INVITATION TO BIDDERS

The City of Gatlinburg is accepting sealed bids on the purchase of one (1) Side Loading Garbage Truck. The specifications are located within the bid packet, but we will consider other brands/models that meet required specifications

Bids will be received at City Hall until **2:30 p.m., December 10, 2015** at which time they will be publicly opened and read aloud. No bid may be withdrawn for thirty (30) days.

Bid shall be sealed in an envelope with the bidder's name, address, the bid opening time and date and the quotation "Side Loading Garbage Truck" stated plainly on the outside.

For questions concerning the Bid Documents, Bidders may contact City of Gatlinburg, Delea Patterson, AP/Purchasing, 1230 Parkway East, Suite 2, P.O. Box 5, Gatlinburg, Tennessee 37738 at 865-436-1409 or Fax 865-436-6464 or deleap@gatlinburgtn.gov. Questions about the specifications need to be directed to Gatlinburg Service Department, Steve Ogle, at 865-436-6210.

Bid specifications will also be available on the City of Gatlinburg website at www.gatlinburgtn.gov under "Out for Bids" tab. This bid tab is located under Gatlinburg Government, and then Purchasing. Bid results are posted in the same area as shortly after bid opening as possible.

The City reserves the right to qualify bidders, to waive any informalities, to reject any and/or all bids, and to accept the bid deemed most favorable and in the best interest of the City.

It is the policy of the City of Gatlinburg not to discriminate on the basis of race, color, national origin, age, sex, or disability in its hiring and employment practices, or in admission to, access to, or operation of its programs, services and activities. With regard to all aspects of this contract, contractor certifies and warrants it will comply with this policy.

GENERAL PROVISIONS

Prices quoted shall not include Federal or State taxes, if any are applicable. The successful bidder shall furnish tax exemption forms, if required, with their invoices.

The prices quoted are that for which the materials or services will be delivered F.O.B. Gatlinburg, Tennessee.

Any additions, deletions, or variations from the following specifications must be noted.

Inspection of the materials or equipment will be made by an agent of the City of Gatlinburg, and if found defective or fails in any way to meet the terms of this agreement, it will be rejected. Rejected materials or equipment will be replaced at the expense of the bidder.

All technical specifications must accompany bid.

The City of Gatlinburg reserves the right to purchase additional units or services under the same terms and conditions for a period of one (1) year.

The City of Gatlinburg reserves the right to extend this agreement for one (1) additional year after the completion of the first year agreement.

The City of Gatlinburg reserves the right to defer payment for thirty (30) days after delivery. The City of Gatlinburg also reserves the right to reject any and/or all bids.

The bidder agrees to indemnify the City of Gatlinburg from any and all liability; loss or damage the City may suffer as a result of claims, demands, costs, or judgments against it arising from any and all work under this agreement.

The bidder agrees to notify the City, in writing, within thirty (30) days, by registered mail, at the City's address as stated in this agreement, of any claim against the bidder on the obligations indemnified against.

It is the policy of the City of Gatlinburg not to discriminate on the basis of race, color, national origin, age, sex, or disability in its hiring and employment practices, or in admission to, access to, or operation of its programs, services and activities. With regard to all aspects of this contract, contractor certifies and warrants it will comply with this policy.

BID SPECIFICATIONS
Side Load Garbage Truck Chassis

Model Profile
2016 4400 SBA 4X2 (MA035)

APPLICATION:	Side-Loader, automatic
MISSION:	Requested GVWR: 37000. Calc. GVWR: 35000 Calc. Start / Grade Ability: 33.88% / 2.43% @ 55 MPH Calc. Geared Speed: 75.0 MPH
DIMENSION:	Wheelbase: 205.00, CA: 137.90, Axle to Frame: 85.00
ENGINE, DIESEL:	{Navistar N9} EPA 2010, SCR, 300 HP @ 2000 RPM, 860 lb-ft Torque @ 1200 RPM, 2200 RPM Governed Speed, 300 Peak HP (MAX)
TRANSMISSION, AUTOMATIC:	{Allison 3500_RDS_P} 5th Generation Controls; Wide Ratio, 5-Speed, With Overdrive; Refuse/ Mixer; Includes Oil Level Sensor, With PTO Provision, Less Retarder, With 60,000-lb GVW Max.
CLUTCH:	Omit Item (Clutch & Control)
AXLE, FRONT NON-DRIVING:	{Meritor MFS-12-143A} Wide Track, I-Beam Type, 12,000-lb Capacity
AXLE, REAR, SINGLE:	{Dana Spicer S23-170} Single Reduction, 23,000-lb Capacity, R Wheel Ends Gear Ratio: 4.78
CAB:	Conventional
TIRE, FRONT:	(2) 11R22.5 HSR2 (CONTINENTAL) 498 rev/mile, load range G, 14 ply
TIRE, REAR:	(4) 11R22.5 HDR2 (CONTINENTAL) 491 rev/mile, load range G, 14 ply
SUSPENSION, RR, SPRING, SINGLE:	Vari-Rate; 31,000-lb Capacity, With 4500 lb Auxiliary Rubber Spring
FRAME REINFORCEMENT:	Outer "C" Channel, Heat Treated Alloy Steel (120,000 PSI Yield); 10.813" x 3.892" x 0.312"; (274.6mm x 98.9mm x 8.0mm); 480.0" (12192mm) Maximum OAL
PAINT:	Cab schematic 100GA Location 1: 5E41, Green Met (Ppg) (Custom) Chassis schematic N/A

