

PROPOSAL

Purchasing Agent
City of Norman
Post Office Box 370
Norman, OK 73070

(date)

Purchasing Agent:

The undersigned proposes to furnish the following equipment, f.o.b., Norman, Oklahoma, ready for immediate use with all the necessary parts and accessories needed for its operation, as follows:

Two (2) New and Unused 62,000 GVWR Truck Chassis with
24 Yard Automated Side Load Refuse Compactor

The truck chassis and refuse bodies shall be delivered as a complete package. The successful bidder shall bid both truck chassis and refuse body. One single bidder will be responsible for the preparation and delivery of the complete package to Norman, Oklahoma.

"COMPLY" OR "EXCEPTION" MUST BE CLEARLY NOTED IN THE "BIDDER'S PROPOSAL" SECTION. A DETAILED EXPLANATION OF THE EXCEPTION(S) MUST BE PROVIDED ON A SEPARATE PAGE LABELED "EXCEPTIONS - DETAIL"

TRUCK CHASSIS

MANUFACTURER _____

MODEL _____

BIDDER'S
PROPOSAL

YEAR State year _____

GROSS VEHICLE WEIGHT RATING 62,000 lbs. (minimum) _____

COLOR Dupont Imron Green 5000 #895 _____

Interior to be black in color _____

WHEELBASE

The wheelbase of the tilt cab type truck shall be determined by body vendor's requirements. _____

CAB TO TANDEM (CT) LENGTH

The CT length will accommodate the body manufacturer's required CT length.

FRAME (RBM) 2.2 million in-lbs.

AXLES AND SUSPENSION

FRONT Steel front axle and suspension, minimum 18,000 lbs. GAWR

REAR Single speed tandem drive rear axle, minimum 46,000 lb. GAWR. Rear suspension Hendrickson HMX 460, axle spacing 54". Speed compatible to 65 mph. No spin or automatic positive locking differential on both rear axles.

NOTE Rear axle ratio to be selected by bidder in accordance with engine and transmission provided. The ratio which will provide a loaded road speed on level grade of at least 65 mph and the greatest low gear reduction is desired.

ENGINE

Type Cummins ISL 8.9 liter or approved equivalent and be top 3 in its fuel efficient class. The speed limit to be set at 65 mph and a five minute idle time factory set in the engine ECM and factory pass code shall be provided or not entered at factory.

Horsepower (gross) 345 at 1,900 RPM (minimum)

Torque (gross) 850 ft-lb.; torque at 29% minimum

Filters Engine shall be equipped with heavy-duty full flow replaceable element oil, fuel, air and coolant conditioner filters. Coolant conditioner filter is not needed if extended life coolant is used.

Warranty Must include 5 year 150,000 mile full warranty with no deductible. _____

TRANSMISSION

Type Allison 5 speed RD3000, close ratio with PTO opening _____

Warranty Must include 5 year 150,000 mile full warranty with no deductible. _____

RADIATOR

Maximum capacity cooling system available. Must be compatible with Automatic Transmission. System to include a coolant conditioner and filter and silicone radiator hoses, by-pass hoses coolant, and heater hoses. Engine manufacturer's computer controlled engine alarm system (light and audible alarm) and shutdown system activated by low engine oil pressure, low engine coolant level and high engine coolant temperature or any combination of these occurrences. _____

Radiator must have cutout for front mounted hydraulic pump. _____

ALTERNATOR 12 Volt, 90 amperes _____

BATTERY 312 amp-hr. _____

STEERING Hydraulic power steering _____

BRAKES Full air brakes with 13.2 cubic foot compressor, pressure gauge, air reservoir drain valve; automatic slack adjusters, automatic moisture ejector valve(s) (unheated). Moisture ejector valve(s) not to be mounted on bottom of air tank if possible, side or remote location(s) preferred. _____

Shall be out-board mounted _____

The parking brake shall be an independently operated spring-loaded, air actuated type with the

spring brake control mounted on or near the dash within easy reach of driver

The brake air system shall be equipped with Bendix model # AD-IS mounted to outside of frame for easy access.

Air dryer between air compressor and the #1 reservoir, Bendix ADIS or approved equivalent. To include heater Dryer shall be mounted outside the frame for easy access.

Shall have automatic moisture ejector valve(s) heated Located on wet tank.

WHEELS

Front 2 - 22.5 X LW (Disc, painted white)

Rear 8 - 22.5 X 8.0 (Disc, painted white)

TIRES

Type Steel-belted radial

Front 2 - 315/80/22.5 18PR Goodyear G291 Duraseal Load range "L" or approved equal

Rear 8 - 11R22.5 Goodyear G177 Duraseal Load range "H" or approved equal

PERFORMANCE ITEMS

Factory installed speedometer, odometer, ammeter or voltmeter fuel gauge, engine oil pressure gauge, tachometer, engine hourmeter, and dash mounted air pressure gauge.

