

CITY OF CLEMSON  
STATE OF South Carolina

NOTICE TO BID

Bid proposals will be received in the Public Works Department, 1155 Old Central Road, Central, South Carolina. All bid proposals that have been duly received will be opened and read aloud for furnishing to said City one (1) each

2022-2023 Crane Carrier Rear Loader Garbage Truck.

Instructions to bidders, specifications and bid proposal forms may be obtained at the Maintenance Facility, Public Works Office 1155 Old Central Road, Clemson, South Carolina, 29630.

**SUBMITTAL:** One (1) copy of the proposal form must be received on or before 11:00 a.m. EST, August 12, 2022

**Addressed To:** City of Clemson  
Public Works Department

**Office Address:** 1155 Old Central Road, Central, South Carolina, 29630

**Mark Envelope:** Rear Loader Garbage Truck

Proposal received after the time and date set for receipt of proposals shall be returned unopened to the bidder. It shall be the bidder's responsibility to ensure timely receipt by the City of their proposals.

Proposals must be submitted by the closing date, or prior to the time Specified, to be considered. Telegraphic, telephone or facsimile proposals will not be accepted.

The City reserves the right to reject any or all Bid Proposals. It further reserves the right to waive technicalities and formalities in bids as well as to accept in whole or in part such bid or bids where the City deems it advisable or necessary to protect the best interests of the City.

Any offer submitted as a result of this solicitation shall be binding on the offer for SIXTY (60) calendar days following the bid opening date. Any bid for which the offer specifies a shorter acceptance period may be rejected.

The City hereby affirmatively ensures that minority business enterprises will be afforded full opportunity to submit proposals in response to this notice and will not be discriminated against on the basis of race, color, national origin, ancestry, disability, gender, religion or political affiliation in any consideration leading to the award of contract.

The right is reserved by the City of Clemson to reject any or all proposals; to waive any informality or irregularity not affected by law; to evaluate, in its absolute discretion, the proposals submitted and; to award the contract according to the proposal which best serves the interest of the City.

All changes shall be in the form of written addenda. Verbal information obtained otherwise will **NOT** be considered in awarding a contract.

This bid is being issued by the City of Clemson Public Works Department. Unless otherwise directed, all communications regarding this bid should be directed to the Public Works Department (864-653- 2053)

For all additional information or technical data needed to interpret these specifications, written questions must be faxed to the Public Works Department at (864) 653-2053, Attention: Cody Lingefelt.

The words "Bidder", "Vendor", "Supplier", and "Contractor" are used interchangeably throughout this proposal, and are used in place of the person, firm, or corporation submitting a bid on these specifications, or any part thereof

An authorized officer or employee of the bidder will not accept bids unless signed in ink (not typed) in the appropriate space(s).

By: \_\_\_\_\_

Cody Lingefelt, Buyer  
City of Clemson, South Carolina

REVIEWED BY:

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Public Works'. Director

REVIEWED BY:

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Sanitation Supervisor

REVIEWED BY:

