



### **Inmate Transport Buses Specifications**

The State of Tennessee, Department of General Services is seeking bids for the procurement of two (2) inmate transport buses deemed critical for the Tennessee Department of Correction institutions and statewide transport of inmates. The buses shall be equipped with Cummins X12 Engines and Allison B500 Gen VI automatic transmissions.

#### **Vehicle Specifications**

- I. Standard Features – The Contractor shall provide vehicles that include the following standard features:
  1. Cummins X12 engine @ 410 hp 1,450 lb-ft torque
  2. Allison B500 Gen VI automatic transmission
  3. Semi-monocoque low-corrosion stainless steel frame
  4. Composite exterior body panels
  5. Plug style front entrance door
  6. Energy absorbing front and rear bumpers
  7. 5" high X 52" wide X ½" thick acrylic passenger sash
  8. Tag unload feature (electric)
  9. Maintenance air supply located at the front and rear of coach
  10. Electric windshield wipers
  11. Standard engine driven front and rear A/C system compatible for designed seating capacity
  12. Brushless evaporator and condenser motors
  13. Standard Electronic manuals only (Thumb Drive)
  14. Automatic Traction Control system (ATC)
  15. Electronic Stability Control system (ESC)
  16. Fire Suppression System
  17. One 12V power supply in driver's area
  18. LED interior lighting
  19. Swing-out cooling package with E-Fan system
  20. Dual 250-amp brushless alternators or equivalent
  21. Exterior LED lighting includes turning indicator, marker/clearance, brake, reverse and daytime running lights (DRL)
  22. LED baggage bay lights
  23. LED headlights
  24. Back-up alarm

- II. Lavatory and Lavatory Accessories
  - 1. The Contractor shall provide a chemical-type lavatory without a wash basin.
  - 2. Special – Toilet seat in lavatory to have no cover
  - 3. Special – Small storage container to be mounted on curbside of coach to hold inmate records measuring 2 feet by 2 feet by 4 feet.
  
- III. Windows – The Contractor shall provide vehicles with the following window specifications:
  - 1. Standard 5” windows
  - 2. Standard non-heated driver’s window
  
- IV. Interior Flooring – The Contractor shall provide vehicles with the following flooring specifications:
  - 1. Seamless liquid applied full flooring with a minimum of four (4) inch vertical flashing for pressure cleaning.
  - 2. Flooring color – light gray with anti-slip additive
  - 3. White step nosing
  
- V. Miscellaneous Interior – The Contractor shall provide vehicles with the following interior specifications:
  - 1. Interior security components to be powder coated textured beige.
  - 2. Rear guard area shall include one (1) Recardo Ergo Metro AM384 or equivalent officer’s seat with 1 armrest on a 4” pedestal facing forward behind the rear most partition, overhead reading light, Public Address (PA) microphone, a cup holder, a fan, 12V VDC power port and 110 VAC plug-in with USB charging port. The Contractor shall also provide a system to communicate with the front curbside officer.
  - 3. Front Curbside (RH) Guard Area shall include one (1) Recardo Ergo Metro AM384 or equivalent officer’s seat with armrests on a 4” pedestal facing forward in front of partition, overhead reading light, PA microphone, a cup holder, 12 VDC power port, 110 VAC plug-in with USB charging port. The Contractor shall also provide a wiring provision for mobile radio connection.
  - 4. Front Partition – 50” from front step nosing
  - 5. Cell Partitions – Three (3) cells on the Roadside (LH) of Coach and three (3) cells on the curbside (RH) of Coach. Each cell shall include a lockable door with a smaller access door at eye level.
  - 6. Firearm storage locker with a shelf, hooks, and foam padding to hold one (1) shotgun and one (1) rifle. Locker shall be installed behind the driver.
  
- VI. Safety Equipment – The Contractor shall provide the following safety equipment:
  - 1. Standard five-pound fire extinguisher. Fire suppression modular system, with an engine shutdown system with nozzles in engine compartment.
  - 2. 10 Unit First Aid Kit

VII. Paint and Lettering

1. Standard exterior paint – without clear coat. Standard two (2) color ISTV paint scheme (830730 black gloss and N5793 – white gloss or equivalent)

VIII. Miscellaneous Exterior

1. Standard plug style front entrance door

IX. Electrical and Miscellaneous Electrical Accessories

1. Sliding trays for batteries, in conjunction with basic batteries
2. Color back-up camera
3. 110-volt inverter/charger (4000W). Provides 110VAC to outlets in the coach. Charges to the coach batteries and powers “in-station lighting” while plugged into wall outlet.

