TECHNICAL SPECIFICATIONS

GENERAL

PURPOSE:

The purpose of these specifications is to describe for purchase, a 2018 or newer 10-14 passenger airport shuttle bus with rear mounted handicap lift. This bus will be used to transport passengers to and from the airport terminal.

INTENT:

It is the intention of this specification to describe a vehicle of substantial and durable construction in all respects. Particular attention is given to feature, which will provide the safest possible vehicle for transporting people. These features include a steel cage, which surrounds the passengers to protect them from accidents.

REQUIREMENTS:

(a) The chassis/vehicle is to be the latest model available.
(b) The engine shall be a 6 cylinder gas or diesel model.
(c) The chassis shall be the heaviest duty available with all possible options to make it a heavy duty vehicle.

COMPLETENESS:

(a) Any part or detail, which makes the vehicle complete and ready for service, shall not be omitted, even though such part or detail is not mentioned in these specifications.

(b) The price quoted in any proposal submitted shall include all items of labor, materials, tools, equipment and other costs necessary to fully complete the manufacture and delivery of the bus pursuant to these specifications.

CONFORMITY:

All units or parts not specified shall be manufacturer's best quality and shall conform in materials, design, or workmanship to the best practice known in the automotive industry. All parts shall be new, and in no case will used, reconditioned or obsolete parts be accepted. The parts on all vehicles provided by the same manufacturer should be interchangeable.

TESTING:

Complete bus and all working and moving parts and operation devices shall be thoroughly tested and put in proper operating condition by the manufacturer.

DIMENSION:

Passenger Capacity (seating):	10-14 Passengers
Overall Length	266.1” Minimum
Overall Width	81.3” Minimum
Overall Height	107.7” Minimum
Interior Height	75” Minimum
Step Height from Ground	12” Maximum
Side Entry Door Dimensions	38” Or Larger Dual Pane Door with 35” Clear Opening.
GVWR	10,360 lbs. Minimum
Wheelbase	147.6” Minimum
Rear Wheels	Dual

ENGINE:

The engine shall be a V-6 gasoline or diesel design, not to exceed 4.0 Liters of displacement.

Engine shall be furnished with a large capacity full flow oil filter easily reached and replaced without removal of any major compartment.

The entire electrical system shall be alternator type. Battery terminals and alternator terminals shall be clearly marked to avoid misconnection and subsequent damage of rectifier. Dual batteries shall be provided.

The engine compartment shall be insulated from the passenger compartment so as to absolutely minimize coach interior noise level, heat and fumes.

Engine shall be furnished with engine cooler.

Battery ground to be located on the frame in same location as batteries. Grounding bolt to be installed through existing hole in frame.

Engine guard equipped, electrically controlled engine shutdown system.

ENGINE MAINTENANCE:

A complete service manual shall be provided with all scheduled maintenance intervals, instructions and any required parts such as oil and transmission fluid checking devices so that PTAA maintenance can perform routine maintenance on vehicle.

FUEL SYSTEM:

Fuel tank shall be a minimum twenty-five (25) U.S. gallon capacity, internally baffled to prevent surging and rigidly supported by at least two (2) supports arranged for easy removal. An engine mounted fuel filter is required with replacement-type.

EXHAUST SYSTEM:

The vehicle shall be equipped with stainless steel exhaust pipes and muffler properly installed with heat shields and baffles. Tailpipe is so designed to direct exhaust towards the rear of the coach.

TRANSMISSION:

Automatic.

FRONT AXLE:

4,130 lbs. or greater.

REAR AXLE:

7,275 lbs. or greater

STEERING:

Hydraulic power-assist with tilt

BRAKES:

Dual circuit, 4wheel disc, ABS hydraulic brake system. Dual piston calipers on front and rear axles. Sliding caliper disc brakes on all wheels. Shall include electric brake pad wear indicator for all wheels. Dash indicator display shall be located on instrument cluster.

WHEELS:

16” or greater steel wheels with 16”or greater stainless wheel covers for each exterior wheel.

TIRES:

Vehicle will be equipped with 6 – 75R16 BSW or greater tires, plus full size spare.

ELECTRICAL SYSTEM:

The electrical systems and equipment shall comply with all applicable FMVSS and shall also conform to all the applicable SAE recommended standards and practices.

Alternator must be at least 220 amp SAE output, single or combined.

Must be equipped with dual batteries.

Electric Junction Panel – A heavy-duty circuit board junction panel shall be provided inside the bus, accessible from the inside through an access cover. Board is to be equipped with heavy-duty 12-volt DC relays and 12-volt DC auto-reset circuit breakers and blade type fuses. Panel is to be equipped with a complete circuit legend.

Bus shall be equipped with a backup alarm.

AM/FM CD player with a minimum of four (4) speakers mounted in the passenger compartment area along with pre-wiring for a 2-way radio which the airport will install.

INSTRUMENTS AND CONTROLS:

The following instruments or lamps are to be provided:

*Ammeter or Voltmeter
*Oil Pressure Gauge
*Fuel Tank Level Gauge
*Engine Temperature Gauge
*Headlight High Beam Indicator
*Directional Signal and Flasher action light

All instruments are to be grouped on a single panel in full view of the driver with no instruments obstructed by controls, trim panels or other appurtenances and arranged in a consistent uniform manner.

