obligated to pay to another contractor to whom the contract may be afterwards awarded, the amount in such case to be determined by the bids plus the cost, if any, of re-advertising for bids for this work, less the amount of any certified check or bid bond payable and received.

In witness whereof, said surety has caused these presents to be signed and attested by a duly authorized officer and its corporate seal to be hereto affixed this _____ day _____ of 20__.

(A corporate acknowledgement and statement of authority to be here attached by the surety company).

(Surety Company)

BY: _____
Surety Company
Attorney-in-Fact

Attest:

(Surety may substitute a similar statement subject to the OWNER'S approval).

DISCLOSURE OF OWNERSHIP

(If bidder is a Sole Proprietorship check here () and do not complete this statement)

The UNDERSIGNED, as bidder, in accordance with N.J.S.A. 52:25-24.2 (P.L. 1977, Chapter 33), declares and submits this Statement of Ownership.

Bidder is a Corporation () Partnership () Joint Venture ()

These are all shareholders or partners owning 10% or more of the stock or interest in the bidding corporation or partnership.

<u>Full Name of Individual (Stockholder)(Partner)</u>	<u>Address of Individual (Stockholder)(Partner)</u>	<u>Share(%) Owned</u>
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____

Portion owned by minority owners (less than 10%) not listed _____

TOTAL 100%

Print or Type Name and Title of Affiant
Authorized Representative of Bidder

Subscribed and Sworn Before
Me this _____ day of _____, 2_____.

Signature of Affiant

(Notary Public)

(Corporate Seal)
If Applicable

My Commission Expires:

- Notes:
1. Attach additional sheets in this format, if necessary.
 2. The terms Corporation and Partnership encompass all forms, including, but not limited to Limited Partnerships, Limited Liability Corporations or Partnerships and Subchapter S Corporations.
 3. If a corporation or partnership is shown as a greater than 10% owner, attach similar breakdown of (“its”) individual owners.
 4. For a Joint Venture, provide a Disclosure in this format for each participant.

LIST OF SUBCONTRACTORS

In accordance with NJSA 40A:11-16, the bidder will set forth below the names, addresses and, if applicable, license numbers of the subcontractors to whom the bidder will subcontract work in the categories listed in connection with the erection, alteration or repair of any public building and the related site work.

WORK

SUBCONTRACTOR

If the "Document Required" box is checked on the Proposal Submission Checklist for the item "Evidence of Registration....," evidence of registration pursuant to NJSA 34:11-56.48 et seq., for all subcontractors listed must be submitted prior to award of a Contract.

NOTE: If the BIDDER will not subcontract the work described in any category above but will complete it as prime contractor, it is not necessary to name a subcontractor. In such case, the BIDDER should insert "prime contractor" in the subcontractor name space. If more than one subcontractor will be utilized in any category, attach a certificate signed by the BIDDER listing each subcontractor named in the bid for that category. The certificate shall set forth the scope of work for which the subcontractor has submitted a price quote and which the BIDDER has agreed to award to each subcontractor should the BIDDER be awarded the contract. The certificate shall be submitted to the contracting unit simultaneously with the list of the subcontractors (attached to the Proposal). The certificate may take the form of a single certificate listing all subcontractors or, alternatively, a separate certificate may be submitted for each subcontractor.

Each of the above subcontractors shall be qualified in accordance with 40A:11-1 et seq. The OWNER shall require evidence of performance security to be submitted with this proposal. Evidence of performance security may be supplied by the BIDDER on behalf of the BIDDER and any or all subcontractors, or by each respective subcontractor, or by any combination thereof which results in evidence of performance security equaling, but in no event exceeding, the total amount bid. If separate evidence of performance security will be submitted by any subcontractor, the bid shall be accompanied by a separate certificate from a surety company in accordance with NJSA 40A:11-22.