Code	Description
MA03500	Base Chassis, Model 4400 SBA 4X2 with 205.00 Wheelbase, 137.90 CA, and 85.00 Axle to Frame.
1570	TOW HOOK, FRONT (2) Frame Mounted
1CAE	FRAME RAILS Heat Treated Alloy Steel (120,000 PSI Yield); 10.125" x 3.580" x 0.312" (257.2mm x 90.9mm x 8.0mm); 420.0" (10668mm) Maximum OAL
1GBP	FRAME REINFORCEMENT Outer "C" Channel, Heat Treated Alloy Steel (120,000 PSI Yield); 10.813" x 3.892" x 0.312"; (274.6mm x 98.9mm x 8.0mm); 480.0" (12192mm) Maximum OAL
1LNN	BUMPER, FRONT Full Width, Aerodynamic, Chrome Plated Steel; 0.142" Material Thickness
1SAL	CROSSMEMBER, REAR, AF (1)
1WEJ	WHEELBASE RANGE 199" (505cm) Through and Including 254" (645cm)
1WRN	BRACKET, CAB MOUNT Heavy Duty
2ARW	AXLE, FRONT NON-DRIVING {Meritor MFS-12-143A} Wide Track, I-Beam Type, 12,000-lb Capacity
	Notes : The following features should be considered when calculating Front GAWR: Front Axles; Front Suspension; Brake System; Brakes, Front Air Cam; Wheels; Tires.
3770	SPRINGS, FRONT AUXILIARY Rubber
3ADC	SUSPENSION, FRONT, SPRING Parabolic, Taper Leaf; 12,000-lb Capacity; With Shock Absorbers
	Includes : SPRING PINS Rubber Bushings, Maintenance-Free
	Notes : The following features should be considered when calculating Front GAWR: Front Axles; Front Suspension; Brake System; Brakes, Front Air Cam; Wheels; Tires.
4091	BRAKE SYSTEM, AIR Dual System for Straight Truck Applications
	Includes : BRAKE LINES Color and Size Coded Nylon : DRAIN VALVE Twist-Type : GAUGE, AIR PRESSURE (2) Air 1 and Air 2 Gauges; Located in Instrument Cluster : PARKING BRAKE CONTROL Yellow Knob, Located on Instrument Panel : PARKING BRAKE VALVE For Truck : QUICK RELEASE VALVE Bendix On Rear Axle for Spring Brake Release: 1 for 4x2, 2 for 6x4 : SLACK ADJUSTERS, FRONT Automatic : SLACK ADJUSTERS, REAR Automatic : SPRING BRAKE MODULATOR VALVE R-7 for 4x2, SR-7 with relay valve for 6x4
	Notes : Front and Rear Dust Shields not Included : Rear Axle is Limited to 19,000-lb GAWR with Code 04091 BRAKE SYSTEM, AIR and Code 04NCL BRAKES, REAR, AIR CAM Regardless of Axle/Suspension Ordered. : Rear Axle is Limited to 20,000-lb GAWR with Code 04091 BRAKE SYSTEM, AIR and Code 04NCG BRAKES, REAR, AIR CAM Regardless of Axle/Suspension Ordered. : Rear Axle is Limited to 23,000-lb GAWR with Code 04091 BRAKE SYSTEM, AIR and Standard Rear Air Cam Brakes Regardless of Axle/Suspension Ordered.
4AZA	AIR BRAKE ABS {Bendix AntiLock Brake System} Full Vehicle Wheel Control System (4-Channel)
4EBS	AIR DRYER {Bendix AD-9} With Heater
	Includes : AIR DRYER LOCATION Inside Left Rail, Back of Cab
4EXP	BRAKE CHAMBERS, FRONT AXLE {Bendix} 20 SqIn

Code	Description
4EXU	BRAKE CHAMBERS, REAR AXLE {Bendix EverSure} 30/30 Spring Brake
4JCJ	BRAKES, FRONT, AIR CAM S-Cam; 16.5" x 5.0"; Includes 20 Sq. In. Long Stroke Brake Chambers
	Notes : Front Axle with 14,000-lb GAWR is Limited to 13,200-lb GAWR when used in Conjunction with 15" BRAKES, FRONT, AIR CAM. : The following features should be considered when calculating Front GAWR: Front Axles; Front Suspension; Brake System; Brakes, Front Air Cam; Wheels; Tires.
4NDB	BRAKES, REAR, AIR CAM S-Cam; 16.5" x 7.0"; Includes 30/30 Sq.In. Long Stroke Brake Chamber and Spring Actuated Parking Brake
	Notes : The following features should be considered when calculating Front GAWR: Front Axles; Front Suspension; Brake System; Brakes, Front Air Cam; Wheels; Tires.
4SBC	AIR COMPRESSOR {Bendix Tu-Flo 550} 13.2 CFM Capacity
4WBX	DUST SHIELDS, FRONT BRAKE for Air Brakes
4WDM	DUST SHIELDS, REAR BRAKE for Air Brakes
4WZJ	AIR TANK LOCATION (2) : One Mounted Under Each Frame Rail, Front of Rear Suspension, Parallel to Rail
5708	STEERING COLUMN Tilting
5CAL	STEERING WHEEL 2-Spoke, 18" Diam., Black
5PSM	STEERING GEAR {Sheppard HD94} Power
7BEM	EXHAUST SYSTEM Switchback Horizontal Aftertreatment Device, Frame Mounted Right Side Under Cab; Includes Single Short Horizontal Tail Pipe, Frame Mounted Right Side Back of Cab
7SDL	ENGINE COMPRESSION BRAKE for Navistar N9/10 I6 Engines; Electronically Activated
8000	ELECTRICAL SYSTEM 12-Volt, Standard Equipment
	Includes : BATTERY BOX Steel : DATA LINK CONNECTOR For Vehicle Programming and Diagnostics In Cab : FUSES, ELECTRICAL SAE Blade-Type : HAZARD SWITCH Push On/Push Off, Located on Top of Steering Column Cover : HEADLIGHT DIMMER SWITCH Integral with Turn Signal Lever : JUMP START STUD Located on Positive Terminal of Outermost Battery : PARKING LIGHT Integral with Front Turn Signal and Rear Tail Light : STARTER SWITCH Electric, Key Operated : STOP, TURN, TAIL & B/U LIGHTS Dual, Rear, Combination with Reflector : TURN SIGNAL SWITCH Self-Cancelling for Trucks, Manual Cancelling for Tractors, with Lane Change Feature : TURN SIGNALS, FRONT Includes Reflectors and Auxiliary Side Turn Signals, Solid State Flashers; Flush Mounted : WINDSHIELD WIPER SWITCH 2-Speed with Wash and Intermittent Feature (5 Pre-Set Delays), Integral with Turn Signal Lever : WINDSHIELD WIPERS Single Motor, Electric, Cowl Mounted : WIRING, CHASSIS Color Coded and Continuously Numbered
8518	CIGAR LIGHTER Includes Ash Cup
8GXD	ALTERNATOR {Leece-Neville AVI160P2013} Brush Type; 12 Volt 160 Amp. Capacity, Pad Mount, With Remote Sense

Code	Description
8HAB	BODY BUILDER WIRING Back of Standard Cab at Left Frame or Under Extended or Crew Cab at Left Frame; Includes Sealed Connectors for Tail/Amber Turn/Marker/ Backup/Accessory Power/Ground and Sealed Connector for Stop/Turn
8MKL	BATTERY SYSTEM {International} Maintenance-Free, (3) 12-Volt 1950CCA Total
8RGA	2-WAY RADIO Wiring Effects; Wiring With 20 Amp Fuse Protection, Includes Ignition Wire With 5 Amp Fuse, Wire Ends Heat Shrink and Routed to Center of Header Console in Cab
8RKB	RADIO {Panasonic CQ120} AM/FM, Includes Multiple Speakers, Includes Auxiliary Input Includes : SPEAKERS IN CAB (2) Dual-Cone with Deluxe Interior : SPEAKERS IN CAB (4) Coaxial with Premium Interior
8VAY	HORN, ELECTRIC Disc Style
8WCL	HORN, AIR Black, Single Trumpet, Air Solenoid Operated
8WTK	STARTING MOTOR {Delco Remy 38MT Type 300} 12 Volt; less Thermal Over-Crank Protection
8WWJ	INDICATOR, LOW COOLANT LEVEL With Audible Alarm
8WZK	HEADLIGHTS Halogen; Composite Aero Design for Two Light System
8XDU	BATTERY BOX Steel, With Aluminum Cover, 14" Wide, 3 Battery Capacity, Mounted Left Side Under Cab
9HAD	GRILLE Chrome
9WAY	FRONT END Tilting, Fiberglass, With Three Piece Construction
10060	PAINT SCHEMATIC, PT-1 Single Color, Design 100 Includes : PAINT SCHEMATIC ID LETTERS "GA"
10761	PAINT TYPE Base Coat/Clear Coat, 1-2 Tone
10771	PAINT CLASS Single Custom Color
11001	CLUTCH Omit Item (Clutch & Control)
12959	BLOCK HEATER, ENGINE {Phillips} 120 Volt/1250 Watt Includes : BLOCK HEATER SOCKET Receptacle Type; Mounted below Drivers Door
12NWC	ENGINE, DIESEL {Navistar N9} EPA 2010, SCR, 300 HP @ 2000 RPM, 860 lb-ft Torque @ 1200 RPM, 2200 RPM Governed Speed, 300 Peak HP (MAX) Includes : AIR COMPRESSOR AIR SUPPLY LINE Naturally-Aspirated (Air Brake Chassis Only) : ANTI-FREEZE Red Extended Life Coolant; -40 Degrees F/ -40 Degrees C; for MaxxForce and Navistar Engines : COLD STARTING EQUIPMENT Intake Manifold Electric Grid Heater with Engine ECM Control : CRUISE CONTROL Electronic; Controls Integral to Steering Wheel : ENGINE OIL DRAIN PLUG Magnetic : ENGINE SHUTDOWN Electric, Key Operated : FUEL FILTER Included with Fuel/Water Separator : FUEL/WATER SEPARATOR Fuel/Water Separator and Fuel Filter in a Single Assembly; With Water-in-Fuel Sensor; Engine Mounted : GOVERNOR Electronic : OIL FILTER, ENGINE Spin-On Type : WET TYPE CYLINDER SLEEVES

Code	Description
12THT	FAN DRIVE {Horton Drivemaster} Direct Drive Type, Two Speed With Residual Torque Device for Disengaged Fan Speed Includes : FAN Nylon Notes : Recommend Code 12THT when using front mount obstructions (winches, cones, reels, etc.) that restrict air flow through the radiator.
12UAW	RADIATOR Aluminum; 2-Row, Cross Flow, Over Under System, 1045 SqIn Louvered, With 373 SqIn CAC, With In Tank Oil Cooler
12UNR	FEDERAL EMISSIONS EPA, OBD and GHG Certified for Calendar Year 2015; N9 & N10 Engines
12VBR	AIR CLEANER With Service Protection Element Includes : GAUGE, AIR CLEANER RESTRICTION Air Cleaner Mounted
12VXV	THROTTLE, HAND CONTROL Engine Speed Control for PTO; Electronic, Mobile, Variable Speed; (Range 2 to 20 MPH) Mounted on Steering Wheel
12VZA	ENGINE CONTROL, REMOTE MOUNTED Provision for; Includes Wiring for Body Builder Installation of PTO Controls; With Ignition Switch Control for MaxxForce and Navistar post 2007 Emissions Electronic Engines
12WZE	EMISSION COMPLIANCE Federal, Does Not Comply With California Clean Air Idle Regulations
13AAZ	AUTOMATIC NEUTRAL Allison WT, 3000 & 4000 Series Transmission Shifts to Neutral When Parking Brake is Engaged
13AVH	TRANSMISSION, AUTOMATIC {Allison 3500_RDS_P} 5th Generation Controls; Wide Ratio, 5-Speed, With Overdrive; Refuse/Mixer; Includes Oil Level Sensor, With PTO Provision, Less Retarder, With 60,000-lb GVW Max.
13WBL	TRANSMISSION SHIFT CONTROL {Allison} Push-Button Type; for Allison 3000 & 4000 Series Transmission
13WLP	TRANSMISSION OIL Synthetic; 29 thru 42 Pints
13WUK	ALLISON SPARE INPUT/OUTPUT for Rugged Duty Series (RDS); Side Loaders
13WYS	SHIFT CONTROL PARAMETERS Allison 3000 or 4000 Series Transmissions, 5th Generation Controls, with EcoCal, Dynamic Shift Sensing and Neutral at Stop-Premium (FuelSense Plus)
14AHB	AXLE, REAR, SINGLE {Dana Spicer S23-170} Single Reduction, 23,000-lb Capacity, R Wheel Ends . Gear Ratio: 4.78 Includes : REAR AXLE DRAIN PLUG (1) Magnetic, For Single Rear Axle Notes : The following features should be considered when calculating Rear GAWR: Rear Axles; Rear Suspension; Brake System; Brakes, Rear Air Cam; Brake Shoes, Rear; Special Rating, GAWR; Wheels; Tires. : When Specifying Axle Ratio, Check Performance Guidelines and TCAPE for Startability and Performance
14VAJ	SUSPENSION, RR, SPRING, SINGLE Vari-Rate; 31,000-lb Capacity, With 4500 lb Auxiliary Rubber Spring Notes : The following features should be considered when calculating Rear GAWR: Rear Axles; Rear Suspension; Brake System; Brakes, Rear Air Cam; Brake Shoes, Rear; Special Rating, GAWR; Wheels; Tires.
15LKH	FUEL/WATER SEPARATOR with Filter Restriction/Change Indicator, Includes Standard Equipment Water-in-Fuel Sensor
15SXJ	FUEL TANK Top Draw; Non-Polished Aluminum, 24" Diam., 50 U.S. Gal., 189 L Capacity, Mounted Left Side Under Cab