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	<u>YES</u>	<u>NO</u>
<p><b>Engine</b> Cummins L9-270hp 8.9 Liter, in-line 6-cylinder turbocharged diesel. Engine is to be rated for 270 HP @ 2,000 RPM, 2,200 Max. RPM; Torque rating 800 lbs. ft. @ 1,300 RPM.</p>	_____	_____
<p><b>Engine Protection</b> Automatic type, with 30-second warning before shutdown for low engine oil pressure, low coolant level and high coolant temperature.</p>	_____	_____
<p><b>Air Compressor</b> Wabco 18.7 CFM air compressor, direct coupled drive, shall be provided.</p>	_____	_____
<p><b>Cooling</b> Radiator to have 1,814 sq. in. core area, heavy-duty down flow design and construction with bolted tanks and 3-row, 14-fin core; 50/50 mix to -34°F freeze protection Extended Life Coolant; hydrostatically driven and thermostatically controlled fan drive; silicone coolant hoses with stainless steel constant torque type hose clamps. Radiator to be remotely mounted behind the cab and above engine.</p>	_____	_____
<p><b>Exhaust</b> Diesel Particulate Filter (DPF) &amp; Selective Catalytic Reduction (SCR); stainless steel exhaust; painted heat shields on left &amp; right sides, mounted vertically, outboard and above frame behind cab; 36" tall tailpipe w/curved elbow outlet to left side.</p>	_____	_____
<p><b>DEF Tank</b> Rectangular plastic tank, 10 gallon capacity tank on right/curb side. To be mounted flush with top of frame rail. Magnetic lock ring in filler neck; coolant heaters to keep DEF from freezing; DEF fluid lines are to be electrically heated. DEF low level light bar included in fuel gauge.</p>	_____	_____
<p><b>Fuel Tank</b> FHWA approved aluminum tank, 60-gallon capacity, right / curb side frame mount below top flange of frame. Top of tank draw and return fuel line ports, steel braided hoses, 4" fill neck on center, vented tank and threaded cap. Cummins brand heated fuel water separator.</p>	_____	_____
<p><b>Batteries</b> Two (2) 12-volt Group 31, low maintenance type; with combined rating of 1,850 CCA; 925 CCA each. Steel battery box with lockable cover, mounted left side. Disconnect at box.</p>	_____	_____
<p><b>Starter</b> Delco Heavy Duty with Soft Start, to include Over-Crank Protection (OCP) &amp; Starter Lock Out (SLO), Positork motor.</p>	_____	_____
<p><b>Alternator</b> Leece Neville, 160-amp brush type, high output at idle and high temperature design with dual internal fans.</p>	_____	_____
<p><b>Transmission</b> Allison 3500 RDS, 6-speed automatic w/6-speed programming, electronic pushbutton shift type, to include two (2) 10-bolt PTO mounting pads, with internal oil filter, integral oil cooler in radiator. Allison Refuse GRP. 105, PKG. 145 (AG) program and "Workbrake" System.</p>	_____	_____
<p><b>Propshafts</b> Dana-Spicer "Life Series" SPL-170 main shaft with bolted half round bearing yokes on transmission and axle U-joints.</p>	_____	_____
<p><b>Front Axle</b> Dana-Spicer D2000 standard track; 20,000 lbs. capacity, with maximum 46° wheel cut. LMS wheel ends filled with synthetic fluid.</p>	_____	_____

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**Front Brakes**

To be air operated 16.5" x 7", "Wide Brake", "S"-cam type with ES (Extended Service) linings, cast iron drums, dust shields, automatic slack adjusters, 30" Bendix brake chambers; ABS wheel end sensors.

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**Front Suspension**

Tapered, parabolic springs; 20,000 lbs. capacity at the ground. To include two (2) Heavy Duty shock absorbers.

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**Steering Gear**

Sheppard XD-120 power assist type steering gear, frame mounted; 16-quart remote reservoir with sight glass and three (3) replaceable filters; glide coated slip shaft splines on intermediate shaft between gear and column. Steering linkages to utilize full ball-joints. Grease fittings to be included on tie rod ends, drag links and intermediate shaft(s).

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**Steering Column**

Left hand drive only. To be Tilt / telescopic type, with 18" steering wheel.

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**Rear Axle**

Dana-Spicer model DS H44P single reduction gearing, On-Highway rating 44,000 lbs. capacity, Ratio 6.50:1 for 62 mph.

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**Rear Brakes**

Air operated 16.5" x 8 5/8", "Wide Type" "S"-cam brakes with non-asbestos ES (Extended Service) linings, cast iron drums, dust shields, spring type "piggy-back" park brake chambers all rear wheels, anti-compound brake system, automatic slack adjusters; 30/36" piggyback brake chambers; ABS wheel end sensors.

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**Rear Suspension**

Hendrickson model HN-462; rated 46,000 lbs. capacity; 54" walking beam centers; one (1) each transverse and longitude torque rods on each axle.

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**Tires**

Front: 315/80R22.5 LR (L), 20-ply Yokohama MY627W radial tubeless tires. rated @ 10,000# each. Continuous speed rated for 70 mph.

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Rear: 11R22.5 LR (H), 16-ply Yokohama RY023 radial tubeless tires. rated @ 6,005# each. Continuous speed rated for 70 mph.

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**Wheels**

Ten (10) hole, 11.25" B.C. hub piloted, White powder coated steel disc wheels, with minimum of two (2) hand holes.

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Front: 22.5" x 9.00" steel disc wheels, rated for 10,000# each.

Rear: 22.5" x 8.25" steel disc wheels, rated for 7,400# each.

