<table>
<thead>
<tr>
<th><strong>CONTRACT AWARD</strong></th>
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<tr>
<td><strong>CK09MERCER2020-20</strong> ONE (1) 2021 KENWORTH MODEL T370 4x2, STANDARD DAY CAB WITH ALTEC LR-7-60E70 AERIAL LIFT</td>
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<td><strong>FOR USE BY SHADE TREE FOR A PERIOD OF ONE (1) YEAR</strong></td>
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<th><strong>BID OPENING DATE:</strong> SEPTEMBER 22, 2020</th>
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<td><strong>CONTRACT TERM:</strong> NOVEMBER 16, 2020 THROUGH NOVEMBER 15, 2021</td>
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<td><strong>RES. NO # 2020-634</strong></td>
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<thead>
<tr>
<th><strong>NAME OF BIDDER</strong></th>
<th><strong>GABRIELLI KENWORTH OF NJ, LLC</strong></th>
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<tbody>
<tr>
<td><strong>ADDRESS</strong></td>
<td>2306 ROUTE 130N</td>
</tr>
<tr>
<td><strong>CITY, STATE, ZIP</strong></td>
<td>DAYTON, NJ 08810</td>
</tr>
<tr>
<td><strong>CONTACT</strong></td>
<td>PAUL AVVENTO</td>
</tr>
<tr>
<td><strong>TELEPHONE</strong></td>
<td>732 438 5740</td>
</tr>
<tr>
<td><strong>FAX</strong></td>
<td>732 438 0739</td>
</tr>
<tr>
<td><strong>E-MAIL</strong></td>
<td>PAVVENTO@GABRIELLI TRUCK.COM</td>
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| **UNIT COST FOR ONE (1) 2021 OR NEWER KENWORTH MODEL T370 4X2, STANDARD DAY CAB WITH ALTEC LR-7-60E70 AERIAL LIFT** | **$288,312.00** |

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<tr>
<th><strong>MANUFACTURER</strong></th>
<th><strong>KENWORTH/ALTEC</strong></th>
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<tr>
<td><strong>MODEL</strong></td>
<td>T370 / LR-7-60E70</td>
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<tr>
<td><strong>YEAR</strong></td>
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<td><strong>DELIVERY DATE</strong></td>
<td>300 DAYS AFTER RECEIPT OF ORDER</td>
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AWARD OF BID RECEIVED SEPTEMBER 22, 2020 TO GABRIELLI KENWORTH OF NJ, LLC FOR ONE (1) 2021 KENWORTH MODEL T370, 4X2 STANDARD DAY CAB WITH ALTEC LR-7-60E70 AERIAL LIFT FOR USE BY THE SHADE TREE DIVISION AND THE MERCER COUNTY COOPERATIVE CONTRACT PURCHASING SYSTEM. PERIOD: NOVEMBER 16, 2020 THROUGH NOVEMBER 15, 2021. TOTAL AMOUNT NOT TO EXCEED $288,312.00 (CK09MERCER2020-20)

WHEREAS, the Mercer County Purchasing Department has advertised for bids for one (1) 2021 Kenworth Model T370 4x2, Standard Day Cab with Altec LR-7-60E70 Aerial Lift for use by the Shade Tree Division and the Mercer County Cooperative Contract Purchasing System, for a period of one (1) year, as authorized by Resolution No. 2018-89, adopted February 8, 2018; and,

WHEREAS, four (4) sealed bids were received on September 22, 2020 in connection with the aforementioned procurement; and,

WHEREAS, the lowest bidders, Bucks County International, Inc., and Terex Utilities provided exceptions to the specifications and the County does not accept these exceptions, therefore, the bid received by Bucks County International, Inc., and Terex Utilities are hereby rejected; and,

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<th>Nay</th>
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<th>Abs.</th>
<th>Res.</th>
<th>Sec.</th>
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X—Indicates Vote  Abs.—Absent  N.V.—Not Voting  Res.—Resolution Moved  Sec.—Resolution Seconded
WHEREAS, the bidder hereinafter designated is the lowest qualified bidder; and,

WHEREAS, the bid received from Gabrielli Kenworth of NJ, LLC, 2306 Route 130N, Dayton, NJ, 08810, meets the specifications and shall be awarded for one (1) 2021 Kenworth Model T370 4x2, Standard Day Cab with Altec LR-7-60E70 Aerial Lift for use by the Shade Tree Division and the Mercer County Cooperative Contract Purchasing System for a period of November 16, 2020 through November 15, 2021, in the amount not to exceed $288,312.00; and,

WHEREAS, the Chief Financial Officer of Mercer County has certified in writing the availability of funds for the purposes set forth in this Resolution; said certification is on file with the Clerk to the Board, now, therefore,

BE IT RESOLVED, that the County Executive and Clerk to the Board be and are hereby authorized to execute said contracts when presented in a form approved by County Counsel; and,

BE IT FURTHER RESOLVED, that the Clerk to the Board shall forward a copy of this Resolution to the Mercer County Department of Transportation and Infrastructure, Highway Division, and the Mercer County Purchasing Department for further distribution.

[Signature]

Clerk to the Board
SPECIFICATIONS FOR ONE (1) 2021 KENWORTH MODEL T370 4x2, STANDARD DAY CAB
WITH ALTEC LR-7-60E70 AERIAL LIFT
FOR USE BY SHADE TREE

INTENT
The County of Mercer requests bids for One (1) 2021 Kenworth Model T370 4x2, Standard Day Cab with Altec LR-7-60E70 Aerial Lift for use by Shade Tree. The County requests the bid price to be held for one year. Bids shall be for new, current year production equipment. Demonstrator, used or lesser model equipment will not be accepted. All references to brand name shall be interpreted as brand name or equivalent. All questions shall be directed to the department of Purchasing; please email all questions to smceachern@mercercounty.org by September 15, 2020.

EXCEPTIONS
If bidding an equivalent manufacturer, provide the manufacturer's published literature and list all exceptions with descriptions of each exception.

