

PATRICIA A. PESHKA

PURCHASING AGENT



JOSEPH J. SOLOMON

MAYOR

CITY OF WARWICK

PURCHASING DIVISION
3275 POST ROAD
WARWICK, RHODE ISLAND 02886
TEL (401)738-2013
FAX (401) 737-2364

The following notice is to appear on the City of Warwick's website Monday, January 28, 2019. The website address is <http://www.warwickri.gov/bids>.

CITY OF WARWICK BIDS REQUESTED FOR

Bid2019-241 Purchase New Automated Side-Loader Refuse Vehicle

Specifications are available in the Purchasing Division, Warwick City Hall, Monday through Friday, 8:30 AM until 4:30 PM on or after Monday, January 28, 2019

Sealed bids will be received by the Purchasing Division, Warwick City Hall, 3275 Post Road, Warwick, Rhode Island 02886 up until 11:00 AM, Friday, February 8, 2019. The bids will be opened publicly commencing at 11:00 AM on the same day in the Lower Level Conference Room at Warwick City Hall.

Awards will be made on the basis of the lowest evaluated or responsive bid price. Please note that no bids can be accepted via email or fax.

The City of Warwick, in addition to soliciting bids in response to this bid, may consult, consider, and make an award for any and all open bid offers for a comparable unit as sought herein at the following websites:

RI State MPA: <http://www.purchasing.ri.gov/MPA/MPASearch.aspx>

NASPO: <https://www.naspo.org/>

NJPA (National Joint Powers Alliance): <https://www.njpacoop.org/cooperative-purchasing>

MHEC (Massachusetts Higher Education Consortium): <https://www.mhec.net/>

Individuals requesting interpreter services for the hearing impaired must notify the Purchasing Division at 401-738-2013 at least 48 hours in advance of the bid opening date.

Patricia A. Peshka
Purchasing Agent

PLEASE COMPLETE THIS PAGE & SUBMIT WITH YOUR BID

Acknowledgement of Addendum (if applicable)

Addendum Number	Signature of Bidder
_____	_____
_____	_____

COMPANY NAME: _____

COMPANY ADDRESS: _____

COMPANY ADDRESS: _____

BIDDER'S SIGNATURE: _____

BIDDER'S NAME (PRINT): _____

TITLE: _____ TEL. NO.: _____

EMAIL ADDRESS: _____*

*Please include your email address. Future bids will be emailed, unless otherwise noted.

II. AWARD AND CONTRACT:

The CITY OF WARWICK, acting as duly authorized through its Purchasing Agent/Finance Director/Mayor, accepts the above bid and hereby enters into a contract with the above party to pay the bid price upon completion of the project or receipt of the goods unless another payment schedule is contained in the specifications. All terms of the specifications, both substantive and procedural, are made terms of this contract.

DATE: _____
Bid2019-241 Purchasing Agent

PLEASE COMPLETE THIS PAGE & SUBMIT WITH YOUR BID

CERTIFICATION & WARRANT FORM*

**This form must be completed and submitted with sealed bid.
Failure to do so will result in automatic rejection.**

Any and all bids shall contain a certification and warrant that they comply with all relevant and pertinent statutes, laws, ordinances and regulations, in particular, but not limited to Chapter 16- Conflicts of Interest, of the Code of Ordinances of the City of Warwick. Any proven violation of this warranty and representation by a bidder at the time of the bid or during the course of the contract, included, but not limited to negligent acts, either directly or indirectly through agents and/or sub-contractors, shall render the bidder's contract terminated and the bidder shall be required to reimburse the City for any and all costs incurred by the City, including reasonable attorney fees, to prosecute and/or enforce this provision.

Signature

Date

Company Name

Address

Address

***This form cannot be altered**

**CITY OF WARWICK
NOTICE TO BIDDERS**

Bid2019-241 Purchase New Automated Side-Loader Refuse Vehicle

If you received this document from our homepage or from a source other than the City of Warwick Purchasing Division, please check with our office prior to submitting your bid to ensure that you have a complete package. The Purchasing Division cannot be responsible to provide addenda if we do not have you on record as a plan holder.

The opening of bids will be in the order established by the posted agenda and the agenda will continue uninterrupted until completion.

Once an item has been reached and any bids on that item has been opened, no other bids on that item will be accepted and any such bid will be deemed late.

The contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap for any position for which the employee or applicant is qualified and that in the event of non-compliance the City may declare the contractor in breach and take any necessary legal recourse including termination or cancellation of the contract.

A bidder filing a bid thereby certifies that no officer, agent, or employee of the City has a pecuniary interest in the bid or has participated in contract negotiations on the part of the City, that the bid is made in good faith without fraud, collusion, or connection of any kind with any other bidder for the same call for bids, and that the bidder is competing solely in his own behalf without connection with, or obligation to, any undisclosed person or firm.

