2019 State Price Agreement
Base Vehicle Specifications
Category E-1 – Small Light Duty

1. Specifications for Base Vehicle in Category E1 Short Body Small Light Duty

This specification describes a public transit vehicle (Ford Transit/Dodge RAM ProMaster or Mercedes-Benz Sprinter or equivalent, meeting Buy America Requirements) designed for Commercial or Transit applications that meets all the requirements of ADA and the FMVSS Safety Standards in effect at the time of manufacture. The purpose of these specifications is to describe a Light duty vehicle suitable for transporting both ambulatory and non-ambulatory passengers in both rural and urban areas.

1.1 DIMENSIONS

Vehicle Alterer shall certify that they are in compliance and meet the chassis manufacturer's QVM standards. (Attach certification from chassis manufacturer)
The overall minimum length of vehicle, bumper to bumper, must be no less than18’
Maximum body width must be 88” exterior (not including mirrors)
Interior color must be OEM white. Other OEM colors may be made available upon request.
Passenger door must be OEM manual sliding door on curbside. Should vendor offer a double-out bi-fold door as an option, it may be made available at the Authorized Purchaser request.
The utility-body model public transit vehicle (Ford Transit/Dodge RAM ProMaster or Mercedes-Benz Sprinter or equivalent) vehicle may be offered in multiple OEM raised roof heights and body lengths to the Authorized Purchaser upon request. The base vehicle must be a short wheelbase (approx. 130”), mid-high roof – overall exterior height minimum 99”.
Gross Vehicle Weight Rating (GVWR) of the completed vehicle must not exceed the GVW of the chassis and be appropriate for application described, a full tank of fuel, driver, the number of passengers and wheelchairs described. Any exceptions to this requirement, seating capacity, or any other specification must be noted. Certified weight of completed vehicle as ordered must be conducted before delivery and a weight slip included. The GVW must be affixed to the completed vehicle.

1.2 CHASSIS

Engine must be gas – 3.6L V6 minimum or DAS PS approved alternate. Drive train must be adequate for GVWR and must maintain 70 mph, except when a lesser speed is recommended by manufacturer. Must be equipped with fast idle.
Cooling System must have heavy duty capacity to OEM standard specifications and have the maximum freeze protection allowed with the OEM coolant at the OEM recommended mixture.
Daytime running lights.
OEM Heavy Duty Automatic Transmission.
Fuel must be OEM standard minimum 24 gallon tank for gas and diesel units.

Vehicles must have front and side airbags.
Brakes must be heaviest-duty original equipment manufactured, with ABS.
The front end must be aligned, per manufacturers guidelines (toe-in, caster, camber, etc.), and the front wheels balanced after completion of vehicle. All 4 wheels must be aligned at the manufacturer prior to delivery and a computerized alignment printout shall be supplied with vehicle at delivery.
The base vehicle must be a single rear wheel vehicle. If Authorized Purchaser opts for a high roof, long wheelbase vehicle, it must be dual rear wheel.
Windshield must be darkest available OEM tint allowed by Oregon law.
Power door locks with keyless entry - 3 key fobs are required to be provided at delivery.
As supplied by OEM, Power steering, tilt, steering wheel and speed control must be included. If not supplied by OEM, DASPS may approve vehicle without a tilt steering wheel or speed control.
Vehicle must have a minimum of one power point in driver's control center.
Gauges - full OEM gauge and warning light package including fuel, oil pressure, water temperature, ammeter or voltmeter. Warning lights are acceptable only when gauges are not provided by OEM.
Installed Heavy duty driver's door running board that runs the full length of driver's door fastened to the frame of vehicle.
Installed Heavy duty co-pilot's door running board that runs the full length of the door fastened to the frame of vehicle.
Installed Heavy duty side passenger sliding entry door running board that runs the full length of the door fastened to the frame of vehicle.
Vehicle must be equipped with fully automatic lift interlock system with self-diagnostic capability and Inter-motive - ILIS w/integral fast idle or approved equal. Interlock system must comply with Americans with Disabilities Act (ADA) requirements, as set forth in ADA 49CFR 38.23(b), and protected from the weather.
All vehicles must have the exhaust pipe routed out the rear of the vehicle in conformance with Federal Motor Carrier Safety Regulations, Part 393.83. Exhaust pipe must not extend beyond the vehicle body or interfere with any tow hooks or other equipment.
A full-size spare tire and wheel, rear-mounted with tire or alternate mounted position per vehicle standards.
Back-up camera with monitor in radio/dash must be OEM supplied.
Front and rear license plate brackets with pre-drilled holes and mounting hardware.
Locking fuel door.

1.3 ELECTRICAL

Vehicle must have the heaviest-duty available factory installed battery. OEM battery with minimum 70 amp and 600 CCA's (gas) and 70 amp/ 760 CCA's (diesel) total at 0 degrees (F).
Alternator must be heavy duty with a minimum of 200 amps rating.

1.4 BODY CONSTRUCTION

Body Structure – Must be OEM and unmodified. Frame and body structures must meet Federal FMVSS standard.
The driveshaft must be rated and capable of transmitting the torque multiplication of the engine/transmission to the drive wheels.
Interior must be made of OEM or aftermarket ABS panels or equivalent. Interior finish must be white, grey or light tone, color coordinated with seats, floor and exterior.
To prevent driveshaft from hitting the ground, a driveshaft guard is required for each driveshaft segment. Driveshaft guard must be sized to allow for movement of the U-joint assemblies
Body must be thoroughly water tested to ensure no leakage. The roofs, windows, windshields, and all seams and joints must be tested as follows: (a) The water test shall consist of a series of nozzles, which are located around the perimeter of the vehicle so as to spray water over the entire surface of the vehicle. (b) The nozzles shall eject a volume of water no less than 2.0 gal/min under a pressure of no less than 40 psi measured at the nozzle tip. (c) Each vehicle must be water tested as prescribed above for no less than 15 minutes to determine whether there are any body leaks. (d) Corrective action and retesting shall be performed for all vehicles that fails to pass. (e) Documentation shall be furnished for each vehicle delivered under this agreement demonstrating the vehicle has passed the requirements listed above.
Lift Door - Contractor must install the Lift in the OEM rear or side doors without body structure modifications. The base vehicle must have a rear lift that exits out the rear OEM double doors.
Insulation - When the vehicle is unloaded, driver's area noise level must not exceed 83 decibels at a constant speed of 55 mph.
Floor – The OEM subfloor must be reinforced in wheelchair securement area. The floor covering must be slip-resistant transit-floor, black or gray marble in color.
Windows must be the largest available OEM passenger windows on each side with privacy glass. If chassis allows, vehicle must feature all-around side windows with flip-open/sliding capability for cross ventilation. The rear doors must have fixed door glass on each door with a rear window defogger. The driver and co-pilot windows are to be power operated.
Driver and co-pilot side must have sun visors.
Driver's storage must be provided in driver's area.
Front and rear bumpers must be an OEM Heavy-duty bumper as standard. Bumper height must be industry standard to provide protection against automobile and vehicle damage. Bumpers must be fastened directly to the vehicle frame.
Towing - Contractor must identify procedures for safely towing a completed vehicle according to chassis manufacturer's recommendation. This procedure shall be supplied to each Authorized Purchaser ordering a vehicle as part of the delivery package/instructions.