Code	Description
15WCN	DEF TANK 5 U.S. Gal. Capacity; Frame Mounted Outside Left Rail, Under Cab
16030	CAB Conventional Includes : ARM REST (2) Molded Plastic; One Each Door : CLEARANCE/MARKER LIGHTS (5) Flush Mounted : COAT HOOK, CAB Located on Rear Wall, Centered Above Rear Window : CUP HOLDERS Two Cup Holders, Located in Lower Center of Instrument Panel : DOME LIGHT, CAB Rectangular, Door Activated and Push On-Off at Light Lens, Timed Theater Dimming, Integral to Console, Center Mounted : GLASS, ALL WINDOWS Tinted : GRAB HANDLE, CAB INTERIOR (1) "A" Pillar Mounted, Passenger Side : GRAB HANDLE, CAB INTERIOR (2) Front of "B" Pillar Mounted, One Each Side : INTERIOR SHEET METAL Upper Door (Above Window Ledge) Painted Exterior Color : STEP (4) Two Steps Per Door
16HBA	GAUGE CLUSTER English With English Electronic Speedometer Includes : GAUGE CLUSTER (5) Engine Oil Pressure (Electronic), Water Temperature (Electronic), Fuel (Electronic), Tachometer (Electronic), Voltmeter : ODOMETER DISPLAY, Miles, Trip Miles, Engine Hours, Trip Hours, Fault Code Readout : WARNING SYSTEM Low Fuel, Low Oil Pressure, High Engine Coolant Temp, and Low Battery Voltage (Visual and Audible)
16HKT	IP CLUSTER DISPLAY On Board Diagnostics Display of Fault Codes in Gauge Cluster
16HLJ	GAUGE, DEF FLUID LEVEL
16JNT	SEAT, DRIVER {National 2000} Air Suspension, High Back With Integral Headrest, Vinyl, Isolator, 1 Chamber Lumbar, With 2 Position Front Cushion Adjust, -3 to +14 Degree Angle Back Adjust Includes : SEAT BELT 3-Point, Lap and Shoulder Belt Type
16SMH	SEAT, TWO-MAN PASSENGER {National} Fixed Back, Integrated Headrest in Both Occupant Positions, Vinyl, With Under Seat Storage Compartment
16SNC	MIRRORS (2) {Lang Mekra} Rectangular, Thermostatically Controlled Heated Heads, Bright Finish Heads, with Black Brackets and Arms, Breakaway Type, 7.55" x 14.1" Integral Convex Both Sides, 102" Inside Spacing,
16WCT	AIR CONDITIONER {Blend-Air} With Integral Heater & Defroster Includes : HEATER HOSES Premium : HOSE CLAMPS, HEATER HOSE Mubea Constant Tension Clamps : REFRIGERANT Hydrofluorocarbon HFC-134A
16WJS	INSTRUMENT PANEL Center Section, Flat Panel
16WLE	STORAGE POCKET, DOOR Molded Plastic, Full Width; Mounted on Passenger Door
16WRX	CAB INTERIOR TRIM Deluxe Includes : "A" PILLAR COVER Molded Plastic : CAB INTERIOR TRIM PANELS Cloth Covered Molded Plastic, Full Height; All Exposed Interior Sheet Metal is Covered Except for the Following: with a Two-Man Passenger Seat or with a Full Bench Seat the Back Panel is Completely Void of Covering : CONSOLE, OVERHEAD Molded Plastic; With Dual Storage Pockets with Retainer Nets and CB Radio Pocket : DOOR TRIM PANELS Molded Plastic; Driver and Passenger Doors : FLOOR COVERING Rubber, Black : HEADLINER Soft Padded Cloth

Code	Description
	: INSTRUMENT PANEL TRIM Molded Plastic with Black Center Section : STORAGE POCKET, DOOR (1) Molded Plastic, Full-Length; Driver Door : SUN VISOR (2) Padded Vinyl with Driver Side Toll Ticket Strap, Integral to Console
16WSK	CAB REAR SUSPENSION Air Bag Type
16XWD	SUNSHADE, EXTERIOR Aerodynamic, Painted Roof Color; Includes Integral Clearance/Marker Lights
27DRN	WHEELS, FRONT {Accuride} DISC; 22.5" Painted Steel, 5-Hand Hole, 10-Stud (285.75MM BC) Hub Piloted, Flanged Nut, Metric Mount, 8.25 DC Rims; With .472" Thick Increased Capacity Disc and Steel Hubs Includes : PAINT IDENTITY, FRONT WHEELS White Notes : Compatible Tire Sizes: 11R22.5, 12R22.5, 255/70R22.5, 255/80R22.5, 265/75R22.5, 275/70R22.5, 275/80R22.5, 295/75R22.5, 295/80R22,5
28DRN	WHEELS, REAR {Accuride} DUAL DISC; 22.5" Painted Steel, 5-Hand Hole, 10-Stud (285.75MM BC) Hub Piloted, Flanged Nut, Metric Mount, 8.25 DC Rims; With .472" Thick Increased Capacity Disc and Steel Hubs Includes : PAINT IDENTITY, REAR WHEELS White Notes : Compatible Tire Sizes: 11R22.5, 12R22.5, 255/70R22.5, 255/80R22.5, 265/75R22.5, 275/70R22.5, 275/80R22.5, 295/75R22.5, 295/80R22,5
7372135415	(2) TIRE, FRONT 11R22.5 HSR2 (CONTINENTAL) 498 rev/mile, load range G, 14 ply
7372135423	(4) TIRE, REAR 11R22.5 HDR2 (CONTINENTAL) 491 rev/mile, load range G, 14 ply
	Services Section:
40116	WARRANTY Standard for Durastar 1000/4000 Series, Effective with Vehicles Built January 2, 2015 or Later, CTS-2475P

