



# Specialized Transportation Program

FY2016-2017 Vehicle Selection Guide For Transit Providers

> Nebraska Department of Roads Rail & Public Transportation Office

> > Revised 03/09/2016

## **Table of Contents**

Glossary of Term & Acronyms	Pg.	7
Selecting the Vehicle that fits your needs	Pg.	8
<ul> <li>Vehicle Accessibility Needs</li> <li>Vehicle Capacity Needs</li> <li>Service Area Road Condition</li> <li>Type of Service</li> <li>Vehicle Cost &amp; Operation</li> <li>Driver's License Type Requirement</li> <li>Passenger Comfort</li> <li>Vehicle Storage and Upkeep</li> </ul>	Pg. Pg. Pg. Pg. Pg.	8 9 9 9 9 10
Legislation and Regulations	Pg.	10
<ul><li>Enacted Legislations</li><li>State Statute</li></ul>	Pg. Pg.	10 10
Lowered Floor Minivan	Pg.	11
<ul> <li>Cost Estimate</li> <li>Vehicle Standard Features</li> <li>Vehicle Description</li> </ul>	Pg.	11
Required Specifications for Lowered Floor Minivan	Pg.	12
<ul> <li>General Requirements</li> <li>Vehicle's Crashworthiness</li> <li>General Dimensions and Capacities</li> </ul>	Pg.	12
Chassis and Related System	Pg.	13
<ul> <li>Chassis</li> <li>Engine</li> <li>Cooling</li> <li>Steering</li> <li>Brakes</li> <li>Transmission</li> <li>Differential</li> <li>Suspension</li> <li>Wheels &amp; Tires</li> <li>Fuel Tank</li> <li>Bumpers</li> <li>Alternator</li> <li>Battery</li> </ul>	Pg. Pg. Pg. Pg. Pg. Pg. Pg. Pg.	13 13 13 13 13 13 13 13 13 13
Back-Up Alarm     Emergency Flashers	Pg.	13

Auxilia	ry Systems, Miscellaneous Parts, and Accessories	Pg. 13
	Exterior Lighting System Interior Lighting System Heating and Defrosting system Air-conditioning System Windshield Wipers and Washers Sun Visor Horn AM-FM Radio	Pg. 13 Pg. 13 Pg. 13 Pg. 13 Pg. 13 Pg. 13
Emerg	ency Equipment	Pg. 14
· · ·	First Aid Kit	Pg. 14 Pg. 14 Pg. 14
•	Structure Interior Floor	Pg. 14
Doors		Pg. 14
•	Running Boards	_Pg. 14
Seats		Pg. 14
•	Passengers & Driver Seats	Pg. 14
Wheel	chair Accommodations	Pg. 15
•	RampTransport SpaceSecurement	_Pg. 15
Interio	r Finish	Pg. 16
Exterio	or Finish	Pg. 16
Small <sup>*</sup>	Transit Bus	Pg. 17
•	Cost Estimate  Vehicle Standard Features  Optional Features	Pg. 17 Pg. 17 Pg. 17

Requir	ed Specifications for Small Transit Bus	Pg.	18
•	General Information	Pg.	18
•	Vehicle's Crashworthiness	Pg.	18
•	General Dimensions & Capacities	.Pg.	18
Auxilia	ry Systems, Miscellaneous Parts, and Accessories	Pg.	19
•	Exterior Lighting System	Pg.	19
•	Interior Lighting System		
•	Heating and Defrosting System		
•	Air-conditioning System		
•	Windshield Wipers and Washers		
•	Rearview Mirrors		
•	Sun Visor		
•	Horn		
•	Controls and Instruments		
•	AM-FM Radio and Speaker System		
Emerg	ency Equipment	.Pg.	20
•	First Aid Kit	Pa.	20
•	Fire Extinguisher		
•	Warning Devices		
•	Safety Vent		
•	Blood Borne Pathogens Kit		
Vehicle	e's Body	Pg.	20
	Structure	Pg.	20
•	Interior		
•	Exterior		
•	Floor		
•	Roof		
•	Wheel Housings	Pg.	21
•	Access Hatches		
•	Anti-corrosion Treatment		
•	Insulation		
•	Undercoating		
Winds	hield and Windows	Pg.	21
•	Safety Requirements	Pq.	21
•	Side Windows		
•	Rear Windows	Pa.	

