

**DEKALB COUNTY HIGHWAY DEPARTMENT  
AERIAL LIFT TRUCK**

Sealed proposals for the purchase of One (1) New Aerial Lift Truck will be received by the Highway Committee of the DeKalb County Board until 10:00 AM Wednesday, May 31<sup>st</sup>, 2017 at the office of the County Engineer, 1826 Barber Greene Road, DeKalb, Illinois, 60115 and at that time publicly opened and read.

The dealer may submit a bid for one or more models that are equal to or exceed the following specifications. The Aerial Lift Truck to be furnished shall be new. A used or demonstrator model will not be considered. A copy of the specifications and literature for each model submitted shall be included with each bid. Only bids from authorized dealers will be considered. Each bidder should state warranty coverage and estimated date of delivery with bid. The dealer shall submit a total bid for furnishing a bucket truck as per specifications.

The Board reserves the right to reject any and all bids and to waive any technicalities.

The bids shall not include tax, from which we are exempt.

One (1) 1997 GMC 3500 HD with a Versalift VO29BI Model boom/lift **may** be traded in. The possible trade-in vehicle will be available for inspection at the Highway Department Garage by appointment @ 815-756-9513.

Total Cost One (1) Aerial Lift Truck \_\_\_\_\_

**Possible** trade allowance One (1) 1997 GMC 3500 HD w/ aerial lift \_\_\_\_\_

Net cost One (1) Aerial Lift Truck \_\_\_\_\_

Proposal submitted by:

Name \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

Signature \_\_\_\_\_

## **AERIAL LIFT TRUCK SPECIFICATIONS**

### **GENERAL:**

The following specification is for a Category "C" insulated telescopic and articulating aerial personnel lift. The unit shall be the latest current model of standard design manufactured, complete with all standard equipment, special tools and warranties. Bidders are to supply the latest printed literature and detailed specifications on equipment the bidder purposes to furnish.

The Aerial Personnel Lift must be designed and all components selected and used according to sound engineering principles. All completed units shall comply and be tested in accordance with all applicable O.S.H.A. ANSI, FMVSS standards and regulations. The specifications listed below shall be considered minimum requirements.

Any exception must be noted on a separate sheet and be identified by section.

### **CHASSIS DATA:**

Ford F550

Engine: 6.8L V10

50 State Emissions System

Transmission: Auto w/OD

Limited Slip

GVWR: 19,500 lb. Payload plus Upgrade

GAWR FRONT AXLE: 7000 lb.

Tires: 225/70Rx19.5G BSW AS

Wheels: 19.5" Argent Painted Steel

HD Vinyl Seat

84" Cab to Axle

XL Value Package

Transmission Power Take-Off Provision

Radio: AM/FM Stereo

XL Decor Group

Monotone Paint Application Oxford White

200 amp HD alternator

Hydraulic power-assist re-circulating ball steering

4-wheel disc brakes with front and rear vented discs

Firm ride suspension

Mono-beam non-independent front suspension

Front anti-roll bar

HD front coil springs

HD front shocks

Rigid rear axle.

Rear leaf suspension

Rear anti-roll bar

HD rear leaf springs

HD rear shocks  
 4-wheel anti-lock braking system.  
 Air conditioning  
 Fixed antenna  
 Warranty  
 Basic ..... 36 month/36,000 miles  
 Powertrain ..... 60 month/60,000 miles  
 Roadside Assistance ..... 60 month/60,000 miles  
 Corrosion Perforation ..... 60 month/unlimited mileage  
 Diesel Engine (if included) ..... 60 month/100,000 miles

Comply: \_\_\_\_\_

**AERIAL LIFT GENERAL DATA:**

**DuraLift DTAX-39 or equivalent**

|                               |              |
|-------------------------------|--------------|
| Working Height, Minimum       | 44'          |
| Horizontal Reach              | 28'          |
| Approx. Stowed Travel Height: | 10'          |
| Extension Boom Travel:        | 108"         |
| Main Boom Travel:             | -25° to +78° |
| Articulating Boom Travel:     | -2° to +80°  |
| Basket Capacity:              | 350 lbs.*    |
| Installed Weight (Approx.):   | 2450 lbs.    |

Comply: \_\_\_\_\_

The completed unit shall be certified as passing A.N.S.I. A92.2 stabilization tests without outriggers and successful bidder shall demonstrate these capabilities upon delivery.

Comply: \_\_\_\_\_

**MAIN BOOM:**

The main boom shall be constructed of 6" X 8" rectangular high strength steel tubing. The section of the main boom that houses the internal cable track shall be expanded to 6" X 12" to allow the hoses and cable track to operate above minimum bend requirements. The minimum travel shall be from 25° below horizontal to 78° above horizontal. The 25° below horizontal movement of the main boom shall allow the operator to place the basket on the ground.

The upper and lower support wear pads must be of 1/4" thick UHMW polyethylene. Side support wear pads must be threaded adjustable wear pads made of UHMW polyethylene. Wear pads must be replaceable without disassembly of boom sections.

Comply: \_\_\_\_\_

**MAIN BOOM FIBERGLASS**

The main boom shall include a fiberglass insert to provide an insulation gap of 14" when the telescopic boom is fully retracted. The insert shall be bolted and glued to provide a secure connection. The boom shall be clearly labeled to indicate the area of insulated protection.

Comply: \_\_\_\_\_

**EXTENSION BOOM:**

The inner boom shall be made from 5" x 7" fiberglass tubing. The inner wear pads must be of threaded adjustable UHMW polyethylene. A hydraulic cylinder shall accomplish the telescopic action of the extension boom. The use of chains or cables to extend is not acceptable. A polyethylene sleeve shall be placed over the basket end of the extension cylinder to increase the distance of dielectric integrity. The polyethylene sleeve shall be certified for 50KV.

Comply: \_\_\_\_\_

**ARTICULATING ARM:**

The Articulating arm shall be made from 6" x 6" square high strength steel tubing. The articulating arm movement shall be from -2° to +80° from horizontal. At no point in travel can the boom or knuckle extend beyond the width of the chassis mirrors. The articulating arm shall be compensating in design to maintain constant main boom angle during the elevation of the articulating arm.

Comply: \_\_\_\_\_

**CHASSIS INSULATING SYSTEM**

The articulating boom shall include a fiberglass insert to provide an insulation gap of 12" at angle of incline. The insert shall be bolted and glued to provide a secure connection. The boom shall be clearly labeled to indicate the area of insulated protection.

Comply: \_\_\_\_\_

**PEDESTAL:**

The pedestal shall be a structural box shape and include the hydraulic reservoir, electrical and hydraulic components. An adequate opening shall be provided by a door or cover to allow access to the internal components. A hydraulic reservoir fill indicator shall be clearly visible and labeled to indicate the condition of the oil level. The pedestal shall be machined flat for installation of the shear ball rotation bearing. The pedestal structure must be of a single piece design and bolted directly to the lift subframe. Risers and spacers are not acceptable.

Comply: \_\_\_\_\_

**TURNTABLE:**

The turntable shall be constructed of high strength structural plate. The turntable shall be designed to resist all torque loads. All pivot points for the booms and cylinders shall be line bored to allow for proper alignment.

A 17" diameter shearball rotation bearing is required. Bearing races shall be heat-treated and sealed to prevent entry of dirt and moisture and be equipped with readily accessible pressure (zerk) lubrication fittings. The rotation shall be driven by a worm gear, reduction gearbox. A means of adjustment shall be included to provide for proper gear backlash. The rotation system will be self-

locking in the event of hydraulic failure. The input shaft shall be machined with an extended hexagon design to allow for manual rotation. Comply: \_\_\_\_\_

**CONTINUOUS ROTATION:**

The continuous rotation shall replace the 370° non-continuous rotation. The rotation shall be continuous in either direction. A rotation manifold shall provide 10 individual ports; 4 for hydraulic and 6 for pneumatic flow. Each port shall be separated by O-rings. The inner core of the manifold should be attached to the turntable and allow for maintenance of all hoses without removing guards for service or inspection. The outer case should be attached securely to the pedestal to prevent rotation. Please state the number of hydraulic and pneumatic ports available. Comply: \_\_\_\_\_

**SUBFRAME:**

A subframe shall be secured to the vertical section of the vehicle frame and provide adequate strength to withstand the load of the aerial lift. Comply: \_\_\_\_\_

**BOOM SUPPORT:**

A boom support shall be provided to support the aerial lift booms in the transport position. An over-center clamping device, shall secure the booms to the support for road transport. Comply: \_\_\_\_\_

**HYDRAULICS & CONTROLS:**

The hydraulic system shall be designed as an open center hydraulic system. All hydraulic components including the 10-gallon hydraulic reservoir shall be housed with-in the aerial lift pedestal. The reservoir must be equipped with a drain plug, filler cap, air filter vent, sight level gauge, baffle system and shut-off valve at the outlet. A 10-micron return filter shall be installed as close to the reservoir as possible and must be accessible for maintenance. A pressure relief valve must be built into the system to prevent overload. The pressure relief must be set at 2250 P.S.I.