Bid Specifications
RECOMMENDED SPECIFICATIONS FOR PAK-MOR HLR
CONTAINER-RETRIEVER REFUSE COLLECTION BODY

Scope: It is the intent of this specification to describe a hydraulically actuated refuse packer body with the following minimum specifications considered necessary to perform the work assigned and will be the product of a manufacturer actively engaged in the production of refuse collection equipment and will embody their latest improvements in design and construction. The body's construction and specifications shall be in compliance with the applicable standards as promulgated by the American National Standards Institute (ANSI Z245.1).

I. GENERAL

The body shall be of a cylindrical form, and shall be mounted in a stationary manner that does not require the body to be tilted in order to discharge refuse. The body shall be of a design such that no cutting, welding, and/or material modification of a standard chassis frame forward of the rear axle(s) is required to mount the body. The body shall be equipped with a side loading container handling device capable of engaging, raising, discharging, lowering and disengaging standard square metal containers of 2, 3, and 4 cubic yard containers with the operator/driver remaining in the cab of the chassis throughout the entire cycle. The body shall be capable of handling brush and trimming collection in addition to residential and commercial refuse collection.

II. BODY

A. Capacity: The body, inclusive of the hopper, shall have a minimum gross capacity of 24 cubic yards. The capacity of the hopper shall be a minimum of 8 cubic yards.

B. Dimensions:

1. Inside Diameter: The body shall have an inside diameter of 86 inches.

2. Overall Width: The body shall have an overall width, including container lift device, fenders, etc., of 96 inches.

3. Length: The body shall have an overall length, inclusive of the rear door, of 228 inches.

4. Height: The body shall have a height, inclusive of the lift device, of 98 inches measured from the top of the chassis frame.

5. Weight: The body shall have a weight, inclusive of the lift device, of 13,480 pounds.

C. Construction:

1. Hopper Shell and Body Shell: The hopper and body shells shall be constructed from 3/16 inch high tensile steel reinforced with ribs constructed from 2-1/2 X 2-1/2 X 1/4 inch steel structural angle spaced at a maximum of 37-1/2 inch intervals along the entire length of the body shell.The hopper and body shells shall be constructed from 12 gauge high tensile steel reinforced with ribs constructed from 2-1/2 X 2-1/2 X 1/4 inch steel structural angles spaced at a maximum of 37-1/2 inch intervals along the entire length of the body shell.

2. Floor: The body floor shall be constructed from 1/4 inch high tensile steel reinforced with formed cross members constructed from 1/4 inch high tensile steel spaced at a maximum of 37-1/2 inch intervals along the entire length of the body floor.

3. Hopper Shell Rear Rib: The hopper shell rear rib shall be constructed from 2-1/2 X 2-1/2 X 1/4 inch high tensile steel structural angle.

4. Body Shell Rear Rib: The body shell rear rib shall be constructed from 4 X 3 X 1/2 inch high tensile steel structural angle.

5. Packer Plate Guides: The body shall be equipped with 2 packer plate guides constructed from 6 inch "Vanadium Grade 60", high tensile steel structural I-beams. The guides shall extend the full length of the body located on the body floor.

III. REAR DOOR

A. General: The rear door shall be top hinged, single piece constructed from 3/16 inch steel. The door shall rotate on 2 hinges located on the upper perimeter of the rear door equipped with replaceable pins. The rear door shall be raised and lowered by a hydraulic cylinder. The lower inside perimeter shall be equipped with a replaceable, watertight seal.

B. Automatic Rear Door Locks: The rear door shall be secured by locks at 3 points on the lower perimeter. The locks shall be actuated by a hydraulic cylinder (See also VI C). The locks shall be actuated automatically upon actuation of the rear door lift cylinder(s).

IV. CONTAINER HANDLING (LIFT) DEVICE

A. 1. General: The TRUX-MOR TYPE container handling device shall be comprised of 4 principal components herein after described as a lift frame, a lift carriage, lift links, and track. The lift frame shall serve as a top hopper door (hopper cover) and shall be

hinged on the upper perimeter of the body. The lift frame shall be actuated by 2 hydraulic cylinders (see also VI D) and shall raise the lift carriage to the dump position and return it to the disengage position via the connecting lift links. The lift carriage shall travel on the track and shall be captured and guided on the track by means of cam followers. The lift carriage shall have mechanical locks to capture containers when raising, dumping, and lowering containers. The track shall be hinged on the upper perimeter on the body. The track reach (extend/retract) shall be actuated by 2 hydraulic cylinders. (See also VI E).

2. Location:

General: The container handling device shall be located on the streetside of the body.

A.. Capacity: The container handling device shall have a capacity to lift 3,000 pounds.

B. Reach: The container handling device shall have a reach of 30 inches.

C. Cycle: The container handling device shall be capable of raising, dumping, lowering, and disengaging containers in approximately 20 seconds.