CAB Dedicated right hand steer. Tilt cab with factory tinted safety glass in all openings; tinted windshield. Interior to be Gray in color.

The driver's seat shall be either a Bostrom Level-Air, a National Cush-N-Air or equal

with a single passenger seat.

FUEL TANK Aluminum minimum 50 gallon frame mounted

ACCESSORIES Variable speed electric operated
windshield wipers and washers

Chrome or stainless steel outside heated
mirrors. Left and right side mirrors to be
large West Coast type, 6" X 16" to include
lower convex spot mirrors on both sides -
factory installed.

Dual sun visors

Seat belts

Cab dome light

Heater/defroster

Integral factory installed air
conditioner; in-cab unit (R134A)

Right and left side grab handles

Factory installed air horn, mounted in
area that cannot be damaged by normal
operation.

Heavy-duty front bumper with two (2) each:
tow hooks, frame mounted

AM/FM Radio

2-way radio

Shall be E.F. Johnson model 53SL-ES mounted inside
cab within asy access by driver. Must use Max Rad
Antenna mounted to rear of cab or on rear window
not to exceed height of cab.

Full variable speed Pneumatic throttle
control with switch for actuation with PTO.

Heavy-duty center point tow pin at the rear
with heavy-duty gusseted tail board

Air filter pre-cleaner

All lights and reflectors to conform to State Code of Oklahoma

Stainless steel vertical exhaust system, angle cut with stainless steel guard

Fire Extinguisher (model 5MB-5H Badger or equal)

Cab mounted work lights, switch mounted in cab, to be mounted at top rear corners of cab

CAMERA/MONITOR SYSTEM:

Rear view camera/monitor system shall be installed. Power requirements shall be 12 volt D.C. camera, lens to be 6.5 mm, f 1/8 C-mount. Monitor will be 6" diagonal with heavy duty cabinet and adjustable mounting base. Camera to monitor cable shall have steel braid flexible outer covering and be coaxial shielded (military-type). The cable shall be securely tied to the body and a flexible conduit shall be used at pinch points. Intec CarVision Model #9300 system or equal shall be provided.

An audible backup warning system shall be included in conjunction with the camera system when backing to warn driver of the distance of the object behind vehicle.

Coax cable shall be run independent from any other cabling, shall be run inside metal tubing or approved equivalent with the only exception of pivot points.

AUTOMATED SIDE LOADER

BODY Body floor shall be flat and made of 3/16" minimum AS400 ultra high-strength, hi-abrasion resistant steel plate with a minimum surface hardness of 400 BHN and 177,000 psi minimum yield

HOPPER ENCLOSURE The hopper shall have a minimum static capacity of 3 cubic yards.

Shall have a minimum dynamic capacity (displacement rate) of 10.5 cubic yards per minute

Hopper floor shall be minimum 1/4" AS-400 abrasion resistant, ultra high-strength plate steel with a minimum hardness of 400 BHN and 177,000 psi minimum yield

Entrance way of containers into hopper shall be protected from wind with 14 gauge skirting to fit within 6" of containers used by the City of Norman (Otto - 35 to 95 gallon containers exclusively)

Hydraulic hopper crusher shall be of tubular frame with 10 gauge A-36 sheet metal hinged to front wall of body. Crusher to rotate on three sets of hinges, using 1 1/2" pins. Crusher operated by a 2 1/2" X 30" hydraulic cylinder using a 4-way air toggle valve mounted in cab, close to driver. Safety device to be installed to prevent arm from dumping unless crusher is in the fully opened position.

PACKING MECHANISM

The packer frame shall be formed from 3/8" T-1,ASTMA 514 Grade B, plate.

Hopper shall be lined with no less than nine (9) 1/4" HR 500 wear strips. A minimum of two (2) on each side and five (5) on the floor. Plow steel wear strips are not acceptable.

Packer cylinders shall be installed in a horizontal overlapping design and shall have a 5" bore X 42" stroke and 3" rod size.

A pivoting packer plate with a rubber wiper shall be installed to prevent dumping behind packer. Plate shall be constructed of 1/2" plate, ASTMA 36. No sliding follower plates are acceptable.

FULL-EJECT-PUSH OUT

The hoist/eject process shall be capable of ejecting the full load in under 60 seconds

The unloading process shall be achieved by hoisting the body to a 42 degree angle with the use of 2 telescoping cylinders mounted outside the chassis frame rails for added stability.

Hoist cylinders shall have a minimum stroke of 72" for good stability while dumping.