The Aerial device shall be equipped with basket and turntable mounted control stations. Upper (basket mounted) controls shall consist of an Individual, High Electrical Resistant 4-Axis joystick control lever for all boom movements and Lockout Levers for basket rotation and dump. The Lower (turntable) control station shall be equipped with lever type controls for boom movement and also includes a control for basket dump. The upper control station and the lower control station shall automatically return to neutral position when released.

The controls shall use full pressure proportional hydraulic valves. In order to prevent inadvertent actuation of the boom position controls at the basket, the use of an unlocking device shall precede the use of the control itself and shall be maintained simultaneously during the use of the controls. When either control is released, boom movement stops and oil flow is redirected to the reservoir. The basket mounted control station shall permit the operator to control all boom movement; chassis start and stop controls, and emergency backup functions.

The turntable mounted lower control valve overrides the upper control valve. It shall be capable of maintaining override of the upper control valve while unattended.

The aerial lift shall be powered by a PTO/hydraulic pump, which produces up to 5 GPM. The hydraulic system will also include a 12-volt D.C. emergency backup system. The D.C. motor and pump delivers 1.4 GPM.

All hydraulic hoses shall be placed within a cable track located inside of the main boom. Hoses shall be protected against abrasion, twisting, and normal wear.

Hydraulic hoses shall have a 4 to 1 safety factor from operating to burst pressure.

Comply: \_\_\_\_\_

**HYDRAULIC CYLINDERS:**

The main boom double action lift cylinder shall have a minimum 3-1/2" bore. The extension boom double action cylinder shall have a minimum 2" bore. The articulating arm double action cylinder shall have a minimum 3-1/2" bore. Holding valves shall be attached to each cylinder to prevent boom creep and to lock the cylinders in the event of line failure. Hydraulic cylinders shall have welded and threaded end caps for maximum safety. Piston shaft shall be highly polished chrome finish.

Comply: \_\_\_\_\_

**BASKET:**

The basket shall be a 24" X 30" X 42" square molded fiberglass. Entry is gained by an inner/outer molded step. The basket shall be completely enclosed and shall not have any holes for drainage or otherwise. The basket shall be automatically leveled as the main boom raises. The hydraulic basket leveling shall incorporate two enclosed loop, leveling cylinders, and appropriate valving. A control valve to stow/trim the basket shall be located at the upper controls and at the lower override controls. The basket stow requires simultaneous activation with the locking valve to prevent inadvertent movement. A hydraulic basket rotator shall rotate the basket 180° about the end of the boom from curbside to street side. A control valve located at the upper controls shall control the rotation.

Comply: \_\_\_\_\_

**BASKET LINER (24" X 30")**

A basket liner shall be provided to fit inside of the fiberglass basket. The liner shall be designed to be supported by the bottom of the basket. The liner should include a lip that fits over the top of the fiberglass basket to prevent sharp objects from lodging between the basket and the liner. The basket liner shall also have a molded integral step inverted inside of the liner to assist in basket entry/exit. The basket shall be certified to 50KV minimum.

Comply: \_\_\_\_\_

**VINYL BASKET COVER: (24" X 30")**

A basket cover shall be provided that completely covers the top molded lip of a standard 24" X 30" X 42" basket. The cover must be of a good quality vinyl material and shall include an elastic cord or band to keep the cover secured to the basket. A strap with latching hook shall be permanently attached to the cover to allow for securing to the boom tip, preventing accidental loss.

Comply: \_\_\_\_\_

**MISCELLANEOUS MECHANICAL FEATURES:**

All boom pivot points shall be constructed of high alloy steel (130,000 PSI yield strength minimum). All pins shall require a Nitrotech furnace treatment. The pin results in a hardness range of Rc 64 to 71 with a finish of 40-µin. All pivot points shall be equipped with replaceable fiberglass reinforced teflon bearings. No lubrication shall be required. Comply: \_\_\_\_\_

**MANUALS:**

Each unit shall include a separate operator's manual and a separate parts/maintenance manual. There must be two sets of manuals for each unit. Comply: \_\_\_\_\_

**WARRANTY**

Warranty to the original buyer all products manufactured for a period of (24) Twenty-Four months from the date put in service to be free of defects in workmanship and material under normal use and operation. Labor involved in replacing warrantable components shall be covered for a period of (24) Twenty-Four months from the date put in service. Comply: \_\_\_\_\_

**UTILITY BODY DATA:**

**132 inches long x 42 inches high x 94 inches wide Service Body  
Chassis cab to axle (CA) of 84 inches with dual rear wheel axle.**

**Body Dimensions:**

- 42 Inches - Compartment height
- 18 Inches - Compartment depth
- 58 Inches - Load space width
- 24 Inches - Top of body to the top of the floor

Comply: \_\_\_\_\_

**Steel Body Materials**

Galvannealed. - Main body material

Comply: \_\_\_\_\_

**Body Floor and Understructure:**

- Cut out in bed area floor for aerial
- Boom Rest Reinforcement

Comply: \_\_\_\_\_

**Accessories:**

- Stainless Steel, automotive quality, paddle activated rotary style door latches
- Spring loaded door holders on all vertical hinged doors and chain stops on horizontals.
- Automotive Bulb Type Weather-stripping.
- Compartments to be vented in between each other creating a "flow through" system

Comply: \_\_\_\_\_

**Paint:**

- Inside/Outside Prime and White Paint.