All bids should be submitted with one (1) original and one (1) copy in a sealed envelope, which should read: *YOUR COMPANY NAME* plainly marked on the exterior of the envelope as well as "Bid2019-241 Purchase New Automated Side-Loader Refuse Vehicle."

Bids received prior to the time of the opening will be securely kept, unopened. No responsibility will be attached to an officer or person for the premature opening of a bid not properly addressed and identified. No bids will be accepted via facsimile or email.

Should you have any questions, please contact John Needham, DPW Automotive, at 401-921-9609.

All bids should be written in ink or typed. If there is a correction with whiteout, the bidder should initial the change.

Negligence on the part of the bidder in preparing the proposal confers no rights for the withdrawal of the proposal after it is open.

Any deviation from the specifications must be noted in writing and attached as part of the bid proposal. The bidder should indicate the item or part with the deviation and indicate how the bid will deviate from specifications.

The IRS Form W-9 is available on www.warwickri.gov should be completed and submitted with the bid if the bidder falls under IRS requirements to file this form.

Bid surety in the form of a bank check, original bid bond or certified check in the amount of ten (10) percent of the total bid price must be submitted with each bid. If a bid bond is submitted, it must be duly executed by the bidder as principal and having as surety thereon a surety company licensed to do business in the State of Rhode Island and approved by the owner.

The successful bidder must provide the City of Warwick with an original **Certificate of Insurance** for General Liability and Automobile Liability in a minimum amount of \$1 million, naming the **City of Warwick as the additional insured** and so stated on the certificate with the bid name and bid number. It is the vendor's responsibility to provide the City of Warwick with an updated Certificate of Insurance upon expiration of the original certificate.

Failure to provide adequate insurance coverage within the specified duration of time as set forth is a material breach of contract and grounds for termination of the contract.

The successful bidder must furnish a performance and payment bond in the amount of 100 percent of the total bid price.

For a bid to be awarded to a corporation, limited liability company or other legal entity, prior to commencing work under the awarded bid, that corporation, company or legal entity may be required to provide to the Purchasing Agent a **Certificate of Good Standing** dated no more than thirty (30) days prior to the date upon which the bid approval was made.

The successful bidder will provide said **Certificate of Insurance, bonds and Certificate of Good Standing** (if required) within ten (10) calendar days after notification or the City reserves the right to rescind said award.

Prices to be held firm one (1) year from date of award. Term contracts may be extended for one (1) additional term upon mutual agreement unless otherwise stated.

The City is exempt from the payment of the Rhode Island Sales Tax under the 1956 General Laws of the State of Rhode Island, 44-18-30, Paragraph I, as amended.

The contractor must carry sufficient liability insurance and agree to indemnify the City against all claims of any nature, which might arise as a result of his operations or conduct of work.

The Purchasing Agent reserves the right to reject any and all bids, to waive any minor deviations or informalities in the bids received, and to accept the bid deemed most favorable to the interest of the City.

The City reserves the right to terminate the contract or any part of the contract in the best interests of the City, upon 30-day notice to the contractor. The City will incur no liability for materials or services not yet ordered if it terminates in the best interests of the City. If the City terminates in the interests of the City after an order for materials or services has been placed, the contractor will be entitled to compensation upon submission of invoices and proper proof of claim, in that proportion which its services and products were satisfactorily rendered or provided, as well as expenses necessarily incurred in the performance of work up to time of termination.

No extra charges for delivery, handling or other services will be honored. All claims for damage in transit will be the responsibility of the successful bidder. Deliveries must be made during normal working hours unless otherwise agreed upon.

All costs directly or indirectly related to the preparation of a response to this solicitation, or any presentation or communication to supplement and/or clarify any response to this solicitation which may be required or requested by the City of Warwick will be the sole responsibility of and will be borne by the respondent.

If the respondent is awarded a contract in accordance with this solicitation and fails or refuses to satisfy fully all of the respondents obligations thereunder, the City of Warwick will be entitled to recover from the respondent any losses, damages or costs incurred by the City as a result of such failure or refusal.

The City reserves the right to award in part or full and to increase or decrease quantities in the best interest of the City.

Any quantity reference in the bid specifications are estimates only, and do not represent a commitment on the part of the City of Warwick to any level of billing activity. It is understood and agreed that the agreement will cover the actual quantities ordered during the contract period.

The City reserves the right to rescind award for non-compliance to bid specifications.

The successful bidder must adhere to all City, State and Federal Laws, where applicable.