As this is a cooperative bid, the awarded vendor(s) may provide the equipment herein bid upon to local governmental contracting units located within the County of Mercer without substitution or deviation from specifications, size, features, quality, price or availability as herein set forth. It is understood that orders will be placed directly by the contracting units, subject to the terms of the contract to be awarded by the County of Mercer, and that no additional service or delivery charges will be allowed. References to brand names shall be interpreted as brand or equivalent.

All equipment shall be delivered F.O.B destination with delivery charge included, within 310 days from receipt of purchase order. All equipment shall be delivered as stated above with to the Mercer County Highway Division at 300 Scotch Road, West Trenton, NJ 08628.

WARRANTY
The awarded vendor shall provide the warranty as stated in the specifications.
BID SPECIFICATIONS
ONE (1) 2021 KENWORTH MODEL T370 4x2, STANDARD DAY CAB
WITH ALTEC LR-7-60E70 AERIAL LIFT
FOR USE BY SHADE TREE

INTENT

It is the Intent of this specification to describe and govern the purchase and installation of a Kenworth chassis model year 2021 or newer.

Together with other associated equipment as described herein. The manufacturer, make exact model and literature shall be submitted with bidder’s proposal. The following specifications describe our minimum requirements for the quality and type of equipment to be furnished. Bidder may offer equipment which exceeds these requirements. Bids which fail to meet these requirements will be considered non-responsive to our needs.

The unit shall be new and of the latest design and in current production at the time of the submission of this bid. The bidder whose equipment or products are proposed shall have an authorized service, warranty and parts distribution facility located within 25 miles of Mercer County Department of Public Works facility located at 300 Scotch Road West Trenton, New Jersey 08628. All subcontractors installing equipment for components must also be an authorized distributor for that equipment for the purpose of warranty, parts and service.

CHASSIS CAB SPECIFICATIONS: Kenworth Model T370 4x2, Standard Day cab, Chassis Factory Built Aluminum and Fiberglass Construction.

Standard and optional equipment listed shall be original equipment manufacturer (OEM) items when available.

DIMENSIONS:

- Wheelbase: 226”
- Cab to Axle: 138”
- GVWR: 37,000 Lbs.
- Front Axle to Back of Cab: 68”
- Bumper to Back of Cab: 108”
- Cab Width: 72”
- Frame Bottom Flange to Top of Cab: 78”

Comply Exactly: Yes _____ No: _____

Exceptions:__________________________________________________________
__________________________________________________________

ENGINE AND RELATED EQUIPMENT:

- Paccar PX-9, Diesel-Six (6) Cylinder 330HP@2000RPM, Minimum torque 1000 Lbs. at 1400 RPM
- Engine shall include Turbo Exhaust Brake, Engine Oil Cooler, and Aluminum Flywheel Housing
- Alternator: Paccar 160 Amp, Brush Type
• Batteries: Three (3) Optima 31A Threaded Post, Minimum 2700 CCA
• Air Compressor: Cummins 18.7 CFM
• Air Cleaner: Dry Type Firewall mounted with restriction indicator
• Fan: Horton 2-Speed
• Cooling Module: 1000 Square Inches, Surge Tank to be Metal
• Engine Block Heater: Paccar 1000 Watt 120 Volt, Plug mounted on driver side fender.
• Engine Brake: Jacobs, Dash mounted 3 Way Switch
• Multi-function engine connector for Body builder interface
• Remote mounted throttle and PTO control End of Frame
• Body Builder lighting harness coiled end of frame to include: Marker, Turn Lamps, Tail Lamps and Stop Lamp
• Starter: Mitsubishi 105PS5 12V
• Electrical System: 12V with Centralized power distribution incorporating plug in style relays. Circuit protection for serviceability. 12V light system with circuit protection. Wires color coded and numbered
• Fuel Filter: Fleetguard FS1003 with 12V heat

Comply Exactly: Yes: _____  No: _____
Exceptions:__________________________________________

EXHAUST SYSTEM:
• Single horizontal after-treatment device; Frame mounted right side under cab; Horizontal tail pipe.
• DPF Tank: 11 Gallon mounted Left side under cab
• DPF Tank Cover: Stainless Steel, Bright Tank straps.
• DPF Cover: Bright Finish Non Polished

Comply Exactly: Yes: _____  No: _____
Exceptions:__________________________________________

TRANSMISSION:
• Transmission: Allison 3000RDS 6 Speed Automatic Transmission with PTO drive gear
• Driveline: Two (2) SPL170XL with 1 heavy duty bolted center bearing
• Left hand PTO access, with right hand dip stick tube
• J1939 Parking brake Auto Neutral
• Rear Transmission Support springs for PTO application.

Comply Exactly: Yes: _____  No: _____
Exceptions:__________________________________________
FRONT AXLE AND EQUIPMENT:

- Front Axle: Meritor MFS14 14.6K rated at 14,000 Lb.
- Front Brakes: 16.5” x 5” “S” Cam type with cast drum
- Hubs: 10-Bolt preset Iron
- Automatic slack adjuster
- Dust shields for Front brakes
- Front Suspension: Reyco Taper leaf 14,600 Lb. with shock absorbers
- Suspension Ride Height: 10” unladen; Measured from center of hub to bottom of frame.
- Single power steering gear rated for 14.6K
- Front Tires: Goodyear Endurance RSA 12R22.5 16 Ply
- Front Wheel: Accuride 50344 22.5x8.25 steel; 5 hand hole; Powder coated white
- One (1) Spare Mounted rim and tire.

Comply Exactly: Yes: _____    No: _____

Exceptions:____________________________________________________________________
______________________________________________________________________________

REAR AXLE AND EQUIPMENT:

- Rear Axle: Meritor R23-160 Rated at 23,000 Lb.
- Front Brakes: 16.5” x 7” “S” Cam type with cast drums.
- Spring Brake: 3030 Long Stoke, 3” Travel.
- Hubs: 10- Bolt preset Iron
- Automatic slack adjuster
- Dust shields for Rear brakes
- Rear axle Ratio: 5.63
- Rear Suspension: Reyco 79KB Taper leaf 23K rated at 23,000 Lb. with Helper spring
- Rear shock absorbers
- Suspension Ride Height: 11.4” Unladen; Measured from center of hub to bottom of frame.
- Bolted rear suspension crossmembers
- Meritor Driver controlled differential lock
- Bendix 4S/4M Anti-lock brake System.
- Rear Tire: Goodyear Armor Max Pro Grade MSD 11R22.5 16 Ply
- Rear Wheel: Accuride 50344 22.5x8.25 steel; 5 hand hole; Powder coated white
- One (1) Spare Mounted rim and tire.

