

**MISSOURI DEPARTMENT OF TRANSPORTATION
GENERAL SERVICES DIVISION**

**SPECIFICATIONS FOR
8,500 LB. GVWR
FOUR WHEEL DRIVE CARGO VAN**

May 15, 2017

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Section 1 Contract Administration

The Missouri Department of Transportation, Central Office General Services Division, shall hereafter be referred to as “MoDOT.” The Missouri Department of Transportation, Central Office General Services Fleet Manager shall hereafter be referred to as the “MoDOT Fleet Manager.” The MoDOT Fleet Manager may appoint representatives to act on their behalf. These representatives shall hereafter be referred to as the “MoDOT Representative.”

Those submitting bids for this contract shall hereafter be referred to as the “Bidder.” The successful bidder/s shall hereafter be referred to as the “Contractor.” The manufacturer and/or installer of any non-OEM equipment shall hereafter be referred to as the “Body Builder.”

If the Body Builder is submitting the bid, the term “Body Builder” and “Contractor” shall mean the same person.

All contracts issued from this bid shall be made to the Contractor. The Contractor shall have ultimate responsibility to ensure that the delivered van is compliant with the entire bid and all specifications listed herein. The Contractor shall furnish all material, labor, facilities, equipment, and supplies necessary to provide the deliverables/services required herein.

This specification is designed to provide MoDOT efficient and dependable four wheel drive cargo vans.

1.1. REQUIRED SUPPORTING DOCUMENTATION

- 1.1.1.** The Bidder shall provide supporting documentation with their bid submission. Documentation shall include, but not be limited to:
 - 1. Chassis warranty policy as described in Section 3.2.
 - 2. Engine warranty policies as described in Section 3.3.
 - a. Base engine warranty.
 - b. Federal emissions warranty.
 - 3. Warranty policies for all Body Builder installed and/or manufactured components.
 - 4. Specifications for optional equipment as described in Section 4.

1.2. PRE-DELIVERY AND POST-DELIVERY INSPECTIONS

- 1.2.1.** The van shall receive a thorough pre-delivery inspection of the entire van and all installed components and options.
 - 1. Pre-delivery inspection shall be performed by the selling dealer.
 - 2. Inspection shall include, but not be limited to:
 - a. The van manufacturer’s standard pre-delivery inspection process.
 - b. Proper operation of all driver controls.
 - c. Verify/correct all adjustments.
 - d. Routing of hoses, lines, wiring, and tubing.
 - e. Engine and transmission operation.
 - f. Aftertreatment system operation.
 - g. Handling and performance.
 - 3. A copy of the completed pre-delivery inspection form, which shall include the entire VIN number of the van, shall be signed and dated by the inspector and included with the required van documents.
- 1.2.2.** MoDOT reserves the right to perform a thorough post-delivery inspection.
 - 1. This inspection will include the van and all Body Builder installed components and equipment.
 - 2. Discrepancies and/or findings of non-compliance with published specifications, and/or issues of poor quality shall be listed and communicated to the Contractor and/or Body Builder.

3. The Contractor and/or Body Builder shall, at their expense, address the listed items to the satisfaction of the MoDOT Representative/s before the delivered van is accepted for payment.

Section 2 Common Specific Requirements

2.1. GENERAL

- 2.1.1. All products provided by the Contractor shall be new, current production latest model products at the time of receipt of the purchase order.
 - 1. Any product that is used, rebuilt, refurbished, reconditioned, remanufactured, or otherwise not a new, current model product is not acceptable.
- 2.1.2. Each delivered van shall comply with all State of Missouri and Federal vehicle safety requirements.
- 2.1.3. Each delivered van shall have **ALL** grease fittings on the chassis properly lubricated.
- 2.1.4. From the time it leaves the manufacturing facility, up to and including arrival at the MoDOT delivery location, the van shall have the following minimum levels maintained at all times,
 - 1. Minimum of ¼ tank of fuel.
 - 2. Minimum of ¼ tank of DEF.