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**Frame Construction**

Straight full-depth, formed "C" shaped side member rails measuring 11" x 3.5" x .38" thick @ 21.5 lbs. per foot, 120,000 psi min. yield. Section Modulus (SM): 18.61 in.<sup>3</sup>; rated RBM: 2,233,200 in. lbs. minimum per rail from front axle to end of frame. 25' length ladder type frame with 34" nominal width outside frame rails, fabricated and reinforced tubular cross members, to be fastened with torque prevailing SAE Grade 8 flanged head nuts and bolts; no rivets in ladder frame assembly. No projections above top flange in identified CT. Chassis dealer and body dealer to coordinate for proper wheelbase for chassis proposed.

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**Bumper**

Full width of cab; .25" thick steel, bolted to chassis frame; minimum of 19.5" of ground clearance to be provided for increased approach angle. Two (2) tow eyes mounted under bumper, attached to frame.

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**Air System**

FMVSS 121 dual circuit ABS / 4-channel type air braking system, AD9-EP Air Dryer, Remote mounted manifold with petcocks for all air tanks, stainless steel braided / Teflon lined air compressor discharge line. Three (3) steel air tanks are located inboard of frame rails. To include low-pressure warning light and alarm.

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**ABS System**

Bendix / 4-channel cab mount system with wheel end sensors, dash mounted indicator lamp and code check switch.

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**Cab**

Low Entry Tilt Crew cab, located low and forward of front axle. 18" to 19" step in height from ground on both sides of cab to be provided with standard front tires. NO INSIDE STEP ACCEPTIBLE. Design to provide seating for driver and three (3) passengers, with interior passage through cab to each side. Maximum interior space is to be provided with the engine enclosure low and projecting no further forward than the forward edge of the driver and passenger seats. Electric assist hydraulic cab tilt system.

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**Cab Insulation**

Cab to be Insulated with rigid foam (R9 factor) in interior of roof, back walls, exterior of floor, rear of cab slope and walls and roof of engine compartment for heat resistance and acoustics.

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**Doors**

Doors to be 1-piece, open 90°; fixed lower view window, electric roll-down window. Windows to be tinted, tempered, safety glass.

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**Cab Exterior**

Front wheel mud flaps, with rubber anti-spray guards mounted on front fenders and inner fender splash shields.

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**Mirrors**

Left and right side, 16" x 7" single flat face, West Coast type mirrors with stainless steel housing and arms; upper and lower "A" frame brackets with adjustable detents to allow for break-away movement when struck, set for 102" body.

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**Windshield**

Bronze tinted and laminated safety type, with a total of 2,700 sq. ins. of viewable glass.

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**Windshield Wipers**

Electric intermittent wipers with one (1) gallon fluid reservoir, with two (2) wet-arm type wipers.

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**Grab Handles**

One (1), on each side; entry assist handle inside cab, bolted to "A" pillar post above dash. One (1), on each side behind cab door.

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**Overhead Console & Accessories**

Overhead Console to have an AM/FM radio, four (4) document / clipboard storage compartments, two (2) each side, HVAC Controls, two (2) cab fans, dome, map lights, and is to be full width of cab interior. Console to also provide mounting space for a 2-way radio.

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**Cab & Chassis Wiring**

Packard "GXL" wire, color-coded; engine/transmission/ABS electronic diagnostic connector SAE J1587 & J1939. Ignition, battery and ground wires for 2-way radio power feed routed to and capped in overhead console; two (2) spare rocker switches; Circuit breakers are to be automatic reset, dedicated electrical circuits provided for truck body and electrical equipment installations.

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**Instrumentation**

Tachometer and speedometer with message center display including: odometer; two (2) trip odometers; engine hour meter; diagnostic mode, NGI warning message, dual needle air pressure. Fuel level gauge integrated with DEF level light bar; engine coolant temperature; engine oil pressure; voltmeter. All gauges except air pressure to have internal driver warning lights. Audible warning alarm for low air pressure, alarm and light for stop engine. Check transmission, check engine, stop engine, engine pre-heat, park brake, ABS malfunction, DEF warning, neutral, water in fuel, high exhaust sensor temperature, DPF restriction, ATC and low air pressure. Warning alarms to be continuous single tone.

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**Lighting**

LED Projection headlights with Daytime Running Lights; All clearance and marker lights ; stop, tail, backup, turn signals to be LED. Dome and map lights to be included.

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**Horns**

Dual tone, electric and air horns mounted under cab.