Comply Exactly: Yes: _____    No: _____

Exceptions:____________________________________________________________________
______________________________________________________________________________

FRAME AND EQUIPMENT:

- Upfitter to provide proper wheelbase and cab to axle requirements to bidder
- Frame Rails: 10 ¾ x 3 ½ x 3/8
- Frame Weight: 3.48 lb-in per pair
- Section Modulus: 17.80, RBM 2,132,000 In-Lbs per Rail
- Bumper: Straight Heavy-duty steel; ½” Inch minimum
• Two (2) Removable front tow hooks
• Five piece bolted crossmember assembly with 12mm frame fasteners center and rear.
• Bolted rear cab support crossmember
• 56 Gallon Aluminum 24.5” Tank; Driver side under cab
• Chassis to maintain a clear Back of Cab and Clean Frame rails each side.

Comply Exactly: Yes: _____ No: _____
Exceptions:____________________________________________________________________
______________________________________________________________________________

AIR BRAKE AND EQUIPMENT:

• Air Dryer: Bendix AD-SP Heated
• Air Control Valve: Bendix or equivalent switches and valves
• Drain Valves: Moisture ejection valve with pull cable drain
• Air Tanks: Steel painted Black
• Bendix or Equivalent anti-lock braking system
• Full Truck Gladhand kit mounted at End of Frame includes dash mounted trailer supply valve, trailer hand control valve, hoses and fittings, gladhand and seven way female receptacle.
• Trailer ABS Electric Supply though SAE J560

Comply Exactly: Yes: _____ No: _____
Exceptions:____________________________________________________________________
______________________________________________________________________________

LIGHTS AND INSTRUMENTS:

• Headlamps: Halogen projector low beam, halogen complex reflector high beam
• Marker lights: LED rectangular cab roof mounted
• Turn signal mounted on fenders
• Rear LED Stop, Turn, Tail with LED reverse and License plate illumination
• Turn signal: Kysor solid state
• Electric Back up alarm must meet SAE J994 and OSHA requirements
• Wiring for customer installed electric trailer brake controller
• Body builder lighting harness coiled end of frame
• Circuit breakers replacing fuses were applicable
• Triangle reflector kit
• 5lb. Dry chemical fire extinguisher, Class ABC.
• Batteries mounted in cab under passenger seat
• Glove Box mounted Passenger side of cab

Comply Exactly: Yes: _____ No: _____
Exceptions:____________________________________________________________________
______________________________________________________________________________
CAB:

- Cab to be all Aluminum and fiberglass construction.
- Doors to be All aluminum with Stainless Piano Hinge
- Blend Air HVAC w/ ATC temp regulation, built in defroster. 45,000BTU
- Dome Lamps: Door and switch activated
- Cab mounting: Fixed bolted to cross member
- Warning alarm will sound when lights are left on
- Assignable body builder dash switches
- Daytime running lights
- Diagnosable bulb fault detection and warning
- Automated pre-trip inspection
- Radio: stereo AM/FM, weather Band, Bluetooth
- Power leads for Radio
- Door trim panel: padded vinyl with armrest pad
- Speedometer with trio odometer
- Required gauges: Exhaust Pyrometer, Transmission oil Temperature, air application, engine coolant temperature, engine oil pressure, engine oil temperature, and voltmeter
- Separate engine hour gauge to be provided
- Engine Tachometer
- Cab door to have bearing block top and bottom
- Hood: Slopped aerodynamic with fixed grill
- Adjustable telescoping tilt steering column
- Emergency reflector kit

Comply Exactly: Yes _____  No: _____
Exceptions: ____________________________________________________________
________________________________________________________________________

CAB CONTINUED:

- Driver side seat: KW Air Cushion plus High Back, Vinyl, 7 in slide adjustment, 7 to 23 degree recline, dual armrest, 2 tone color, carpeted back
- Passenger side seat: KW Battery box plus High Back, Vinyl, dual armrest, seat cushion 19.5”, 2 tone color, carpeted back
- Windshield: One piece
- Steering wheel: two spoke, urethane grip
- Windshield washer: 2 speed electronic with intermittent feature
- Windshield reservoir: Plastic under hood mounted
- Electric horn
- (5) Sets of keys
- Air horns: One under cab mounted
- Mirror: Polished Stainless steel, thermostatically controlled 7” x 16” rectangular mirror located on each door
- Dual Convex 8.5” Diameter mirror mounted below regular mirror.
- Mirror: Bright finish, 8” x 4” Convex, rectangular proximity above right hand door
- Sun visor: Interior: Both side Vinyl
- Power Outlets: (1) 12v auxiliary power outlets center dash mounted
- Under Dash Console: (1) 12v power outlet, storage compartment, (1) Lighter, and ashtray
• Power windows. No exceptions
• Power Door Locks. No exceptions
• Instrument Cluster Display: Includes fuel economy, RPM display, trip information, truck information, gear display, alarm clock and truck information
• Headliner and backwall covering to be vinyl
• Self-cancelling turn signal w/ headlight dimmer switch
• Grab Handle: Left hand with extension over door, Stainless Steel
• Grab Handle: Right hand with extension over door, Stainless Steel
• Daylight Door: Left hand/Right hand includes right hand peeper window
• One 17” x 36” stationary rear window
• Two 17.5” x 16” Curved glass corner rear stationary windows.
• Cab to be fastened together via Huck Rivets without used of welding.