1.5 VEHICLE FEATURES

Seating - Standard floor plan is required with the RFP Price proposal. Detailed floor plans are required with vehicle orders. Exceptions to capacity required to meet other specifications must be noted.

Base vehicle must accommodate 5 ambulatory passengers in fixed seats and 1 rear mounted wheelchair station with oversize track.
Passenger Seats - Forward-facing mid-high back seats or approved alternate. OEM bench seats are acceptable. Seats must have a minimum of 17 inch cushion width and depth per person. All seats must have be 3-point seat belts installed.
Seat materials - All seat materials must meet FMVSS #302. Level-3 vinyl upholstery is standard with color to be selected by Authorized Purchaser from several available colors or patterns.
Driver's seat must be OEM, fully adjustable high-back bucket seat with right side arm rest, adjustable tilt back and lumbar support with OEM standard pedestal and trim. The seat must be ergonomically designed to help reduce day to day driver fatigue and stress. The seat must be covered with OEM ~~Vinyl~~ fabric.
Co-pilot seat must be OEM, fully adjustable high-back bucket seat with left side arm rest, adjustable tilt back with OEM standard pedestal and trim. The seat must be covered with OEM Vinyl fabric.
Priority seating signs and all other ADA required signage must be in place and installed per lift manufacturers and ADA standards.
Lift - ADA approved, must meet or exceed FMVSS #403 & #404 requirements and all State, Federal, ICC, and ADA requirements. Fluid used must be Hydraulic Fluid (Texaco #15, Exxon Univis HVI or Mobil Aero HFA or equivalent). Minimum clear dimensions for platform are ~~34~~30" wide X ~~51~~52" length. The standard location for the lift is rear, out the rear OEM doors. The standard lift must be rated for 1000 lbs.
Wheelchair Securement Devices must be automatic, self-tensioning with tensioning knob and self-locking and must comply with all ADA, ANSI/RESNA WC18 and ISO 10542 performance and installation requirements. Wheelchair securement must be flush mount aluminum “L” track of the highest quality. Wheelchair securement devices provided and the installation thereof, performance pursuant to this specification, must meet or surpass the minimum standards per ADA, ANSI/RESNA WC18 and ISO 10542 requirements, including all shoulder harness mounting hardware. Shoulder harness must have an adjustable height adjuster to compensate for variations in the size of the mobility device or passenger. At no time must the position of the wheelchair securement device or area, 30 inches wide per ADA, ANSI/RESNA WC18 and ISO 10542 specifications when used with a surrogate wheelchair per ADA, SAE and ISO, reduce clear aisle space to less than the dimension required by ADA standards. Wheelchair securement devices must be universal in application for ease of use or approved equal. Minimum wheelchair position must be 30” x 52” for all vehicles sold under this contract. Contractor may make available fixed floor pocket, Slide N Click, InQline Integrated Winch/Retractor System or approved equal based on desired configuration of the Authorized Purchaser at time of purchase.
Floor track must be an Omni Floor Anchor System or equivalent and must be installed per the customer’s requirements and in accordance with manufacturer's recommendations. Length of floor track must be appropriate to the number of wheelchair stations ordered and the desired configuration. Floor track must be mounted with cadmium plated bolts for corrosion resistance. Wall Track must be surface mount “L” track 6351 grade aluminum or approved equal. Contractor shall provide hands-on training of the tie-down system and provide manufacturer’s maintenance / training information at delivery.
OEM Dual; front and rear heating system must maintain a range of 65 to 70 degrees, measured about 12 inches off the floor with an ambient temperature of 0 degree
OEM Dual; Front and rear air conditioning system must maintain a range of 65 to 70 degrees, measured about 12 inches off the floor with an ambient temperature of 90 degrees.

1.6 VEHICLE LIGHTING

Interior Lighting - Overhead lights to go on automatically when any door is opened. Overhead driver switched lights must be mounted above driver's area.
Passenger and lift doorways must be illuminated according to CFR 49 Part 38.31 (ADA) and must be illuminated whenever respective door is open.
Engine compartment must be provided with at least one (1) 10 foot-candle light, conveniently located.
All exterior lights and reflectors must meet Federal Motor Carrier Safety Regulation 393.11 and to be OEM.

1.7 MIRRORS AND STANCHIONS

Mirrors – OEM heated & remote control mirrors are required. Mirrors must have breakaway mounts and turn signal indicators. Interior OEM rear-view mirror to allow driver to see entire interior of vehicle.
Right hand entry stanchion must be provided for ambulatory passenger entering the side sliding OEM door.
Fire extinguisher - minimum five (5) pound rechargeable, mounted per customer request
First Aid Kit - 24 unit First Aid Kit must be state DOT compliant and in a dustproof container labeled "FIRST AID". Kit must be mounted in an easily accessible location.
Three emergency warning triangles. Both faces of each triangle must consist of red reflective and orange fluorescent material. Each of the three sides of the triangular device must be 17" to 22" long and 2" to 3" wide. Triangles must be provided in a protective container secured to the vehicle in a location to be determined by the customer.
Backup Alarm must be an electric alarm, activated by reverse transmission setting, with 97 minimum decibels.
OEM, or equivalent, AM/FM/CD Digital Clock Radio with 4 speakers must be mounted in the passenger compartment.
(1) OEM driver seat belt extender must be included and shipped loose in the vehicle at delivery
(2) 12” minimum passenger seat belt extenders must be included and shipped loose in the vehicle at delivery
(1) Seat belt extender and belt extender must match securement system for wheelchair occupant must be included and shipped loose in the vehicle at delivery
Seat belt cutter, capable of cutting supplied wheelchair securement straps without exposed cutting edge and not usable as a weapon must be mounted to driver dash in reach of driver while seated.
Pre-Wire for 2 way Radio – wires to terminate to right of doghouse
Usable driver’s cup holder within driver’s reach.
Must come equipped with a 4 camera surveillance system with a minimum 1tb hard drive or equivalent. One camera facing out the front, one camera facing front to back, one camera facing back to front and one exterior camera mounted to the rear facing back. There must be a dash mounted rear view monitor, activated when the vehicle placed in reverse that allows the driver to see the rear facing camera ~~while recording~~. One spare hard drive and a hard driver reader must also be supplied. Please indicate which manufacturer of surveillance equipment must be supplied in the base unit. Interior signage – *Video camera in use* – in both English and Spanish must be included.

One set of chassis and body manuals including service and electrical manuals to be delivered with the vehicle at time of delivery. This must include a complete set of as-built wiring diagrams.