BIDDERS CERTIFICATION

Accompanying this Proposal is a Consent of Surety and a Bid Guarantee, in the form of a Bid Bond (), or a Certified or Cashier's Check (), payable to the order of the _____ in the sum of _____ Dollars \$ _____ which the undersigned agrees is to be forfeited as liquidated damages, and not as a penalty, if the Contract is awarded to the undersigned and the undersigned shall fail to execute the Contract or furnish the Bond required within the stipulated time, otherwise, the Bid Guarantee will be returned to the undersigned.

The undersigned is an _____ corporation
individual under the
partnership

Laws of the State of _____ having principal offices at _____

Trade Name of Bidder _____

1. Signed By _____
Signature _____
Title _____

2. Signed By _____
Signature _____
Title _____

3. Signed By _____
Signature _____
Title _____

Signed this _____ day of _____, 20____

ATTEST:

(SEAL)

NOTE: This proposal may only be signed by:

1. If a Partnership, all General Partners.
2. If a Corporation, the President and at least one other officer.
3. If a Sole Proprietorship, the Proprietor.
4. An authorized agent of the Bidder. In this case evidence that the agent is authorized to bind the Bidder, in the form of a Power-of-Attorney or equivalent document, for the Partnership, Corporation or Sole Proprietorship must accompany the Bid.

Attach additional signature sheets in similar form, if necessary.

DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN

Quote Number: _____

Bidder/ Offeror: _____

PART 1: CERTIFICATION

BIDDERS MUST COMPLETE PART 1 BY CHECKING EITHER BOX.

FAILURE TO CHECK ONE OF THE BOXES WILL RENDER THE PROPOSAL NON-RESPONSIVE.

Pursuant to Public Law 2012, c. 25, any person or entity that submits a bid or proposal or otherwise proposes to enter into or renew a contract must complete the certification below to attest, under penalty of perjury, that neither the person or entity, nor any of its parents, subsidiaries, or affiliates, is identified on the Department of Treasury's Chapter 25 list as a person or entity engaging in investment activities in Iran. The Chapter 25 list is found on the Division's website at http://www.state.nj.us/treasury/purchase/pdf/Chapter25List.pdf. Bidders must review this list prior to completing the below certification. Failure to complete the certification will render a bidder's proposal non-responsive. If the Director finds a person or entity to be in violation of law, s/he shall take action as may be appropriate and provided by law, rule or contract, including but not limited to, imposing sanctions, seeking compliance, recovering damages, declaring the party in default and seeking debarment or suspension of the party

PLEASE CHECK THE APPROPRIATE BOX:

I certify, pursuant to Public Law 2012, c. 25, that neither the bidder listed above nor any of the bidder's parents, subsidiaries, or affiliates is listed on the N.J. Department of the Treasury's list of entities determined to be engaged in prohibited activities in Iran pursuant to P.L. 2012, c. 25 ("Chapter 25 List"). I further certify that I am the person listed above, or I am an officer or representative of the entity listed above and am authorized to make this certification on its behalf. I will skip Part 2 and sign and complete the Certification below.

OR

I am unable to certify as above because the bidder and/or one or more of its parents, subsidiaries, or affiliates is listed on the Department's Chapter 25 list. I will provide a detailed, accurate and precise description of the activities in Part 2 below and sign and complete the Certification below. Failure to provide such will result in the proposal being rendered as non-responsive and appropriate penalties, fines and/or sanctions will be assessed as provided by law.

PART 2: PLEASE PROVIDE FURTHER INFORMATION RELATED TO INVESTMENT ACTIVITIES IN IRAN

You must provide a detailed, accurate and precise description of the activities of the bidding person/entity, or one of its parents, subsidiaries or affiliates, engaging in the investment activities in Iran outlined above by completing the boxes below.

EACH BOX WILL PROMPT YOU TO PROVIDE INFORMATION RELATIVE TO THE ABOVE QUESTIONS. PLEASE PROVIDE THOROUGH ANSWERS TO EACH QUESTION. IF YOU NEED TO MAKE ADDITIONAL ENTRIES, CLICK THE "ADD AN ADDITIONAL ACTIVITIES ENTRY" BUTTON.