Comply Exactly: Yes: _____ No: _____
Exceptions:____________________________________________________________________
______________________________________________________________________________

PAINT:
• Cab Exterior: Wheatland Yellow
• Cab Finish: Urethane clear coat
• Chassis Running Gear: Black (Urethane)

Comply Exactly: Yes: _____ No: _____
Exceptions:____________________________________________________________________
______________________________________________________________________________

SPECIALITY EQUIPMENT:
• PTO Control: PTO switch, Telltale, and wiring. NO EXCEPTIONS

Comply Exactly: Yes: _____ No: _____
Exceptions:____________________________________________________________________
______________________________________________________________________________

WARRANTY:
All applicable standard factory warranties shall apply with the additional extended warranties listed
• Extended Engine Warranty: 5 YR/100,000 MILES
• Extended Aftertreatment Warranty: 5 YR/100,000 MILES
• Extended Base Vehicle Warranty: 5 YR/100,000 MILES
• Extended Radiator/CAAC Warranty: 5 YR/100,000 MILES
• Extended HVAC Warranty: 5 YR/100,000 MILES
• Extended Allison Transmission Coverage: 2 YR/UNLIMITED MILES
BIDDER REQUIREMENTS:

- Chassis must meet all EPA Requirements for current model year engines
- Successful bidder shall have NJ State diesel emissions test performed on the truck by a NJ certified NJ state emission center and provide a 2-year sticker. COST SHALL BE INCLUDED IN BID PRICE
- Successful bidder shall perform a federal DOT inspection before truck is delivered
- Vehicle shall be titled to County of Mercer with CG tags provided
- Chassis Dealer shall be prime bidder in order to provide proper service, support and training.
- Successful bidder shall have a factory authorized service center able to perform any and all service claims within 25 Miles of the County public works facility. It shall be the responsibility of the bidder to pick up and return the vehicle in the case of any warranty at their expense. Notification of 2 business days must be given upon a scheduled pick up from the township garage. If the bidder can provide onsite service that is acceptable.
- Bidder to provide a copy of manufacturers MSO to confirm they are an authorized dealer upon request.
- Successful bidder shall be a Registered NJ Business and the authorized distributor for the products proposed.

Exceptions: ____________________________________________________________

DIAGNOSTICS EQUIPMENT:

- Successful bidder may be required to supply between one complete set of test/diagnostic/programming equipment (i.e. laptop, software, cabling, and adapters) and special tools required to perform the full range of diagnostic and maintenance actions necessary to maintain vehicle operability. This equipment will cover the vehicle chassis, engine, transmission, brakes, hydraulics, and all additional equipment (if applicable).
- All laptop computers will be of the newest available technology and have sufficient storage and memory to operate all required software.
- Provide a list of all test/diagnostic/programming equipment and special tools being supplied at the time of bid.
- All software installations and activations will be completed by the successful bidder at no cost to the County.
- All software updates and renewal will be provided at no cost to the County for a period of five (5) years from the acceptance of the equipment.
- All technical issues relating to test/diagnostic/programming equipment and special tools shall be resolved by the successful bidder at no cost to the County for a period of five (5) years from the acceptance of the equipment.
- Training shall be provided on all items in this section at a County location.

Exceptions: ____________________________________________________________
• This equipment shall be the OEM equipment as available by the chassis manufacturer.

Comply Exactly: Yes_____ No_____  
Exceptions:____________________________________________________________________  
______________________________________________________________________________

**TECHNICAL TRAINING AND SUPPORT:**

• Technical Support is to be provided by factory authorized technical representatives and is to be the original equipment Manufacturers’ industry standard technical presentation in a classroom setting.

• The support provided shall be at the journeyman/equipment technician level and should address limited theory, fault diagnosis and repair pertaining specifically to the equipment supplied under this specification.

• Technical support may be requested in the following areas:
  - Engine (cooling, fuel, ignition, lubrication systems) – 1 day at each location.
  - Transmission – 1 day at each location
  - Electrical – 1 day at each location
  - Brakes – 1 day at each location
  - Hydraulic system (dump body, spreader, snow plow) – 1 day at each location
  - Upfitter (dump body, sweeper, etc.) – 1 day at each location

• A technical representative(s) shall be made available for a total of 180 training/support hours (anticipated to be scheduled in six (6) hour blocks). Shorter training days will be allowed only with consent of Motor Pool. The total training hours will be required to be provided and no additional compensation will be considered. The actual time to be spent on each area will be by mutual agreement of the Motor Pool and the successful bidder.

• For the purposes of determining materials and other training costs, class size is anticipated to be comprised of six (6) to ten (10) DOT Employees.

• Actual class size will be determined by the Motor Pool at the time the classes are scheduled.

• Before the training is scheduled, Motor Pool and the contractor will agree on the scope of the training, and the type and quantity of manuals, etc. that are necessary for proper coverage.

• Technical Support for Motor Pool may be provided at the following fleet maintenance facility location as scheduled by a Motor Pool representative:
  - Mercer County, 300 Scotch Rd, Trenton, N.J. (Two (2) sessions will be provided at this location. One beginning at 7 am and another beginning at 1:30 pm)
  - Technical Support for other Departments will be held at a location within Mercer County. The requesting Department will notify the successful bidder of the location.

• Training at the successful bidder’s site, rather than the designated locations, will be by mutual consent only.

• Technical support will be requested and scheduled on an as needed basis up to but not exceeding the 180 hours total during a period not to exceed twelve (12) months from the date of placing the last unit in service.

Comply Exactly: Yes_____ No_____  
Exceptions:____________________________________________________________________
ALTEC LR-7-60E70 AERIAL LIFT
SPECIFICATIONS

- The lift shall have a platform height of not less than 70'3" and shall have a 44.8 ft reach at a working height of 28.7 ft. The lift shall have a lifetime warranty on all structural components and shall be designed in accordance with ANSI A92.2 Standard For Vehicle Mounted Elevating and Rotating Aerial Devices.