1.8 SERVICE, WARRANTIES AND DELIVERY

DESIGNED TO TRANSPORT - The final stage manufacturer shall determine the original seating capacity of each vehicle. The manufacturer's certification label must indicate the original seating capacity of the vehicle and must be affixed to the vehicle in a location protected from wear. The label must state the "Original Seating Capacity - Design To Transport" (number of passengers, including driver) and Gross Vehicle Weight Rating (GVWR) of vehicle.
Maintenance and Inspection Schedule - a single comprehensive maintenance and inspection schedule for each vehicle shall be supplied when delivering the vehicle to the transit provider. Maintenance and Inspection schedules must include, but are not limited to, the required maintenance and inspection of body, chassis, tires, wheelchair ramp and other equipment and sub-systems, as prescribed by the respective manufacturers.
Quality - body manufacturer must meet chassis manufacturer's quality assurance program, if available. Certification from chassis manufacturer must be submitted with RFQ process for each chassis.
Tires must be covered by O.E.M warranty.
Wheelchair lift system must be covered by O.E.M warranty.
Chassis must be covered by O.E.M. warranty.
Body structure materials and workmanship must be covered by O.E.M. warranty.
Installation, labor and workmanship (including electrical) performed by the body manufacturer, final stage manufacturer or Contractor (if Contractor installs components or otherwise completes vehicle) must be covered by O.E.M. warranty.
All other components and accessory equipment must be covered by a warranty of at least one (1) year/12,000 miles, unless covered by an applicable manufacturer's warranty exceeding this. The Contractor shall assist as needed in coordinating repairs within the warranty period for each component and applicable warranty.
Contractor shall provide a report of all warranties and excluded warranties associated with each vehicle.
During established warranty periods, Contractor and respective manufacturer shall furnish all warranty parts at no cost to the transit system.
Contractor shall provide the recipient, or a designated representative of the recipient, the opportunity to inspect the vehicle for compliance with these specifications and applicable motor vehicle regulations. The inspection(s) must be completed prior to the delivery and acceptance of the vehicle.
Prior to releasing the vehicle to the recipient, Contractor shall provide hands on instructions, by a qualified and experienced employee, in the proper and safe operation of all mechanical, electrical and hydraulic components in the vehicle. Towing procedures must be included in the instruction. The recipient's driver/designee shall conduct an operational familiarization test drive with Contractor's employee.

1.9 OPTIONAL EQUIPMENT

Attached to Contractor’s RFP proposal was a comprehensive listing of optional equipment that is incorporated into the Price Agreement. Authorized Purchasers ordering under this Price Agreement shall be able to select optional equipment from this listing without incurring cost for additional engineering hours for any changes in optional equipment.

2. Specifications for Base Vehicle in Category E1 Low Floor Small Light Duty

This specification describes a low floor, commercial vehicle designed for Commercial or Transit applications that meets all the requirements of ADA and the FMVSS Safety Standards in effect at the time of manufacture. The purpose of these specifications is to describe a small, light-duty vehicle suitable for transporting both ambulatory and non-ambulatory passengers in both rural and urban areas. The vehicle must be of the Low Floor type with modified suspension.

The Light Duty Vehicle must have been submitted to the Altoona Vehicle Test Center for a minimum 4 yr. /100,000 mile Surface Transportation and Uniform Relocation Assistance Act (STURAA) test. Testing must have been completed on current body style being converted.

2.1 DIMENSIONS

The overall minimum length of vehicle, bumper to bumper, must be no less than 20’
Maximum body width is 102” exterior (excluding mirrors)
The Passenger door must be dual panel (swing out or plug sliding), electrically operated and have two windows. The entry door must be configured for ease of access for wheelchair loading and unloading. The entry door must have a minimum clear opening of 35”. Assist handles must be installed on all dual swing out doors and must be powder coated yellow. Passenger door must be electrically actuated at the driver console and come with an exterior weatherproof door switch or key lock.
Entry doors must incorporate gaskets and/or seals to provide a barrier against intrusion by wind, water and dust around the perimeter. The seal at the center of the door must be by means of full height overlapping rubber seals, and must include a barrier or sweep at the bottom of both doors. For emergency situations, a manual door release control must be installed over the top of the door, and must be designed to permit simple operations to override the electric door operation.
The minimum interior height must be 73 inches at center aisle and may vary depending on the floor layout.
Minimum aisle width is 16 inches; 12 inches minimum is permissible in wheelchair area; 14 inch minimum is permissible adjacent to forward facing fold-away seats and must meet all ADA requirements.
Minimum of 27 inches knee-to-hip spacing between passenger seats.
Gross Vehicle Weight Rating (GVWR) of the completed vehicle must not exceed the GVW of the chassis and be appropriate for application described, a full tank of fuel, driver, the number of passengers and wheelchairs described. Any exceptions to this requirement, seating capacity, or any other specification must be noted. Certified weight of completed vehicle as ordered must be conducted before delivery and a weight slip included. The GVW must be affixed to the completed vehicle.

2.2 CHASSIS

Engine must be gas – 3.6L V6 minimum or DAS PS approved alternate. Drive train must be adequate for GVWR and must maintain 70 mph, except when a lesser speed is recommended by manufacturer. Must be equipped with fast idle.
Cooling System must have heavy duty capacity to OEM standard specifications and have the maximum freeze protection allowed with the OEM coolant at the OEM recommended mixture.
OEM Automatic Transmission.

Fuel must be OEM standard minimum 24 gallon tank for gas and diesel units.
Brakes must be heaviest-duty original equipment manufactured, with ABS.
The front end must be aligned, per manufacturers guidelines (toe-in, caster, camber, etc.), and the front wheels balanced after completion of body on chassis. All 4 wheels must be aligned at the manufacturer prior to delivery and a computerized alignment printout shall be supplied with vehicle at delivery.
All chassis must be equipped with an aftermarket suspension system (rear spring or air). If air suspension is the mfg. standard, it must be provided. Contractor may offer other suspension systems as alternative to the standard system. Provide details and costs of each system offered during the RFQ process.
If OEM provided, all vehicles must have dual rear wheels with tire valve extensions. Single rear wheels will be accepted if OEM doesn't provide dual.
Windshield must be darkest available OEM tint allowed by Oregon law.
As supplied by OEM, Power steering, tilt, steering wheel and speed control must be included. If not supplied by OEM, DASPS may approve vehicle without a tilt steering wheel or speed control.
Vehicle must have a minimum of one power point in driver's control center.
Gauges - full OEM gauge and warning light package including fuel, oil pressure, water temperature, ammeter or voltmeter. Warning lights are acceptable only when gauges are not provided by OEM.
Driver's door running board that runs the full length of driver's door and is fastened to the frame of vehicle is to be provided.
Vehicle must be equipped with fully automatic lift interlock system with self-diagnostic capability and Inter-motive - ILIS w/integral fast idle or approved equal. Interlock system must comply with Americans with Disabilities Act (ADA) requirements, as set forth in ADA 49CFR 38.23(b), and protected from the weather.
All vehicles must have the exhaust pipe routed out the driver side rear corner of the vehicle in conformance with Federal Motor Carrier Safety Regulations, Part 393.83. Exhaust hangers must be standard equipment and must be welded to the frame. Exhaust U-bolts must be used in connections with thread orientation must be directed upwards.
Exhaust system must be OEM ~~stainless~~ pipes and muffler with proper heat shielding and baffles. Exhaust pipe extensions must also be ~~stainless~~ OEM steel pipe.

