

CLARE COUNTY ROAD COMMISSION

QUOTE SHEET

FOR

Sign Truck Equipment for the following truck:

2023 Chevrolet Silverado MD5500 Crew Cab 4x4
Gross Vehicle Weight Rating: 19,500
Cab to Axle Dimension (CA): 84" Dual
Rear Wheels
Diesel Engine
Automatic Transmission with PTO capabilities

All sign truck equipment specifications shown are minimums and all bidders are to meet or exceed the specifications as written. All bidders must complete the enclosed bid worksheet. The unit shall be the latest current model of standard design manufactured, complete with all standard equipment and special tools. Bidder is to provide a two year warranty on aerial tower and minimum one year on PTO, pump, valves, components, and equipment.

A. PLATFORM BODY:

Parkhurst Toughline Model PTS96144 with Heavy Duty Bulkhead or equal

1. Platform - approximately 12' in length and 96" in width
2. 3/16" Tread plate floor
3. Reinforced stake pockets will accommodate 2 x 4 nominal lumber
4. Side & End Rails — 6 3/4" face 11 gauge
5. Cross Sills— 4" Structural Channel 5.4 lb. per ft. with 16" spacing
6. Long sills - 6" Structural Channel 8.2 # per ft.
7. C/M Gussets - 10-gauge steel, at each cross sill
8. Lighting - FMVSSI08 recessed rubber mounted shock resistant clearance lights with SAE #J-1128 weather resistant wiring harness. must be led
9. Wiring - all connections shall be sealed and weather tight
10. Mounting - Platform shall be attached to frame using U-bolts and shear plates, angle pinch clamping devices may be used if necessary. No wood filler strips are to be used between the body frames
11. Primed and painted black
12. Bulk head - mounted as high as possible, but not to interfere with aerial rotation- 96" wide 12 gauge formed steel panel skin - 14 gauge roll formed stakes with reinforcement liners - Knee brace assembly and gusset kit to make it free standing design
13. Screen window -14" X full width expanded metal
14. Mud flaps - heavy duty 1/2" anti-sail rubber mounted ahead and behind drive axles

Yes _____ No _____ Deviations explained _____

B. HYDRAULIC SYSTEM:

1. Hydraulic Oil Reservoir

- Manufactured of 12 gauge hot rolled steel
- 25 gallon capacity
- Two 1-1/2" NPT openings located on the bottom
- One drain plug
- Baffled mid-tank to prevent direct recycling of oil
- Nickel chrome plated filler breather assembly with strainer and safety chain
- Temp and sight gauge
- Filter – Spin on style

Yes _____ No _____ Deviations explained _____

2. Ball Valves

- Two 1/4 turn full flow brass ball valves
- Located as follows:
 - o Between oil reservoir and pump on suction line
 - o Between return filter and reservoir on return line
-

Yes _____ No _____ Deviations explained _____

3. Power Take Off (PTO) and Pump Combo

Bid proper PTO and Pump,
To operate entire system.
Cab mounted PTO switch, engagement light indicator

Yes _____ No _____ Deviations explained _____

4. Control Valves - Bosch Rexroth M4-12 Design – electronic or equal

- Shall be installed in a 304 stainless steel enclosure – location to be determined at installation
- Valve is to include unloader, main pressure relief, built in flow controls and pressure limiting features
- Shall have dedicated circuits: Aerial lift -4GPM, Basket and ground level reel tool circuits- 8GPM, Front post puller -3GPM

Yes _____ No _____ Deviations explained _____

5. Air/Oil Heat Exchanger with Thermal Transfer model MA12-2-4A – or equal

- Sized so hydraulic oil temperature does not exceed 160 degrees Fahrenheit
- Location to be determined at installation

Deviations explained _____
Yes _____ No _____

6. Return Line Filter

- Shall be Zinga SF 120-15 or equal
- Shall be filter to 10 microns
- Located between air/oil heat exchanger and the return line ball valve

Yes No Deviations explained _____

7. Hydraulic Circuits

- All hydraulic tool circuits to include Holmbury HTMA couplers, cap and plugs

Yes No Deviations explained _____

8. Hydraulic Piping and Hoses

- Shall withstand all pressures that may be created within the system
- Shall be placed and attached to the vehicle so that no rubbing, vibration, pinching or other damage will occur during normal operations
- Protective non-abrasive sleeve shall be placed on all hoses that rub frame or other hoses
- Stainless steel piping if possible on any long runs

Yes No Deviations explained _____

9. Hydraulic Oil

- Shall be of type recommended by aerial lift and post puller manufacturer
- Shall be sufficient quantity to fill the system and tank

Yes No Deviations explained _____

10. General

- Hydraulic system shall be thoroughly tested for proper operation prior to acceptance by owner
- As much as possible components shall be located so routine inspections and maintenance can be performed

Yes No Deviations explained _____

C. TELESCOPIC AERIAL LIFT:

Dur-A-Lift model DTS-29FP Insulated or equal

1. GENERAL

Working Height, Minimum:	34'
Horizontal Reach, End Hung Basket:	23'
Approx. Stowed Travel Height:	10'
Extension Boom Travel:	108"
Main Boom Travel:	-25 degrees to +78 degrees
Basket Capacity:	350 lbs.
Installed Weight (Approx.):	1900 lbs.