GENERAL AERIAL DEVICE
- The height from the ground to bottom of the platform floor (based on a 41" chassis height) shall be not less than 70'3"
- The working height shall be not less than 75'3" (based on a 41" chassis height)
- The maximum reach to edge of platform with upper boom non-overcenter shall be no less than 44'8" at 28'7" platform height.
- The maximum reach to edge of platform with upper boom overcenter shall be no less than 48'4" at 9'8" platform height.
- The booms shall be mounted in a side by side configuration for low travel height and easy platform access.

Comply Exactly: Yes_____ No_____
Exceptions:____________________________________________________________________
______________________________________________________________________________

PEDESTAL
- The pedestal shall be designed with a 33 inch reverse tapered offset mast assembly and a heavy duty base and tubular sub-frame assembly
- A pilot operated relief and hydraulic locking valve shall be installed directly onto the hydraulic rotation motor.
- Rotation bearing support ring shall be 1-5/8 inches thick
- The turntable shall be fabricated from ¾ inch thick reinforced side plates welded to a 1 inch thick ring gear mounting plate, providing a 36 inch offset between the lower pivot and the center-line of rotation
- For ease of maintenance, the hydraulic reservoir shall be mounted on the base plate of the unit outside of the pedestal and protected with a hinged cover. Since cracks and leaks can easily develop from all the forces placed on the pedestal area during operation, units with reservoirs located inside the pedestal will be deemed unacceptable.
- The hydraulic reservoir shall include a 100 mesh suction strainer with bypass and a 10 micron return line filter with replaceable type element.
- Rotation shall be fully continuous, accomplished by worm gear drive, equipped with extended shaft for manual rotation, driving a shear ball bearing rotation gear.
- The fully adjustable rotation drive assembly includes an external eccentric ring adjustment of the gearbox pinion gear to the main rotation bearing, permitting the ability to easily adjust backlash, reduce boom side ply and ensure propertooth contact over the lift of the unit.
- Pedestal shall be fabricated from a 16-inch outside diameter x 0.5 inch wall (406 x 13 mm) steel tube welded into a fabricated elevator structure.
• All bearing attachment bolts are easily accessed from outside the pedestal and inside the turntable.
• System shall be capable of rotation full rated platform capacity up a 5° slope (9% grade).
• Gear box shall be rated at no less than 22,378 inch pounds using 0.75 inch attachment bolts.
• A removable magnetic filter plug is to be incorporated into the reservoir for removal of any metal that may flow through the hydraulic system.
• A bolt on grab handle for turntable shall be provided.

Comply Exactly: Yes_____ No_____
Exceptions:__________________________________________________________
__________________________________________________________

ELEVATOR
• The elevator shall be comprised of a subbase section, a lower linkage, a riser, an upper linkage, and a pedestal section.
• Elevator link arms shall be mechanically compensated to provide 10 feet of directly vertical lift to the aerial device, with articulation of the elevator arms from stowed to 90 degrees.
• The elevator section shall be mounted parallel with the chassis frame rails providing maximum use of the space available for body bins, lower control platform, etc.
• The elevator assembly shall be attached to the chassis frame by means of 0.5 inch thick steel shear plates.
• All pivot bearings shall be greaseless, with only 4 grease fittings required for the elevator lift cylinders.
• When the elevator is fully extended (vertical), it shall provide an additional 10 feet of working height.
• Operating the unit with the elevator partially or fully extended shall not reduce any posted performance ranges or capacities.

Comply Exactly: Yes_____ No_____
Exceptions:__________________________________________________________
__________________________________________________________

LOWER BOOM
• Boom shall be manufactured from 12" x 12" x 1/4" wall steel tubing.
• The length of the lower boom from center line lower pivot to the center-line outer pivot shall be 276 inches.
• The lower boom hydraulic cylinder shall be equipped with internal holding valves which lock and hold the boom in position in the event of a hydraulic line failure or loss of power. Units using external holding valves will be deemed unacceptable.
• The lower boom hydraulic cylinder shall be equipped with a cushion valve for controlled deceleration.
• A filament wound fiberglass insert, 11-3/8" square x 5/8" wall thickness shall be located in the lower end of the boom.
• The insulation in the lower boom shall provide a 15" clear isolation gap.
The insulating value of the installed insert, and all components crossing it, shall be rated at 50 KV-AC for a duration of three minutes.

Elevation of the lower boom shall be controlled by a single cylinder installed between the base of the lower boom and the pedestal.

The lower boom articulation shall be 0 to 125 degrees.

The lower boom elevation cylinder shall have two pad mounted, pilot operated hydraulic lock valves.

The lower boom elevation cylinder shall be secured by two 1-3/8 inches pins installed through bearing lined bosses.

Heavy duty bearings and a 2-1/2 inches O.D. anchor pin shall be installed to support the lower boom to the pedestal.

Boom out of stow indicator shall be provided.

Lower Boom Insulator shall be 15 inches of isolation.

Comply Exactly: Yes_____ No_____

Exceptions:____________________________________________________________________
______________________________________________________________________________

UPPER BOOM

The upper boom shall be cylindrical, made of filament wound fiberglass having a 10 inch inside diameter contains insulated conduit for routing of hydraulic lines and fully contains upper boom leveling system. The County has evaluated both cylindrical and rectangular boom design and has determined that the cylindrical design has a greater degree of deflection affording a greater margin of safety.

The upper boom leveling system shall be contained within the boom and shall be fully insulated.

The upper boom shall be equipped with heavy duty cylinders.

The upper boom shall be articulated by (2) single acting hydraulic cylinders with a walking drive link system.

For serviceability and ease of maintenance the upper boom drive system shall be maintenance free, having no grease fittings. Units requiring grease of the upper boom drive system shall be deemed unacceptable.

For safety, the upper boom guard shall be easy to inspect on a daily basis.

The hydraulic cylinder shall be equipped with internal pilot operated holding valves which lock and hold the boom in position in the event of a hydraulic line failure or loss of power. Units using external holding valves will be deemed unacceptable.

The lower end of the upper boom shall have a steel tube base welded to a cast steel cable sheave support.

The upper boom articulation shall be 0 to 270 degrees in relation to lower boom.

Hydraulic operated upper boom stow latch securing system with support cradle shall be provided.

Boltron upper boom covers shall be provided.