2.3 ELECTRICAL

OEM battery with minimum 70 amp and 600 CCA's (gas) and 70 amp/ 760 CCA's (diesel) total at 0 degrees (F).
Alternator must be a minimum of 200 amps rating.
Electrical wiring must be sized appropriate to load requirements, coded for easy identification and must meet requirements of SAE J1127 & J1128, types GXL, SXL and SGX. Wire harnesses must be protected by plastic convoluted slit looms or equivalent. Harness connectors must be weather resistant "AMP-type" or equivalent plug-in connectors. Circuit breakers ~~(no fuses)~~ must be clearly marked and securely mounted in a panel or fuse block and "plug in" to manufacturers socket(s). Supplemental wiring must be included in the wiring harness to accommodate additional post-delivery options. Junction panels must be located within a compartment with all circuit breakers easily accessible. All electrical components must be shielded from interference from electromagnetic interference from outside sources.

The vehicle must be equipped with a heavy-duty (12 volt) Multiplex controlled electrical system or equivalent. All components are to be selected and integrated to function in an environment characterized by low engine (alternator) speeds and high amperage draws due to lights, air compressor, wheelchair ramp, 4-way flashers, air conditioning/heater, and other accessories in constant operation. Vehicle systems to be controlled by a multiplex system with Programmable inputs and outputs, system must be capable of communicating to the chassis control modules to provide interlock functionality. Communications must be via J1939 network. System to include diagnostic LED's for troubleshooting.
When routing wiring under vehicle all wiring must be encased in a loom and attached to the frame and sub-floor structure with proper fasteners and must not be bundled with hoses. The harness must run in straight lines as close to chassis frame rails as possible. Any harness that goes over the rear suspension must be encased in a conduit fixture securely fastened to the sub-floor rails or routed inside the frame rails.
The vehicle must be equipped with a disconnect switch that removes 12V battery power from all bodybuilder loads while not interfering with OEM chassis electrical circuits
A legend must be installed on the circuit panel door that displays circuit fusing and identification information.

2.4 BODY CONSTRUCTION

Body Structure - Frame and body structures must meet Federal FMVSS ~~#220~~ standard.
Vehicle must meet FMVSS #217 Federal escape standards. Emergency side exits must include a minimum of one window per side, equipped with a safety release latch and swing out capability, in conformance with the operating characteristics of FMVSS #217. Each emergency exit must have the designation "Emergency Exit" permanently affixed in a manner that must not loosen in normal vehicle operation.
Prior to final assembly, all non stainless steel metal parts must be treated with multiple stage anti-corrosion treatment. All non stainless steel nuts, bolts, clips, washers, clamps, rivets and like parts must be zinc or cadmium plated, or phosphate coated, to prevent corrosion. Use stainless steel where practical.
Wherever threaded fasteners are attached into interior panels only, a reinforcing nut or panel must be installed for added strength and fastener retention.
Welding procedures used throughout the vehicle including materials, methods and personnel must be in accordance with ASTM and American Welding Society Standards.
All handrails, stanchions and auxiliary air conditioners, where attached to wall or ceiling, must be secured directly to the metal frame structure or to reinforcement plates which are secured directly to the frame or embedded securely in the body panels.
Exterior body panels must be aluminized steel, galvanized steel, aluminum, composite or fiberglass with a white finish. Dissimilar metals will be isolated to prevent galvanic action. With the exception of stainless steel, all metal will be pre-treated, primed, and painted to resist corrosion for the life of the vehicle.
Interior must be made of FRP or ABS panels or equivalent. Interior finish must be white, grey or light tone, color coordinated with seats, floor and exterior.
Body must be thoroughly water tested to ensure no leakage. The roofs, windows, windshields, and all seams and joints must be tested as follows: (a) The water test shall consist of a series of nozzles, which are located around the perimeter of the vehicle so as to spray water over the entire surface of the vehicle. (b) The nozzles shall eject a volume of water no less than 2.0 gal/min under a pressure of no less than 40 psi measured at the nozzle tip.

(c) Each vehicle must be water tested as prescribed above for no less than 15 minutes to determine whether there are any body leaks. (d) Corrective action and retesting shall be performed for all vehicles that fails to pass. (e) Documentation shall be furnished for each vehicle delivered under this agreement demonstrating the vehicle has passed the requirements listed above.
Insulation - With unloaded vehicle, driver's area noise level must not exceed 83 decibels at a constant speed of 55 mph.
Floor - The floor must be marine grade plywood or other approved material, 5/8" thick minimum, coated with sealed edges. The floor covering must be coved (or approved equal), slip-resistant transit-floor, gray marble color with ribbed section in aisle and a two(2) inch wide band of yellow contrasting color on step edge and aisle threshold directly behind driver. Floor covering must meet FMVSS 302 and ADA requirements.
Windows must be the largest available transit type passenger windows on each side. Base vehicle must include upper T-slider window. Additional window options may be provided during request for quote process. Windows must have 31% tint.
Driver's side must have a sun visor.
Driver's storage compartment or rack must be provided in driver area.
Entire body must be undercoated and use a non-hardening and non-chipping material except as limited by exhaust requirements. Chassis must be rustproofed to OEM standard. No warranties shall be reduced or limited by the application of undercoating.
Rubber or molded fender splashguards must be installed on rear wheel openings with clearance for standard chains.
Mud flaps must be installed on front and rear (large enough to cover duals).
Bumpers must be installed at both front and rear. The front bumper must be the OEM Bumper. The rear bumper must be steel and painted. Bumper height must be industry standard to provide protection against automobile and vehicle damage. Bumpers must be fastened directly to the vehicle frame.
Towing - Contractor must identify procedures for safely towing a completed vehicle according to chassis manufacturer's recommendation. This procedure shall be supplied to each Authorized Purchaser ordering a vehicle as part of the delivery package/instructions.

2.5 VEHICLE FEATURES

Seating - Standard floor plan is required with the RFP Price Proposal. Detailed floor plans are required with vehicle orders. Exceptions to capacity required to meet other specifications must be noted. Base vehicle must accommodate 10 ambulatory passengers in fixed seats and 1 front mounted wheelchair station.
Passenger Seats - Forward-facing mid-high back double seats, or DAS/Agency approved alternate, secured to the vehicle floor and frame in accordance with FMVSS# 207. Seats must have a minimum of 17 inch cushion width and depth per person.
Contractor must install Aisle side armrests, molded plastic.
Aisle side grab handles, molded plastic, are required to be installed
Seat Belts - Must meet FMVSS #209 and #210. The driver's seat must be equipped with a retracting seat belt. All standard passenger seats must be equipped with either under seat mounted retracting adult