City Of Warwick

Purchase One (1) 2019 or Newer Model Automated Side-Loader Refuse Vehicle

ENGINE/TRANSMISSIONS

- Mp7-355a 355hp @ 1500-1800 Rpm (Peak) 2100 Rpm (Gov) 1260 Lb-Ft, Us'17
- 4500 Rds 6 Sp-Allison Rugged Duty Series Gen 5 W/Prognostics

EXHAUST/EMISSIONS

- Cleartech Vv Dpf Vertical Lh Side Back Of Cab W/Scr Vert Rh Side Boc
- Single Vertical Right Side Outboard Mounted Straight Exh Stack Plain End, Side Outlet Diffuser
- 6.6 Gallon (25 L) 22" Diameter Tank Left Side Mounted

ENGINE EQUIPMENT

- Meritor/Wabco 636 (37.4 Cfm)
- 13" (330 Mm) Diameter Behind Cab W/Snorkel, Single Element Dry Alternator Type Delco 12v 160a
- (3) 12v 650/1950 Cca Threaded Stud Type
- Chevron Fully Formulated Coolant W/ Nitrates (50/50 Mix Dyed Pink) To -34deg
- Coolant Conditioner
- 120v 1500 Watt Engine Block Heater
- Engine Block Heater Receptacle, Basic Location
- Behr Fan And Electronic Modulating Viscous Fan Drive Mp7 Powerleash
- Manual Drain Valve (Integral W/Primary Fuel Filter)
- Hoses Silicone W/Spring Loaded Clamps For Both Rad & Htr Starter 12 Volt Delco 39mt-Mxt
- Corrosion Resistant Oil Pan
- Plastic Coated Cable, Mounted Front Of Each Battery Box Length To Allow Cover To Set On Ground
- Single Box (3) Battery Max Perp. To Frame 11"
- Battery Box Molded Plastic
- Flaming River Big Switch Wired To Positive Side

CLUTCH/TRANS EQUIPMENT

- Meritor 176 Mxl "Xtended Lube" Driveline
- Furnish Tc541 For Use W/Allison (Hd) Series World Transmission Transynd Synthetic Lube For Allison Trans
- Furnish For Allison Transmission W/Direct Mount Cooler Half-Round Universal Joint
- Universal Joint Half-Round Type

FRONT AXLE EQUIPMENT

- 20000# (9100 Kg) Fxl20 Wide Pivot Center Straight Spindle/Unitized Bearings
- Meritor "S" Cam Type 16.5" X 6" Q+ Meritor R403
- Cast Iron
- Dust Shields For Front Axle Ferrous Hubs
- Double Acting Type Haldex - Automatic
- Taperleaf 20000# (9100 Kg) Ground Load Rating Static Load Cushions
- M100p Plus Right Side Assist Cylinder Front Brake Chamber Manufacturer, Mgm Front Brake Chamber 30sq Inches (Service)

REAR AXLE EQUIPMENT

- Meritor R403.
- Haldex - Automatic
- 52000# (23600kg) S522r Cast Ductile Housing
- Ss52 Multileaf (Camelback) 52000#, Extra Thick Spring
- 23.6 Tonnes (52,000 Lbs), Rear Axle Load
- Rear Axle Casing, Super Duty
- 4.80 Ratio
- Meritor Heavy Duty "S" Cam 16.5"X7" Q+ Cast Iron
- Dust Shields For Rear Axle W/O Lube Pump And Filter Chicago Rawhide (Scotseal)
- Power Divider Lockout, W/Buzzer & Light
- Urethane Shock Insulators, Heavy Duty
- W/Ss582 & Ss652 Rear Susp
- Mgm Model Tr-T; Tamper-Resistant Brake Chambers Rear Spring Brake Chambers 30/30 Type
- 55" Axle Spacing (Bogie Wheelbase)
- Bronze Bushings
- Spindle Nuts, Main Axle, Integrated
- 4s/4m System Rear Wheel End Sensors W/O Brake Diaphragm
- Bendix Without Traction Control
- Brake Lining Material Drive, Meritor / R403

FRAME EQUIPMENT/FUEL TANKS

- Steel-3/8" X 13 3/8" X 3 1/4" (Class8)
- 246" Wb
- 111" Af
- Full Inside Reinforcement, Steel 1/4" 6.35
- Basic Fuel Level Sender Mounted On L.H Tank
- Rust Preventative Between Frame Rails
- 12" Front Fender Mounted Flush-Painted Steel
- Steel 1/2" Pl Bolted Boc & Intermdt 1/8" Below Top Of Rail 1/2" Plate (One) Back To Back
- Furnish Standard Steel Closing Rear Crossmember W/O Frame Rail Clearance

- Skid Plate Under Bumper And Radiator
- Center Tow Capability Based On Bumper Selection Without Towing Devices ,Rear
- 80 Gallon (300 L) Steel, 26"X24" Rectangular W/O Rh Fuel Tank
- Locate Behind Lh Rail- 5" Below Top Of Rail W/O Bright Finish Fuel Tanks
- For Lh Fuel Tank Includes Sump

AIR/BRAKE

- Wabco Air Dr,1800p W/O Turbo Cut Off Valve,W/Coalesc Oil Filter
- Auto Drain Valve, Heated On Supply Tank, Manual (Petcock) On All Other Tanks
- Auxiliary Work Brake Hand Control, Accessible Both Sides Single Valve System