D. Construction:

1. Lift Frame: The lift frame shall have 2 arms constructed from 1/2 X 3 inch flat bar reinforced by side plates constructed from 1/4 inch high tensile steel. The lift frame shall have an integral cover sheet constructed from 10 gauge high tensile steel.

2. Lift Links: The lift links shall be constructed from 2-1/2 X 2-1/2 X 1/4 inch high tensile steel structural tubing.

3. Tracks: The track surfaces shall be constructed from 3/8 inch high tensile steel.

V. PACKING MECHANISM

A. General: The packer plate shall be actuated by a single hydraulic cylinder mounted in the horizontal plane (see also VI A). The cylinder shall be connected to the packer plate by trunnion mountings. The packer plate shall be capable of traversing the entire length of the body and shall be capable of exerting 15 psi of force across the face of the packer plate. The packing mechanism shall operate such that the pack cycle terminates automatically prior to the packer plate contacting the rear door. The packing mechanism shall have the capability to laterally traverse and return through approximately 42 inches of the hopper opening in 10 to 12 seconds ("sweep" cycle) by actuation of a control handle separate from the control handle

provided to compact refuse within the body. The packing mechanism shall serve as the ejection means for the body. The ejection cycle of the body shall be accomplished by the simultaneous actuation of the pack and "sweep" cycles, causing the packer plate face to move completely to the rear opening of the body.

B. Packer Plate:

1. Construction: The packer plate shall be constructed with a 3/16 inch steel face sheet reinforced with a 1/4 inch high tensile steel frame and 3/16 inch high tensile and 1/4 inch high tensile steel reinforcing members.

2. Packer Plate Mounting/Guide Means: The packer plate shall be mounted on replaceable steel shoes of a 6 inch width that shall ride in the 6 inch I-beam packer plate guides installed in the body floor.

C. Packer Lock-Out: The packing mechanism shall be equipped with the capability to prevent containers from being dumped behind the packer plate.

VI. HYDRAULIC SYSTEM

A. Packing Mechanism Cylinder: The cylinder to actuate the packing mechanism (See also V A) shall be multi-stage, double acting, with a main bore diameter of 8-7/16 inches and a stroke length of 176 inches. The cylinder stages shall have overlaps of 10 to 12 inches and chrome plate outside diameter surfaces. The cylinder shall be capable of exerting 92,000 lbs. of output force.

B. Rear Door Lift Cylinder: The cylinder to actuate the rear door (See also III A) shall be chrome plated rod, single stage, double acting, with a bore diameter of 3 inches and a stroke length of 16 inches.

C. Automatic Rear Door Lock Cylinder: The cylinder to actuate the automatic rear door locks (See also III B) shall be chrome plated rod, single stage, double acting, with a bore diameter of 2-1/2 inches and a stroke length of 6-3/4 inches.

D. Lift Frame Cylinders: The cylinders to actuate the lift frame (see also IV A) shall be chrome plated rod, single stage, double acting, with a bore diameter of 4 inches and a stroke length of 24 inches.

E. Track Reach (Extend/Retract) Cylinders: The cylinders to actuate the track (see also IV A) shall be chrome plated rod, single stage, double acting, with a bore diameter of 2-1/2 inches and a stroke length of 16 inches.

F. Pump: The pump shall be a tandem gear type delivering 48 GPM at an RPM of 1800.

G. Main Control Valve and Container Handling Device Control Valve: The valves shall be sectional type valves.

H. Hoses and Fittings: The hoses shall be double braid wire reinforced with a 4 to 1 burst pressure to system operating pressure ratio. All hose fittings shall be JIC type swivel fittings.

I. Frame Mounted Oil Reservoir:

1. Capacity: The oil reservoir shall have a 50 gallon capacity.

2. Location: The oil reservoir shall be mounted on the frame of the chassis.

3. The Oil Reservoir Shall Be Equipped With The Following Items:

a. Internal baffling to enhance oil flow and heat dissipation.

b. A magnetic trap extending into the reservoir to collect metal particles which may enter the hydraulic system.

c. An oil sight level gauge to permit visual determination of the oil level in the reservoir.

d. A filler-breather cap capable of straining oil as it is poured into the reservoir and capable of providing 35 cubic feet of air breathing capacity.

e. A removable clean-out port equipped with a replaceable oil tight seal.

J. Shut-off Valve: A shut-off valve shall be located in the suction line of the hydraulic system between the oil reservoir and the suction line filter.

K. Filters:

1. Return Line Filter: A filter, having a 150 GPM flow capacity, one- way bypass valve, replaceable 10 micron element, and visual indicator, shall be mounted on the tank.

2. Suction Line Filter: A suction strainer, 100 wire mesh (149 micron) with 5 psi bypass shall be located at the suction line port of the hydraulic tank.

L. Operating Pressure: The hydraulic system shall operate at a pressure of 1800 psi and shall be capable of operating at a pressure of 2000 psi. The container handling (lift) device hydraulic system shall operate at a pressure of 1200 psi.