seat belts (USR or equivalent) for vehicles over 10,000 GVWR or 3-point seats belts for vehicles under 10,000 GVWR. Except seats against rear of vehicle, which must have non-retracting seat belts in vehicles over 10,000 GVWR.
Seat materials - All seat materials must meet FMVSS #302. Level-3 vinyl upholstery is standard with color to be selected by purchaser from several available colors or patterns.
Driver's seat must be a fully adjustable high-back OEM bucket seat with right side arm rest, adjustable tilt back and lumbar support with OEM standard pedestal and trim. The seat must be ergonomically designed to help reduce day to day driver fatigue and stress. The seat must covered with black or grey transit cloth fabric.
Priority seating signs and all other ADA required signage must be in place and installed per lift manufacturer and ADA standards.
Ramp - ADA approved, must meet or exceed FMVSS #403 & #404 requirements and all State, Federal, ICC, and ADA requirements. The entry ramp must be designed to let wheelchair and ambulatory passengers enter the vehicle once the ramp is fully deployed. Entry ramp must be 62 inches minimum and provide a 1:6 angle when deployed to the ground. The ramp must be rated at 800 lbs. minimum.
Wheelchair Securement Devices must be automatic, self-tensioning with tensioning knob and self-locking and must comply with all ADA, ANSI/RESNA WC18 and ISO 10542 performance and installation requirements. Wheelchair securement devices provided and the installation thereof, performance pursuant to this specification, must meet or surpass the minimum standards per ADA, ANSI/RESNA WC18 and ISO 10542 requirements, including all shoulder harness mounting hardware. Shoulder harness must have an adjustable height adjuster to compensate for variations in the size of the mobility device or passenger. At no time must the position of the wheelchair securement device or area, 30 inches wide per ADA, ANSI/RESNA WC18 and ISO 10542 specifications when used with a surrogate wheelchair per ADA, SAE and ISO, reduce clear aisle space to less than the dimension allowed by ADA requirements. Wheelchair securement devices must be universal in application for ease of use or approved equal. Minimum wheelchair position must be 30” x 52” for all vehicles. The vendor must make available “L” Track, fixed floor pocket, Slide N Click, In Qline Integrated Winch/Retractor System or approved equal based on desired configuration of the Authorized Purchaser at time of purchase.
Floor track must be an Omni Floor Anchor System or equivalent and must be installed per the customer’s requirements and in accordance with manufacturer's recommendations. Length of floor track must be appropriate to the number of wheelchair stations ordered and the desired configuration. Floor track must be mounted with cadmium plated bolts for corrosion resistance. Wall Track must be surface mount “L” track 6351 grade aluminum or approved equal. Vendor shall provide hands-on training of the tie-down system and provide manufacturer’s maintenance / training information at delivery.
Heating Systems - Dual; one (1) in front which must be the standard heater supplied in the chassis and one (1) rear heater. Rear heater must be rated at 65,000 BTU's minimum controlled at driver's console and must include a heater booster pump. Each heater must be fused and switched separately.
Air Conditioning System - must have chassis OEM factory dash air conditioning plus a rear air conditioner unit to obtain 55,000 BTU minimum, with a minimum of three (3) blower speed settings, controlled at driver's console. Air Conditioning System must use Quick Click Hose system or equivalent.

2.6 VEHICLE LIGHTING

LED Interior Lighting – Six (6) overhead lights, to go on automatically when passenger door is opened and switched at driver's console. Overhead driver switched lights must be mounted above driver's door.

Passenger doorway must be illuminated according to CFR 49 Part 38.31 (ADA) and must be illuminated whenever the door is open.
The ramp area must be equipped with (1) exterior overhead door light and (2) LED Stepwell Lights to illuminate the entry floor/ramp platform meeting ADA specs. These lights must activate when the door is opened and or the ramp is deployed and turn off when the ramp is stowed or the door closed.
Engine compartment must be provided with at least one (1) 10 foot-candle light, conveniently located.
All exterior lights and reflectors to meet Federal Motor Carrier Safety Regulation 393.11. LED lighting package Consisting of: Running/marker Lights, Triple ID Lights, rear Turn Signals, Back-up Lights, Brake Lights (including Center Brake Light), license plate Lights and Tail Lights.
Separate Brake Lights independent of rear hazards.

2.7 MIRRORS AND STANCHIONS

Mirrors – OEM Power, Heated & remote control mirrors shall be installed. Interior OEM rear-view mirror shall be installed to allow driver to see entire interior of vehicle. A separate rear view mirror must be mounted to the drivers' overhead with a minimum 6" x 16" viewing space for passenger viewing.
Rear emergency exit window must be provided for the back of the vehicle to permit the driver to view behind the rear bumper area.
Vertical stanchion and cross rail, with modesty panel, between entry door/ramp and front row of seats. Vertical stanchion must be mounted to floor and ceiling.
Vertical stanchion and cross rail, with modesty panel, behind driver.
All stanchions must be 1 1/4" stainless steel with no sharp edges.
Angled full-length grab rail right and left of entrance door must be installed with stanchions ~~and modesty panels~~ on both sides and modesty panel on left of entry door.
Fire extinguisher - minimum five (5) pound rechargeable, mounted per customer request
First Aid Kit - 24 unit First Aid Kit must be state DOT compliant and in a dustproof container labeled "FIRST AID". Kit must be mounted in an easily accessible location.
Three emergency warning triangles must be installed. Both faces of each triangle must consist of red reflective and orange fluorescent material. Each of the three sides of the triangular device must be 17" to 22" long and 2" to 3" wide. Triangles must be provided in a protective container secured to the vehicle in a location to be determined by the customer.
Backup Alarm must be an electric alarm, activated by reverse transmission setting, with 97 minimum decibels.
OEM, or equivalent, AM/FM/CD Digital Clock Radio with 4 speakers mounted in the passenger compartment.
(1) OEM driver seat belt extender must be included and shipped loose in the vehicle at delivery
(2) 12" minimum passenger seat belt extenders must be included and shipped loose in the vehicle at delivery
(1) Seat belt extender and belt extender to match securement system for wheelchair occupant must be included and shipped loose in the vehicle at delivery
Seat belt cutter, capable of cutting supplied wheelchair securement straps without exposed cutting edge and not usable as a weapon. Mounted to driver dash in reach of driver while seated.
Pre-Wire for 2 way Radio – wires to terminate to right of doghouse

Usable driver's cup holder ~~in doghouse~~ within driver's reach.
The vehicle must come equipped with a 5 camera surveillance system with a minimum 1tb hard drive or equivalent. One camera facing out the front, one camera facing front to back, one camera facing back to front, one camera facing the wheelchair door/securement area and one exterior camera mounted to the rear facing back. There must be a dash mounted rear view monitor, activating when the vehicle placed in reverse that allows the driver to see the rear facing camera. One spare hard drive and a hard driver reader must also be supplied. Please indicate which manufacturer of surveillance equipment must be supplied in the base unit. Interior signage – *Video camera in use* – in both English and Spanish must be installed.
A spare tire and wheel matching the OEM tires must be included and shipped loose in the vehicle at delivery
One set of chassis and body manuals including service and electrical manuals to be delivered with the vehicle at time of delivery. This must include a complete set of as-built wiring diagrams.

2.8 SERVICE, WARRANTIES AND DELIVERY

DESIGNED TO TRANSPORT - The final stage manufacturer shall determine the original seating capacity of each vehicle. The manufacturer's certification label must indicate the original seating capacity of the vehicle and must be affixed to the vehicle in a location protected from wear. The label must state the "Original Seating Capacity - Design To Transport" (number of passengers, including driver) and Gross Vehicle Weight Rating (GVWR) of vehicle.
Maintenance and Inspection Schedule - a single comprehensive maintenance and inspection schedule for each vehicle shall be supplied when delivering the vehicle to the Authorized Purchaser. Maintenance and Inspection schedules must include, but are not limited to, the required maintenance and inspection of body, chassis, tires, wheelchair ramp and other equipment and sub-systems, as prescribed by the respective manufacturers.
Quality - body manufacturer must meet chassis manufacturer's quality assurance program, if available. Certification from chassis manufacturer must be submitted during RFQ process for each chassis.
Tires must be covered by O.E.M warranty.
Wheelchair lift system must be covered by O.E.M warranty.
Vehicle chassis must be covered by O.E.M. warranty.
Body structure materials and workmanship must be covered by O.E.M. warranty.
Installation, labor and workmanship (including electrical) performed by the body manufacturer, final stage manufacturer or vendor (if vendor installs components or otherwise completes vehicle) must be covered by O.E.M. warranty.
All other components and accessory equipment must be covered by a warranty of at least one (1) year/12,000 miles, unless covered by an applicable manufacturer's warranty exceeding this. The Contractor must assist as needed in coordinating repairs within the warranty period for each component and applicable warranty.
Contractor must provide a report of all warranties and excluded warranties associated with each vehicle.
During established warranty periods, Contractor and respective manufacturer shall furnish all warranty parts at no cost to the transit system.
Contractor shall provide the recipient, or a designated representative of the recipient, the opportunity to inspect the vehicle for compliance with these specifications and applicable motor vehicle regulations. The inspection(s) must be completed prior to the delivery and acceptance of the vehicle.

Prior to releasing the vehicle to the recipient, Contractor shall provide hands on instructions, by a qualified and experienced employee, in the proper and safe operation of all mechanical, electrical and hydraulic components in the vehicle. Towing procedures must be included in the instruction. The recipient's driver/designee shall conduct an operational familiarization test drive with Contractor's employee.

2.9 OPTIONAL EQUIPMENT

Attached to Contractor's RFP proposal was a comprehensive listing of optional equipment that is incorporated into the Price Agreement. Authorized Purchasers ordering under this Price Agreement shall be able to select optional equipment from this listing without incurring cost for additional engineering hours for any changes in optional equipment.

3. Specifications for Base Vehicle in Category E-1 High Floor Small, Light Duty

This specification describes a steel cage, narrow body, and high floor, commercial vehicle designed for Commercial or Transit applications that meets all the requirements of ADA and the FMVSS Safety Standards in effect at the time of manufacture. The purpose of these specifications is to describe a small, light-duty vehicle suitable for transporting both ambulatory and non-ambulatory passengers in both rural and urban areas on the Ford Transit or Dodge Ram Pro type chassis. The Light Duty Vehicle must have been submitted to the Altoona Vehicle Test Center for a 4 yr. /100,000 mile Surface Transportation and Uniform Relocation Assistance Act (STURAA) test. Testing must have been completed on current body style being converted.

3.1 DIMENSIONS

The overall minimum length of vehicle, bumper to bumper, must be no less than 20'
Maximum body width is 84" exterior (not including mirrors)
Maximum height from ground to top surface of first step of 10.0 (+/- ½ 1") inches, and the rise on the remaining steps a maximum of 9.0 inches. Step tread must be a minimum of 9.0 inches deep and a minimum of 30 inches wide and meet all ADA requirements.
Passenger door must have a minimum height of 74 inches and the door entrance area must have a clear width opening of at least 30 inches. Passenger door must be electrically actuated at the driver console and come with an exterior weatherproof door switch or key lock. For emergency situations, a manual door release control must be installed over the top of the door, and must be designed to permit simple operations to override the electric door operation.
The minimum interior height must be 74 inches at center aisle with a standard floor
Minimum aisle width is 16 inches; 12 inches minimum is permissible in wheelchair area; 15 inch minimum is permissible adjacent to forward facing fold-away seats and meet all ADA requirements.
Minimum of 27 inches knee-to-hip spacing between passenger seats.
Gross Vehicle Weight Rating (GVWR) of the completed vehicle must not exceed the GVW of the chassis and be appropriate for application described, a full tank of fuel, driver, the number of passengers and wheelchairs described. Any exceptions to this requirement, seating capacity, or any other specification

must be noted. Certified weight of completed vehicle as ordered must be conducted before delivery and a weight slip included. The GVW must be affixed to the completed vehicle.

3.2 CHASSIS

Engine must be gas – 3.6L V6 minimum or DAS PS approved alternate. Drive train must be adequate for GVWR and must maintain 70 mph, except when a lesser speed is recommended by manufacturer. Must be equipped with fast idle.
Per 49 CFR § 393.89, Any driveshaft extending lengthways under the floor of the passenger compartment of a bus shall be protected by means of at least one guard or bracket at that end of the shaft which is provided with a sliding connection (spline or other such device) to prevent the whipping of the shaft in the event of failure thereof or of any of its component parts. A shaft contained within a torque tube shall not require any such device.
Cooling System must have heavy duty capacity to OEM standard specifications and have the maximum freeze protection allowed with the OEM coolant at the OEM recommended mixture.
OEM Automatic Transmission.
Fuel must be OEM standard 24 gallon minimum tank
Easily accessed Fuel pump
Brakes must be heaviest-duty original equipment manufactured, with ABS.
The front end must be aligned, per manufacturers guidelines (toe-in, caster, camber, etc.), and the front wheels balanced after completion of body on chassis. All 4 wheels must be aligned at the manufacturer prior to delivery and a computerized alignment printout shall be supplied with vehicle at delivery.
If OEM provided, all vehicles must have dual rear wheels with tire valve extensions. Single rear wheels will be accepted if OEM doesn't provide dual.
Windshield must be darkest available OEM tint allowed by Oregon law.
As supplied by OEM, Power steering, tilt, steering wheel and speed control must be included. If not supplied by OEM, DASPS may approve vehicle without a tilt steering wheel or speed control.
Vehicle must have a minimum of one power point in driver's control center.
Gauges - full OEM gauge and warning light package including fuel, oil pressure, water temperature, ammeter or voltmeter. Warning lights are acceptable only when gauges are not provided by OEM.
Heavy duty driver's door running board that runs the full length of driver's door fastened to the frame of vehicle.
Vehicle must be equipped with fully automatic lift interlock system with self-diagnostic capability and Inter-motive - ILIS w/integral fast idle or approved equal. Interlock system must comply with Americans with Disabilities Act (ADA) requirements, as set forth in ADA 49CFR 38.23(b), and protected from the weather.
All vehicles must have the exhaust pipe routed out the driver side rear corner of the vehicle in conformance with Federal Motor Carrier Safety Regulations, Part 393.83. Exhaust pipe must not extend beyond the vehicle body or interfere with any tow hooks or other equipment.
Exhaust system must be OEM ~~stainless~~ pipes and muffler with proper heat shielding and baffles. Exhaust pipe extensions must also be ~~stainless~~ OEM steel pipe.

