

March 20, 2020

TO WHOM IT MAY CONCERN:

INVITATION TO BID

The Town of Greeneville will accept sealed bids at 200 N. College Street, Greeneville, TN 37745 until April 7, 2020 at 10:00 a.m., at which time they will be opened for the following:

- **Truck Chassis and Knuckleboom with Trash Dump Body**

Specifications and bid documents may be viewed at www.greenevilletn.gov by clicking on the “Bid Portal” tab. For additional information contact Debbie Parks at 423-638-6152 or via email at dparks@greenevilletn.gov. Envelope should be clearly marked for item(s) being bid. If submitting bids for multiple items, each respective item should be placed in a separate envelope. The Town of Greeneville reserves the right to reject any and all bids and to waive formalities.

TRUCK CHASSIS and KNUCKLEBOOM with TRASH DUMP BODY

The unit(s) to be furnished under this proposal shall be a **Truck Chassis and Knuckleboom with Trash Dump Body** delivered complete and ready for municipal use.

Compliance with the specifications shall be so noted in the yes or no columns designated. Any addition, deletion, or variation from the following specifications shall be so stated in the space provided.

These specifications shall be construed as minimum; however, all exceptions will be weighed carefully against the needs, experiences, and resources of the Town of Greeneville. These specifications also require the bidder furnish descriptive literature, complete specifications, and all other technical data on the equipment as proposed by the perspective bidder. Failure to comply with these conditions will deem the bidder as non-responsive.

KNUCKLEBOOM TRUCK WITH TRASH DUMP BODY			
SPECIFICATIONS	COMPLY		
VEHICLE:	Y	N	OFFERED
The recommended vehicle for this application has a minimum Gross Vehicle Weight of 33,000 lbs., a maximum cab-to-axle dimension of 168 in, a minimum of 1,500,000 RBM frame rating, a minimum frame thickness of 11/32” and 76 in. of after frame.			
PEDESTAL ASSEMBLY:	Y	N	OFFERED
Must be an open A-frame type to allow flexing under repeated load shocks. Total height not to exceed 7 ft. from mounting plate to top of pedestal/main boom connection point.			
Swing post to be single piece high strength solid steel (ASTM 4140) turning in (ASTM-D4020-81) cast nylon bearings. Welded spindle/head assembly is to be stress relieved prior to installation.			
Boom rotation to be accomplished by a direct drive 270 degree planetary gearbox with geroler hydraulic motor. Rotary actuator to have a maximum torque rating of 251,064 in. lbs. This enclosed gearbox eliminates the metal-to-metal wear found in open, exposed pinion and bull gear design. To prevent spindle bending moments from being transmitted to enclosed gearbox, the gearbox must be mounted by means of a torque arm assembly.			

BOOM CONSTRUCTION:	Y	N	OFFERED
Main boom must be comprised of two ea., 4 in. x 8 in. x 3/8 in. thick high tensile steel tubes connected to each other only at their center line to allow a shock absorbing flexing action of the boom. Main boom must have a minimum of 1,200 PSI down pressure on the main boom for compacting loads.			
Tip boom to have an extendible/retractable telescopic section controllable from the operator's platform. Must have mechanical stops to prevent cylinder stress. The inner and outer sleeves of the telescopic section must be separated by replaceable cast nylon wear blocks on all sides to prevent metal-to-metal wear. Hydraulic hoses for the telescopic section must be enclosed in steel box for protection. No exposed tip extension hoses shall be permitted.			
LIFTING CAPACITIES:	Y	N	OFFERED
Boom radius is measured from the center of rotation to the center of the bucket.			
Capacities shown must not exceed 85% of vehicle tipping moment, with machine level and outriggers fully extended. Weight of bucket and/or attachments to boom must be subtracted from lift capacities shown. (Bucket should weigh approximately 1,000 lbs.)			
Boom Radius: 10 ft, Lift Capacity: 7,100 lbs			
Boom Radius: 16 ft, Lift Capacity: 4,400 lbs			
Boom Radius: 20 ft, Lift Capacity: 3,200 lbs			
BOOM CONNECTION POINTS:			
Boom connection points must be equipped with replaceable cast nylon or bronze bushings and a 2 in. bolt with castellated nut to prevent spreading of the connection pivot point.			