X. Multiplexing Module

1. Parker Hannifin or equivalent multiplex system installed

XI. Brakes and Air System

1. Brake dust shields – all axles
2. Minimum two stage engine brakes (2/4/6 cylinder)
3. Air brakes
4. 6-channel Antilock Braking System (ABS)

XII. Cummins X12 Engine

1. Cummins extended coverage protection plan – X12 engine terms – (five (5) years/five hundred thousand (500,000) miles is provided solely by Cummins Inc. and subject to terms and conditions, provisions, and limitations set forth in the Cummins extended coverage plan. See Cummins extended coverage plan (bulletin 3381454)
2. Cummins X12 11.8L, 410 HP, 1450 Ft-Lb engine – CARB U/B Certified

XIII. Fuel System

1. Minimum 150-gallon aluminum fuel tank
2. Standard Diesel Exhaust Fluid (DEF) tank

XIV. Wheels, Wheel Accessories, and Tires

1. Each vehicle shall have nine (9), minimum 9,000-LB rated, hub-piloted steel wheels – white.
2. Each vehicle shall have nine (9) factory supplied tires.
3. Hub mounted steel wheels
4. Unitized Wheel End (UWE) bearings on all axles
5. Independent front and tag axle suspension system
6. Suspension to include full high/low rise and kneeling features
7. Variable assistance power steering
8. Steerable tag axle (passive)

9. R22.5 or 24.5 tires
10. Tire Pressure Monitoring system
11. Digital Wheel End Sensing System (DWES)

XV. Transmission and Transmission Accessories

1. One Allison B500 Gen VI automatic transmission without retarder
2. One Allison transmission B500 intercity/tour edge level I extended coverage providing a total of five (5) years provided solely by Allison Transmission and subject to terms and conditions, provisions, and limitations set forth in the Allison transmission edge extended coverage plan. Reference Allison transmission publication number SE5410EN (2006/07). Without retarder.
3. Manufacturer's standard for Highway Travel

XVI. Driver Seat and Driver Seat Options

1. Recaro Ergo Metro AM384 or equivalent air ride driver seat with integral 3-point seat belt with plastic armrests without seat cushion alarm.
2. Seat pedestal caps – stainless steel

XVII. Seat Upholstery/Fabrics

<b>Upholstery Locations</b>	<b>Selected Upholstery</b>
Inmate seats	Seat color: dark grey RAL 7012
Driver's seat headrest, cushion and back, and sideboxing	Black cloth standard material
Driver's seat back panel	Standard black plastic
Front guard seat headrest, cushion and back, and sideboxing	Black cloth standard material
Front guard's seat back panel	Standard black plastic
Rear guard seat headrest, cushion and back, and sideboxing	Black cloth standard material
Rear guard's seat back panel	Standard
Interior flooring	Light gray with anti-slip additive

XVIII. User Defined Specials

1. Electrical terminal legion decal
2. Customer specific keylock installations
3. Driver multi-function display (MFD) programming
4. Govern speed – 72 MPH
5. Special - electrical terminal compartment decal
6. Special - inmate windows to have translucent material that will allow light in and no visibility out
7. Special – Electronic oil and water temperature gauge in engine compartment

8. Special – camera system with eleven (11) mini dome cameras, LCD monitor mounted at RH front officer seat and DVR mounted in front cap.
  - i. one (1) camera at rear of pass area, roadside centered on seats facing forward
  - ii. one (1) camera at rear of pass area, curbside centered on seats facing forward
  - iii. one (1) camera just behind mid-coach partition, facing rearward, roadside centered on the seats
  - iv. one (1) camera just behind the mid-coach partition, facing rearward, curbside centered on the seats
  - v. six (6) cameras, one (1) in each cell facing cell door
  - vi. one (1) camera above and rear of driver facing entrance and partition door
  - vii. all cameras to be color
  - viii. one (1) docking station and software
9. Special – Clear lexan to cover all front and cell partitions and doors to extend to the top to cover all perforated holes. Special – Freedman Citi shell or equivalent inmate seats, with center T-pedestal, in a 49 inmate, 1 with lavatory seats to be dark grey in color, seating arrangement as follows:
  - i. first segregation area:
    1. three (3) 32" wide(2 passenger) in roadside cells
    2. three (3) 32" wide(2 passenger) in curbside cells
  - ii. second segregation area:
    1. seven (7) 47" wide(3) passenger on roadside
    2. eight (8) 32" wide(2) passenger on curbside

## **Production**

### **I. Building Plans**

1. The contractor shall submit plans of the build within 30 days after issuance of the purchase order. The contractor shall receive approval from (The State) prior to the build out of the buses.

## **Delivery and Support**

### **I. Delivery Location**

1. The Contractor shall deliver the vehicles to 6500 Centennial Blvd. Nashville TN 37209 between the hours of 8:00 a.m. and 3:30 p.m. Central Time.

### **II. Contractor Support**

1. The Contractor shall have a facility within 300 miles of Nashville, TN. The Contractor shall be able to provide complete factory service.