3.3 ELECTRICAL

OEM battery with minimum 70 amp and 600 CCA's (gas) and 70 amp/ 760 CCA's (diesel) total at 0 degrees (F).
Alternator must be a minimum of 200 amps rating.
Electrical wiring must be sized appropriate to load requirements, coded for easy identification and must meet requirements of SAE J1127 & J1128, types GXL, SXL and SGX. Wire harnesses must be protected by plastic convoluted slit looms or equivalent. Harness connectors must be weather resistant "AMP-type" or equivalent plug-in connectors. Circuit breakers must be clearly marked and securely mounted in a panel or fuse block and "plug in" to manufactured socket(s). Supplemental wiring must be included in the wiring harness to accommodate additional post-delivery options. Junction panels must be located within a compartment with all circuit breakers easily accessible. All electrical components must be shielded from interference from electromagnetic interference from outside sources.
When routing wiring under vehicle all wiring must be encased in a loom and attached to the frame and sub-floor structure with proper fasteners and must not be bundled with hoses. The harness must run in straight lines as close to chassis frame rails as possible. Any harness that goes over the rear suspension must be encased in a conduit fixture securely fastened to the sub-floor rails or routed inside the frame rails.
The vehicle must be equipped with a disconnect switch that removes 12V battery power from all bodybuilder loads while not interfering with OEM chassis electrical circuits
Manufacturer must provide a redundant ground between chassis and power unit at a separate location.
A legend must be installed on the circuit panel door that displays circuit fusing and identification information.

3.4 BODY CONSTRUCTION

Body Structure - Frame and body structures must meet Federal FMVSS ~~#220~~ standard.
Vehicle must meet FMVSS #217 Federal escape standards. Emergency side exits must include a minimum of one window per side, equipped with a safety release latch and swing out capability, in conformance with the operating characteristics of FMVSS #217. Each emergency exit must have the designation "Emergency Exit" permanently affixed in a manner that must not loosen in normal vehicle operation.
Prior to final assembly, all non stainless steel metal parts must be treated with multiple stage anti-corrosion treatment. All non stainless steel nuts, bolts, clips, washers, clamps, rivets and like parts must be zinc or cadmium plated, or phosphate coated, to prevent corrosion. Use stainless steel where practical.
Wherever threaded fasteners are attached into interior panels only, a reinforcing nut or panel must be installed for added strength and fastener retention.
Welding procedures used throughout the vehicle including materials, methods and personnel must be in accordance with ASTM and American Welding Society Standards.
All handrails, stanchions and auxiliary air conditioners, where attached to wall or ceiling, must be secured directly to the metal frame structure or to reinforcement plates which are secured directly to the frame or embedded securely in the body panels.
Exterior body panels must be aluminized steel, galvanized steel, aluminum, composite or fiberglass with a white finish.

Dissimilar metals will be isolated to prevent galvanic action. With the exception of stainless steel, all metal will be pre-treated, primed, and painted to resist corrosion for the life of the vehicle.
Interior must be made of FRP or ABS panels or equivalent. Interior finish must be white, grey or light tone, color coordinated with seats, floor and exterior.
Body must be thoroughly water tested to ensure no leakage. The roofs, windows, windshields, and all seams and joints must be tested as follows: (a) The water test shall consist of a series of nozzles, which are located around the perimeter of the vehicle so as to spray water over the entire surface of the vehicle. (b) The nozzles must eject a volume of water no less than 2.0 gal/min under a pressure of no less than 40 psi measured at the nozzle tip. (c) Each vehicle must be water tested as prescribed above for no less than 15 minutes to determine whether there are any body leaks. (d) Corrective action and retesting shall be performed for all vehicles that fails to pass. (e) Documentation shall be furnished for each vehicle delivered under this agreement demonstrating the vehicle has passed the requirements listed above.
Lift Door - Vertically hinged, horizontal swing, double doors - with windows, must be installed for the installation of a wheelchair lift device meeting ADA standards. The location of this door must be on the right side of the vehicle. The height of the lift door must be in compliance with CFR 49 Part 38.25 (ADA) and can accommodate 34" lift platform. The doors must be equipped with gas struts to prevent unintentional closure while operating W/C lift. Lift doors for Base vehicle must be in a rear lift location (behind the wheel wells)
Insulation - With unloaded vehicle, driver's area noise level must not exceed 83 decibels at a constant speed of 55 mph.
Floor - The floor must be marine grade plywood or other approved material, 5/8" thick minimum, coated with sealed edges. The floor covering must be coved (or approved equal), slip-resistant transit-floor, gray marble color with ribbed step treads and ribbed section in aisle and a two(2) inch wide band of yellow contrasting color on step edges and aisle threshold directly behind driver. Floor covering must meet FMVSS 302 and ADA requirements.
Windows must be the largest available transit type passenger windows on each side with an upper T-slider, lower T-slider or other venting capability. Windows must have 31% tint.
Driver's side must have a sun visor.
Driver's storage compartment or rack minimum must be provided in driver area.
Entire body must be undercoated and use a non-hardening and non-chipping material except as limited by exhaust requirements. Chassis must be rustproofed to OEM standard. No warranties shall be reduced or limited by the application of undercoating.
Rubber or molded fender splashguards must be installed on rear wheel openings with clearance for standard chains.
Mud flaps must be installed on front and rear (large enough to cover duals).
Bumpers must be installed at both front and rear. The front bumper must be the OEM Bumper. The rear bumper must be steel and painted. Bumper height must be industry standard to provide protection against automobile and vehicle damage. Bumpers must be fastened directly to the vehicle frame.
Towing - Contractor must identify procedures for safely towing a completed vehicle according to chassis manufacturer's recommendation. This procedure shall be supplied to each Authorized Purchaser ordering a vehicle as part of the delivery package/instructions.