To improve dielectric integrity by keeping moisture from wicking along the hoses, and to retain the hoses from keeping them from hitting the leveling rods and causing or being damaged, all hydraulic lines shall be placed along the inside of the boom into brackets which clamp the hoses to the inside of the boom structure.

End of boom shaft has ring for attachment of fall protection system lanyard.

Comply Exactly: Yes_____ No_____
PLATFORM ASSEMBLY

- The platform shall be designed for one person and be manufactured of molded fiberglass.
- The platform capacity shall be 400 lbs.
- The platform shall be side-mounted.
- The interior dimensions shall be 24 x 24 x 39 inches deep maximum.
- Platform controls with safety interlock and interlock guard shall be shaft mounted nearest the upper boom.
- The platform control shall operate forward/back operates lower boom down/up, tiller operates rotation CW/CCW, and up/down operates upper boom up/down.
- The tiller control shall control all boom functions. Raising of the elevator shall be accomplished by twisting the handle.
- For safety, the platform mounting bracket shall be woven into the fiberglass of the upper boom. Units using flange head mounting studs installed through the side walls of the platform and glued in place for both the platform mounting and the control mounting will be deemed unacceptable.
- A platform step shall be located on the side of the platform nearest the elbow in the stowed position.
- The platform hydraulic control valve shall be housed within a molded fiberglass removable cover, mounted toward the front side of the platform assembly.
- A hydraulic dump valve shall be located at a position easily accessible to the platform operator. In case of emergency, the operator shall be able to activate the hydraulic dump valve stopping all hydraulic functions created by operation of the platform hydraulic control.
- All hydraulic hoses shall be routed inside the boom and covered to protect them from contact with tree limbs, tools, and similar hazards.
- Two (2) sets of tool couplers for open center tools, one (1) set located on each side of the platform shall be provided.
- A tool system relief pressure set at 2,250 psi shall be provided.
- The platform shall be covered by a neoprene-nylon shower cap type cover, having a sewn-in elastic retainer and safety cord and snap.
- For safety, the platform shall be able to reach the ground from either the over-center or under-center in order to remove an injured operator.
- The platform shall be designed to use dump pins to attach it to the platform shaft.
- For safety, the platform shall tip to the ground below horizontal by the release of a single pin, enabling easy cleanout or the removal of an injured operator.

Comply Exactly: Yes_____ No_____  

Exceptions:____________________________________________________________________  
______________________________________________________________________________

PLATFORM LEVELING

- Platform leveling, achieved by a single leveling chain and 3/4" fiberglass rods in the upper and lower booms shall be provided.
• Adjustment of the platform shall be accomplished by turnbuckles located inside the leveling cover on the lower boom and by adjusting studs accessible from the lower end of the upper boom.
• A mechanical, parallelogram tension system shall maintain the platform level relative to pedestal base plate during all normal operations.
• Both the upper boom and lower boom leveling system shall be separately adjustable.
• Platform level adjustment is easily accessible from external location on lower pivot.
• A mechanical pin type allows easy removal of water or debris from the platform.

Comply Exactly: Yes_____ No_____

Exceptions:________________________________________________________

PLATFORM INSULATING LINER
• An easily removable platform liner shall be provided.
• The liner shall be fabricated of polyethylene, 24x24x39 inches.
• Each liner shall be capable of withstanding an immersion dielectric proof test of 50 KV-AC for 60 seconds without puncture.
• Each liner shall be identified according to serial number, test date and test voltage.
• A thermoplastic, non-skid floor liner with molded step shall be installed within the liner to protect the liner floor and provide a non-skid surface for the operator to stand on.
• A 24 x 24 inches scuff pad with step insert shall be provided for protection of the platform liner.

Comply Exactly: Yes_____ No_____

Exceptions:________________________________________________________

FALL PROTECTION SYSTEM
• A fall protection system mounted to the boom shaft shall be provided, so a platform operator can connect his system directly onto the platform end of the upper boom.
• The attachment eye shall maintain its vertical position relative to the platform through all boom movements.
• Fall Protection System to include one body harness and decelerating type lanyard.
• Harness shall include adjustable slide buckle on shoulder straps, Velcro chest strap, and interlocking buckles on leg straps and nylon web loop fall arrest attachment on back.
• Platform structure has ring for attachment of fall protection system lanyard.

Comply Exactly: Yes_____ No_____  

Exceptions:________________________________________________________

HYDRAULIC SYSTEM
• The hydraulic system shall power the aerial lift unit, hydraulic tool circuits, and dump-chip body.
• The hydraulic system shall be open center (full pressure), maximum flow of 6.0 to 6.5 gpm.
• The hydraulic pump shall have a maximum operating pressure of 3,000 PSI. Units using gear pumps have been evaluated by the County and have been deemed unacceptable.
• For safety, the system shall have a relief valve preset to relieve at 3,000 PSI.
• The reservoir capacity shall be not less than 30 gallons
• Sight and temperature gauge for hydraulic reservoir shall be provided.
• The hydraulic outrigger control valves shall be provided
• The lower control valves shall be one single spool selector valve and one three spool open center mono-bloc valve with override.
• Each boom spool shall be connected internally to allow operation of two or more functions simultaneously.
• To prevent the evacuation of oil from any hydraulic line, creating the potential for electrical arcing, a vacuum flashover protection system shall be provided per ANSI A92.2.
• HVI-22 hydraulic oil shall be provided.
• A hot shift PTO for automatic transmission shall be provided.
• A standard pump for PTO shall be provided.
• Standard PTO/Transmission Functionality for Automatic Transmissions shall be provided. If chassis is in gear, and PTO switch is activated, PTO will not engage and chassis will remain in gear. If chassis is already in neutral with PTO engaged and operator tries to shift into gear, PTO will disengage and transmission will shift into gear.
• There shall be two (2) hydraulic tool outlets at the platform.
• Both sets of hydraulic tool outlets at the platform shall be engaged by a lever control, properly labeled for function.
• All hydraulic control knobs shall be labeled for their function and direction.
• A set of overriding controls shall be located at the pedestal turntable to override all platform control functions.
• A selector lever at the pedestal controls shall select the upper or lower valve operation. This control knob of the lever shall be painted red for emergency identification.
• All hydraulic hose installed in the aerial device booms shall be insulated, orange colored, high pressure all bonded constructed hose, manufactured to rigid quality standards for dielectric integrity, superior strength, and precision sized.
• For safety, all hoses shall be housed within booms, having properly supported protective covers. Exposed hoses around the upper boom or the outer portion of the lower boom will not be accepted.
• All hose ends shall be equipped with crimped face seal fittings, capable of being hand tightened to withstand 3,000 PSI.
• The pump suction line shall be a synthetic rubber hose reinforced with heavy-duty hose clamps.