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**Back-up Alarm**

Warn model 210333, or equal; rated for 107 dB(A).

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**Seats**

Driver's seat is to be Air Ride type, two passenger center bench seat and 2-way adjustable right-side seat. Seats are to be Asphalt gray vinyl weave.

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**Heater / AC**

Heater/defroster with 3-speed blower rated for 31,600 BTU / HR at 100° F, outlets directed to floor on both sides of cab. In-Dash factory installed air conditioning to be provided.

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**Paint Colors**

Chassis colors are to be Dupont; White / N0007, matching cab interior and exterior; Gloss Black / N0001, engine cover, fenders, chassis frame assembly, & front bumper; manufacturer's standard Black /N0001, and White/ powder coated wheels.

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**End Chassis Yes-No Specifications.**

# HIGH COMPACTION REAR LOADER SPECIFICATIONS

It is the intention of these specifications to describe the minimum requirements for a rear loading design refuse collection truck body. The body shall be capable of compacting and transporting refuse to a landfill or transfer station and dispensing the load by means of hydraulically ejecting the load from the body. The manufacturer shall have produced rearloading refuse equipment for a period of at least ten years.

The bidder shall represent by his bid that all equipment bid is new and unused.

It is required that the unit bid shall be completely assembled, painted to match the Crane Carrier Cab and ready for immediate operation.

Features which are regularly furnished as standard with this unit shall be supplied by the successful bidder. The body shall conform in strength, quality of material, and workmanship to that provided by the best manufacturing and engineering practices of the industry. Assemblies, sub assemblies, and component parts shall be standard and interchangeable throughout the entire quantity of units as specified in this invitation to bid.

The equipment furnished shall conform to the latest version of A.N.S.I. Safety Standard Z245.1 for refuse collection equipment. The unit shall also conform to Federal Motor Vehicle Standard FMVSS-108 lighting standards for truck mounted bodies.

Bidder shall complete every space in the specification with a "Yes" to indicate if the item bid is exactly as specified. If not, the "No" column must be checked and a detailed description of the deviation from the specification must be supplied, using a separate page if necessary.

Omission of a detailed description or specification of any point shall be regarded as meaning that only the best commercial practice shall prevail and that only material of first quality and correct type, size, and design are to be used.

Yes/No	Offered	CAPACITY
_____	_____	1. The minimum capacity of the body shall be 25 cubic yards exclusive of the hopper.
_____	_____	2. The minimum capacity of the hopper shall be 3.7 cubic yards without the use of a hopper loading sill extension.
_____	_____	3. The body shall be designed to allow high density compaction of up to 1050 lbs. per cubic yard of dry household refuse. <b><u>NO EXCEPTIONS</u></b>



Yes/No Offered

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### BODY DIMENSIONS

1. The maximum overall width shall be 96 inches.
2. The maximum overall length shall be: 288"
3. The maximum height above the chassis frame shall be 94" inches.
4. The inside width of the body shall be 90 inches at the widest point.
5. The inside height of the body shall be 82.5 inches at the highest point.
6. The minimum weight of the body and the tailgate (less special options) shall be: 16,000 pounds

Yes/No Offered

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### BODY CONSTRUCTION

1. The body shall have a smooth floor without a trough. No cylinders, valves or other hydraulic components shall be exposed to refuse packed into the body. Floors with trough or depression is not acceptable.
2. The body floor, sides and roof shall be designed and constructed to withstand maximum imposed of residential refuse without structural damage or excessive wear.
3. The body sides shall be fabricated from 8 gauge, hi-tensile steel and be of a curved one-piece design.
4. The body roof shall be fabricated from 8 gauge, hi-tensile steel and shall be of a curved design.
5. A 25" x 32" body side door shall be located on the driver's side. The door shall be equipped with a spring loaded latch, access ladder and grab handles.

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6. The body floor shall be fabricated from 3/16" thick hi-tensile steel full width of the body with no depression or trough to accommodate the ejector cylinder.

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7. The body longitudinal shall be 8" tall fabricated from 1/4" hi-tensile steel.

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8. The floor cross members shall be tapered from the long sill outboard to the body side sheet.

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9. The floor cross members shall be fabricated from 7 gauge hi-tensile steel.

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10. The body shall have dual clean out doors at the front to remove buildup of dirt.

Yes/No Offered

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#### TAILGATE DIMENSIONS

1. The hopper opening shall be 75" wide and 40" high to permit unobstructed loading of the tailgate hopper.

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2. The top of the loading sill shall be 4 inches below the top of chassis frame to facilitate easy loading.

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3. The overall height above the chassis frame with tailgate raised shall be 184 inches.

Yes/No Offered

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#### TAILGATE CONSTRUCTION

1. The tailgate sides shall be fabricated from abrasion resistant 3/16" T-1 alloy 100,000 P.S.I. minimum yield strength steel.

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2. The hopper floor and chute shall be a one piece design fabricated from 1/4" AR 400F "Algo Tuff" 155,000PSI. minimum yield strength steel plate.

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3. The tailgate sides shall be reinforced with hi-tensile steel channels interlaced and fully welded to the side sheets.

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4. The hopper and chute floor shall be reinforced with hi-tensile steel channels.

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5. The tailgate shall be secured to the body with heavy duty 1" DIA turnbuckles equipped with fast spin handles.

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6. The tailgate seal shall extend a minimum 50 inches up the body side.

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7. Two grab handles shall be located on each side of the tailgate.

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8. The rear steps shall be fabricated from open grip strut material with a minimum standing surface of 330 square inches per step. The steps shall comply with A.N.S.I. standards. Steps shall be of a bolt on design.

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9. The hopper loading sill shall be constructed of 3" x 4" x 3/8" wall structural tubing.

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10. The body shall include two cleanout doors on either side at the front on the bottom allowing the operator to clean behind the ejector panel without entering the body itself.

Yes/No    Offered

**PACKING MECHANISM**

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1. The packing cycle shall be controlled by a two lever control system that allows the operator to start, stop and reverse the direction of any function at any point during the packing cycle.

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2. The tailgate control valve shall be located under the top covers.

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3. The packing blade assembly shall consist of two primary components:

the slide blade and the sweep blade.

A. The packing blade assemblies shall be mounted on four wear shoe assemblies that travel on hardened steel wear tracks. The shoe assemblies shall be replaceable without removing the packing blade assembly from the tailgate. The sweep blade and the slide blade shall be attached by two 3" DIA. Alloy steel pins. These 3" DIA pins shall be Induction-Hardened and rotating in 4 serviceable hard bushings. These pins shall also support the (2) lower wear block assemblies.

B. The slide blade shall be constructed from 3/16" hi-tensile steel plate.

C. The sweep blade shall be mounted to and pivot on the slide blade. The sweep blade shall be fabricated from 1/4" T-1 steel plate, varying in thickness.

4. Packing Blade assembly shall ride on four Nylatron NSM shoe assemblies. Metallic type shoes or rollers are unacceptable.

5. The blades shall operate without the use of linkage or linkarms.

6. The packing blades shall be powered by two 5" Bore x 3" Rod x 23 1/2 stroke sweep cylinders and two (2) 5" Bore x 2 1/2" Rod x 43 stroke slide cylinders.

7. The slide and sweep cylinders shall have hardened chrome plated rods and be of cushioned design, to reduce hydraulic shocks, noise, and impact related stresses.



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floor. The tracks shall be 6" deep, fabricated from 1/4" hi-tensile steel and full welded to the body sides.

- The ejector cylinder shall be mounted diagonally to the body floor and not require a trough or depression in the floor. Troughed floors are unacceptable.

Yes/No Offered

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**CONTROLS**

- The ejector and tailgate lift controls shall be mounted at the left front of the body.
- Ejector and tailgate knobbed lever controls shall be mounted directly to the valve spool.
- A throttle advance switch shall be located convenient to the ejector and tailgate lift controls.
- The tailgate controls shall be located at the right rear of the tailgate. The two lever design shall have positive control of movement of the packing mechanism at all times. The tailgate controls shall comply with the applicable A.N.S.I. regulations.
- An automatic throttle advance device shall be incorporated with the tailgate controls.

Yes/No Offered

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**HYDRAULIC SYSTEM**

- A heavy duty cast iron gear pump with a rated capacity of 40 G.P.M. at 1200 R.P.M. shall be driven by a hot PTO with over speed
- For extended life of all hydraulic components the maximum operating pressure shall not exceed 3200 psi.
- The hydraulic system shall incorporate an adjustable relief in the body valve.