2.2. MAINTENANCE ITEMS LIST

- 2.2.1. Each Van shall be delivered with a comprehensive list of ALL maintenance items or items otherwise not listed that are necessary for the complete maintenance of the delivered van.
 - 1. This list shall include, but not be limited to:
 - a. Chassis.
 - 1. Engine coolant.
 - 2. Engine oil.
 - 3. Power steering fluid.
 - 4. Transmission fluid.
 - 5. Drive axle lubricant.
 - 6. Chassis grease.
 - b. Part numbers of:
 - 1. OEM chassis engine oil filter/s.
 - 2. OEM chassis engine fuel filter/s.
 - 3. OEM chassis engine DEF filter/s.
 - 4. OEM chassis engine air filter/s.
 - 5. OEM chassis transmission filter/s.
 - 6. OEM chassis power steering filter.
 - 2. This list shall include the type, weight, grade, and identifying information such as product name and/or number.
 - 3. This list shall be included with the required van documents.

Section 3 Specifications

All specified equipment shall be OEM installed, either as standard equipment, a line installed option or factory authorized DSO/SE installation unless otherwise specifically stated.

3.1. MAKE AND MODEL

- 3.1.1. Representative make and model:
1. Freightliner Sprinter F2CA4X

3.2. CHASSIS WARRANTY

- 3.2.1. The chassis manufacturer and/or its representative shall guarantee to furnish all warranty services gratis at franchised dealers. The chassis warranty coverage shall be the manufacturers standard base warranty package.
1. Warranty policy effective period shall begin:
 - a. At the in-service date with MoDOT.
 - b. At the in-service mileage with MoDOT.
 1. Example: If a van is put in service on May 1st, 2017, and has 650 miles on the odometer, the warranty policy effective time period shall begin at that date, and the warranty policy effective mileage period shall begin at 650 miles, not zero miles.
 2. Contractor shall provide printed paper copies of the chassis warranty policy including:
 - a. Covered components.
 - b. Length of coverage.
 3. Printed paper copies of the chassis warranty policy shall be included:
 - a. In the bid submission.
 - b. With the required van documents.

3.3. ENGINE WARRANTY

- 3.3.1. The engine manufacturer and/or its representative shall guarantee to furnish all warranty services gratis at franchised dealers. The engine warranty coverage shall be the manufacturers standard base warranty package.
1. Warranty policy effective period shall begin:
 - a. At the in-service date with MoDOT.
 - b. At the in-service mileage and/or hours with MoDOT.
 1. Example: If a van is put in service on May 1st, 2017, has 650 miles on the odometer, and 40 hours on the hourmeter, the warranty policy effective time period shall begin at that date, the warranty policy effective mileage period shall begin at 650 miles instead of zero miles, and the warranty policy effective hours period shall begin at 40 hours instead of zero hours.
 2. Contractor shall provide printed paper copies of the engine warranty policy including, but not limited to:
 - a. The engine manufacturers warranty policy including:
 1. Covered components.
 2. Length of coverage.
 - b. The Federal Emissions Warranty coverage including:
 1. Covered components.
 2. Length of coverage.
 3. Printed paper copies of all engine warranty policies shall be included:
 - a. In the bid submission.
 - b. With the required van documents.

3.4. OPERATOR MANUALS

- 3.4.1.** One complete set of printed paper operator manuals covering the complete van shall be provided.
1. Manuals shall include, but not be limited to:
 - a. Body
 - b. Chassis.
 - c. Engine.
 - d. Transmission.
 - e. All applicable OEM installed components.