Doors		Pg. 21
	Entrance Door & Stepwell	Pg. 21
•	Driver's Door & Running Board	
Seats	and Aisle	Pg. 21
•	Driver' Seat	Pg. 22
•	Passengers & Seats	
•	Color & Fabric for Passenger Seats	
•	Aisle	
Wheel	chair Accommodations	Pg. 22
•	Lift Access Doors	Pg. 22
•	Lift	
•	Transport Space	
•	Securement	
Stanch	ions, Modesty Panels and Handrails	Pg. 23
	Stanchions	Pg. 23
•	Modesty Panels	
•	Handrails and Stanchions	
Priority	y Seating Sign	Pg. 23
Interio	r Finish	Pg. 23
Exterio	or Finish	Pg. 23

The NDOR Vehicle Selection Guide presents vehicles and equipment available to public transit providers and non-profits organizations servings the transportation needs of seniors and individuals with disabilities.

## This vehicle selection guide is subject to change due to change in contract.

If you have questions or comments, please contact:

Nebraska Department of Roads, Office of Rail and Public Transportation 1500 Hwy2 Lincoln, NE 68509-4759 (402)-479-4694 http://nebraskatransit.com/

## **Glossary of Terms & Acronyms**

<u>Curb weight</u>: The "as delivered" weight of the vehicle with all equipment required for its operation; all equipment required by these specifications, and/with all applicable lubricants, but without the driver or passengers

**FMVSS**: Federal Motor Vehicle Safety Standard

**GVWR**: The gross vehicle weight rating is the maximum operating weight/mass of a vehicle as specified by the manufacturer

<u>Heavy-duty</u>: Where used in this guide, the term "heavy-duty" means that the item to which is applied is to exceed the usual quality or capacity of similar items normally supplied as standard equipment, and that the item will be capable of withstanding unusual stress, temperature, wear, exposure, and/or use.

**ISO:** International Organization for Standardization

**OEM**: Original/Equipment Manufacturer

**SAE**: Society of Automotive Engineers

## Selecting the Vehicle that fits your needs:

This section is designed to applicants determine the proper vehicle to meet their needs. Because you will be operating your vehicle for several years, it is important to take the time before purchasing a vehicle to review your transportation needs and requirements.

#### Factors to consider:

- Capacity needs
- Client needs
- Purchase price
- Type of service
- Operating environment
- Operating cost
- Preventative maintenance cost
- Safety and comfort
- Weight capacity
- Future needs
- Regulatory requirements
- ADA requirements
- Ability to train or hire drivers with a Commercial Drives License (CDL)

Questions to answer regarding your needs and requirements

#### 1. Do you need an accessible vehicle?

If your vehicle will be used to transport individuals with disabilities who use wheelchairs, you will need to purchase a vehicle with an accessibility package including a lift or ramp, wheelchair securement, and other related equipment. Even if you do not routinely transport such individuals, you may be required to purchase an accessible vehicle due to ADA or NDOR requirements. In order to receive a non-accessible vehicle from NDOR, at least 50% of your vehicle fleet must be accessible.

#### 2. What are your capacity needs?

You must consider a number of items with regard to vehicle capacity needs:

- The maximum number of individuals the vehicle will transport at the same time and on a regular basis.
- How many ambulatory and non-ambulatory riders will be transported at the same time and on a regular basis?
- What your fuel needs are.

#### 3. On what type and condition of roads will the vehicle operate?

**Rural Areas:** These areas are generally characterized by narrow, twisting roads and often involve travel on unpaved (i.e. gravel and dirt) surfaces. Travel distances tend to be greater and speeds higher than in other types of service areas.

**Residential Neighborhoods:** These areas often have narrow, dead-end streets and cul-de-sacs. Vehicle width and length can make for difficult maneuvering in tight areas, especially where backing up is required or where parked vehicles may be present.

**Cities and Villages:** These areas generally have through (i.e. not dead ends or cul-de-sacs) streets of sufficient width to accommodate any vehicle offered under the NDOR program. Height, however, may be a problem in accessing parking garages, apartment building entrance overhangs, and other similar structures (for example, tree limbs over streets).

#### 4. What type of service will the vehicle provide?

- **Demand Response:** Also known as paratransit, this service involves door-to-door or curb-to-curb transportation with routes and schedules that change daily in response to rider demands for service. For the most part, clientele served includes seniors and persons with disabilities in both urban and rural areas, and general public riders in rural areas.
- Repetitive Route: This service operates over the same routes as long as the clientele is constant. A change in clients would mean a change in routes. Service involves many origins and only one destination.
- **Group Trips:** This service generally entails transporting groups of individuals from the same origin to the same destination at the same time. Since all passengers travel together from beginning to end, selecting a vehicle to perform this type of service is dependent upon how many riders tend to make up a group, any special needs they may have, the expected journey time, and road conditions to be encountered.