ELECTRICAL

- Trucklight Led Type Roof Marker For Lr
- Engine Running Activated Preco, Model 1059
- Computer And 2-Way Radio Dedicated Circuit All Circuits Fuse/Breaker Protected
Headlamp Bulb Type, Halogen
- Omit Tail Lights
- Battery Shock Pads
- Front And Side Direction Ind & Marker, Led Type
- Battery Disconnect Switch Furnish On Or Near Battery Box (Light On In Run Position)

PTO

- Furnish Pump Mtg Provisions - Include Wiring, Switches, And Indicators As Required
- El Prep Kit, Refuse, Rp170 Elect. Interface (3 Con 54 Pins)
- 1350 Series Flange (Does Not Include Front Frame Extension) Without Pto Engine
Rear

CAB

- Rubber Floor Mat
- U.S. Units (Predominant)
- Transmission Gauge And Trans. Oil High Temperature Light
- Fire Extinguisher
- Std Heater
- Integral W/Heater (Combo Heater/Air Coniditioner Unit) W/R134a Refrigerant
- Am/Fm Premium Stereo, Cd-Player, Mp3, Weatherband, Handsfree Interface,
Bluetooth
- Radio Antenna, Ch Style Cowl Mounted On Lh Side
- Chassis Keyed At Random - 2 Keys

CAB EXTERIOR

- R.H. & L.H. Sit Down Driving Position, Extended Cab Version Located In Std Location
- Standard 2 Step Cab Access Black, Extended Cab Version Emblems Option, Complete
- Air Horn (1) Twin-Under Cab Trumpet W/Dual Lanyard Electric Horn Single Tone
- Mirrors Lh & Rh Electric Heated & Operated, W/O Memory

- Black Square Heated Convex Mirror - (Except On Bi-Fold Doors)
- Lh & Rh Front Hinged Doors W/Power Windows Both Sides
- Cab Corner Protection, Front

WHEELS AND TIRES

- Front Advanced Low Rolling Resistance, Best Fuel Economy
- Rear Advanced Low Rolling Resistance, Best Fuel Economy
- Two Front Tires & Wheels
- Eight Rear Axle Tires & Wheels Drive
- Wheel Studs Longer Length
- 315/80r22.5 L Bridgestone M870 (20000 Lbs)
- 22.5x9.00 Alcoa Ultra One Alum Disc 10-Hp; 11.25" Bc, 5.96" Inset Machine Clean Buffed-All Wheels
- Standard Valve Stems And Caps
- 315/80r22.5 L Bridgestone M870 (36360 Lbs) (All Position)
- 22.5x9.00 Alcoa Ultra One Alum Disc 10-Hp, 11.25" Bc, 6.94" Offset Machine Clean Buffed - All Wheels

COMMUNICATIONS SYSTEM

- Remote Diagnostic Services, Enabled
- Services Diagnostics Display In Cluster, Basic
- Remote Software Upgrade Enabled

PAINT

- Single Color White; P9188
- Paint - Cab, Urethane Clear Coat Same As First Color - Cab
- Frame Black (Urethane)
- Chassis Paint Process, Standard Color
- Bumper Same Color As Chassis Running Gear
- Paint Fuel Tank Same Color As Chassis Running Gear Without Special Pre-Finished Option

WARRANTY

- Allison Transmissions Standard
- Severe Duty Warranty Classification
- Standard Severe Duty Coverage 12 Months / 100,000 (161,000 Km)
- Air Conditioning Standard Coverage (Sealed System Only) 12 Months Unlimited Mileage
- Standard Severe Duty Chassis Towing
- Standard Engine Towing Coverage 24 Months/250,000 Miles
- Severe Duty Standard Base Coverage 12 Months/100,000 Miles (161,000 Km)
- Mp7/Mp8 Base Engine Coverage 24 Months / 250,000 Miles (402,000km)

- Us And Canada Equipped Vehicle Emission Components Coverage 60 Months/100,000 Miles (161,000 Km)

PLEASE COMPLETE THIS PAGE & SUBMIT WITH YOUR BID

**AUTOMATED RIGHT-HAND BODY
CAPACITY 33-CUBIC YARDS**

COMPLIANCE

BODY CAPACITY

- Minimum capacity of the body, (excluding hopper area) 27 cu YES NO
- Capacity of the tailgate - 6 cu yd YES NO
- Hopper capacity - 6.5 cu yd YES NO

BODY DIMENSIONS

- Rounded to permit a maximum capacity YES NO
- Taper to facilitate the unloading of the material and to increase compaction ratio YES NO
- Taper dimension of the body sides - 12" YES NO
- Inside body width at front - 75 3/4" YES NO
- Inside body width at rear - 88" YES NO
- Outside body width - 96" YES NO
- Inside body height - 96 1/2" YES NO
- Outside body height above frame - 103" YES NO
- Overall length including hopper - 310 1/2" YES NO
- Overall body height above frame (including arm) - 103" YES NO