Name _____	Relationship to Bidder/Offeror _____
Description of Activities _____	
Duration of Engagement _____	Anticipated Cessation Date _____
Bidder/Offeror Contact Name _____	Contact Phone Number _____

ADD AN ADDITIONAL ACTIVITIES ENTRY

Certification: I, being duly sworn upon my oath, hereby represent and state that the foregoing information and any attachments thereto to the best of my knowledge are true and complete. I attest that I am authorized to execute this certification on behalf of the above-referenced person or entity. I acknowledge that the State of New Jersey is relying on the information contained herein and thereby acknowledge that I am under a continuing obligation from the date of this certification through the completion of any contracts with the State to notify the State in writing of any changes to the answers of information contained herein. I acknowledge that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I recognize that I am subject to criminal prosecution under the law and that it will also constitute a material breach of my agreement(s) with the State of New Jersey and that the State at its option may declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print): _____ Signature: _____

Title: _____ Date: _____

BOROUGH OF HIGHLANDS MONMOUTH COUNTY, NEW JERSEY

**TECHNICAL SPECIFICATIONS
FOR
PURE VACUUM STREET SWEEPER WITH BROOM ASSIST**

Section B - Sweeper Module

COMPLY
Yes No

1.0 INTENT

It is the intent of this specification to provide for the purchase of one (1) new and unused 2014 vacuum street sweeper having a six wheeled, cab-over truck chassis with automatic transmission, dual diesel engines, sweeper controls and switches, .8 cubic yard hopper, 335 gallon total water capacity and Dual side brooms with variable down pressure controlled from the cab.

The following specification is based upon an ELGIN Whirlwind street sweeper. The public works department has evaluated different types of street sweepers and has determined that this product is best suited for the Borough needs in safety, quality, performance, and standardization. This specification is not to be interpreted as restrictive, but rather as a measure of the safety, quality and performance against which all sweepers bid will be compared.

The Borough of Highlands reserves the right to reject any or all bids or any part thereof, and to waive any minor technicalities. A contract will be awarded to the bidder submitting The lowest responsible bid meeting the requirements of this specification.

COMPLY
Yes No

2.0 EQUIVALENT PRODUCT

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 Borough of Highlands. 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

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 Clerk.

COMPLY
Yes No

4.0 GENERAL

The specification herein states the minimum requirements of the Borough. All bids must be regular in every respect. Unauthorized conditions, limitations, or provisions shall be cause for rejection. The Borough 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 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
Yes No

5.0 SWEEPER ENGINE TIERIII CERTIFIED

- 5.1 Diesel engine shall be 4 cylinders, turbocharged, dynamically counter balanced 276 Cubic Inch Displacement (John Deere 4045TF150 or equal).
- 5.2 Horsepower rating shall be 115 HP (86 kW) @ 2500 RPM, torque 291 lb-ft @1400 RPM.(When placed in reverse engine will idle down / than resume to rpm set)
- 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 drive the blower fan by a heavy-duty five (5) "V" groove power belt, without the use of a step-up auxiliary gearbox. The power belt will provide ease of maintenance and is more cost effective than using a step-up auxiliary gearbox.

- | | | | |
|-----|---|-------|-------|
| 5.7 | The cooling system shall be protected to -34degrees F. | _____ | _____ |
| 5.8 | A fluid coupler shall be installed between the auxiliary engine and the power belt drive, which allows for smooth starting and stopping of the engine, while preventing the momentum of the fan system from driving the engine when the engine is turned off. | _____ | _____ |

6.0 BLOWER

COMPLY
Yes No

- | | | | |
|-----|---|-------|-------|
| 6.1 | The blower shall be rated at not less than 20,000 CFM. The fan shall be rated by an independent test facility. | _____ | _____ |
| 6.2 | The blower shall be driven by a five (5) "V" groove power belt for maximum performance and simplicity of construction, with tension adjustment not requiring repositioning of the engine. | _____ | _____ |
| 6.3 | The blower shall be a turbine type, with 9 vanes, 31 3/8 in. diameter constructed of abrasion resistant steel and fully balanced for longevity of fan and bearing life. A die-cast aluminum alloy or steel open face blower covered with rubber or not, will not be acceptable. | _____ | _____ |
| 6.4 | 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. | _____ | _____ |
| 6.5 | The blower housing shall have an inspection door for quick inspections without removing the blower housing or looking into the air exhaust opening. Access to this inspection door must be possible without tilting the hopper. | _____ | _____ |
| 6.6 | The blower housing shall not be an integral part of the hopper. Replacement of the blower housing must not require any cutting and welding of the housing and or hopper. | _____ | _____ |
| 6.7 | The blower shall be mounted on heavy-duty regreasable bearings, capable of being greased from ground level. Greasing of the bearings must be possible without tilting the hopper. | _____ | _____ |

7.0 SUCTION NOZZLES AND HOSE

COMPLY
Yes No

- | | | | |
|-----|---|-------|-------|
| 7.1 | The suction nozzles pick-up area shall be not less than 174 sq./in. with suction nozzle width a minimum of 30 inches | _____ | _____ |
| 7.2 | The 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. | _____ | _____ |
| 7.3 | The entire suction hose quick disconnect section and hose transition piece into the suction hose gate valves must be of a bolt-on design for easy maintenance and service. | _____ | _____ |

- | | | | |
|------|---|---|-------|
| 7.4 | 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. | _____ | _____ |
| 7.5 | The suction hose shall be not less than 11 inches in inside diameter to allow for larger objects and large quantities of debris to enter the suction hose. | _____ | _____ |
| 7.6 | The nozzles shall extend 15 inches beyond the wheel track for increased performance closer to the curb and better visibility of the nozzle from the cab. The nozzles shall have a replaceable wear edge for running against the curb. | _____ | _____ |
| 7.7 | An integral automatic "jackknife style" gate valve shall be bolted on the top of the suction hose where the material enters the hopper. The gate valve is automatically activated with the suction nozzle activation and prevents material from dropping back down the nozzle tubes when the vacuum is stopped. The gate valve also prevents material/debris from being dropped into the suction nozzle when the sweeper is travelling. | _____ | _____ |
| 7.8 | The jackknife style gate valve is of such a design that it cleans itself from debris. It is operated by a heavy-duty air cylinder that activates the gate valve. This cylinder shall be similar to other air cylinders used in the air system of the sweeper for interchangeability of parts and easy service. | _____ | _____ |
| 7.9 | The suction nozzle shall ride on tow heavy-duty caster wheels. These caster wheels shall be of a pivoting design. This allows the nozzle to move sideways, better staying in the path of debris and following road contours, as well as improving service life. Non-pivoting caster wheels are not allowed as they have a reduced service life. | _____ | _____ |
| 7.10 | The suction nozzle shall be equipped with a front mounted shutter. This shutter allows easy entry of large objects and large quantities of leaves. The shutter must be replaceable as a separate part, rather than replacing the entire suction nozzle. Suction nozzles that pivot in the back creating a shutter opening in the front, or suction nozzles that have no shutter as part of their design shall not be allowed. | _____ | _____ |
| 7.11 | Sweep path: | Nozzle only = 30 inches | _____ |
| | | Side broom and nozzle = 49 inches | _____ |
| | | Extension broom and nozzle and side broom = 78-96 inches | _____ |
| | | Dual Side brooms, extension broom and nozzles = 95-120 inches | _____ |
| 7.12 | A front mounted spray bar will be installed. | - | - |
| 7.13 | Cab controlled dumping will be provided. | _____ | _____ |
| 7.14 | Dual shutter door shall be supplied on right side nozzle for easy entry of light bulky items that would not normally force open the standard shutter door. | _____ | _____ |

8.0 SIDE BROOMS

COMPLY
Yes No

- | | | | |
|-----|---|-------|-------|
| 8.1 | The side brooms shall be a free floating trailing arm design with inward motion | _____ | _____ |
|-----|---|-------|-------|

safety to prevent damage when sweeping and encountering a fixed obstacle. The trailing arm shall be of a parallelogram design for simple, non-binding action/motion and for constant bristle and wear pattern.