VII. CONTROLS

A. PLC Cab Controls: A CAN based logic controller combined with a compatible sealed control panel shall be used for electric over air over hydraulic functions of operating the packer blade, rear door, and auxiliary lighting. The control panel shall contain a 3 inch LCD display for monitoring system operation. The display shall possess self-diagnosing error codes for troubleshooting. The system shall be designed as to allow the operator to switch between manual and automated packing cycles. The packer blade, tailgate, and side access door shall be appropriately interlocked through this device as to promote proper operation and prevent damage to the unit. Electronic over-speeding of the PTO shall be provided through this logic controller, and an hour meter for time of operation shall be displayed. A four-way joystick, air actuated control shall be located in the cab of the chassis to operate the container handling device.

B. Indicator Lights: Indicator lights shall be located in the cab of the chassis to indicate to the operator/driver the following:

1. The container handling device lift carriage requires repositioning before traveling.

2. The rear door is unlocked/opened.

3. The packer plate is extended.

VIII. REFUSE RETAINERS

Refuse retainers shall be located on the inside surface of the body roof aft of the hopper opening. The retainers shall be of a saw-toothed form constructed from 1/2 inch steel.

IX. ACCESS DOOR

An access door, 38 inches in width X 31 inches in height, shall be located on the side of the body opposite the side on which the container handling device is located. The door shall be hinged on the rear perimeter and securable on the front perimeter. The access door shall be equipped with a sensor that disengages the power take-off or pump drive when the access door is opened (Note: If unit is equipped with an air actuated or mechanical power take-off, the sensor will kill the engine when the access door is opened).

X. WARNING ALARM

A warning alarm shall be provided that emits an audible, intermittent signal when the chassis transmission is in the reverse position or when the rear door of the body is not in the fully lowered position.

XI. LIGHTS

LED Lights and reflectors shall be located on the body in accordance with Federal Motor Vehicle Safety Standard No. 108. An additional stop light shall be located on the rear door of the body.

XII. HOPPER LIGHT AND WORK LIGHT

A sealed beam, white hopper light shall be mounted on the streetside front of the hopper. A sealed beam white light shall be mounted on the front of the body that shall illuminate the lower portion of the container handling (lift) device. The lamps shall be of a 4 inch diameter and surface mounted. The lights shall be actuated manually by a switch located in the cab of the chassis.

XIII. MID-BODY MARKER/TURN LIGHTS

An additional amber marker/turn light shall be mounted on each side of the body behind the hopper shell rear rib. The lamps shall be of a 4 inch diameter and flush mounted with rubber grommets in their mounting brackets.

XIV. STROBE LIGHT

A strobe light that emits a yellow, intermittent signal shall be mounted on the upper face sheet of the rear door. The light shall be manually actuated by a switch located in the cab of the chassis.

Delea Patterson, AP/Purchasing
City of Gatlinburg
1230 Parkway East
P.O. Box 5
Gatlinburg, TN 37738

RE: One (1) 2016 Side Load Garbage Truck.

The specifications for the above-mentioned items have been reviewed and the following is offered for purchase and delivery of the following 2016 Side Load Garbage Truck:

$_____
2016 Side Load Garbage Truck

_____
Make & Model Cab & Chassis

_____
Type of Container Body

Estimated Days for delivery after bid awarded _____.

If offering Equivalent models, please note in Deviations section below.

All bids are to include delivery to a specified location in Gatlinburg.

Any deviations from these specifications are listed below (use back if necessary).
DEVIATIONS YES____ NO____
_____

_____

_____

Bidder Contact Information:

_____	_____
Signed/	Date
_____	_____
Name (Print)	Telephone
_____	_____
Company Name	Fax Number
_____	_____
Address	Email

_____

City State Zip

EACH BIDDER SHALL SUBMIT THIS STATEMENT OF COMPLIANCE WITH THEIR BID.

For Title VI and IX compliance, we ask for voluntary disclosure of the following information:

Gender:	Male	_____
	Female	_____
Race:	Caucasian	_____
	African-American	_____
	Other (specify)	_____

BIDDERS LIST

Ted Russell Ford
8551 Kingston Pike
Knoxville, TN 37919
865-251-3673
aunderwood@tedrussell.com

Stinnett Motor Company
P. O. Box 547
Newport, TN 37821
Stinnettcars@gmail.com

Volunteer Chevrolet
P.O. Box 5707
Sevierville, TN 37864
cutshaw@comcast.net

Reeder Chevrolet Company
4301 Clinton Highway
Knoxville, TN 37912
rickboggs@reederchevy.com

McNelly-Whaley Ford
P.O. Box 4250
Sevierville, TN 37864
tonywatkins@mcnellywhaley.us

Mid-State Equipment Co.
Attn: Larry Beavers
17573 Main Street
Buchanan, VA 24066
salt_lit@mounet.com

Municipal Equipment, Inc.
313 Jenso Drive
Knoxville, TN 37912
502-962-6499 Fax
mequip@iglou.com

Big Orange Sales & Service, LLC
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