Comply: \_\_\_\_\_

**Street Side Compartmentation**

**1<sup>st</sup> and 2<sup>nd</sup> Compartments**

- 30.5" W x 42" H x 18" D

**3<sup>rd</sup> Compartment**

- 40" W x 42" H x 18" D

**4<sup>th</sup> Compartment**

- 31" W x 42" H x 18" D

Comply: \_\_\_\_\_

**Curbside Compartmentation**

**1<sup>st</sup> and 2<sup>nd</sup> Compartments**

- 30.5" W x 42" H x 18" D

**3<sup>rd</sup> Compartment**

- 40" W x 42" H x 18" D

**4<sup>th</sup> Compartment**

- 31" W x 42" H x 18" D

Comply: \_\_\_\_\_

**Tail Shelf:**

30" Long x 94" Wide Steel Tread plate with cable walkup access steps curbside.

- Grab Handle to be placed rear of service body curbside and pool type grab handle at rear of tail shelf.

Comply: \_\_\_\_\_

**Tail Shelf Rear Lighting:**

- Rubber mounted recessed rear lighting kit
- Two (2) stop/tail/turn- L.E.D.
- Two (2) clear back up lights - L.E.D.
- Two (2) side clearance lights bullet style - L.E.D
- Two (2) rear clearance lights bullet style - L.E.D
- Three (3) light center bullet style - L.E.D
- Two (2) under tail shelf rear ground light – L.E.D

Comply: \_\_\_\_\_



**TORSION BAR:**

**Rear Level Ride Torsion Bar**

Install a Level Ride Manufacturing Co. stabilizer bar to enable complete unit to comply with the aerial device stability requirements of Section 4.5 of ANSI A92.2 specifications. The torsion bar shall be attached to the rear axle of the chassis.

Comply: \_\_\_\_\_

**ACCESSORIES**

**Pedestal Mount Light Bar with Placements**

Aluminum 2” tubing frame and placements for a pair (2) of strobe beacons mounted on pedestal.

Comply: \_\_\_\_\_

**Two LED Strobe Beacons**

Star Model 255HTCI Class High intensity 360 degree LED beacons mounted on each side of Pedestal Mounted Light Bar.

Comply: \_\_\_\_\_

**Four Corner Strobe System**

LED surface mount strobe system, with two strobes mounted in front grill and two strobes mounted at rear of tail shelf at each corner. LED lights shall be Amber/White combination for better visibility.

Comply: \_\_\_\_\_

**Trailer Hitch, Plug and D-Rings**

Class IV receiver with 2” pintle with D-rings and 7 spade (RV Type) trailer plug.

Comply: \_\_\_\_\_

**Inclinometer**

Ryker inclinometer installed at rear of body.

Comply: \_\_\_\_\_

**Back up Alarm**

Star Model 64-102 102db single tone alarm for back up.

Comply: \_\_\_\_\_

**Roadside Safety Kit**

Fire extinguisher to be installed in utility body.

Reflector Kit to be placed in utility body.

Comply: \_\_\_\_\_

**INSPECTION:**

All materials or equipment purchased are subject to inspection and approval at the County's destination. The County reserves the right to reject or refuse acceptance of items, which are not in accordance with the instructions, specifications, drawings or date of seller's warranty (expressed or implied). Rejected materials or equipment shall be removed from the County's property at the expense of the seller.

**Please list the following below:**

Aerial Lift Make: \_\_\_\_\_

Aerial Lift Model: \_\_\_\_\_

Any and all Warranty Information: \_\_\_\_\_ (Vehicle)  
\_\_\_\_\_ (Aerial Lift)

Anticipated Date of Delivery: \_\_\_\_\_

**Note: The County reserves the right to sell said 1997 GMC/Versalift in lieu of trading it in. If the County does decide to trade in said GMC/Versalift; the trade-in unit will not be released until the New/Completed unit has been delivered to, inspected and approved by the County.**

**Please contact the County Highway Department for Bid instructions and requirements @ 815-756-9513.**

**Please list exceptions to bid (if any):**