#### 5. How much will the vehicle cost to purchase and operate?

Most, if not all, agencies have very limited budgets and are therefore restricted in their spending to purchase new vehicles. The heavier and higher capacity the vehicle, the more it will cost to operate. Larger vehicles tend to consume more fuel, have high maintenance costs, and are more expensive to insure than smaller vehicles.

#### 6. Will drivers need a CDL?

Drivers must obtain a CDL whenever they operate a vehicle originally configured to transport <u>more than 15 persons plus the driver</u>. Obtaining a CDL is a time-consuming and rigorous process. CDL drivers are also subject to US DOT drug and alcohol testing and physical requirements.

#### 7. What level of comfort do your clients need?

The type of clients you serve (e.g. seniors, persons with disabilities, etc.) and the type of service you operate (demand response, fixed route, group trips) will have a large bearing on your selection. Elements to consider include:

- Interior Mobility
- Wheelchair maneuverability
- Step height
- Rise quality
- Jump seats

#### 8. Can you store and clean a large vehicle?

Large vehicles require more storage room. If you are storing the vehicle outside, make sure your lot is large enough. Outside storage in winter may cause problems for operating hydraulic equipment, such as the lift. If storing in a garage, make sure the vehicle will clear the entrance on the top and sides and that there is adequate room inside to store and maneuver the vehicle.

## **Legislation and Regulations:**

Various pieces of enacted legislation and regulations may impact your vehicle selection and operation. Below is a partial list of both, with links for further information.

## A. Enacted Legislations

- Americans with Disabilities Act <a href="http://www.fta.dot.gov/civilrights/12325.html">http://www.fta.dot.gov/civilrights/12325.html</a>
- Occupational Safety and Health Act, which addresses hazardous materials including blood borne pathogens http://bussafety.fta.dot.gov/list\_resources.php?category\_id=1350
- Title VI of the Civil Rights Act of 1964 http://www.fta.dot.gov/civilrights/12328.html
- Drug and Alcohol (applicable to Section 5311 rural public transportation drivers only)
   http://transit-safety.fta.dot.gov/DrugAndAlcohol/Default.aspx

#### B. State Statute

 The Nebraska Public Transportation Act <u>http://www.nebraskalegislature.gov/laws/statutes.php?statute=13-1201</u>

## **Lowered Floor Minivan** (with ramp)

Cost Estimate: \$35,655

#### **Standard Features:**

- Buy America Compliant
- ADA, FMVSS and CMVSS Compliant
- Meets/exceeds Altoona test requirements
- CARB approved
- 6-passenger vehicle
- Lowered floor from firewall to rear axle
- 61" floor-to-ceiling at center of van\*
- Manual swing ramp providing 30" usable width
- Multiple wheelchair securement locations
- Belt system for wheelchair securement
- Manual driver and passenger side sliding door providing 56-1/4" vertical opening (ADA compliant), passenger door provides 31-1/2" in width
- Step-and-Roll front seats
- 3-passenger bench seat at rear with folding footrest
- Front passenger floor tracks for wheelchair securement, with 60" floor-to-ceiling height
- Stylized lower body panels with integrated steps
- Vinyl flooring with 3/8" marine grade plywood underlayment
- ADA-compliant interlock
- ADA-compliant ramp and door entrance lighting
- Priority seat decal
- Wheelchair securement location decals
- Auxiliary wiring harnesses include fused circuits
- Emergency rear hatch release
- Easy maintenance interior trim package
- 20 gallon OEM fuel tank

#### **Vehicle Description:**

This vehicle is a standard production minivan modified by lowering the floor and, in some cases, modifying the roof at the entryway to provide the 58" headroom required by ADA. It is the smallest accessible vehicle available, accommodating up to two wheelchairs and one permanent seat, with an option for quick-release seats for three additional ambulatory persons in the wheelchair securement locations.

The lowered floor Minivan is equipped with a ramp for access by riders using wheelchairs. Lifts are not available on this vehicle. The manual ramp unfolds for riders using wheelchairs. With the lowered floor, the ramp entry angle is quite low which, in some situations, allows riders using wheelchairs to board the vehicle unassisted.