FLOOR CONSTRUCTION

- Hopper floor made of abrasion resistant steel YES NO
- Hopper floor steel grade - S-107 YES NO
- Hopper floor thickness - 1/4" YES NO
- Hopper floor yield strength - 65,000 psi YES NO
- Body floor – rounded YES NO
- Body floor thickness - 3/16" YES NO
- Body floor steel grade - IPSCO 100 YES NO
- Body floor yield strength - 100,000 psi YES NO
- Body long sills dimensions - HSS tubing 8 x 2 x 3/8" YES NO
- Body long sills yield strength - 50,000 psi YES NO
- Hopper sump box volume - 30.7 gal YES NO
- Hopper sump box dimensions - 14 x 6 x 87" YES NO
- Crossmember steel grade - 50W YES NO
- Crossmember dimensions - 4 7/8 x 4 11/16 x 1/4" YES NO

PLEASE COMPLETE THIS PAGE & SUBMIT WITH YOUR BID

COMPLIANCE

SIDE CONSTRUCTION

- Body walls are rounded and smooth, improving resistance and featuring lightness YES NO
- Body walls thickness - 12 ga. YES NO
- Body walls steel grade - ASTM A-715 GR 80F YES NO
- Body walls yield strength - 80,000 psi YES NO
- Hopper sides thickness - ¼" YES NO
- Hopper sides steel grade - S-107 YES NO
- Hopper sides yield strength - 65,000 psi YES NO
- Rub rail thickness - 12 ga. YES NO
- Rub rail steel grade - A-569 YES NO
- Rub rail dimensions - 8 x 3 1/16 x 9 7/8" YES NO
- Dimensions of body window, 8 x 8", made of expanded metal, installed on the front wall of the body to indicate when body is full YES NO
- Hopper access door is installed to permit the driver to have access to the hopper if something falls off the cart YES NO
- Hopper upper left wall thickness - 10 ga. YES NO
- Hopper upper right wall thickness - 14 ga. YES NO
- Hopper walls lower part steel thickness - ¼" YES NO
- Hopper walls lower part steel grade - S-107 YES NO
- Hopper walls upper part steel grade - A-569 YES NO
- Hopper access door thickness - 14 ga. YES NO
- Hopper access door steel grade - A569 YES NO
- Hopper access door dimensions - 32 x 44" YES NO
- Front bolsters steel grade - A569 YES NO
- Front bolsters dimensions - 9 7/16 x 10" YES NO
- Rear bolsters steel grade - A569 YES NO
- Rear bolsters dimensions - 8 7/16 x 10" YES NO

PLEASE COMPLETE THIS PAGE & SUBMIT WITH YOUR BID

COMPLIANCE

ROOF CONSTRUCTION

- Body roof is rounded and made of high yield steel to ensure strength when material is packing against it YES NO
- Roof thickness - 12 ga. YES NO
- Roof steel - ASTM A-715 GR 80F YES NO
- Roof yield strength - 80,000 psi YES NO
- Front bolsters steel grade - A569 YES NO
- Front bolsters thickness - 12 ga. YES NO
- Front bolsters dimensions - 4 ¾ x 4" YES NO
- Rear bolsters steel grade - 44 W YES NO
- Rear bolsters thickness - 3/16" YES NO
- Rear bolsters dimensions - 10 x 5 ¾" YES NO

HOPPER

- Hopper depth curbside - 56" YES NO
- Hopper depth streetside - 70 ½" YES NO
- Hopper length - 69 ½" YES NO
- Hopper width - 66" YES NO
- Follower panels thickness - ¼" YES NO
- Follower panels steel grade - A-569 YES NO

REAR TAILGATE

- Rear tailgate is hydraulically operated, bustle type with an automatic lock mechanism and YES NO
- Hydraulic safety locks YES NO
- Tailgate side and rear thickness - 12 ga. YES NO
- Tailgate side and rear steel - ASTM A-715 GR 80F YES NO
- Tailgate side and rear yield strength - 80,000 psi YES NO
- Tailgate is operated by two (2) cylinders YES NO
- Tailgate cylinders - Nitrate treated YES NO
- Tailgate cylinder bore diameter - 2 ½" YES NO
- Tailgate cylinder rod diameter - 1 ¾" YES NO
- Tailgate cylinder stroke - 39" YES NO
- Tailgate cycle time at idle - 55 sec YES NO
- Tailgate side framing steel - S - 107 YES NO
- Tailgate side framing - 5 x 2 x 3/16" YES NO

PLEASE COMPLETE THIS PAGE & SUBMIT WITH YOUR BID

COMPLIANCE

REAR TAILGATE (continued)

- Tailgate top framing steel - HSS tubing YES NO
- Tailgate top framing - 4 x 4 x 3/16" YES NO
- Tailgate bottom framing steel - HSS tubing YES NO
- Tailgate bottom framing - 7 x 3 x 1/4" YES NO
- Tailgate hydraulic line equipped with flow restrictor to prevent sudden descent YES NO
- Tailgate hinge pins diameter - 1 1/4" YES NO
- Tailgate rubber seal height - 30" YES NO
- Rubber seal is installed on the tailgate to prevent liquid leakage and banging on back of body YES NO
- Cab mounted audible alarm provided to indicate when the tailgate is unlocked YES NO
- Manual control with safety lock installed in the cab to prevent accidental activation YES NO
- Tailgate safety prop provided YES NO

PACKER

- Packer is 24" high providing 75,400 lbs. of force on material, ensuring efficient packing YES NO
- Packer is unitized, integral with body YES NO
- Packer is guided by two (2) rails in which wear plates are made of steel grade - AR500 YES NO
- Wear plates thickness - 1/4" YES NO
- Rail dimensions - 3 1/2" x 2 3/16" YES NO
- Packer wear shoes steel grade - AR425 YES NO
- Packer wear shoes thickness - 3/8" YES NO
- Packer is operated by two (2) cylinders YES NO
- Packer cylinders rods - chrome plated YES NO
- Cylinder bore diameter - 4" YES NO
- Cylinder rod diameter - 2 1/2" YES NO
- Cylinder stroke - 40" YES NO
- Maximum operation pressure - 3000 psi YES NO
- Maximum compaction of refuse - 900 lbs/cu yd YES NO

PLEASE COMPLETE THIS PAGE & SUBMIT WITH YOUR BID

COMPLIANCE

PACKER (continued)

- Packing force - 66,750 lbf YES NO
- Cylinder force - 75,400 lbf YES NO
- Inside width of packing ram - 65 ½" YES NO
- Inside height of packing ram - 24" YES NO
- Packing ram stroke - 52" YES NO
- Packing ram top steel grade - A-514/CHT-100 YES NO
- Packing ram top thickness - ¼" YES NO
- Packing ram top yield strength - 100,000 psi YES NO
- Packing face plate steel grade - A-514/CHT-100 YES NO
- Packing face plate thickness - ¼" YES NO
- Packing face plate yield strength - 100,000 psi YES NO
- Packing ram swept volume - 1.75 cu. yd. YES NO
- Penetration of the ram into body - 6" YES NO
- Packer ram cycle time at 1200 rpm - 14 sec. YES NO
- Packer length (including following panels) - 55" YES NO
- Red packer buttons diameter - 2 ¾" YES NO
- Others packer buttons diameter - 1 9/16" YES NO
- Packer pins diameter - 1 ¾" YES NO
- Packer pins steel grade - HR 1045 YES NO
- Packer is reinforced with a combination of structural members for maximum rigidity YES NO
- Packer controls consist of start, retract and emergency stop YES NO
- Emergency red button is provided to stop packer ram movement at any time YES NO
- One complete set of packer controls located in cab is provided YES NO
- Control buttons are heavy duty, industrial type, color coded, corrosion proof and weather resistant YES NO

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COMPLIANCE

HYDRAULIC SYSTEM

- Designed to ensure easy maintenance YES NO
- Composed of 2 vane pumps, one for the body functions and one for the arm. YES NO
- Pumps have a common suction port YES NO
- Pump model - Denison T6DC YES NO
- Pressure body line shall be made up of a Denison relief valve R5P, a Denison vent valve W01 with a 12 volt DC in line mounted solenoid which divert the flow back to tank when pump is not engaged, and finally, a flow control block which divert the excess flow back to tank over 45 gpm YES NO
- Body functions pump maximum flow - 20.0 gpm at 700 rpm YES NO
- Arm functions pump maximum flow - 13.0 gpm at 700 rpm YES NO
- Pressure relief valve for the body - 3000 psi YES NO
- Pressure relief valve for the arm - 2100 psi YES NO
- Tank capacity for cab over 85 gal YES NO
- Maximum quantity of oil in hydraulic tank - 74 gal YES NO
- Tank to be equipped with magnetic drain plug, oil level sight gauge and shut-off valves in suction line YES NO
- In-tank return line filter capacity - 150 gpm YES NO
- Nominal filtration rating - 7 mic YES NO
- Beta filtration ratio per ISO 16889 - Beta ration $10 \geq 200$ YES NO
- Suction line strainer size - 100 mesh YES NO
- Suction line strainer flow capacity - 100 gpm YES NO
- Tank – baffled YES NO
- Tank – pressurized at 5 psi YES NO
- Return filter to be a bypass valve and a differential pressure filter indicator YES NO
- Return line filter to have replaceable cartridge element YES NO
- Suction line filter to have replaceable cartridge element YES NO
- Return line filter cracking pressure - 25 psi YES NO
- Pump drive shaft - HD Spicer 1310 Series YES NO
- All hoses to be double braided wire minimum, high burst capacity and reinforced with nylon wrap to prevent chaping YES NO

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COMPLIANCE

HYDRAULIC SYSTEM (continued)

- Hydraulic tubing used where flexibility is not needed YES NO
- All pipes – zinc coated to prevent corrosion YES NO
- All hydraulic tubing – securely clamped to prevent vibration, abrasion and excessive noise YES NO
- All hydraulic hoses meet S.A.E. standards for designed pressure, bends respect recommended S.A.E. standards YES NO
- Hydraulic system operates at an acceptable temperature without the need for external hydraulic oil cooling devices YES NO
- Quick disconnect fittings provided so that a pressure gauge can be easily connected without the use of tools or the need to remove hydraulic fittings YES NO

CART LIFTING MECHANISM

- Arm C-rail extension steel - A709 YES NO
- Arm C-rail extension yield strength - 36,000psi YES NO
- Arm I-rail extension steel - ASTM A36 YES NO
- Arm I-rail extension yield strength - 100,000 psi YES NO
- Arm lift frame steel - A709 YES NO
- Arm lift frame yield strength - 36,000 psi YES NO
- Extension rails activated by two (2) cylinders YES NO
- Extension rails cylinders diameter - 1.5" YES NO
- Extension rails cylinders rod diameter - 1" YES NO
- Extension rails cylinders stroke - 54" YES NO
- Extension rails cylinders – clevis mounted at base YES NO
- Extension rails cylinders rod – two (2) axles mounted and chromed plated YES NO
- Leveling rod ensure stable displacement and rotation above hopper YES NO
- Bin lifting cylinder diameter - 3" YES NO
- Bin lifting cylinder rod diameter - 1.75" YES NO
- Bin lifting cylinder stroke - 16" YES NO
- Bin lifting cylinder rod – chrome-plated YES NO
- Grabber activated by two (2) cylinders YES NO

PLEASE COMPLETE THIS PAGE & SUBMIT WITH YOUR BID

COMPLIANCE

CART LIFTING MECHANISM (continued)

- Grabber – coated with high friction rubber strip to maintain good grip on bin YES NO
- Grabber cylinders diameter - 1.5” YES NO
- Grabber cylinders rod diameter - 1” YES NO
- Grabber cylinders stroke - 5” YES NO
- Grabber cylinders rods – chrome plated YES NO
- Lifting device minimum bin size - 36 gal YES NO
- Lifting device maximum bin size - 95 gal YES NO
- Maximum lifting capacity of arm at maximum reach - 1,000 lbs YES NO
- Maximum lifting capacity of arm at minimum reach - 1,000 lbs YES NO
- Dump height - 107 7/8” YES NO
- Maximum horizontal reach (center of cart) - 144” YES NO
- Minimum horizontal reach - 0” YES NO
- Arm swing out effect - 40 11/16” YES NO
- Dump cycle time of arm at minimum reach - 10 sec YES NO
- Dump cycle time of arm at maximum reach - 20 sec YES NO
- Arm and valve stack weight (without oil and grabber) - 1950 lbs YES NO
- Hydraulic pump flow rate at engine idle speed - 12.5 GPM YES NO
- Arm maximum operating pressure - 2,000 psi YES NO
- Grabber maximum operating pressure - 1,200 psi YES NO
- Arm valves – 3 position type YES NO
- Extension and lifting arm valve – proportional YES NO
- Grabber valves - On/Off type YES NO
- Arm controlled by joy stick YES NO
- Joy Stick has three functions to control each arm movement YES NO
- Arm and cylinders warranty - 1 year YES NO
- Arm safety valve (relief valve) pressure setting - 2,100 psi YES NO
- Dumping angle - 47 deg YES NO
- Holding valves installed to prevent any uncommanded moves YES NO
- Grabber – an automatic closing when dumping to prevent cart slipping and collision with hopper-must be able to lift 32 to 96 gallon containers YES NO

PLEASE COMPLETE THIS PAGE & SUBMIT WITH YOUR BID

COMPLIANCE

EJECTION MECHANISMS (BODY HOIST)

- Ejection done by a hoist cylinder YES NO
- Body hoist YES NO
- Hoist cylinder – front mounted with outer cover and bottom lifting for greater stability of the tipped body YES NO
- Body – raised by one single acting, front mounted, telescopic cylinder YES NO
- Cylinder – 4-stages with a stroke of 180” YES NO
- Body cylinder bore diameter - 6 ½” YES NO
- Body cylinder – Nitrate treated YES NO
- Body dump angle - 45 deg YES NO
- Safety prop supplied to support the body in the raised position YES NO