- 8.2 The side brooms shall be 36-inch diameter minimum, with hydraulically driven rotation. _____
- 8.3 The side brooms shall be pneumatically raised, lowered and suspended by heavy duty pneumatic cylinders that are common with other pneumatic cylinders on the sweeper for ease of service and maintenance. _____
- 8.4 Adjustable down pressure shall be pneumatically controlled by the operator from the cab. Tilting of the 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. _____
- 8.5 The broom hydraulic motor drive shall provide not less than 4500 in/lbs. of torque for superior digging power. _____
- 8.6 The side broom assemblies shall have greaseless pivot pins for ease of maintenance. _____
- 8.7 The side broom assemblies shall be supported in the storage position by a transport hook. _____
- 8.8 Each side broom shall be controlled from in the cab by simple rocker switches. _____
- 8.9 To prevent exposure to accidental laceration by the bristle tips, side brooms shall retract with wire bristle tips unexposed. No exception will be allowed to this safety requirement. _____

- 9.0 **Extension Broom** _____
- 9.1 The extension broom shall be 54 inches long, 16 inches in diameter, disposable and reversible. _____
- 9.2 The extension broom shall be hydraulically driven (with relief valve), pneumatically raised, lowered and suspended. _____
- 9.3 The extension broom shall operate at an 18-degree windrow angle minimum for quicker sideways movement of debris. The broom can pivot for left hand side or right hand side sweeping and is activated by a heavy duty cylinder that is common with other pneumatic cylinders on the sweeper for ease of service and maintenance. _____
- 9.4 The extension broom hydraulic motor drive shall provide not less than 4,500 in/lbs. of torque for superior digging power. _____
- 9.5 Suspension shall be pneumatic lift with in-cab variable down pressure control for maximum digging power and wear control. _____
- 9.6 _____

- | | | | |
|-----|--|-------|-------|
| 9.7 | The extension broom shall have a greaseless pivot pin. | _____ | _____ |
| | The extension 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. | _____ | _____ |
| 9.8 | A broom cover shall be provided. | _____ | _____ |

<u>10.0 HOPPER (LIFE LAST COATED)</u>		COMPLY	
		<u>Yes</u>	<u>No</u>
10.1	Volumetric capacity shall be 10 cubic yards minimum.	_____	_____
10.2	Hopper shall be constructed of 10 gauge steel sides, and ¼ in. floor.	_____	_____
10.3	A weight actuated full load indicator shall be mounted in the cab on the control panel.	_____	_____
10.4	The hopper tilt angle when dumping shall be a minimum of 50°. Dumping shall be accomplished by tilting the hopper via a two-stage telescopic cylinder. The use of multiple cylinders for tilting the hopper shall not be acceptable. The use of a moving raker bar which is attached to the rear door inside the hopper in lieu of tipping the hopper for dumping shall not be acceptable.	_____	_____
10.5	The hopper floor angle shall be a minimum of 10° .	_____	_____
10.6	A removable, replaceable and adjustable, abrasion resistant "scoop" style steel deflector shall be located at each suction inlet. This deflector is to direct material to the center of the hopper for optimal loading conditions.	_____	_____
10.7	The hopper rear door shall be hinged at the top of the door and opened by means of a hydraulic cylinder. The hopper rear door should open at a minimum angle of 90° to be perpendicular to the hopper opening for maximum dumping action. The city has evaluated many styles and considers this design to be the most effective for dumping and cleaning. No exceptions to this requirement will be acceptable.	_____	_____
10.8	Hydraulic cylinder movement shall be controlled by the use of electric push button on the right-hand side of the hopper to view discharging of debris out of the hopper during dumping for maximum safety.	_____	_____
10.9	For maximum operator safety the rear hopper door shall have an internal door prop. No exception to this safety requirement shall be accepted.	_____	_____
10.10	The hopper rear door shall include an automatic lock mechanism for a tight fit and optimal sealing between the hopper and the rear door.	_____	_____
10.11	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.	_____	_____
10.12	Two 34½" x 43½" screens, for a total screen area of 3000 square inches, of not <u>Stainless steel</u> shall be installed to allow air to move freely from the hopper into the blower area. The hopper screens shall be hinged and pinned to allow easy clean out.	_____	_____

- | | | | |
|-------|--|-------|-------|
| 10.13 | The front section of the hopper must cover the auxiliary engine, and must be constructed of heavy fiberglass. This fiberglass consists of a roof section and two fiberglass side doors that allow access to many serviceable items for ease of maintenance. All these items must be accessible without tilting the hopper. | _____ | _____ |
| 10.14 | The hopper shall cover the main water tank of the water system and will provide easy access to the water system components. Water tanks that are an integrated part of the hopper shall not be allowed. | | |
| 10.15 | When raising the hopper the water tank shall not raise with the hopper. The water tank shall be mounted to the sweeper frame and shall be removable for service. Not raising the water tank when raising the hopper puts less strain on the dump system. | | |
| 10.16 | The hopper shall have hopper cut-outs at each side of the hopper. These cut-outs provide easy access to the quick disconnect section on the suction nozzle and allow the suction hose and nozzle to have side-way movement for establishing more suction power at the curb | _____ | _____ |
| 10.17 | In addition to the standard outside controls for dumping, in-cab hopper dump controls shall be provided. | _____ | _____ |
| 10.18 | For protection against corrosion and to improve the dumping of the debris, the hopper shall be sprayed with a tough, abrasion resistant <u>Life Last</u> polyurethane coating OR EQUAL. | _____ | _____ |
| 10.19 | A zinc primer shall first be applied onto all exterior surfaces of the hopper then baked. | _____ | _____ |
| 10.20 | After the zinc rich primer has been baked on, a thick coat of polyester powder shall be baked for a second time. | _____ | _____ |

11.0 SPRAY WATER SYSTEM

COMPLY
Yes No

- | | | | |
|------|---|-------|-------|
| 11.1 | The water tanks shall be removable for service and shall have a total capacity of minimum 335 gallons , and to be constructed of rust proof polyethylene. | _____ | _____ |
| 11.2 | The water tanks shall be frame mounted with no part sharing any common wall with the hopper and shall not rise during hopper dumping. | _____ | _____ |
| 11.3 | Two electric 12 volt water pumps, diaphragm type provide minimum 4 GPM @ 40 PSI each to the suction nozzle, the side broom and the extension broom. Belt driven pumps are not acceptable. | _____ | _____ |
| 11.4 | One water pump is fully dedicated to supplying water to the RH suction nozzle, RH side broom and extension broom for optimal dust control. | _____ | _____ |
| 11.5 | The water pumps can be selectively controlled from the cab to adjust to the sweeping conditions. | _____ | _____ |