TRASH BUCKET:	Y	N	OFFERED
<p>To be a special municipal trash bucket actuated by two double-acting cylinders. The bucket shall be capable of continuous rotation with no need for physical stops. Bucket rotation to be accomplished by a continuous rotation bucket motor with 5,500 in. lbs. torque rating. <u>Bucket must have the capability to be rolled over on the load without damage to any components. This allows a maximum load and keeps boom height within acceptable limits. Bucket must also have a minimum reach of 9 feet below grade to allow pick up of items over bridges and in ditches.</u></p>			
<p>The bucket must incorporate the following: a 3/16-inch smooth steel clamshell scoop for leaves and sand, a minimum of 5 ribs per side to handle branches, logs and appliances, and a trample ram in the center for compressing trash in body.</p>			
<p>The bucket must be 4 ft. long with an opened width of 5 ft. between pickup blades. These blades must be high impact, tempered steel that form a reverse curve in the closed position to help prevent "scalping" and digging of grass lawns. No hydraulic hoses below bucket rotator will be allowed.</p>			
POWER SOURCE:	Y	N	OFFERED
<p>To be a transmission mounted power take off coupled directly to the hydraulic pump (no drive shafts).</p>			
<p>For vehicles with an automatic transmission, the power source shall be a "Hot Shift" PTO. "Hot Shift" automatically disengages the PTO when the truck is placed in gear, and reengages when the truck is placed back in neutral (ready for hydraulic operation). This eliminates the possibility of damage to the hydraulic components that could result if the operator drives the vehicle with the PTO in gear. Also provides for smooth engagement of PTO with no gnashing or grinding of gears.</p>			
<p>Must be equipped with overspeed protection (with the exception of a manual transmission). Over-speeding the pump causes the hydraulic fluid to overheat. Overspeed protection prevents damage to engine, hydraulic system, and major system components resulting from over-speeding the engine. All electrical connections are to be chassis manufactures specifications.</p>			

HYDRAULIC COMPONENTS:	Y	N	OFFERED
Reservoir: 40-gallon baffled tank with suction and return filters and cutoff valves for easy servicing. Includes a sight gauge with a thermometer and a vent filter.			
Cylinders: Double acting with chromed rods and aluminum pistons.			
Main Boom: 5 in. x 32 in. with a 2 ½ in. shaft.			
Tip Boom: 5 in. x 32 in. with a 2 ½ in. shaft.			
Tip Extension: 2 in. x 48 in. with a 1 ¼ in. shaft.			
Bucket: 2.5 in. with 1.5 in. shaft			
Control Valves: Gresen stack type with port reliefs			
Safety Locking Valves: Counter balance valves to be installed on boom and outrigger cylinders and check valves on outrigger cylinders to prevent a leakdown or collapse in case of a hydraulic hose rupture.			
Pump: Single Commercial Intertech P-20			
Conductors: Steel tubing and high tensile steel wire braided hoses, 4,000 PSI, 16,000 PSI minimum burst.			
Pressure: Main relief set at 2,400 PSI maximum.			
ENGINE CONTROL:	Y	N	OFFERED
Engine is to be programmed for the proper RPM level and activated by a heavy-duty switch at the operators station.			

OPERATOR CONTROLS:	Y	N	OFFERED
DUAL CONTROLS: Control platform to be located directly behind cab at the same height as the top of the truck frame to allow operator safe access from the truck cab without ever having to touch the ground. This provides the operator with superior visibility relative to the material being handled. A single bank of control valves to be mounted at the mid-point of loader, with control handles accessible from the operator platform on either side of truck. Mechanical joystick controls with mechanical linkage actuating valves from both sides of control platform. A "Grip Strut" serrated steel walk platform is included. A metal plate shall be installed underneath the platform to deflect heat from the exhaust away from the operator.			
OUTRIGGER STABILIZERS:	Y	N	OFFERED
Outriggers to be constructed with hydraulically powered telescoping rectangular tubing to prevent side loading and bending of cylinder shafts.			
Outriggers to be equipped with large steel pads with a minimum surface area of 192” sq., pivoting front to rear, to minimize damage to street. Outriggers must telescope out and down to reach a horizontal distance of 11 ft. 8 in. between outer edges. Each outrigger shall have an L.E.D. strobe light mounted on top of its assembly that travels in and out and alerts others as to the presence of the outriggers.			
Outward stabilizer movement of each stabilizer to be powered by a hydraulic cylinder with a bore of 2 in. and a stroke of 20 in. The housing that accomplishes this outward movement must be separated by cast nylon bushings on all four sides to prevent metal-to-metal wear and to allow a greater area for grease.			
Downward movement to be powered by two hydraulic cylinders with a bore of 3 in. and a stroke of 22 in. These cylinders must be fully enclosed for protection.			
PAINT:	Y	N	OFFERED
Loader must receive 1 coat of high-grade primer and 2 coats of high-grade enamel (manufacturer’s standard colors).			
MISCELLANEOUS:	Y	N	OFFERED

Includes boom up sensor with indicator light and audible alarm (light in cab with audible alarm warns the driver of excessive boom height), tail pipe extended past operator platform and back-up alarm.			
Heavy Duty, High Intensity LED strobe lights to be mounted to top of vertical outrigger post			
Removable steel guards shall be placed over the hydraulic valve bank and hydraulic connections above head assembly.			
One safety parts/service manual to be included. One-hour training videotape for operators/mechanics must be included.			
Steel plate shall be installed under operator platform the deflect heat from the exhaust of the truck			
18 FOOT, 24 CUBIC YARD HIGH TENSILE TRASH DUMP BODY			
SPECIFICATIONS	COMPLY		
BODY FLOOR:	Y	N	OFFERED
Body floor to be a single sheet of 3/16 inch Hardox HX450 steel plate to resist dents. Floor to be 96-inch-wide and 18 ft. long, continuously welded to the sides and headboard. Multiple floor panels welded together are not acceptable. Includes 3/16-inch x 10-inch-wide steel reinforcement continuously welded between floor and each body side.			
HEADBOARD:	Y	N	OFFERED
Headboard to be 10-gauge steel, 46-1/2-inch-high, continuously welded to the floor and body sides. Top rail to be a formed 3-inch x 5-inch 1/4-inch steel plate.			
SIDES:	Y	N	OFFERED

Sides to be 1/8-inch Hardox HX450 steel sheet to resist dents & reduce side flare out. Front portion to be 46-1/2-inch-high by 96” long, angling to 64 inches for remainder of body and rear doors. The two side sheets must be connected with an overlapped joint, a butt joint will not be acceptable. Side construction must incorporate a bend near the base of the side for rigidity. The base of the side must have a 90-degree bend that wraps under the floor sheet. <u>No 90 degree angles on bottom of exterior body sides.</u> Top rail to be a formed 3-1/4-inch x 7 inch 1/8 inch Hardox HX450 steel plate to resist dents & reduce side flare out. The body shall have a smooth side appearance.			
VERTICAL REINFORCEMENT:	Y	N	OFFERED
Side posts are not acceptable; the intent of this specification is to reduce weight, have a cleaner appearance with a smooth side and to allow the high tensile side material to flex and reduce dents.			
Rear corner post is to extend below the floor plate and connect to a beam that connects both of the corner posts to add rigidity to the back of the body, so the door will not jam when the body is fully loaded.			
CROSS MEMBERS:	Y	N	OFFERED
No cross members on the floor will be acceptable. The intent of this specification is to reduce weight and have a cleaner appearance. The rear corner posts are to incorporate a beam under the floor that connects the base of the two corner posts to add rigidity to the back of the body so the door will not jam when the body is fully loaded.			
Operators and parts manual shall be supplied covering both the truck and loader.			
LONGITUDINAL BEAMS:	Y	N	
Longitudinal beams to be 8-inch structural channel with 1/4 inch plate along the outer length of the beam.			
BARN DOORS:	Y	N	OFFERED
Rear doors to be fitted on the rear of the body with a provision to swing completely around to the side and latch open for dumping.			

Each must have 3 hinges, with each hinge consisting of 3 steel plates, 2 ea. 5/8-inch plate welded on body, 1 each 3/4 inch plate welded on door, all connected with a 3/4 inch steel pin. A positive lock shall be provided at the top and bottom for locking doors closed.			
Door skins to be fabricated from 1/8-inch Hardox HX450 steel sheet and must have an all-around outside frame with no braces in the center of the door unless they are used to support the door lock mechanism.			
HYDRAULIC HOIST:	Y	N	OFFERED
Hoist to be scissor type, dual cylinder with 23-ton capacity.			
Hoist must raise the body to a minimum 45-degree dump angle without the rest of the body touching ground.			
LIGHTS, REFLECTORS, AND MUDDLAPS:	Y	N	OFFERED
All lights are to be L.E.D. Lights, reflectors, and mud flaps must meet federal standards. There is to be an additional set of brake, stop and turn lights mounted on the upper rear corner post. Clearance lights are to be grommet mounted and shock resistant. There is also to be a set of amber led flashers in upper rear corner post. Overmounted boom lights and mounted curb and street side lights with switch at operator boom station.			
PAINT:	Y	N	OFFERED
Paint outside of body with 1 coat of high-grade primer and 2 coats of high-grade enamel. Inside of body must receive 1 coat of high-grade primer and 1 coat of high-grade enamel (manufacturer's standard colors).			
WARRANTY:	Y	N	OFFERED
Three-year major structural and three-year hydraulic for <u>loader and body</u> .			
MISCELLANEOUS:	Y	N	OFFERED
One set of owner/operator manuals, repair manuals, parts manuals, wiring diagrams, lubrication charts, and all other technical data for this unit(s), as equipped, shall be provided upon delivery. CD Rom or DVD is an acceptable manual media.			

BACKUP CAMERA SYSTEM	Y	N	OFFERED
Backup camera system			

Base Bid

Turnkey price for **Truck Chassis and Knuckleboom with Trash Dump Body** as specified or with

listed exceptions: _____

Number of weeks for delivery from issue date of Purchase Order _____

Bidder must submit bids strictly in accordance with the specifications. Each variance to these specifications must be specifically stated in writing by the bidder.

Bidder warrants by virtue of bidding that the prices quoted in the bid will remain firm from the date of bid opening until completion of delivery.

Delivery shall be F.O.B., Greeneville, Tennessee with freights to be paid by shipper.

All bids must indicate the firm name and address, and be signed in ink by an officer or employee having the authority to bind the company or firm by his signature.

The bidder, by executing a contract or bid on the terms of the invitation to bid, warrants the product that is supplied to the buyer shall remain fully in accord with the specifications and to be of the highest quality.

BID FORM

Company: _____

Contact Name: _____

Address: _____

Email Address: _____

Phone: _____ **Fax:** _____

Federal Tax Identification Number: _____

If you have questions regarding the specifications contained in this bid package, please contact:

Brad Peters
200 N College St.
Greeneville, Tennessee 37743
(423) 639-7105
Email: bpeters@greeneviltn.gov

Bid Submitted by:

Authorized Signature

Name (Print)

Title

Date



STATEMENT OF INTENTION TO BID

NOTE: Please notify the Town of your intent to respond to this solicitation so we may send you any issued addenda, by returning this form on or before the stated deadline to:

Email: bpeters@greenevilletn.gov or Fax: 423-639-0093

We value your feedback and ask that you complete the following:

Solicitation Name: _____

_____ We, the undersigned, intend to submit on the above bid/proposal.

We, the undersigned, decline to submit on the above bid/proposal for the following reason(s):

- _____ Insufficient time to adequately prepare a response
_____ Our company does not offer this product or service. Remove us from the vendor list
_____ Our schedule will not permit us to perform in a timely manner
_____ We are unable to meet bond requirements
_____ We are unable to meet insurance requirements
_____ We are unable to offer comparable product or service
_____ We are unable to meet specifications (explain below)

Company Name: _____
Address: _____
Signature: _____
Telephone: _____
Email: _____
Date: _____

Revised January 2016