## **Required Specifications for Lowered Floor Minivan**

#### **General Requirement:**

The vehicle provides suitable public transportation in light transit or paratransit service, and serves the ambulatory and non-ambulatory needs of passengers.

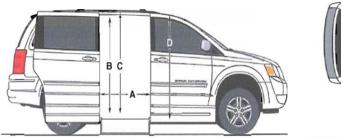
Seating will be based on physical dimensions given for a 95th percentile male by SAE recommended Practice <u>J833</u>

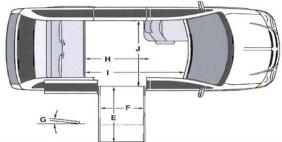
#### Vehicle's Crashworthiness:

- The vehicle is crashworthy certified by the conversion company.
- The modified items meet all applicable FMVSS.
- The Automaker' warrantee is valid on completed vehicle (except the modified parts).

#### General Dimensions and Capacities:

- The <u>Gross Vehicle weight rating</u> (GVWR) is no less than the sum of <u>Curb Weight</u> above plus 150 lbs. for the driver and for each passenger seating position other than a folding jump seat plus 300 lbs. for each wheelchair space provided.
- Seating Capacity. The vehicle accommodates a wheelchair ramp, the driver, one standard wheelchair with seated passenger, and two ambulatory passengers seated in regular passenger seat.





All dimensions are for reference only		
Door Opening Usable Width (Slide Door)	А	31-1/2"
Door Opening Usable Height (Slide Door)	В	56-1/4"
Interior Height at Center of Van*	С	61"
Interior Height at Driver and Passenger Position**	D	60"
Ramp Length	E	52"
Ramp Width (Usable Clear Opening)	F	30"
Ramp Angle	G	12.5"
Interior Floor Lengh(Behind Front Seats)	Н	57"
Overall Interior Floor Length(Flat Area)	ı	86"
Interior Width at B Pillar	J	62-1/2"

#### Chassis and Related System:

- Chassis. 2016 or current Production Year Dodge/Chrysler Grand Caravan, or approved equivalent, 60% domestic content, with Buy American Standing waiver.
- Engine. The vehicle has a 3.3L V6 gasoline.
- Cooling. The vehicle has a thermostatically controlled fan and permanent ethylene glycol-base antifreeze protection to 30 degrees below zero Fahrenheit required.
- Steering. Manufacturer's recommended.
- Brakes. Manufacturer's anti-lock power brakes designed for the GVWR of the vehicle.
- Transmission. Automatic with override.
- **Differential**. Manufacturer's recommended gear ratio.
- Suspension. Manufacturer's recommended for both front and rear for GVWR.
- Wheels and Tires. Manufacturer's recommended for the CVWR of the vehicle. Radial tires and one spare tire provided.
- Fuel Tank. 20 gallons
- **Bumpers.** Manufacturer's standard bumper is acceptable.
- Alternator. Meets the 140 amperes minimum requirements.
- Battery. Meets the Manufacturer's heavy-duty 600 cold cranking amp capacity minimum.
- Speed Control/Tilt Steering Wheel. Manufacturer's recommended.
- Back-up Alarm. Is included.
- Emergency Flashers. The wiring for emergency flashers utilize the turn signal bulbs in lieu of the bulbs, so the emergency flash will work when the brake pedal is pressed.

## Auxiliary Systems, Miscellaneous Parts, and Accessories:

- Exterior Lighting System. Conforms to the requirements of FMVSS No. 108 and 49 CFR Part 38 Subpart B 38.31.
- Interior Lighting System. Conforms to 49 CFR Part 38 Subpart B 38.31 by providing bright floor surface illumination in the entryway and aisle, when required; a separate overhead lamp is provided for the driver's use. All lamps operate with or without the engine running, and the entrance steps are automatically illuminated whenever the entrance door are open, day or night.
- **Heating and Defrosting System**. The Original Equipment Manufacturer (OEM) front and rear heating and defrosting system is provided.
- Air-conditioning System. Front and rear OEM air-conditioning.
- Windshield Wipers and Washers. Dual, electrically driven wipers (with intermittent wipe) and rear window wiper. Washers are furnished, and the washing fluid reservoir has the capacity of no less than one quart.
- **Sun Visor**. A fully adjustable interior sun visor is provided for the driver. The sun visor does not interfere with the driver's view of the rearview mirrors.
- Horn. Equipped with an OEM horn.
- AM-FM Radio. OEM AM/FM radio CD player.