3.5 VEHICLE FEATURES

Seating - Standard floor plan is required with the RFP Price Proposal. Detailed floor plans are required with vehicle orders. Exceptions to capacity required to meet other specifications must be noted. Base vehicle must accommodate 8 ambulatory passengers in fixed seats and 2 rear mounted wheelchair stations with full width track
Passenger Seats - Forward-facing mid-high back double seats, or approved alternate, secured to the vehicle floor and sidewall in accordance with FMVSS# 207. Seats must have a minimum of 17 inch cushion width and depth per person. All vehicles to have track type seat anchorages, to allow users to easily rearrange seating configurations.
Aisle side armrests, molded plastic, are required to be installed
Aisle side grab handles, molded plastic, are required to be installed
Seat Belts - Must meet FMVSS #209 and #210. The driver's seat must be equipped with a retracting seat belt. All standard passenger seats must be equipped with either under seat mounted retracting adult seat belts (USR or equivalent) for vehicles over 10,000 GVWR or 3-point seats belts for vehicles under 10,000 GVWR. Except seats against rear of vehicle, which must have non-retracting seat belts in vehicles over 10,000 GVWR.
Seat materials - All seat materials must meet FMVSS #302. Level-3 vinyl upholstery is standard with color to be selected by purchaser from several available colors or patterns.
Driver's seat must be a fully adjustable high-back OEM bucket seat with right side arm rest, adjustable tilt back and lumbar support with OEM standard pedestal and trim. The seat must be ergonomically designed to help reduce day to day driver fatigue and stress. The seat must be covered with transit cloth or vinyl fabric.
Priority seating signs and all other ADA required signage must be in place and installed per lift manufacturer and ADA standards.
Lift - ADA approved, must meet or exceed FMVSS #403 & #404 requirements and all State, Federal, ICC, and ADA requirements. Fluid used must be Hydraulic Fluid (Texaco #15, Exxon Univis HVI or Mobil Aero HFA or equivalent). Minimum clear dimensions for platform are 34" wide X 51" length. The standard location for the lift is on the curbside, behind the wheel wells. The standard lift must be rated for 800 lbs. minimum.
Wheelchair Securement Devices must be automatic, self-tensioning with tensioning knob and self-locking and must comply with all ADA, ANSI/RESNA WC18 and ISO 10542 performance and installation requirements. Wheelchair securement must be flush mount aluminum “L” track of the highest quality. Wheelchair securement devices provided and the installation thereof, performance pursuant to this specification, must meet or surpass the minimum standards per ADA, ANSI/RESNA WC18 and ISO 10542 requirements, including all shoulder harness mounting hardware. Shoulder harness must have an adjustable height adjuster to compensate for variations in the size of the mobility device or passenger. At no time must the position of the wheelchair securement device or area, 30 inches wide per ADA, ANSI/RESNA WC18 and ISO 10542 specifications when used with a surrogate wheelchair per ADA, SAE and ISO, reduce clear aisle space to less than the dimension allowed by ADA requirements. Wheelchair securement devices must be universal in application for ease of use or approved equal. Minimum wheelchair position must be 30” x 52” for all vehicles sold under this contract. Contractor may make available fixed floor pocket, Slide N Click, InQline Integrated Winch/Retractor System or approved equal based on desired configuration of the Authorized Purchaser at time of purchase.

Floor track must be an Omni Floor Anchor System or equivalent and must be installed per the customer's requirements and in accordance with manufacturer's recommendations. Length of floor track must be appropriate to the number of wheelchair stations ordered and the desired configuration. Floor track must be mounted with cadmium plated bolts for corrosion resistance. Wall Track must be surface mount "L" track 6351 grade aluminum or approved equal. Vendor shall provide hands-on training of the tie-down system and provide manufacturer's maintenance / training information at delivery.
Heating Systems - Dual; one (1) in front which must be the standard heater supplied in the chassis and one (1) rear heater. Rear heater must be rated at 65,000 BTU's minimum controlled at driver's console and must include a heater booster pump. Each heater must be fused and switched separately.
Air Conditioning System - must have chassis OEM factory dash air conditioning plus a rear air conditioner unit to obtain 55,000 BTU minimum, with a minimum of three (3) blower speed settings, controlled at driver's console. Air Conditioning System must use Quick Click Hose system or equivalent.

3.6 VEHICLE LIGHTING

LED Interior Lighting - six (6) overhead lights minimum, to go on automatically when passenger door is opened and switched at driver's console. Overhead driver switched lights must be mounted above driver's door.
Passenger and lift doorways must be illuminated according to CFR 49 Part 38.31 (ADA) and must be illuminated whenever respective door is open.
Engine compartment must be provided with at least one (1) 10 foot-candle light, conveniently located.
All exterior lights and reflectors to meet Federal Motor Carrier Safety Regulation 393.11. LED lighting package Consisting of: Running/marker Lights, Triple ID Lights, rear Turn Signals, Back-up Lights, Brake Lights (including Center Brake Light), license plate Lights and Tail Lights.
Flashing directional signals, self-canceling, must be installed on the front, side (armored) and rear of the coach, and must permit continuous flashing of all directional lights
Separate Brake Lights independent of rear hazards.

3.7 MIRRORS AND STANCHIONS

Mirrors – OEM Power, Heated & remote control mirrors must be installed. Interior OEM rear-view mirror to allow driver to see entire interior of vehicle. A separate rear view mirror must be mounted to the drivers' overhead with a minimum 6" x 16" viewing space for passenger viewing.
Rear emergency exit window must be installed for the back of the vehicle to permit the driver to view behind the rear bumper area.
Vertical stanchion and cross rail, with modesty panel, between entry door and front row of seats. Vertical stanchion must be mounted to floor and ceiling.
Vertical stanchion and cross rail, with modesty panel, behind driver.
On vehicles 22 feet or longer, per ADA, a grab rail must be securely attached to the ceiling the length of the vehicle except for the wheelchair securement area. The ends of the grab rails must be upturned towards the ceiling.

Vertical stanchion and cross rail, with modesty panel floor to ceiling, behind front mounted lift.
All stanchions must be 1 1/4" stainless steel with no sharp edges.
Angled full-length grab rail right and left of entrance door must be installed with stanchions.
Fire extinguisher - minimum five (5) pound rechargeable, mounted per customer request
First Aid Kit - 24 unit First Aid Kit must be state DOT compliant and in a dustproof container labeled "FIRST AID". Kit must be mounted in an easily accessible location.
Three emergency warning triangles must be installed. Both faces of each triangle must consist of red reflective and orange fluorescent material. Each of the three sides of the triangular device must be 17" to 22" long and 2" to 3" wide. Triangles must be provided in a protective container secured to the vehicle in a location to be determined by the customer.
Backup Alarm must be an electric alarm, activated by reverse transmission setting, with 97 minimum decibels.
OEM, or equivalent, AM/FM/CD or Aux mode Digital Clock Radio with 4 speakers mounted in the passenger compartment.
(1) OEM driver seat belt extender must be included and shipped loose in the vehicle at delivery
(2) 12" minimum passenger seat belt extenders must be included and shipped loose in the vehicle at delivery
(1) Seat belt extender and belt extender to match securement system for wheelchair occupant must be included and shipped loose in the vehicle at delivery
Seat belt cutter, capable of cutting supplied wheelchair securement straps without exposed cutting edge and not usable as a weapon. Mounted to driver dash in reach of driver while seated.
Pre-Wire for 2 way Radio – wires to terminate to right of doghouse
Usable driver's cup holder within driver's reach.
The vehicle must come equipped with a 5 camera surveillance system with a minimum 1tb hard drive or equivalent. One camera facing out the front, one camera facing front to back, one camera facing back to front, one camera facing the wheelchair door/securement area and one exterior camera mounted to the rear facing back. There must be a dash mounted rear view monitor, activated when the vehicle placed in reverse that allows the driver to see the rear facing camera. One spare hard drive and a hard driver reader must also be supplied. Please indicate which manufacturer of surveillance equipment must be supplied in the base unit. Interior signage – *Video camera in use* – in both English and Spanish must be installed.
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One set of chassis and body manuals including service and electrical manuals to be delivered with the vehicle at time of delivery. This must include a complete set of as-built wiring diagrams.

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