CRUSHER PANEL

- Installed on the front wall of the body to optimize the compaction of the material and facilitate the transfer into the body YES NO
- Steel grade - A-569 YES NO
- Thickness - 3/16” YES NO
- Dimensions for standard body - 54 x 38” YES NO
- Operated by one (1) cylinder YES NO
- Cylinder rod – chrome plated YES NO
- Cylinder bore diameter - 2” YES NO
- Cylinder rod diameter - 1 ½” YES NO
- Cylinder stroke - 14 ½” YES NO
- Hydraulic protection supplied to prevent packing on top of the ram YES NO
- Cylinder pins steel – cold-roll stress proof YES NO
- Cylinder pins diameter - 1” YES NO

ELECTRICAL SYSTEM

- All stop, directional, tail and clearance lights – led lights YES NO
- Truck-Lite Easy Seal, recessed mount and watertight or equivalent YES NO
- All lights provided following FMVSS #108 YES NO
- Rear lights integrated to tailgate structure YES NO
- Back-up alarm provided YES NO

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COMPLIANCE

ELECTRICAL SYSTEM (continued)

- Light switches – heavy duty, industrial type, water tight with adjustable arm and over travel to prevent damage YES NO
- All circuits – properly fused and wiring is color coded and numbered YES NO
- Wiring conforms to SAE J1128 YES NO
- Wiring connections with shrink tube and at some places, blue crimp sealed with epoxy YES NO
- All wiring run in plastic loom YES NO

CONTROLS CHARACTERISTICS

- Tailgate joystick – pneumatic YES NO
- Tailgate joystick equipped with safety lock YES NO
- Body joystick – pneumatic YES NO
- Pump button – electric YES NO
- Packer controls – electric YES NO
- Arm – controlled by electric joystick YES NO

CONSOLE STANDARD CHARACTERISTICS

- Button and red light are used for pump YES NO
- Red lights are used for body raised or tailgate unlocked YES NO
- Red light used for auto-neutral (option) YES NO

ACCESSORIES

- Mud guards supplied in front of rear axle YES NO
- Mud flaps supplied at rear of rear axle YES NO

PAINTING

- Truck will be properly cleaned of all dirt, grease, and weld slag YES NO
- Body and hopper will be steel gritblasted YES NO
- One coat (0.002") of polyurethane primer Imron Elite applied YES NO
- One finish coat (0.002") of polyurethane paint Imron Elite applied YES NO
- Finish paint coat – baked 125°F - 150°F YES NO
- Body painted one color – WHITE YES NO

PLEASE COMPLETE THIS PAGE & SUBMIT WITH YOUR BID

MANUALS & SOFTWARE

COMPLIANCE

- Diagnostic software package, parts, service and operator's manuals *must* be supplied for the refuse packer YES NO

LUBRICATION

- All body hinges, cylinder rod ends, cylinder base, trunnion and pivot points supplied with grease fittings YES NO

WARRANTY

- Length of warranty on defective parts will not be less than one (1) year YES NO
- Length of warranty on hydraulic cylinders and hoses will not be less than one (1) year YES NO
- Length of warranty on automated arm is not less than one (1) year YES NO
- Body manufacturers certified ISO 9001 YES NO
- All internal inspection documents such as intermediate inspection booklets made at the body manufacturer available and filed per vehicle YES NO

OPTIONS

- Auto lube system YES NO
- Rear strobe on tailgate YES NO
- Two (2) spot lights in rear for backing up/come on when truck is put in reverse YES NO
- Camera system hopper and backup – switch when transmission is put in speed YES NO
- Back-up sonar system YES NO
- Two (2) year extended warranty on body YES NO

DELIVERY

- Delivery to the City of Warwick, Public Works Department is to be 180 days after receipt of the purchase order YES NO
- The vehicle should be completed and ready to use upon delivery YES NO
- The City of Warwick will assess a penalty of \$1,000 to the awarded bidder for every 15 days the vehicle is delayed after the 180-day delivery date after receipt of order YES NO

PLEASE COMPLETE THIS PAGE & SUBMIT WITH YOUR BID

CITY OF WARWICK

BID AND CONTRACT FORM

TITLE OF SPECIFICATION: Bid2019-241 Purchase New Automated Side-Loader Refuse Vehicle

I. BID:

WHEREAS, the CITY OF WARWICK has duly asked for bids for performance of services and/or supply of goods in accordance with the above-indicated specifications.

The person or entity does irrevocably offer to perform the services and/or furnish the goods in accordance with the specifications, which are hereby incorporated by reference in exchange for the bid price.

This offer will remain open and irrevocable until the CITY OF WARWICK has accepted this bid or another bid on the specifications or abandoned the project.

The bidder agrees that acceptance by the CITY OF WARWICK will transform the bid into a contract. This bid and contract will be secured by Bonds, if required by the specifications.

<u>Description</u>	<u>Bid</u>
I. Cab & Chassis	
Year	
Make	
Model	
Warranty	
TOTAL COST FOR 1 VEHICLE	\$
II. Option	
2-way radio, Motorola XPR-5550E or equivalent, narrowbanded (EACH)	\$ each
TOTAL COST 1 VEHICLE WITH OPTION	\$
Delivery in 180 Calendar Days ARO	