- | | | | |
|-------|--|-------|-------|
| 11.6 | A 16 ft. 8 inch fill hose with NST coupling and anti-siphon connector with strainer shall be supplied. | _____ | _____ |
| 11.7 | A water level gauge shall be provided on the control console within the cab. | _____ | _____ |
| 11.8 | Minimum two (2) water spray nozzles are located at each side broom for optimal dust control. | _____ | _____ |
| 11.9 | Minimum seven (7) removable water spray nozzles are located inside the suction nozzle. Water spray nozzles that spray on the outside of the nozzle are not acceptable. | _____ | _____ |
| 11.10 | The water filter, located near the water pumps must be easy to access and clean without tilting the hopper. A ball valve must be provided to allow cleaning of the filter without the loss of water from the water tanks. | _____ | _____ |
| 11.11 | All water piping shall be external to the operator cab. For safety, no water lines capable of leaking or bursting shall be within the cab. | _____ | _____ |
| 11.12 | The extension broom is supplied with four minimum (4) rubber mounted, quick disconnect spray nozzles for easy cleaning and maintenance. Non rubber mounted and non quick disconnect water nozzles are not acceptable. | _____ | _____ |
| 11.13 | All water lines shall be color-coded green for easy identification. Pressure water lines shall be Nylon PFT line for maximum life. All suction and fill water hose is a synthetic rubber braid reinforced hose for maximum life. Any other materials are not acceptable. | _____ | _____ |
| 11.14 | All water connections are either Prestomatic push to lock or Push Lock fittings for easy assembly and maintenance and long life. | _____ | _____ |
| 11.15 | A 2 ½" anti-siphon air gap shall be supplied on the water tank fill to prevent contamination of supply water. | _____ | _____ |
| 11.16 | One rear top mounted federal signal strobes | _____ | _____ |
| 11.17 | A quick coupling for the water fill hose in lieu of threaded on the water fill hose shall be supplied. | _____ | _____ |

12.0 HYDRAULIC SYSTEM

COMPLY
Yes No

- | | | | |
|------|---|-------|-------|
| 12.1 | Tandem hydraulic pumps shall be a direct gear pump for maintenance free operation, having a flow capacity of minimum 7.7 GPM @ 2500 RPM each. A hydraulic oil cooler to be provided | _____ | _____ |
| 12.2 | Reservoir capacity shall be not less than 23 gallons and have an exterior sight gauge. The reservoir must be located in the enclosed auxiliary engine compartment for quick inspections without tilting the hopper. | _____ | _____ |
| 12.3 | All hydraulic circuits shall have quick disconnect pressure check ports for ease of maintenance. | _____ | _____ |
| 12.4 | To minimize the hazards of potential leakage, all high pressure fittings shall be "O" | _____ | _____ |

ring face seal (OFS) on hose ends or "O" ring boss on hydraulic ports. Other systems shall not be acceptable.

12.5 There shall be a 10 micron spin-on hydraulic filter. Exchange of the filter must be possible without tilting the hopper. _____

12.6 To further reduce the chance of hydraulic system contamination and joint leakage use of standard pipe threads requiring pipe dope shall not be acceptable. _____

COMPLY
Yes No

13.0 PNEUMATIC SYSTEM

13.1 The pneumatic system shall have DOT push to lock fittings for ease of maintenance and service. Any other fittings are not acceptable _____

13.2 There shall be a PR4 type pressure protector for the chassis air system to protect the chassis air system at air pressures below 85 PSI. _____

13.3 A separate air tank for all sweeper air components shall be provided. _____

13.4 All pneumatic cylinders shall be interchangeable for ease of maintenance and commonality of parts. _____

13.5 All pneumatic cylinders must be rated to 250 PSI and have separate rod seal and wiper to prevent contamination entering the cylinder. _____

13.6 Each cylinder shall be controlled by a single, two position solenoid valve mounted on a manifold with common input and exhaust. A manual override shall be provided on each solenoid valve for trouble shooting and function lockout. _____

13.7 There shall be a filter with polycarbonate bowl to filter out contaminants down to 5 microns to prevent contamination in the air system. _____

13.8 All air lines should be color-coded and function stamped for ease of maintenance. Non color coded lines are not acceptable. _____

COMPLY
Yes No

14.0 ELECTRICAL SYSTEM(LED)

14.1 Sweeper electrical system shall be independent from the electrical system of the chassis. _____

14.2 Sweeper engine shall have one (1) 925 CCA, 12 volt battery. _____

14.3 Sweeper engine shall have a minimum 105 amp alternator. _____

14.4 Sweeper shall have an electronic back-up alarm for additional warning and safety when chassis is in reverse. _____

14.5 Sweeper lighting shall include rear identification lights, side broom and rear clearance lights. _____

14.6 Sweeper warning lights shall include hopper up, hopper full load and hopper rear door open. _____

14.7 Sweeper wiring harnesses shall be color-coded and hot stamped with appropriate word designation labeled every four inches, i.e. "Ignition", "Side Broom" on each _____

wire.