Comply Exactly: Yes___ No____

Exceptions:____________________________________________________________________
______________________________________________________________________________

OUTRIGGER STABILIZERS
• Primary A-Frame Outriggers with 5-degree swivel shoe shall be provided
• Outrigger stabilizers and sub-frame assembly shall be constructed of rectangular steel tubing and welded into one assembly
• The outrigger assembly shall be easily attached to the chassis frame and shall have square tubing telescoping inner tubes operated by hydraulic cylinders.
• Each cylinder shall have a dual pilot check valve incorporated into the top of the cylinder. One check valve shall prevent the outrigger from collapsing in the event of line failure, the other shall prevent the outrigger from creeping out when stowed.
• Ground contact shall be from two (2) one pin universal swivel pads (12 in. x 12 in.)
• The spread between the swivel pad pins at ground level shall be 140 inches based on a 41” chassis frame rail height.
• Ground penetration shall be 7 to 11 inches depending on chassis frame rail height. For operator safety on uneven or soft ground, units with less penetration will be deemed unacceptable.
• Each outrigger stabilizer shall have a hydraulic control lever, having a properly labeled knob for function and direction.
• In compliance with ANSI A92.2, each control shall be mounted at the outrigger for safe and easy access from the ground by the operator. The operator shall be capable of visually observing each outrigger pad as it nears the ground, while operating the control valve.
• The outrigger shall have a unit selector control located near the outrigger controls, allows operator to divert hydraulic oil from machine circuit for outrigger operation. This reduces the potential for inadvertent outrigger movement during machine operation if outrigger controls are bumped.
• An Outrigger Interlock System shall be provided. It will not allow the unit to be operated until the outriggers have been at least partially deployed
• Plastic outrigger pads with handle (18” x 18” x 1”) shall be provided.
• Outrigger pad holders (20” L x 20” W x 3” H) shall be provided.
• An outrigger motion alarm shall be provided.

Comply Exactly: Yes_____ No_____

Exceptions:____________________________________________________________________
______________________________________________________________________________

ELECTRICAL ACCESSORIES

• Lights and reflectors in accordance with FMVSS #108 lighting package. (Complete LED, including LED reverse lights) shall be provided.
• Amber LED, front and rear grommet mounted lights, front lights mounted at front corners of cab guard, wired hot with guarded switch shall be provided.
• Dual tone back-up with outrigger motion alarm shall be provided.
• A 6-way trailer receptacle (pin type) shall be installed at rear.
• An electrical panel and switches shall be provided.
• A PTO indicator light installed in cab shall be provided.

Comply Exactly: Yes_____ No_____

Exceptions:____________________________________________________________________
______________________________________________________________________________

MISCELLANEOUS

• The entire aerial unit shall have no more than ten (10) grease fittings. Units having more than ten (10) grease fittings will be deemed unacceptable.
• The aerial unit’s service manual shall not require inspections more than once a year. Units requiring inspections, bolts to be re-torqued, etc. shall be deemed unacceptable.
• For operator safety, all hydraulic cylinder rod ends are to be welded and threaded. Units providing only one means of securing the rod ends will be deemed unacceptable.
• A 5lb fire extinguisher shall be provided.
• Walking link system features uniform speed, smooth and continuous articulation and low maintenance operation shall be provided.
• A Maintenance free elbow shall be provided to increase hardness, nitride to prevent rust, and eliminates the need for grease at the elbow.
• Small boom tip profile shall be provided.
• A 140” long cab guard shall be provided with 12 gauge sheet metal with non-skid surface and expanded metal section at front, black lexar coating.
• An ICC (underride protection) bumper installed at rear shall be provided.
• A set of safety chain loops, fixed mounting shall be provided.
• During aerial lift operations, the maximum operating RPM shall not exceed 1100 RPM.
• For safety, the lower control valve shall include an overriding function which provides complete takeover of the platform controls, enabling a ground person to operate the unit in the event the platform operator becomes disabled.
• An outrigger down alarm shall be provided.
• An electric backup alarm shall be provided.
• The platform cover shall be Foam-filled, soft 24 x 24 inches.
• LED stop and turn lights shall be provided.
• A pintle hook shall be provided.
• For safety, a “BOOM OUT OF REST LIGHT” shall be provided.
• Two (2) corner strobe lights shall be mounted on the underside of the cab guard.
• A captive air controlled remote truck engine START/STOP switch with a secondary stowage system, which includes pump and motor, operates from chassis battery.
• An air blow off system shall be provided for the cleaning of sawdust from tools. It shall include a hand held nozzle, coil air hose and proper attachment to the chassis air system.
• A cover for hydraulic reservoir shall be provided.
• An electric brake controller shall be provided.
• A body up indicator light shall be provided.
• LED rope lighting shall be provided inside tool compartments.
• Underbody storage box 24”L x 18”W x 24”H shall be provided.
• A folding and locking cone holder on front bumper shall be provided.
• A 2400 watt quasi-sine wave invertor shall be provided.
• A GFI Outlet for inverter shall be provided.
• A Go Light wireless remote spotlight shall be provided.
• Hydraulic tool circuit, curbside front-beside pedestal shall be provided.
• Four (4) scene lights shall be mounted to the sides of the chip dump body, Two (2) each side.
• A vise & bracket shall be provided.
• A paint dump box other than white shall be provided.
• A XPR4550 500MHz GPS radio with 1 year of TRBOCOM service shall be provided.
• A custom 7 Pin & 4 Pin Trailer Connector shall be provided.
• A RVS-77 7” Color TFT-LCD rear view vision camera shall be provided.
• Safety Cone Holder – fixed cone holder – 14in x 14in x 27.50 in. Front bumper mount fold down.
• 16 Ft fiberglass extension ladder