Paint Code: 817 Urethane White
Yes No Deviations explained _____

2. 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.
Yes No Deviations explained _____

3. 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 degrees below horizontal to 78 degrees above horizontal. The 25 degrees below horizontal movement of the main boom shall allow the operator to place the basket on the ground to reach the rear tail shelf and to allow access to the rear compartments of the body without leaving the basket.

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.

Yes No Deviations explained _____

4. Extension Boom:

The inner boom shall be made from 5" x 7" rectangular high strength steel 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.

Yes No Deviations explained _____

5. Pedestal:

The pedestal shall be a structural box shape for aerial, electrical and hydraulic components. An adequate opening shall be provided by a door or cover to allow access to the internal components. 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 sub frame.

Yes No Deviations explained _____

6. 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 12" 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.

Yes No Deviations explained _____

7. 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.

Yes No Deviations explained _____

8. 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 1-1/2" 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.

Yes No Deviations explained _____

9. Sub Frame:

A sub frame shall be secured to the vertical section of the vehicle frame and provide adequate strength to withstand the load of the aerial lift.

Yes No Deviations explained _____

10. Boom Support:

A special boom support design shall be provided to support the aerial lift booms in the transport position and leave enough room between pedestal and rest for additional equipment. An over-center clamping device, shall secure the booms to the support for road transport.

Yes No Deviations explained _____

11. 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 Re 64 to 71 with a finish of 40-pin. All pivot points shall be equipped with replaceable fiberglass reinforced teflon bearings. No lubrication shall be required.

Yes No Deviations explained _____

12. Hydraulics & Controls:

Aerial device shall be equipped with basket and turntable mounted control stations. Individual control levers at both 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, tool circuit, 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 hydraulic system as listed in control valve section. 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.

Yes _____ No _____ Deviations explained _____

13. Joystick Control:

A one-hand joystick control with trigger activation will be used to operate the upper controls. Boom movement can not occur if the trigger is not activated. With the booms stowed in the rest, the control handle is oriented so the operator will operate with the joystick handle in the right hand when facing away from the truck. Pulling up on the joystick handle is to raise the booms. Pushing down on the joystick is to lower the boom. Pulling the joystick back is to retract the extension boom. Pushing the joystick forward extends the extension boom. Pushing the joystick to the right or left rotates the booms.

Yes _____ No _____ Deviations explained _____

14. Walk-In Basket- End Hung:

The walk-in end hung basket incorporates the standard bucket with end mounted clevis design to add 2' additional side reach. The basket shall be a 24" X 24" X 42" square molded fiberglass. Entry is gained by a side entry, walk-in latching door assembly. Hydraulic leveling shall level the basket.

Yes _____ No _____ Deviations explained _____

15. Upper Control Lockout:

An upper control valve lockout shall be available for the basket-stow valve section. The lockout requires releasing a mechanical lock prior to the movement of the valve handle.

Yes _____ No _____ Deviations explained _____

16. Tool Circuit At Basket:

A hydraulic tool circuit shall be provided at the upper control station. Activation must disable all boom functions to prevent inadvertent movement.

Yes _____ No _____ Deviations explained _____

17. Twin Line Hose Reel:

Reel Craft model TH88000- OMP or equal

- 25Ft of twin 1/2" Parker 451 TC hose, fairlead, adjustable hose bumper and Holmbury HTMA coupler, caps and plugs
- Exact location to be determined at installation

Yes _____ No _____ Deviations explained _____

18. Torsion Bar:

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- 1990 specifications. The torsion bar shall be attached to the rear axle of the chassis. Please specify position of torsion bar and ground clearance.

Yes _____ No _____ Deviations explained _____

19. Full Body Harness: (Supplied with the lift)

A full body harness made of 1 3/4" type 13 nylon webbing. Shoulder straps have friction slide adjuster. The waist and chest straps use friction-style buckles for positive securement. Leg straps have tongue and buckles with grommeted holes. A 4' X 1/2" nylon-filament rope lanyard with double latching hooks is provided.

Yes _____ No _____ Deviations explained _____

20. 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.

Yes _____ No _____ Deviations explained _____

D. TOOL BOXES:

Passenger Side Front To Rear

1. Front Side Tool box:

14 Gauge Bright Stainless Steel toolbox 24"Wx24"Hx20"D, reinforced to for installation of hydraulic hose reel, single swing down door, stainless steel T-handle with cylinder lock, stainless steel "L" style hinge, automotive style bulb seal, Reinforced top for hydraulic hose reel. Toolbox to include slide out tray kit to include three slide out drawers, dividers and sub dividers. Slide out tray kit to be made of galvanized steel.

Yes _____ No _____ Deviations explained _____

2. Second Tool box:

14 Gauge Bright Stainless Steel toolbox 24"Wx24"Hx20"D, single swing down door, stainless steel T-handle with cylinder lock, stainless steel "L" style hinge, automotive style bulb seal. Toolbox to include shelf kit consisting of three adjustable snap in shelves made of galvanized steel.