14.8 For safety, manual reset circuit breakers or fuses shall protect all electrical circuits.

___ ___

COMPLY
Yes No

15.0 CONTROLS

15.1 All sweeper controls shall be mounted on a central terminal for use from either right or left positions. This allows the operator to view all important auxiliary engine information from either operating position.

___ ___

15.2 The controls shall include all sweep, spray water, and lighting functions.

___ ___

15.3 The controls for sweep, spray water, and lighting functions shall be conventional rocker switches.

___ ___

15.4 Controls for auxiliary engine ignition and throttle, side broom down pressure and manual reset circuit breakers shall be located on the control console.

___ ___

15.5 The control console shall have a quick release access cover that can be fully hinged over a pivoting hinge

___ ___

15.6 The control console shall have integrated cup holders

___ ___

COMPLY
Yes No

16.0 INSTRUMENTS

16.1 Sweeper engine instruments shall include tachometer, hour meter, oil pressure, fuel, voltage, and coolant temperature for complete information for the operator on the condition of the auxiliary engine.

___ ___

16.2 Sweeper engine instruments shall include an auxiliary engine air intake restriction indicator for ease of maintenance, a rear door "open" indicator, a "raised" hopper indicator and a "full" hopper indicator to notify the operator of hopper and hopper rear door conditions.

___ ___

16.3 Shall be equipped with a rear throttle control.

COMPLY
Yes No

17.0 PAINT

17.1 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.

___ ___

17.2 Color shall be industrial white or red

___ ___

COMPLY
Yes No

18.0 MANUALS

18.1 An operation manual and dvd shall be provided.

___ ___

18.2 A parts and service manual and dvd shall be provided.

___ ___

19.0 WARRANTY

COMPLY

	<u>Yes</u>	<u>No</u>
19.1	Manufacturer's warranty shall be not less than one (1) year on entire sweeper, including all parts and labor. This is to be considered a bumper to bumper warranty.	
19.2	Manufacturer's warranty shall be not less than three (3) years, 36,000 miles on chassis engine and transmission including all parts and labor.	
19.3	Manufacturer's warranty shall be not less than lifetime protection against rust-through of the water tank.	
19.4	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.	
19.5	Manufacturers warranty shall be not less than two (2) years or 2000 hours auxiliary engine	

20.0 CHASSIS

COMPLY
YES NO

- 20.1 Chassis shall be cab –over-engine design with 32,900 GVW rating
- 20.2 Wheelbase shall be not more than 164 inches.

21.0 SERVICE AND TRAINING

COMPLY
Yes No

- 21.1 Vendors shall have a full parts and service facility within reasonable distance from the Highlands Borough Department of public works garage. State location and distance.

- 21.2 A qualified technician shall provide a minimum of 40 hours training at the DPW garage. Training shall include safety, operation, maintenance and service.

22.0 DELIVERY

COMPLY
Yes No

- 22.1 Sweeper shall be delivered F.O.B.
- 22.2 Acceptance shall be subject to the inspection and approval of the Borough
- 22.3 Bidder shall state delivery time after receipt of order:

23.0 QUALITY

- 23.1 Sweeper shall be manufactured by a company with a registered quality standard no

less than ISO 9001.

24.0 OPTIONAL ITEMS THAT MAY BE INCLUDED

Cab controlled pneumatic shutter nozzles

Air dryer

High pressure wash down system 1500psi

Weed ripper broom segment (36'')

Remote mirrors

Am/ fm radio

Conversion from sweeper to catch basin operation shall be accomplished by a hydraulic inlet changeover plate

8" inside diameter x 12 ft. ling hydraulic assisted wandering hose, capable of deep cleaning catch basins

Two (2) 4" aluminum extensions for wandering hose on the rear of the hopper door

Conversion from sweeper to catch basin by a hydraulic inlet changeover plate