#### **Provided Emergency Equipment:**

- **First Aid Kit.** A 12-Unit first aid kid with instruction for the use of its contents is provided and securely mounted in a location readily accessible to the driver.
- Fire Extinguisher. A UL approved fire extinguisher is bracket mounted in a location readily accessible to the driver. The size is no less than five-pound with a total rating of no less than 2A, 10-B:C or UL approved equipment.
- Warning Devices. A kit of three folding bi-directional emergency reflective triangles that conform to the requirements of FMVSS No. 125 is provided.
- Blood borne Pathogens Kit. Is provided with a minimum of the following items. Latex gloves, CPR mask, Goggles, Apron, Disinfectant wipes, Absorbent and Scoop, and an ID tag and red plastic bag.

#### Body:

- Structure. The minivan is made ADA compliant by lowering the floor from the base of the engine firewall to the rear passenger seat. The floor is lowered through the thresholds of each sliding door in order to meet ADA door opening height requirement. The floor panel is stainless steel joined to the body frame members in a manner that provides a leak-proof floor. No modification to any portion of the vehicle's roof is allowed in meeting ADA door opening height requirement. Sliding doors are extended to seal.
- Interior. Interior walls and headliner provide a finish that is durable, easily cleaned, and coordinated with the overall interior scheme of the vehicle.
- Floor. A ¼ inch thick underlayment is applied over a lower metal floor structure. The ¼ inch underlayment is equivalent to a marine grade plywood or material that meets or exceeds this requirement and is impervious to moisture. The edges are sealed prior to being attached over the lower metal floor structure. The underlayment floor is laid with no gaps or opening.

#### Doors:

• **Running Boards**. Driver side and front passenger side running boards that are at a minimum 4 inch wide and run from near the front of the door to near the rear of the door is provided.

#### Seats:

 Passenger and Driver Seats. Seats will be OEM light gray cloth compatible with the headliner and rest of the interior.



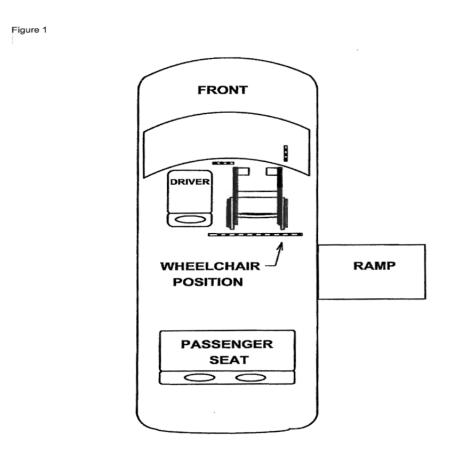
#### Wheelchair Accommodations:

- Wheelchair Ramp. The vehicle is equipped with a manually operated, swing-away mobility access ramp, which stows vertically, folds and unfolds through the right side door. The stowed ramp does not obstruct the view of the driver through any vehicle window. The ramp meets ADA requirements.
- Wheelchair Transport Space. One functional wheelchair transport spaces is provided. The space is located as shown in Figure.1 below.



Wheelchair Securement. The wheelchair space is equipped with a four point wheelchair
securement system to include the auto-tensioning, auto locking retractor with left and right tension
knobs for tightening produced by "Sure-Lock" or equivalent. The system utilizes an "L-track"
capable of securing a variety of common mobility aid designs. An occupant lap and shoulder
restraint system that meets all applicable Federal Motor Vehicle Safety Standards is provided for
an occupant in a wheelchair.

**Note:** A web cutter, four-12" quick straps, training program CD, and a mesh storage container for all hardware mounted on the wall in the rear of the vehicle.



#### Interior Finish:

All material used in the passenger compartment, including upholstery, padding, floor covering, and insulation conforms to the requirements of  $\underline{\mathsf{FMVSS}}$  No. 302, and materials that emit toxic gases as byproducts of combustion are not used.

#### Floor covering is:

- Altro Transflor Meta 2.2mm
- Color 903 storm, by Compass Flooring, Inc., San Francisco, California, or approved equivalent.
- Installed to the recommendation of its manufacturer

A 4mm diameter PVC weld rod is inserted by hot air gun into "v/U" grooved joints.

Those interior surfaces that are not padded or covered with a decorative vinyl surface are appropriately primed and finished with top-quality acrylic enamel. Color of paint and other interior finishing materials harmonizes with the vehicle's exterior finish.