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4. Hydraulic hoses and tubes shall be secured by clamps as required to prevent damage from abrasion and vibration. Hydraulic hoses and tubes shall use S.A.E. O-ring boss and JIC 37 degree flare ends for zero leaks.

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5. Hydraulic hoses shall comply with the applicable S.A.E. standards for the designed specifications.

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6. Hydraulic hoses are to have a 4:1 burst to working pressure safety factor.

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7. The hydraulic oil reservoir shall have a minimum capacity of 45 gallons. The reservoir shall be equipped with filler, breather cap, sight glass, clean out cover, 100 mesh suction filter, magnetic tank drain plug and gate valve at the suction outlet. The hydraulic reservoir shall not be a structural member of the body or the mount for the ejector cylinder.

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8. 6 micron synthetic MicroGlass tank top return line filter shall be located on the hydraulic tank and be equipped with a condition indicator. Pleated paper filters are not acceptable.

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9. A suction screen filter of 100 mesh (141 micron) shall strain all the oil leaving the tank. Suction filter shall be equipped with a 5 P.S.I. bypass valve.

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10. All hydraulic valves shall be sectional that would allow replacement of defective sections without replacement of the entire valve.

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11. All cylinders and valves shall have SAE O-ring boss ports.

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Yes/No Offered

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Yes/No Offered

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12. Hydraulic oil tank shall be frame mounted.

13. Under body mounted body valve located at the front mounted under the floor. Along with an extended front bulkhead to prevent the loss of liquids.

HYDRAULIC CYLINDERS

1. All rod cylinders shall have a working pressure rating of 3500 psi.

2. The sweep and slide cylinders shall have hard chrome plated rods and be cushioned to reduce hydraulic shock at the end of the stroke.

3. The sweep and slide cylinders shall carry a minimum full three year warranty.

4. Tailgate cylinders shall have hardened chrome plated cylinder rods, and be equipped with restrictors to limit the speed of raising and lowering of the tailgate.

5. All rod cylinders shall have cast iron glands and pistons and be equipped with double wear bearings and premium seals. Aluminum glands and pistons are not acceptable.

6. Telescopic cylinders shall have chrome plated cylinder sleeves and plungers.

7. All cylinders are to operate without direct contact with the compacted load.

ELECTRICAL

1. All electrical wiring shall be color coded and be in a braided harness or loom.





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3. The body shall then be coated with two (2) coats of a self etching epoxy primer.
4. Two finish coats of White polyurethane To match the cab of chassis
5. Unit shall be furnished with two (2) Barker Products rotary actuated cart tippers. Both tippers can be operated from both sides of hopper. Tipper model shall be Model HB15-45

**17. INSTRUCTIONS TO BIDDERS**

**DUE TO THE NECESSITY & RELIABILITY FACTOR OF THIS EQUIPMENT TO THE PUBLIC WORKS DEPARTMENT AND THE CITIZENS OF CLEMSON, ALL BIDDERS MUST HAVE A FULL SERVICE & PARTS FACILITY WITH-IN 150 MILES OF THE CITY OF PUBLIC WORKS DEPARTMENT. ALL BIDDERS MUST LIST LOCATION OF SAID FACILITY, CITY & STATE.**

**FAILURE TO LIST ANY AND ALL EXCEPTIONS TO THESE SPECIFICATIONS IN DETAIL ON A SEPARATE SHEET OF PAPER IF NECESSARY WILL RESULT IN THE AUTOMATIC & COMPLETE REJECTION OF BID!**

**THE ABOVE LISTED BID SPECIFICATIONS AND INSTRUCTIONS ARE IN NO WAY INTENDED TO ELIMINATE ANY COMPANY, VENDOR, BIDDER OR PRODUCT FROM THIS BID PROCESS. IT IS THE SOLE INTENT OF THESE SPECIFICATIONS AND INSTRUCTIONS TO DESCRIBE A VEHICLE THAT WILL BE THE BEST PRODUCT AVAILABLE TO THE PUBLIC WORKS DEPARTMENT, THE CITY OF CLEMSON AND ITS RESIDENTS.**

**THE CITY OF CLEMSON RESERVES THE RIGHT TO REJECT ANY AND ALL BIDS AND ACT IN SUCH A WAY THAT IS DEEMED THE MOST ADVANTAGEOUS TO THE CITY, DEPARTMENT OF PUBLIC WORKS AND THE CITIZENS OF CLEMSON.**