3.5. BODY

- 3.5.1.** Design.
1. Van body shall:
 - a. Be a high-roof design.
 - b. Have no side windows behind the drivers/passengers seats.
 - c. Have dual rear swing open doors.
 1. Each rear door shall open 270-degrees.
 2. Each rear door shall have a window.
 - d. Have a right side sliding door.
 1. Right side sliding door shall have a window.
- 3.5.2.** Color.
1. Color shall be white.
- 3.5.3.** Interior Features and Trim.
1. Interior trim and insulation package shall include a full headliner in the driver/passenger compartment.
 2. Shall include interior sun visors for both driver and passenger.
 3. Floor covering shall be a heavy-duty rubber or vinyl floor mat with sound deadening backing covering entire floor of the driver/passenger compartment.
 4. Shall include a center console with cup holders and storage compartments.
- 3.5.4.** Van Entry.
1. Van entry requirements shall apply for the driver's station, passenger's station, and the cargo area.
 2. Steps.
 - a. All external steps shall be self-cleaning and have a serrated, cleated, or similar design to prevent slipping off step.
 3. Grab Handles.
 - a. Grab handles shall be configured to provide continuous three points of contact while entering or exiting the van. Acceptable locations for grab handles include, but are not limited to:
 1. Mounted to the interior of the door/s.
 2. Mounted internally to the A-Pillar.
- 3.5.5.** Mirrors.
1. Interior rear view mirror shall be attached to the upper center of the windshield.
 2. Exterior mirrors shall be breakaway type, left and right, mounted to the driver's and passenger's door.
 - a. Shall both be power adjustable, controlled by switches located in the driver's station.
 - b. Shall both include convex sections that eliminate the blind spots on each side of the van in the adjacent lanes of traffic.
- 3.5.6.** Heater, Air Conditioner, and Defroster.
1. HVAC for the driver's and passenger's compartment shall be the highest BTU system available with in-dash evaporator and condenser in front of the radiator.
 2. Shall have a replaceable fresh air filter element.

- 3.5.7. Driver and Passenger Seats.
 - 1. Shall both be vinyl, high-back,
 - 2. Driver and passenger seats shall have full range of travel of the fore and aft seat adjustment.
 - a. No Body Builder installed components shall be mounted behind either seat that inhibits full range of travel.
 - 3. Driver and passenger seats shall have fold-up armrests.
- 3.5.8. Air Bags
 - 1. Van shall be equipped with multiple air bags for the driver and passenger.
- 3.5.9. Steering.
 - 1. Shall have a factory tilt wheel column.
- 3.5.10. Window Tint.
 - 1. All windows shall be tinted.

3.6. BRAKES

- 3.6.1. System Type.
 - 1. Shall be a hydraulic system with four-channel anti-lock system, rated at or above GAWR requirements.
 - 2. An electronic vehicle stability program with hill-start assist shall be provided.

3.7. CHASSIS

- 3.7.1. Wheelbase.
 - 1. Chassis wheelbase shall be 144-inches.
- 3.7.2. GVWR
 - 1. GVWR shall be 8500-pounds minimum.
- 3.7.3. Stabilizer Bars
 - 1. Chassis shall be equipped with front and rear stabilizer bars.
- 3.7.4. Mud Flaps.
 - 1. Chassis shall be equipped with mud flaps for both front and rear axles.
- 3.7.5. OEM Tow Hooks.
 - 1. Chassis shall be equipped with front and rear tow hooks.
- 3.7.6. Trailer Hitch
 - 1. A factor installed trailer hitch shall be provided.
 - a. Hitch shall be a receiver-style hitch
 - b. Hitch shall include a 7-pin trailer plug.

3.8. ELECTRICAL

- 3.8.1. Alternator.
 - 1. Shall be 220-ampere minimum.
 - 2. Shall have the capacity to handle all chassis and Body Builder installed components.
- 3.8.2. Battery.
 - 1. Battery shall include jump-start terminals.
 - a. Jump-start terminals shall be conveniently located and not require tools to utilize.
- 3.8.3. Power Outlet.
 - 1. A minimum of two 12-volt accessory power outlets shall be provided inside the driver and passenger compartment.
 - 2. A USB port shall be provided inside the driver and passenger compartment.
- 3.8.4. Instrumentation.
 - 1. Shall include an analog gauge for:
 - a. Speedometer.
 - b. Tachometer.
 - c. Fuel.

2. Shall have a visual indicator for:
 - a. Engine coolant temperature.
 - b. Engine oil pressure.
 - c. Low electrical system voltage.
 - d. DEF tank level.
- 3.8.5. Cruise Control
 1. Van shall be equipped with cruise control.
- 3.8.6. Tire Pressure Monitor
 1. Van shall be equipped with an electronic in-cab tire pressure monitoring system.
 - a. System shall give the driver a visual indication of a low tire pressure condition.
- 3.8.7. Windshield Wiper System.
 1. Shall be electric, with intermittent operation.
 2. Shall have an electric washer pump.
- 3.8.8. Radio.
 1. Shall have an AM/FM stereo radio with multiple speakers.
- 3.8.9. Courtesy Lights.
 1. OEM courtesy lights shall be LED if available.
 2. OEM courtesy lights shall fully illuminate:
 - a. Driver and passenger compartment.
 - b. Driver's floorboard.
 - c. Passenger's floorboard.
 - d. All drivers' side steps.
 - e. All passengers' side steps.
 - f. Cargo area.
- 3.8.10. Body Builder Connection
 1. A factory installed Body Builder connection point shall be included inside the van near the front of the cargo area.
- 3.8.11. Rear View Camera
 1. A factory installed rear view camera shall be provided.
 - a. Camera shall be located in the center of the van above the opening of the rear doors.
 - b. Display shall be located in plain view of the driver when seated in the driver seat.

3.9. **ENGINE**

1. Type:
 - a. Shall be a six-cylinder, turbocharged, electronically controlled direct injection diesel engine
 - b. Shall have a minimum displacement of 3.0 Liters.
 - c. Shall have a minimum of 185 Horsepower.
2. Engine shall be capable of operating on B20 diesel fuel.

3.10. **FUEL SYSTEM**

- 3.10.1. Fuel Capacity.
 1. Total fuel capacity shall be 24 gallon minimum.
- 3.10.2. Fuel Maintenance System.
 1. Fuel-water separator shall:
 - a. Be equipped with a replaceable fuel filter element.
 - b. Be located between the fuel tank and fuel primer pump.

3.11. COOLING SYSTEM

- 3.11.1.** Capacity.
 - 1. The entire cooling system shall be the highest capacity available for the chassis/engine combination provided.
- 3.11.2.** Coolant.
 - 1. Engine shall have extended life coolant meeting the engine manufacturers' recommendation.
 - 2. Engine coolant shall test to -34 degrees Fahrenheit.

3.12. EXHAUST AND AFTERTREATMENT

- 3.12.1.** Exhaust Configuration
 - 1. Exhaust pipe shall be horizontal, and terminate at the rear-most portion of the van.
 - a. Exhaust shall not terminate underneath any portion of the van.
 - 2. If flex tubing is used, both the clamps and tubing shall be stainless steel.
- 3.12.2.** DEF Tank.
 - 1. DEF tank shall be of sufficient capacity to run out a minimum of two full tanks of diesel fuel before the DEF tank needs to be refilled.

3.13. DRIVETRAIN

- 3.13.1.** Automatic Transmission.
 - 1. Van shall be equipped with an automatic transmission.
 - a. Transmission shall have a minimum of 5 speeds.
- 3.13.2.** Transfer Case
 - 1. Van shall be equipped with a 2-speed transfer case.
 - a. Transfer case shall allow the operator to select between:
 - 1. 2-wheel drive and 4-wheel drive.
 - 2. High-range and low-range.
- 3.13.3.** Four Wheel Drive Components
 - 1. All four wheel drive components shall be factory installed by the van manufacturer.
 - a. Aftermarket conversions are not acceptable.

3.14. WHEELS AND TIRES

- 3.14.1.** Wheels.
 - 1. Wheels shall be:
 - a. Painted or powder coated steel
 - b. 16-inch X 6.5-inch.
- 3.14.2.** Tires.
 - 1. Tires shall be
 - a. Tubeless, LT245/75R16.
 - b. Have all season tread design.
 - c. Have a 10-ply rating.
- 3.14.3.** Spare Wheel.
 - 1. Van shall be equipped with a spare wheel/tire carrier.
 - a. Carrier shall be located under the rear of the van.
 - b. A spare wheel meeting the requirements of Section 4.14.1 shall be provided.
- 3.14.4.** Tire Changing Tools
 - 1. All items necessary for changing a flat tire along the roadside shall be included.
 - a. All Items shall be
 - 1. Stored in a factory designed location.
 - 2. Secured to prevent them from moving.
 - b. Jack shall be hydraulic.

Section 4 Optional Equipment

4.1. OPTION 1 Heater for Cargo Area

- 4.1.1.** Provide an optional heater system for the cargo area.
 - 1.** Specifications for the optional heater system shall be submitted with bid documents.
 Specifications shall include:
 - a.** System BTU's.
 - b.** Number and location of heaters.