#### **Exterior Finish:**

The exterior color of the vehicle is be white.

#### Small Transit Bus 12+2

Cost Estimate: \$49,700 (base price)

#### **Standard Features:**

- E450 and cutaway
- Tinted glass
- Automatic transmission
- 4:10 and 4:56 rear axle ratio
- Power steering
- Dash A/C and heater(Front and rear)
- Auxiliary transmission cooler
- (gas chassis only)
- Super engine cooling
- Speed Control/Tilt steering and cruise control
- 6.8 gas engine
- 55-gallon fuel capacity on E450
- Radial tires LT225-16 E
- Chrome front bumper
- Bumpers and tow hooks
- · Read-out gauges
- Heavy-duty batteries
- 130 AMP alternator
- 158" wheelbase
- Throttle
- Mud Flaps
- GVWR 10,700 to 14,050wer brakes (4 wheel disc)
- Back-up Alarm
- Emergency Flasher
- Rear Suspension

#### Optional Features: (Will add cost to base price)

- Raised floor for additional wheelchair position
- Digital Video Recording (DVR) System.
- Back up Camera
- Other aftermarket options may be allowed. Contact NDOR prior to modifying the vehicle.



## Required Specifications for Small Transit Bus 12+2

#### **General Information:**

The vehicle provides suitable public transportation in light transit or paratransit service, and serves the ambulatory and non-ambulatory needs of passengers. This vehicle is to primarily be operated in rural and urbans areas

Seating will be based on physical dimensions given for a 95th percentile male by SAE recommended Practice J833

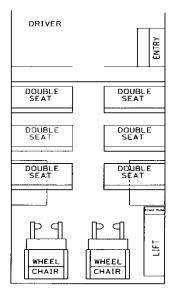
#### Vehicle's Crashworthiness:

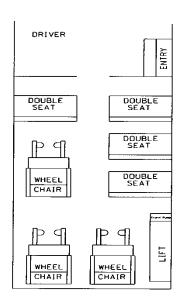
- The vehicle is crashworthy certified by the conversion company.
- The modified items meet all applicable FMVSS.
- The Automaker' warrantee is valid on completed vehicle (except the modified parts).

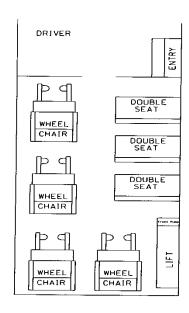
#### **General Dimensions and Capacities:**

- The <u>Gross Vehicle Weight Rating</u> (GVWR) is no less than the sum of <u>Curb Weight</u> above plus 150 lbs. for the driver and for each passenger seating position other than a folding jump seat plus 300 lbs. for each wheelchair space provided.
- Seating Capacity. The vehicle accommodates a wheelchair lift, the driver, at least two standard wheelchairs with seated passengers, and no fewer than twelve (12) ambulatory passengers seated in regular passenger seats installed.

#### Floor Plans:







All dimentions are for reference only		
Exterior width	96"	
Exterior height	114"	
First step to ground	11 1/2" second and third	
Step riser	9" max	
Step tread depth	9" max	
Entrance clear opening	32" x 83" min	
Interior width at seat level	92 1/2"	
Interior width up 36" from floor	93 3/8"	
Centeraisle height	80 1/2"	
Flatfloor aisle height	75"	
Doudle wheelchair doors	46" x 70.5"	
Rear luggage compartment (standard)	141 cubic feet	

The table above is subject to change based on number of wheelchair positions.

#### Auxiliary Systems, Miscellaneous Parts, and Accessories:

- Exterior Lighting. Conforms to the requirements of FMVSS No. 108 and 49 CFR Part 38 Subpart B 38.31.
- Interior Lighting. Conforms to 49 CFR Part 38 Subpart B 38.31 by providing bright floor surface illumination in the entryway and aisle, when required; a separate overhead lamp is provided for the driver's use. All lamps operate with or without the engine running, and the entrance steps are automatically illuminated whenever the entrance door are open, day or night.
- Heating and Defrosting System. The heating system has two unit type heaters, one located in
  the driver's area, and one in the passenger area. The output of each heater is individually adjusted
  by means of controls easily reached by the seated driver. Standard windshield defrosting and
  defogging system that meets or exceeds the performance requirements of SAE J382.
- **Air-conditioning System.** Has two separate air conditioners (dual Compressor) a factory installed dash-mounted unit (13,000 BTU min.) and an auxiliary unit for the passenger area.
- Windshield Wipers and Washers. Dual, electrically driven wipers (with intermittent wipe) and rear window wiper. Washers are furnished, and the washing fluid reservoir has the capacity of no less than one quart.
- Rearview Mirrors. Interior mirror 6"x9" convex mirror minimum is provided to afford a view of the passengers and roadway to the rear. Dual exterior mirrors with 15" mirrors head standard (2 in 1) Flat and convex glass.
- **Sun Visor.** A fully adjustable interior sun visor is be provided for the driver. The sun visor does not interfere with the driver's view of the rearview mirrors.
- **Horn**. Is equipped with an OEM horn.