Comply Exactly: Yes_____ No_____

Exceptions:_________________________________________________________________________
CHIP DUMP BODY

- A chip dump body shall be provided having all components fabricated from galvanized coated steel, except structural members.
- The body shall be 96" wide x 60 high x 132" long, having a capacity of 14.5 cubic yards.
- The body shall include structural stringer channels and floor channels.
- The body shall have 12 gauge floor plate, 14 gauge sides and front with full length die formed reinforcing ribs, 14 gauge roof, rear top and sides of body reinforced for lower boom support, and a 12 gauge rear under body skirt panels with brackets for remounting chassis lights.
- A 26-1/2 inches (673 mm) high tailgate, hinged curb side with provision to hold open for dumping shall be provided.
- The interior of chip body finished with scratch and corrosion resistant liner, and the underside of chip body shall be undercoated (except stringer channels).
- The chip body hydraulic dump hoist installation shall include a 45o dump angle and body prop.
- A LED lighting package with wiring harness in automotive type loom shall be provided.
- Two (2) LED strobes mounted in the upper rear corners of the dump body shall be provided.
- A curb side built-in ladder compartment 12" wide x 25" high with rear roller and internal security chain.
- A 11" high pole pruner compartment above ladder compartment with dual shelves and rear locking door.
- A rigid access step under through box side access platform shall be provided.
- Bolt-on rotary slam door locks shall be provided.
- Gas shock door holders shall be provided.
- Door locks shall be single point with locking cylinders.
- Two (2) 14 gauge wheel chock carriers 11-1/2" wide x 12" deep with 15 degree rearward taper for retention shall be provided.
- A pair of wheel chocks 9.75" L X 7.75" W X 5.00" H shall be provided.
- A 3 gallon water cask with brackets shall be provided.
- Two (2) mud flaps shall be provided.
- A driveway safety kit shall be provided.
- Slope indicator assembly shall be provided.

Comply Exactly: Yes____ No____

Exceptions:____________________________________________________

____________________________________________________

TEST AND CERTIFICATION

- Each of the following tests are to be completed and documented and submitted at the time of delivery.
  - Stability Test 1: 1-1/2 times rated load on level ground.
  - Stability test 2: 1-1/3 times rated load on a 5o slope.
    - State the name and address of the facility where the stability tests required by the bid specification were performed.
    Facility:____________________________________________________

____________________________________________________
Electrical Test 1: Upper boom @ 100 KVAC for three minutes.
Electrical Test 2: Lower boom @ 50 KVAC for five minutes.
Electrical Test 3: Combined upper and lower boom @ 100 KVAC for three minutes.
Electrical Test 4: Basket liner @ 50 KVAC for one minute.

State the name and address of the facility where the electrical test required by this specification were performed.
Facility:_______________________________________
Address:_______________________________________

Holding Valve Test 1: Upper boom both directions.
Holding Valve Test 2: Lower boom both directions.
Holding Valve Test 3: Rotation both directions.
Speed Test 1: Upper boom.
Speed Test 2: Lower boom.
Speed Test 3: Rotation

Comply Exactly:       Yes_____  No_____
Exceptions:____________________________________________________________

PAINT
• Aerial Device shall be painted with a powder coat process which provides a finish-painted surface that is highly resistant to chipping, scratching, abrasion and corrosion.
• Paint is to be electro-statically applied to the inside as well as outside of fabricated parts then high temperature cured prior to assembly ensuring maximum coverage and protection.
• Color of cab shall be the County of Mercer’s color of “Wheatland Yellow”.
• Color of boom shall be the County of Mercer’s color of “White”.

TRAINING
• A qualified technician shall provide complete training to County personnel at the County Garage. Training shall include safety, operation, maintenance and service.

Comply Exactly:       Yes_____  No_____
Exceptions:____________________________________________________________

WARRANTY
• Manufacturer’s warranty on aerial device by manufacturer to provide lifetime warranty on structural integrity of the following major components is to be warranted for so long as the initial purchaser owns the product: Booms, boom articulation links, hydraulic cylinder structures, outrigger weldments, pedestals, subbases and turntables. Distributor’s warranties will be rejected without further review.
• Manufacturer's warranty on aerial device and components shall be one for (1) year on parts, labor and travel time.
• Manufacturer's warranty with stipulations requiring expensive annual inspections by a distributor will be rejected without further review.
• Warranty compliance is mandatory. Bids taking any exception to the full terms of the warranty will be rejected without further review.

Comply Exactly:   Yes_____   No_____

Exceptions:

____________________________________________________________________
______________________________________________________________________________

ANNUAL SAFETY INSPECTION

• An on-site annual safety inspection and dielectric testing program shall be provided for each of the first three years of ownership.
• The device shall be given a comprehensive safety inspection and dielectric test. The County shall be provided with a full written report and certification by the inspecting factory certified technician while he is on-site.
• The inspection shall include all preventive maintenance items, platform control covers, "D"-ring lanyard safety belt, truck engine/auxiliary engine interlock switch, platform emergency shut-off switch, platform step, and all OSHA-MADDAC required decals. Missing decals shall be replaced.
• At the time of inspection, the inspector shall also change the hydraulic oil filter, top off fluid levels, lubricate boom and other appropriate points, adjust the leveling system, and check/adjust all hydraulic pressures. Parts and labor shall be included.
• Bidder shall submit with his proposal a sample copy of the inspection report.
• Bidder shall submit a list of New Jersey governmental entities for which a similar 3-year safety inspection program has been (or is being) performed. Such list shall include contact name, phone and equipment covered. If none, state so.

Comply Exactly:   Yes_____   No_____

Exceptions:

____________________________________________________________________
______________________________________________________________________________