The following controls, in addition to the normal steering, braking and transmission functions are to be provided.

*Column mounted turn signals

*Emergency flasher facing the driver/clearly visible
*Door control at driver location
*Master exterior light switch
*Separate switch and temperature controls for the driver heater and defrost
*Two-speed wiper control with intermittent feature
*Windshield washer
*Passenger compartment lights

DOOR:

The vehicle shall be equipped with a premium electric passenger entrance door with minimum 38"outward opening, 35" clear opening.

WINDSHIELD AND WINDOWS:

All windows must meet State and Federal safety standards AS-1, AS-2 and AS-3.

Windows on each side must be able to meet FMVSS 217 for emergency access as required.

Passenger windows are to be dark tinted.

HEATER:

The heating system shall have at least two (2) unit type heaters; one (1) located in the driver's area (chassis supplied) and one (1) in the passenger area.

Heaters are to be individually controlled by three (3) position switches: low, high, off and be controlled from the switch panel.

Provisions shall be made for windshield defrosting adjustable output within reach of the driver.

AIR CONDITIONING:

Automotive in-dash style front air conditioning and a separate rear auxiliary air conditioning system shall be provided.

Upgraded Carrier or equal, A/C system, with a under vehicle mounted condenser.

INTERIOR LIGHTING:

The basic lighting configuration shall include: a driver's compartment dome light, instrument panel lights, switch panel back lighting, LED lights for the passenger area, and LED step-well lights that adequately illuminates the step-well area with the door open and will be wired to automatically activate when the passenger door is open.

EXTERIOR LIGHTING:

All exterior lights must meet State and U.S.D.O.T. requirements.

A license plate light shall be provided on the rear of the vehicle along with two (2) backup lights.

FLOORING:

Gray Altro non-skid brand or equivalent flooring, to cover entire floor area for safety and durability. No smoking signs to be installed on customer entry side door steps.

INTERIOR:

The interior is to provide a pleasant aesthetically pleasing atmosphere.

Interior walls shall provide a decorative durable finish that coordinates with the vehicle interior color scheme. Interior walls shall be covered with FRP or equal.

The headliner shall be covered with a automotive grade fabric that coordinates with the vehicle interior color scheme.

All stanchions shall be stainless steel clad and shall be securely fastened into the structural members at all mounting points. Stanchions shall not be mounted to sheet metal, fiberglass or other non-reinforced areas.

A driver's sun visor shall be provided.

A minimum 70" two tier carperted interior luggage rack shall be mounted behind the driver.

There shall be overhead handrails installed in the ceiling for added customer convenience and safety.

There shall be handrails located on both sides of the entry door way.

SEATS:

Airport shuttle package to include 10-14 aisle facing seats with grey level 4 leather mate or equal vinyl covering. 4-6 of the rear seats may be fold down to accommodate handicap lift.
Briefcase rack to replace front right passenger seat next to driver.

HANDICAP LIFT

Lift shall be of the latest design, ADA compliant, rear mounted with tie down straps.

EMERGENCY EQUIPMENT:

Vehicle must be provided with a 5 lb. ABC rated fire extinguisher, 16-unit first-aid kit and a triangle reflector hazard kit.

MUD FLAPS:

Mud flaps shall be installed behind the front and rear wheels.

EXTERIOR PAINT & GRAPHICS:

The proposer shall quote a dark Blue exterior color and current Airport Authority bus wrap design as shown in the included pictures of current Airport shuttle bus #2. The successful bidder shall also match all Airport graphics and logos.

MISCELLANEOUS TEHCNICAL SPECIFICATIONS:

There shall be no sharp corner on the unit that will cause injury to the passengers. All corners that can cause injury shall be rounded or padded.

Welds shall be relatively free of slag inclusions and undercut. Fillet welds size shall be equal to the thickness of the least of the jointed parts.

No wires shall be visible on the exterior or interior of the bus.

The body shall be free of all cracks, dents and defects due to metal fatigue or physical damage.

BODY WARRANTY:

Manufacturer will provide a minimum of one (1) year/12,000 miles parts and labor warranty to cover all components and parts of the vehicle. It is the purpose of these specifications to provide a bus that will provide many years of service. The manufacturer shall warranty the bus body structure for a period of at least five (5) years or 75,000 miles.

SERVICE:

A factory authorized service and repair center for the Transit-350 HD that will perform all warranty and heavy maintenance work, must be located within thirty (25) miles of the airport.

WARRANTIES:

Body Structure – Five (5) years/75,000 miles
Body Components & Parts – One (1) year/12,000 miles
Main Electrical Wiring Harness – Two (2) years/Unlimited
Air Conditioning – Two (2) years/Unlimited miles.
Corrosion – Six (6) years/100,000 miles
Environmental Fallout – One (1) year/12,000 miles
Seat Frame and Upholstery – Two (2) years/Unlimited miles

SHUTTLE OPERATIONAL FUEL AND MAINTENANCE COST

Proposer shall include annual and 5 year fuel and maintenance cost projections of proposed vehicle based on the following criteria :

Average daily mileage - 150

Average annual mileage – 55,000

Average speed – 15 to 45 mph

Average load – 1 to 3 passengers plus luggage.