- Controls and Instruments. All controls are within the driver's arm reach with seat belt fastened. Instrumentation includes and oil pressure gauge, a coolant temperature gauge, a charge indicator with graduated charge-discharge scale, and an engine hour meter.
- AM-FM Radio and Speaker System. A 10-watt minimum power output, push button AM-FM stereo radio with a minimum of four speakers is be provided.

#### **Provided Emergency Equipment:**

- **First Aid Kit.** A 12-Unit first aid kid with instruction for the use of its contents is provided and securely mounted in a location readily accessible to the driver.
- Fire Extinguisher. A UL approved fire extinguisher is bracket mounted in a location readily accessible to the driver. The size is no less than five-pound with a total rating of no less than 2A, 10-B:C or UL approved equipment.
- Warning Devices. A kit of three folding bi-directional emergency reflective triangles that conform to the requirements of FMVSS No. 125 is provided.
- Safety Vent. A Dual Purpose Safety Low Profile roof vent such as the Transpec Econovent roof hatch or equivalent is provided.
- Blood borne Pathogens Kit. Provided with a minimum of the following items. Latex gloves, CPR mask, Goggles, Apron, Disinfectant wipes, Absorbent and Scoop, and an ID tag and red plastic bag.

#### Body:

- Structure. The body structure is steel reinforced fiberglass or steel reinforced plastic that will withstand flexing or fatigue that would make the vehicle unfit for safe weather-tight operation. The exterior body panels are constructed of gel-coated fiberglass reinforced plastic. The body structure forms an integrated unit. All points, such as joints and corners, at which stress concentrations may occur are reinforced as needed to carry required loads and withstand road shock. All structural framing are designed and constructed so that each member carries its proportionate share of stresses. Framing members are durable channel, box, hat, zee, or similar cross section. End posts are be designed to resist shear, and vertical members are securely fastened to under frame components so that the entire structure acts as one unit without any movement at the joining's.
- Interior. Inner lining panels are gel-coated fiberglass reinforced plastic. Wood or fiber panels are not used. To minimize the need for vertical seams, all interior panels extend full-length longitudinally, where practical. Where seams are unavoidable, all exposed edges are beaded, hemmed, or flanged with the rearward components lapped over the forward components.
- Exterior. Fiberglass reinforced plastic are used for the construction of the bus securely fastened to the interior structural members. The entire body is thoroughly tested by the final stage manufacturer and made as nearly dust-proof and watertight as practicable.
- Floor. The ¾ inch underlayment is plywood underlayment completely fiberglass gel coat sealed to prevent moisture infiltration.

- Roof. Roof construction is Fiberglas panels.
- Wheel Housings. Splash aprons and fenders are provided if tires extend beyond the side of the vehicle.
- Access Hatches. Access panels or hatches are provided where needed to service transmission, engine, radiator, battery, air conditioning components, and so on.
- Anti-corrosion Treatment. All metallic body components, including the surfaces of those interior body panels and posts that are covered by insulation or trim materials, are thoroughly protected against corrosion.
- **Insulation**. The ceiling and all inside walls of the vehicle are moisture proof and contain thermal and acoustic insulation characteristics.
- **Undercoating.** The entire body/frame under structure of the vehicle are fully undercoated.

#### Windshield and Windows:

- Safety Requirements. All windows conform to the requirements of FMVSS No. 217, and the emergency egress is provided as specified in that standard. Three emergency window exits are located in the rear and on each side of the vehicle.
- Rear Windows. A rear window surface area of no less than 390 square inches is provided and provides emergency egress from the vehicle.

#### Doors:

- Entrance Door and Stepwell. The vehicle is equipped with a two section, jackknife or split type main entrance door located opposite of the driver. The entry step is 12" (plus or minus 1 inch) above ground level.
- Driver's Door and Running Board. A front-hinged, sedan type door with roll-down window and exterior key lock is provided at the left hand side of the driver's seat.
   A driver's side running board that runs from the front wheel mud flap will accommodate a driver weighing up to 325 pounds.