LIFT MECHANISM

The lifting mechanism shall be capable of operating simultaneously with any phase of pack operations with full force and full flow. Flow dividers and priority valves will not be accepted. Lifting mechanisms which utilize chains to lift are not acceptable.

Shall be capable of extending, clamping, raising, dumping, and returning containers from any position without the need to fully "retract".

Shall be capable of a complete cycle in a maximum of 8 seconds

Shall be capable of reaching a minimum of 84" from the side of the body to the center of a 105 gallon container

Lifting mechanism shall combine the lift arm raise and container dump functions into one lever for ease of operation

Shall be rectangular 50,000 PSI steel telescopic boom design and have a lifting capacity of 2,000 pounds at any extension

Must be capable of gripping containers placed within one foot of the envelope of the unit

When in dump position, the highest point on a 105 gallon container shall not exceed 120" above the truck

The lifting mechanism shall incorporate an interlock to prohibit the possibility of dumping the contents of the container outside the confinement of the hopper

The lift mechanism shall not rely on electrical switches to sequence operation

GRIPPER

The container gripper shall incorporate an adjustable hydraulic circuit limiting the

radial force applies to the container. Grippers not capable of pressure sensitive adjustments are unacceptable due to the likelihood of container damage.

HYDRAULICS

Hydraulic power shall be by heavy-duty tandem section gear pump Parker/Commercial P365 or approved equivalent. Both sections will provide flow and pressure enough to run the system at idle speed. When throttle is applied, one section will dump back into the suction side of the pump allowing the remaining section to run the packer between stops.

Pump shall achieve all operational hydraulic requirements at engine idle. An over speed system will be provided to prevent damage to hydraulic system. Over speed controls shall not be accessible by operator.

Return line filter shall be an in-tank, fiberglass type rated at 10 micron with clearly visible dirt indicator. Suction strainer shall be 100 micron, mounted inside the reservoir and equipped with a built in bypass for pump protection.

There shall be a 48 gallon reservoir with a 10 micron sealed air breather, sight gauge, a 2' gate valve on the suction outlet and a magnetic drain plug. Low mounted with access from the ground.

All hydraulic plumbing shall be aeroquip or approved equal "bite wire" type crimping on fittings and nylon guarded in tight areas.

Seamless steel tubing shall be used wherever possible and held in place with shock absorbing bolt-on clamps

All hose ends, tubing and adapters shall have JIC 37 degree flares. Pipe thread or flat-faced O-ring seals are not acceptable.

Any exposed hose shall be guarded with a hose protector

ELECTRICAL

Body wiring will be tied into the circuitry

provided by the OEM no mid range splices will be accepted

A schematic identifying each wire and corresponding circuit must be affixed inside the cover of the body junction box

All body wiring shall be color coded and hot stamped with appropriate word designation labeled every 12".

All wiring shall meet chassis manufacture's specifications. Any splices shall be soldered and sealed with heat shrink insulation. Butt connectors and/or scotch locks will not be accepted. All wiring to be run inside approved loom.

LIGHTING

All lighting shall be LED type recessed to prevent breakage. For long life and ease of service, all clearance, tail, stop and back-up lights shall be plug-in type, grommet mounted, shock resistant, waterproof, with Lexan lens. They shall be Truck-Lite or approved equal.

Lighting to include: two 4" clear strobing LED recessed grommet mounted truck light or approved equal, mounted to the rear in place of beacon

ADDITIONAL

A universal button type gripper, belt type not acceptable, shall be capable of exerting an appropriate radial force on each size container to firmly grip the container without dropping, damaging, or contorting. This force shall be controlled by toggle switch on the control box.

A centralized automatic lubrication system shall be provided. XGS model #4036 or equal.

Gripper shall be capable of grasping and dumping containers with capacities of 30 - 110 gallons including fully-automated, Universal and semi-automated containers. Belt type grippers will not be acceptable.

Return line filter shall be 10 micron absolute

Dual halogen work lights are to be installed, one each in the hopper and lift arm work area

An auto neutral, lift arm activated with service brake status.

One (1) set of filters to complete a full service on both the truck and body shall be provided.

PAINTING The completed unit shall be cleaned and all weld slag shall be removed.

One (1) coat of high grade primer shall be applied

Two (2) coats of Dupont Imron Green 5000, #895 enamel paint shall be applied

OPERATION AND MAINTENANCE MANUALS

Include one (1) with each vehicle: Operator's manual, Service manual, parts manual, and repair manual for each chassis, engine, transmission, and body on CD if available. These manuals are to include information on all systems of the equipment, including but not limited to, detailed electrical and hydraulic systems diagrams and diagnostic flow chart guides, engine emission systems, and any accessories. This requirement shall not delay delivery of the equipment, but payment cannot be made until all requirements are met.

