



## INVITATION FOR BIDS

### NOTICE TO BIDDERS

The City of Alamosa Department of Public Works, 300 Hunt Avenue, Alamosa, CO will be accepting bids until 1:30 p.m., April 12, 2019 for a 2019 Automated Side Load Trash Truck. Specifications may be obtained at Alamosa Public Works Department, 300 Hunt Avenue, or on the City Web site at [www.cityofalamosa.org](http://www.cityofalamosa.org)

Envelopes containing bid proposals shall be addressed as follows:

Harry Reynolds  
Interim Public Works Director, City of Alamosa  
P O Box 419  
Alamosa, CO 81101

Bids may be hand-delivered or mailed to the Public Works Department. Bids must be placed in one envelope, securely sealed and clearly labeled, 2019 Automated Side Load Trash Truck. The City of Alamosa will not be responsible for premature opening of bids not properly labeled.

On the outside of the bid, there shall be disclosed: 1) the name of the bidder; and 2) bidder's address. Only bids received on or before the aforesaid date and hour set for closing of this Invitation For Bid (IFB) will be eligible for consideration. Any bid received after the closing time, regardless of the method of delivery, will be returned unopened to the Bidder. Bids may not be withdrawn after closing time.

All bids will be evaluated and selections made as soon as possible after bid opening. Award of bid is subject to approval by the Alamosa City Council.

The City of Alamosa reserves the right to reject any and all bids, to waive formalities and informalities, and to award orders for the items described either in whole or in part, if it seems to be in the best interest of the City to do so.

Questions concerning this IFB should be directed to: Tim Hillis at (719) 589-5485

## 2019 Automated Side Load Trash Truck

Please specify capacity/spec when substituting. These chassis specifications are based off of a Peterbilt 520. The Automated side load body specifications are based off of a New Way SideWinder All makes and models which meet these minimum specifications will be considered. If not compliant, state specifically item being offered.

Minimum Specifications	Complies Y/N	Comment
<b>Engine</b>		
ISX12 350R 350 hp @ 1800 RPM Gov @2100		
1450 lbs. ft. max torque @ 1100 rpm		
Immersion type block heater		
2 speed fan clutch		
Heavy Duty air cleaner		
Air restriction indicator mounted on air cleaner or intake piping		
18.7 CFM air compressor		
Fuel filter/ Water separator 120V and 12V heater		
Vertical exhaust DPF/SCR transverse mounted		
Engine protection shutdown w/dash labels		
<b>Transmission</b>		
6 speed automatic, Allison 4500-RDS-6 Gen 5.		
Console mounted push button shifter		
Direct mount oil cooler		
External oil cooler		
Internal filter		
Oil level sensor		
<b>Frame</b>		
10 3/4" steel rails 306-342" 3/8" rail thickness		
Full steel inner liner		
Bumper extensions		
Mud Flaps		
Solid mount tow hooks		
<b>Front Axle</b>		
20,000 lb axle		
Tapered leaf springs with shocks		

Minimum Specifications	Complies Y/N	Comment
Heavy duty air brakes S cam type		
Automatic Slack adjusters		
Brake drums-cast outboard mounted		
Front brake dust shields		
Power steering		
<b>Rear Axle</b>		
23,000 lb intermediate axle		
23,000 lb rear axle		
GVWR 66,000 lbs		
4.89 ratio rear		
Long stroke parking brakes on drive axles		
Heavy duty air brakes S cam type		
Automatic Slack adjusters		
Rear brake cam shaft reinforcement		
Brake drums-cast outboard mounted		
Shock absorbers		
Rear brake dust shields		
(4) High mounted rear spring brake chambers		
<b>Air system</b>		
Air dryer with heater		
Air tank valve guards		
Nylon chassis hose		
Steel painted air tanks		
Automatic drain valves on all tanks		
<b>Fuel Tanks</b>		
26" Aluminum fuel tank 80 gal		
DEF tank will be applicable to vehicle needs and conform to EPA regulations.		
<b>Electrical</b>		
3 ea 12 V batteries 2100 CCA		
160 amp alternator		
Battery disconnect switch mounted on the battery box.		
<b>Cab/Chassis</b>		
Right and left hand drive		
Ignition will be placed to where the		