#### Seats and Aisle:

This vehicle seats up to 12 ambulatory riders and two wheelchair passengers. Both forward facing wheelchair positions are located directly opposite the rear side lift entrance. Wheelchair maneuverability may become difficult when using both wheelchair positions at once.

Ambulatory seating includes 12 forward facing positions. Forward facing jump seats for up to two ambulatory passengers may be ordered as an option.

They will be located at the wheelchair position locations, should be used only on an occasional basis and should not be counted as part of the total number of ambulatory seats.

Driver's Seat. Multi-position cloth driver's seat, such as Evolution G2E series cut-away driver seat by Freedman Seating Co. of Chicago, Illinois, with two-way, mechanically adjustable lumbar, 45 to 100 degree adjustable flip-up right side armrest or approved equivalent are provided.
 The seatbelt assembly is a combination of pelvic and upper torso-restraint (Type 2) with retractors.



- Passenger Seats. All cloth double passenger seats with flip up aisle US armrest, aisle side seat grab handles on top of mid-back or mid-hi seats with lumbar support mounted on track. Seat back height from the top of the seat cushion will be a minimum of 22". Each passenger seating position is equipped with an under seat retractor seat belt assembly and belt anchorages.
- Color and Fabric for Passenger Seats. Color of fabric is NPF by CMI # 831 Pinwheel Mono Blue treated with nonocide by Freedman Seating Co. or approved equivalent.
- Aisle. Aisle width is no less than 14 inches.

#### Wheelchair Accommodations:

- Lift Access Doors. Split type outward-opening lift access doors located on the right-hand side of the vehicle to the rear of the right rear wheel well are provided. The lift access doors are constructed so as to be equivalent in strength and materials to other areas of the body and are fitted with weather seals at all edges so as to exclude dust and moisture. Minimum vertical opening of the doors are 68 inches. The minimum door clear opening width when doors are fully opened is 44 ½ inches. The doors are equipped with windows with bottoms approximately aligned with those of the main side windows and of the maximum width appropriate to the width of the doors. The windows conform to the requirements stated above. Both doors are fitted with latching mechanisms to secure each door when closed. One door has a locking latch which allows both doors to be securely locked when closed.
- Wheelchair Lift. A front pump 12 volt, fully automatic, electrohydraulic, or mechanical, folding
  platform wheelchair lift with a design load of not less than 600 pounds is installed inside the lift
  access doors. Installation of the lift does not diminish the vehicle's structural integrity. The

platform lift is certified by the manufacturer to meet the requirements of DOT 49 CFR Part 38.

Wheelchair Transport Space. Two
functional wheelchair transport spaces are
provided at a minimum. The spaces are
located as in the attached figures. Each such
space is at least 30 inches wide and 48 inches
long. Please refer to figure on Page 18.



• Wheelchair Securement. Each wheelchair space is equipped with securement devices to meet the requirements of DOT 49 CFR Part 38.

#### Stanchions, Modesty Panels, and Handrails:

- Stanchions. Vertical, floor-to-ceiling stanchions are installed on the right hand side of the aisle behind the stepwell and behind the rearmost position of the driver's seat. Stanchion behind the driver seat must allow the driver's seat to recline to maximum extent possible with seat position slid back to the rear-most position.
- Modesty Panels. A horizontal guardrail and sheet metal barrier panel or hardboard laminate panel is installed.
- Handrails and Stanchions. Handrails and stanchions are provided to meet the requirements of 49 CFR Part 38 Subpart B 38.29.

#### **Priority Seating Sign:**

Are furnished as required by 49 CFR Part 38 Subpart B 38.27.

#### Interior Finish:

- All materials used in the passenger compartment, including upholstery, padding, floor covering, and insulation conforms to the requirements of FMVSS No. 302, and materials that emit toxic gases as by-products of combustion are not used.
- Floor covering is altro Transflor Meta 2.2 mm, color 903 storm. Entrance step treads are yellow vinyl step nosing. The floor covering is installed according to the recommendation of its manufacturer.
- Those interior surfaces that are not padded or covered with a decorative vinyl surface are appropriately primed and finished with a top-quality Acrylic enamel. Color of paint and other interior finishing materials harmonizes with the vehicle's exterior finish.

#### **Exterior Finish:**

The exterior color of the vehicle is white.