ADVERTISING

Except for emblem installed by manufacture identifying manufacturer and model, no emblem, logo, tag or other device or design promoting the dealer or contractor may be affixed in any manner to any vehicle delivered under this contract, except for emblem installed by manufacturer identifying manufacturer and model.

ACCEPTANCE

Delivery of a vehicle to a purchaser does not constitute acceptance for the purpose of payment. Final acceptance and authorization of payment shall be given only after a thorough inspection indicates that the vehicle meets contract specifications and conditions. All equipment, options, and features provided must be designed, constructed, and installed to be fully suitable for their intended use and service.

WELDING

Welding shall not be permitted on the frame side rails, nor shall the frame rails be cut to lengthen or shorten the wheelbase. Wheelbase modifications are allowed only by sliding the suspension with the "AF" dimension affected accordingly (excess length behind the rear axle may be cut off as required). Any wheelbase modification shall result in a

wheelbase and frame combination that is identical to one available from the manufacturer.

TRAINING

A manufacturer's representative of the successful bidder shall provide one (1) full working day of instruction and training upon delivery for each of the following: operator, body maintenance, and chassis maintenance including drive train.

90 DAY INSPECTION

Subsequent to the aforementioned training program, the successful vendor shall provide a trained mechanic to inspect the units and correct any warranted deficiencies. This shall occur approximately 90 days after the training program.

MANUFACTURER'S BROCHURES

Manufacturer's brochures and literature giving full detailed information on the trucks and bodies by the bidder shall be included with this proposal.

WARRANTY

Include a list of all parts that are under warranty. The bidder at the time of contracting is advised of the particular purpose for which the goods are required and that the City of Norman is relying on the bidder's skill or judgement to select or furnish suitable goods; bidder warrants that the goods shall be fit for such purpose. The City of Norman wishes to be placed on the manufacturer's mailing list to receive all special bulletins and supplements pertaining to services, repairs, problems, etc. on both body and chassis. Please provide information regarding the necessary procedure to accomplish this task.

Towing shall be covered by manufacturer for the first six (6) months.

Please describe warranty: _____

The City of Norman will accept bids that meet or exceed the minimum requirements. Bids that fail to meet the minimum requirements will not be accepted.

Two (2) 62,000 GVWR Truck Chassis with Automated Side Loader Refuse Body \$ _____

Less trade-in: 2001 Freightliner, VIN: 1FVFCFAK11RJ28088 (UNIT #252) -\$ _____

Less trade-in: 2001 Freightliner, VIN: 1FVFCFAK90RJ28081 (UNIT #255) -\$ _____

Options:

Extended hydraulic component warranty with no deductible

\$ _____	\$ _____	\$ _____
One (1) year	Two (2) year	Three (3) year

US Fleet Tracking GPS unit model #USFTVX5 uninstalled \$ _____

TOTAL DELIVERY PRICE:

(Less all taxes)

\$ _____	\$ _____	\$ _____
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If awarded the contract on the basis of the above bid, we agree to deliver the units to the City of Norman **within 120 days from the date the Purchase Order is received.** Every day, starting with the 121 st day, a penalty of \$50.00 (fifty dollars) will be assessed against the company or corporation that the bid has been awarded, that the units have not been delivered. This penalty will stay enforce until the City of Norman accepts the units. The ability of the vendor to meet this delivery date will be a major factor in the award of this bid.

SIGNED: _____ BUSINESS NAME: _____

ADDRESS: _____

PHONE: _____ FAX: _____

These specifications have been reviewed and approved by:

Mike White, Fleet Management Superintendent

VENDOR LIST

Rush Truck Centers

5200 I-40 West
OKC, OK 73137
Phone: 947-2391
FAX: 946-5489
ATTN: STAN CLARK

J and R Equipment

25c North Council Road
Oklahoma City, OK 73127
Phone: 495-5110
FAX: 495-5112
ATTN: Rodney Womack

Bridgeport Truck Manufacturing, Inc.

P.O. Box 217
Bridgeport, TX 76426
FAX: (940) 683-5475
ATTN: Tony Kouri

~~**Waste Research, Inc.**~~

~~P.O. Box 998
HWY 69 South
Cheuteau, OK 74337
Phone: (800) 880-9278
FAX: (918) 476-8508
ATTN: Wayne Fields~~

Crane Carrier Company

P.O. Box 582891
Tulsa, OK 74158
Phone: (918)836-1651
FAX: (918) 832-7348
ATTN: Butch Butler

Bruckner's Truck Sales

P.O. Box 75758
Oklahoma City, OK 73147
Phone: 942-4800
FAX: 942-4940
ATTN: Ken Schmitz