Minimum Specifications	Complies Y/N	Comment
driver won't hit it when entering or exiting the vehicle.		
2 sets of keys		
Grey interior color		
Driver's and Passenger seat will be air ride with left arm rest, head rest, and lumbar support		
Seats will be vinyl		
Drivers and passenger seats will have seat belts.		
Engine oil temperature gauge		
Engine oil pressure gauge		
Transmission oil temperature gauge		
Dual air pressure gauge		
Voltmeter gauge		
Engine coolant temperature gauge		
Fuel level gauge		
Speedometer gauge with odometer		
Tachometer gauge		
Low air pressure indicator light and buzzer		
Power divider lockout w/warning light and buzzer		
Dome lights with self-contained switches		
12V Aux power outlet		
Climate control system, heater/ AC		
Electric horn on steering wheel		
Turn signal switch		
Parking brake control w/ warning light		
Two piece flat windshield		
Sun Shade for windshield		
Fixed rear window		
Power windows		
Power mirrors/heated mirrors, one piece mirrors, not the triplex style.		
8" convex mirror on both sides		
Air horn mounted under cab		
AM/FM radio with blue tooth phone and aux port		
Hydraulic cab tilt		
Electric windshield wipers w/ intermittent feature		
Windshield washer, electric, w/ 7qt		

Minimum Specifications	Complies Y/N	Comment
reservoir		
2 Horizontal grab handles		
Rain gutters above both doors		
Warning Triangle reflector kit		
Back up alarm (87-112 decibels)		
Headlights dual rectangular halogen		
(5) Light guards on marker lights		
(5) LED clearance, (2) LED marker lights		
Front fender mud flaps		
Daytime running lights		
Cab paint will be white		
<b>WHEELS</b>		
Front Wheels – 22.5 x 9.0 (228 mm) 10 hole piloted steel wheels.		
Rear Wheels – 22.5 x 9.0 (228 mm) 10 hole piloted steel wheels		
<b>TIRES</b>		
Front tires: 315 80R22.5 20 L Bridgestone M860A		
Rear Tires : 315 80R22.5 20 L Bridgestone M860A		

### **AUTOMATED SIDE LOAD APPLICATION**

It is the intent of these specifications to describe the minimum requirements for an automated side loading refuse compactor body.	
The capacity shall be 28 cubic yards, exclusive of the hopper.	
Features standard to this unit will be furnished by the successful bidder. Body shall conform in strength, quality of material, and workmanship to that provided by the best engineering and manufacturing practices of the industry.	
All equipment shall be new design, assembled and ready for operation at the	

time of delivery.	
Bidders shall attach a statement that the unit meets or exceeds these specifications and/ or list any exceptions fully and accurately.	
<b>GENERAL</b>	
Refuse body will have a capacity of 28 cubic yards, exclusive of the hopper.	
Packer body capable of packing 850 pounds per cubic yard of dry household trash.	
Hopper shall have a minimum capacity of 5 cubic yards	
<b>BODY CONSTRUCTION</b>	
The body shall be all welded construction	
Body wall thickness is 10 gauge Hardox 450, 174,000 psi strength.	
Body roof thickness is 10 gauge, 80,000 psi.	
Body floor is 8 gauge AR 450	
Sides, front and rear to be reinforced for strength requirements.	
Reinforcement design and characteristics dependent upon construction methods used, but they must be certified to meet the specified compacting requirements without body distortion.	
Unit shall have a shovel holder.	
Unit shall have a clean out tool. Unit shall have a dual cleanout doors with a dimension of 12" x 16" each.	
Body will match cab paint (White)	
<b>BODY DIMENSIONS</b>	
Body height above truck frame is not to exceed 108".	
Outside width of the body is not to exceed 96"	
<b>PACKER BODY</b>	
The packing panel is to be 3/8" 50,000 psi steel.	
The packing mechanism is to retain compacted material in the body.	
The length of the packing cycle is to be	

determined by proximity switches. When the Auto Pack feature sees maximum pressure 3 consecutive times it shuts off indicating that the packer is full.	
Packing features are dependent upon each manufactures design, but must be capable of accomplishing the requirements set forth in these specifications. It must also fulfill the operational claims made by the manufacturer.	
Packing shall complete a pack cycle in a minimum of 20 seconds at idle speed.	
Packing cylinder sleeves are chrome plated single stage cylinders. Cylinder dimensions are cylinder bore diameter is 4 ½, Cylinder rod diameter is 3”, and stroke length is 43”.	
The packer body can be either a full eject or raise to dump body.	
<b>HOPPER</b>	
The hopper shall have a minimum capacity of 5 cubic yards	
The hopper floor shall be a minimum of ¼” AR 400 abrasion resistant steel	
The hopper sides are to be a minimum of ¼” AR 400 abrasion resistant steel	
A hydraulic crusher panel will be furnished to prevent refuse loss during transport	
A ladder or foot supports with grab handles shall be designed to meet OSHA standards and provide easy access to the hopper area	
The hopper shall have a minimum displacement rate of 5.4 cubic yards per minute.	
Unit shall have 3/16 AR400 hopper floor liner.	
<b>PACKING MECHANISM</b>	
The packing panel is to be 3/8 50,000 psi steel	
The packing mechanism is to retain compacted material in the body	
Length of packing cycle is to be determined by proximity switches. When the packer sees maximum pressure it	

should shut off indicating the packer is full.	
The packer shall be designed to allow dumping of the container regardless of the position of the packing panel during the compaction cycle.	
Packing features are dependent upon each manufactures design, but must be capable of accomplishing the requirements set forth in these specifications. It must also fulfill the operational claims made by the manufacturer.	
Packing shall complete a pack cycle in a maximum of 20 seconds at idle speed.	
The packer will be a hydraulically actuated cylinder or cylinders having chrome plated tubes, and have spherical bearings on both ends.	
The packer cylinder will have grease zerks that are located on the rod and base and shall be accessible from the ground.	
<b>LIFTING AND GRIPPING MECHANISM</b>	
The lifting mechanism shall be capable of gripping, lifting, raising, and dumping containers from 36 to 110 gallons with the use of a joystick. The joystick shall be conveniently located to the left of the operator. An ergonomically designed padded armrest shall be provided to support the operator's arm during operation. The Joystick needs to be adjustable to accommodate a 5' foot person to a 6'2" person.	
The arm will consist of three horizontal mast sections, one vertical lift section with 2 arms.	
The inner mast sections will be constructed of 2 C channels with a web thickness of .5512", height of 6.189" and a leg width of 2.409". Both channels shall be 78.25"	
The middle C channels shall be of the same material only 84" long.	
The main outer mast assembly shall be constructed of 2 C shaped channels with a web thickness of .6378", height of 6.890" and a leg width of 2.5937" these channels shall be 83.75" in length.	



There will be 6 combination bearings that the mast assembly rides on. The bearing surfaces must be of a 62 Rockwell hardness on the C scale.	
The main vertical mast shall be made from 6" x 8" 3/16 thick tube.	
There will be 2 lift arms 1" thick, 3.475" wide, and approximately 26" long made from T-1 steel.	
The lifting mechanism must be mounted to the chassis. Lifting mechanisms mounted to the body will not be acceptable.	
The mechanism shall be spring steel and have the capability of gripping containers within the range previously mentioned without having to change grip arm configurations	
Gripping force is to be adjustable to provide container retention and also for limiting the radial force applied to prevent container damage.	
Lifting mechanism shall be capable of a complete cycle, which includes grip, lift, dump, undump, lower, and ungrasp in a maximum of 8 seconds.	
The mechanism shall be capable of lifting, raising, dumping, and returning containers from any position within its reach.	
The mechanism shall incorporate serviceable bearings at the grip, pivot, and extension-reaction points to ensure smooth operation and long service life.	
The "reach" of the mechanism shall extend a minimum of 8 feet from its fully retracted to pivot, and extension-retraction points to ensure smooth operation and long service life.	
The mechanism will be capable of lifting 1000 lbs at any point to which the arm is extended.	
The container shall be tilted a minimum of 45 degrees past horizontal to provide full dumping.	
<b>TAILGATE</b>	
The tailgate is to be hinged at or above the roofline using high strength steel hinges. It	

is to be raised for load dumping by 2 double acting cylinders mounted on the outside of the tailgate. These cylinders shall be of a design that will prevent rapid lowering of the tailgate in case of a hydraulic component failure.	
The tailgate cylinders shall have chrome plated rams. Cylinder dimensions will be 3” bore diameter, 2” ram, and 30” stroke.	
The tailgate is to be released and locked with no moving parts other than the two (2) primary lift cylinders and associated locking mechanisms.	
A gasket is to be affixed to the tailgate to provide a water tight seal between the body and the tailgate.	
The tailgate must be equipped with a tailgate ajar switch with audible and visual warning devices fixed in the cab which comply with ANSI standards and warns when the tailgate is partially to completely open.	
Body hinge structures must be of proper design, materials, and construction to support the tailgate.	
Tailgate maintenance safety props shall be provided.	
Tailgate bubble is Hardox 450, 174,000 psi, tailgate sides are 10 ga uge 80,000 psi.	
Tailgate will have decal stating “ This vehicle makes frequent stops”	
<b>EJECTION-DUMPING SYSTEM</b>	
Dumping is to be accomplished by raising the body.	
Dumping shall be done by means of a single telescoping, center mounted hydraulic cylinder capable of lifting the box when compacted to a maximum capacity. Hoist cylinder is a Nitrate treated, 4 stage cylinder, with a 150” stroke. Bore Diameter of the cylinder from largest to smallest is 6 ½”, 5 ½”, 4 ½”, 3 ½ “.	
The body dump angle shall be such that all refuse in the box will be removed without sticking or bridging. Body dump angle is	

45 degrees.	
All dumping controls will be a basic control panel system that is cab mounted. Control panel must be interlocked with a manual override to prevent accidental refuse discharge.	
All ejection/dumping controls shall be operated from inside the cab.	
<b>HYDRAULIC SYSTEM</b>	
The hydraulic system is composed of 2 vane pumps, one for the body and one for arm functions. Pumps have a common suction. The hydraulic pressure body line shall have a 12V DC in line mounted solenoid which diverts the flow back to the Inlet when the pump is not engaged and a flow control block which diverts excess flow back to the Inlet. Body functions pump maximum flow is 30 gpm @ 700 rpm. Arm functions pump maximum flow is 22 gpm @ 700 rpm. Hydraulic system pressure relief for the body is 2500 psi and for the arm it is 2000psi.	
Pump capacity shall not be less than 52 gpm @700 rpm and shall have an hour meter.	
Factory installed relief valves shall be incorporated into the system and set at 2500 psi for body functions and 2000 psi for Arm functions.	
A 10 micron absolute filter is installed in the return line.	
The hydraulic tank is to be mounted and equipped with a 10 micron breather element and eye level sight gauge. It will have a heater and a low fluid light in the cab. Tank location will be determined by the body configuration.	
Hydraulic reservoir tank capacity must be at least 78 gallons.	
Hydraulic system must contain cylinders capable of performing the Operational requirements set forth in these specifications.	
Hydraulic hoses are to be SAE approved construction with hose burst pressure 4 times working pressure and have protective	

coverings.	
Hydraulic control assemblies must be located so that at no time or load condition it becomes necessary to remove the load to service these components.	
All cylinders must have the latest design sealing materials.	
Unit must have protective cover on pack manifold.	
<b>CONTROLS</b>	
All compactor operating controls are to be located in the truck cab and mounted for operator convenience.	
Warning signals shall be incorporated into all circuits monitoring abnormal compactor operations.	
Unit shall have a LED arm cycle counter in the cab.	
<b>LIGHTING AND WIRING</b>	
All lights and reflectors shall be in accordance with Federal and State I.C.C. Motor Vehicle Safety Standards.	
Provisions will be made for maximum visibility and may include 2 red stop lights, 2 red turn lights, 2 white backup lights, and an I.D. cluster. All lights must be LED.	
A lighted license plate bracket will be provided.	
Unit must include arm, hopper, and side mounted work lights.	
Unit must include 2 tailgate work lights and four (4) 4-inch amber LED Strobe Lights. It shall have two (2) amber LED's on the front of the body also. All strobes shall come on when the PTO is engaged.	
<b>PAINTING</b>	
All components will be properly cleaned prior to priming.	
All burrs and rough spots are to be removed.	
Two (2) coats of rust inhibiting primer are to be applied prior to the finish coat.	
Final coat to be high gloss paint. Color will be White.	

<b>CAMERAS</b>	
Four color cameras will be provided: 1 <sup>st</sup> placed in the rear for use as a backup camera. 2 <sup>nd</sup> placed to monitor the hopper area. 3 <sup>rd</sup> to be placed on the arm, and 4 <sup>th</sup> to be placed on the left front of the vehicle pointing to the rear to assist the operator with the "blind spot" while entering traffic.	
Color Camera monitor shall be mounted in the cab and be fully adjustable flat screen option so all camera views can be displayed at one (1) time and automatically switch to full screen backup camera when the unit is shifted to reverse.	
Protective cases shall be provided for the cameras.	
All cameras shall have shields to minimize sun glare.	
<b>MANUALS</b>	
Two complete sets of operators, parts, and service manuals will be supplied for truck chassis and refuse body.	

All offers will include the trade in of a 2007 Peterbilt 320 with Heil Rapid Rail Star system with two trailers. One trailer is a 2001 Heil 33 yard and one is a 2005 Heil 33 yard trailer. The trade in value shall be considered as an additive alternate to the base bid.

Trade in value \$\_\_\_\_\_

**Total Package Price fob Alamosa \$\_\_\_\_\_**

Sign: \_\_\_\_\_ Name of Firm: \_\_\_\_\_

Date: \_\_\_\_\_ Address: \_\_\_\_\_  
 \_\_\_\_\_

Phone number: \_\_\_\_\_

Email: \_\_\_\_\_