Yes No Deviations explained _____

3. Third Tool box:

14 Gauge Bright Stainless Steel toolbox 36"Wx24"Hx20"D, swing down door, stainless steel T-handle with cylinder lock, stainless steel "L" style hinge, automotive style bulb seal. Tool box to be vacant.

Yes No Deviations explained _____

4. Rear Sign Box:

14 Gauge Bright Stainless Steel toolbox 19"Wx42"Hx54"D, single side swing door, hinged on the right side, gas spring door prop, stainless steel T-handle w/cylinder lock, stainless steel "L" style hinge, automotive style bulb seal. Floor of toolbox to have roller conveyor installed 18"Wx53"L with 40 galvanized steel rollers 1-3/8" diameter for ease of signs in and out of box. (2) 3/4" screw adjustable sign holders; adjustable from the outside with crank handles, mounts to hold signs in place to be minimum 4" diameter poly, socket style, self adjusting to be flat against the signs. Exact location of sign holders will be determined at installation.

Yes No Deviations explained _____

E. HYDRAULIC SIGN POST DRIVER

Reliable Equipment model REL-SPD or equal Including Flat Faced Couplers, Balanced Lifting Eye, In-line Control Valve, and Dual Full Length Cushion Grip Handles

Will drive:

1. #2, #3 and #4 .lb/ft. "U" Channel Sign Post
2. #3 & #4 Strong Back "U" Channel Sign Post
3. #1 Delineator Post
4. 2-1/2" (63.5mm) Square Post
5. 2-5/8" (67) Round Post

Accessory Adapters Available

To drive:

1. 1-3/4" Round (T-Post)
2. 1-3/4" Square Post
3. 2" Round Pipe
4. 2" Square Post
5. 2-1/4" Square Post

Yes No Deviations explained _____

F. JIB POST:

Design and install a jib for post driver to be installed on bucket and stow pedestal when transporting

Yes No Deviations explained _____

G. SIGN POST TO DRIVER CONNECTOR

Design a bracket to be attached to the bottom of the sign post driver that would lift the sign post in place and operator would use the aerial lift to lift the driver and post into position.

Yes No Deviations explained _____

H. HYDRAULIC POST PULLER:

Concord Extreme Duty Post Puller model CRE-94HD31

1. Shall be front bumper mounted using 4"X4"X1/4" square tubing
2. Pivot post shall be constructed of 2-1/2"X1-1/2" rectangular tubing with extension boom constructed of 1"X2" rectangular tubing
3. Shall rotate 180 degrees
4. Shall be 58" retractable and 94" extended
5. Shall have vertical reach of 13" below and 23" above horizontal
6. Shall have provisions to lock boom for transport
7. Hydraulic valve shall be three bank
8. Hydraulic valves as follows:
 - Main boom Up/Down
 - Extension boom In/Out
 - Pull cylinder Up/Down

9. Hydraulic cylinders to be as follows:

- Boom lift 2 1/2" bore, 6" stroke
- Boom extension 2 1/2" bore, 30" stroke
- Pulling 3" bore, 14" stroke

10. Installed, primed and painted urethane, color determined at installation

Yes No Deviations explained _____

I. REAR TAIL SHELF AND STEP ASSEMBLY:

1. Minimum 8" 11.5 # structural channel rear bumper with 2" receiver tube, safety loops
2. Grab handles and steps for safe entry to equipment body and aerial bucket
3. Primed with epoxy primer and Black Urethane paint

Yes No Deviations explained _____

J. LIGHTING:

1. All lighting shall meet all applicable federal and state standards
2. Original vehicle lighting shall be remounted as much as practical
3. Emergency lighting will be Sound Off Strobe system
4. (2) Model EP2SSMDBA, installed in front, behind the grill

5. (4) Intermediate, Model EOVBREBZA, installed in black poly boxes
6. (2) Facing to the front and (2) at 90 degree for full side visual
7. (2) On rear of equipment body in black poly boxes, Model EOVBREBZA
8. Exact heights, locations and switch configuration to be determined at installation
9. Conspicuity tape must be on sides and rear.

Yes No Deviations explained _____

K. CONTROL AND SWITCH LABELING:

1. All switches, valves and other control devices shall be plainly labeled
2. Labels shall be affixed to the control permanently

Yes No Deviations explained _____

L. SIGN POST STORAGE RACK:

1. Designed to house 20 posts of varies lengths
2. Location passenger side
3. Custom brackets system
4. Not to interfere with tool box access

Yes No Deviations explained _____

M. MISCELLANEOUS:

1. All equipment and components, fabricated or otherwise furnished shall meet or exceed all current federal and state safety standards. Any deviation from the minimum specifications as listed, must be noted in the remarks section of the bid worksheet
2. Any items not included in these specifications but are necessary to make a complete and operable unit shall be the responsibility of the bidder
3. The CCRC shall be furnished with a complete set of manuals (service, operators, and parts) for each item of equipment provided under this bid
4. All equipment and product warranty forms shall be completed and submitted to the appropriate manufacturer or dealer and the Road Commission shall be provided copies of each.

Company Name:

Address:

Phone:

Email:

Fax: