Group 40523-22945, BUSES, TRANSIT (Adult Passenger)
Appendix D: Number 2: *Contract Pricelist (09/15/2019)*

A summary of the Lots and awarded Transit Buses is on this page. The following pages include specifications for the awarded Transit Buses and associated Optional Equipment, which are supplemental to the minimum specifications set forth in Contract Section III.2 *Transit Bus Requirements*. The Contractors shall offer the Transit Buses and associated Optional Equipment awarded for each Lot at the Base Item Unit Prices and Optional Equipment Unit Prices set forth in this contract price list.

LOT	LOT A	LOT B	LOT C	LOT D	LOT E
Lot/Item Description	**Low Floor Vehicle <10,000 lb.**	**High Headroom Wagon <10,000 lb.**	**Single Rear Wheel Cutaway**	**Dual Rear Wheel Cutaway <22 ft.**	**Dual Rear Wheel Cutaway <22 ft.**
Min. Passenger Capacity [Ambulatory (A) plus Wheelchairs (WC)]	**4 Passenger [3A/1WC]**	**7 Passenger [6A/1WC]**	**7 Passenger [6A/1WC]**	**9 Passenger [8A/1WC]**	**11 Passenger [10A/1WC]**
Contractor	Shepard Bros.	Fenton Mobility Products	Shepard Bros.	Shepard Bros.	Shepard Bros.
Contract Number	PC67314	PC67312	PC67314	PC67314	PC67314
Chassis Model Year	2017	2016	2016	2016	2016
Chassis Make	Dodge	Ford	Ford	Ford	Ford
Chassis Model	Grand Caravan	Transit 350	E350	E350	E350
Chassis Model Code	29S SE	X2X	E3F	E3F	E3F
Body Model Year	2017	2016	2016	2016	2016
Body Make	BraunAbility	Ford	Coach & Equipment	Coach & Equipment	Coach & Equipment
Body Model	Entervan	Transit 350	Phoenix SRW Metrolite	Phoenix	Phoenix
Body Model Code	N/A	X2X	N/A	N/A	N/A
Base Item Unit Price	$41,871.27	$58,248.19	$50,598.40	$52,611.62	$54,402.93
Estimated Delivery Time	120-180 Days ARO	28-112 Days ARO	120-210 Days ARO	120-210 Days ARO	120-210 Days ARO

LOT	LOT F	LOT G	LOT H	LOT I	LOT J
Lot/Item Description	**Low Floor Cutaway**	**Dual Rear Wheel Cutaway >22 ft.**	**Dual Rear Wheel Cutaway >22 ft. (Alternate Fuels)**	**Medium Duty Cutaway**	**Conventional Style**
Min. Passenger Capacity [Ambulatory (A) plus Wheelchairs (WC)]	**17 Passenger [15A/2WC]**	**16 Passenger [14A/2WC]**	**16 Passenger [14A/2WC]**	**20 Passenger [18A/2WC]**	**24 Passenger [22A/2WC]**
Contractor	Alliance Bus Group	Shepard Bros.	N/A; This Lot Discontinued	N/A; This Lot Discontinued	Matthews Bus Alliance, Inc.
Contract Number	PC67311	PC67314			PC67795
Chassis Model Year	2016	2016			2017
Chassis Make	Chevy	Ford			Freightliner Custom Chassis
Chassis Model	Express 4500 GM Cutaway	E450			S2C
Chassis Model Code	CG33803	E4F			N/A
Body Model Year	2016	2016			2017
Body Make	Arboc SV	Coach and Equipment			Champion
Body Model	Spirit of Mobility	Phoenix			Defender
Body Model Code	N/A	N/A			S2C
Base Item Unit Price	$137,108.80	$59,973.04			$119,774.56
Estimated Delivery Time	180-210 Days ARO	120-210 Days ARO			120-150 Days ARO

LOT	LOT K	LOT L	LOT M
Lot/Item Description	**Conventional Style**	**Low Floor (Front Engine)**	**Low Floor (Rear Engine)**
Min. Passenger Capacity [Ambulatory (A) plus Wheelchairs (WC)]	**28 Passenger [26A/2WC]**	**25 Passenger [23A/2WC]**	**35 Passenger [33A/2WC]**
Contractor	Matthews Bus Alliance, Inc.	Empire Bus Sales	Empire Bus Sales
Contract Number	PC67795	PC67538	PC67538
Chassis Model Year	2017	2016	2016
Chassis Make	Freightliner Custom	IC (International)	Eldorado
Chassis Model	S2C	TC	EZ-Rider II Max
Chassis Model Code	N/A	N/A	35
Body Model Year	2017	2016	2016
Body Make	Champion	Eldorado National	Eldorado
Body Model	Defender	Passport	EZ-Rider II Max
Body Model Code	S2C	35HD	35
Base Item Unit Price	$123,334.67	$254,104.74	$349,732.50
Estimated Delivery Time	120-150 Days ARO	180-210 Days ARO	180-210 Days ARO

Contractor: Shepard Bros. Inc.

LOT A

Low Floor Vehicle<10,000 lbs., 4 Passenger (3 adults/1 wheelchair)

PART 1: Product information for the Base Item awarded		
Chassis Model Year	The year used to designate a discrete Chassis Model, irrespective of the calendar year in which the Chassis was actually produced.	2017
Chassis Make	The OEM company name of the Chassis Model.	Dodge
Chassis Model	A particular brand of Chassis sold by an OEM.	Grand Caravan
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	29S SE
Body Model Year	The year used to designate a discrete Body Model, irrespective of the calendar year in which the Body was actually produced.	2017
Body Make	The OEM company name of the Body Model.	BraunAbility
Body Model	A particular brand of Body sold by an OEM.	Entervan
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	N/A

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §34, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section III.1 Price for additional information about Contract pricing.	$41,871.27

PART 3: Base Item Specifications

The terms and conditions in Contract Section III.2 *Transit Bus Requirements* shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information provided in Column D	Spec for Equipment Provided
General	Capacity: Minimum 3 adult passenger seats plus 1 wheelchair station	Capacity:	3 Ambulary, 1 Wheelchair, plus Driver
General	Floor plan matches "Figures" tab	Manufacturer Floor plan #	N/A
General	Drive configuration: Low floor Converted Van or MPV		Low Floor Converted Van
General	Have completed federal STURAA (Altoona) bus testing of not less than five (4) years/100,000 miles or have been certified as exempt as specified under FTA provisions.		
General	Vehicle shall be manufactured and classified as a passenger vehicle.		
General	Vehicle shall be in compliance as defined as ambulettes under NYCRR Part 720-721 regulations		
General	GVWR: 5,000 lb. minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lbs]:	6050
General	Wheelbase: 121 in. (plus or minus 5")	Wheelbase [inches[:	121.2
General	Minimum 58" continuous passenger aisle headroom	Headroom [inches]:	58
Chassis (see specifications below)			
Engine	Minimum 3.0 liter gasoline engine rated minimum 250 HP x 250 lb. ft. torque.	Number of Cylinders:	6
		Liters:	3.6L
		Horsepower and Torque:	283 HP, 260 Torque
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 5 gallons) 25-gallon fuel tank		20
Cooling System	Chassis manufacturers heaviest duty cooling system available for chassis supplied and protected to minus 30°F;		-34
Electrical	Minimum 150 amp OEM alternator	Alternator Capacity [amps]:	160
Electrical	Minimum 650 CCA battery which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative);	Rating of Batteries [at 0 F]:	700
		CCA each battery:	730
		Minutes RC:	N/A
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	OEM supplied automatic transmission	Transmission Model #:	6-Speed Automatic 62TE Transmission
Front Axle	Minimum Front Gross Axle Weight Rating (FGAWR) 2,500lbs.	FGAWR:	3,100
Rear Axle	Minimum Rear Gross Axle Weight Rating (RGAWR) 2,750lbs.	RGAWR:	2,950
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	OEM supplied	Front Spring Rating [lbs]:	2,950
		Rear Spring Rating [lbs]:	3,100
Shock Absorbers	Heavy Duty	Make and Model #:	OEM
Brakes	ABS power brakes meeting Federal Motor Vehicle Safety Standard FMVSS 135.	Service Brakes [total lining or sweep area] both front & rear:	Power Disc-Front 11.9x1.1. Power Disc-Rear 12.0x0.5.
Parking Brake	Foot-operated parking brake		
Tires/Rims	OEM supplied all-season radial tread or rib tread w/mud and snow rear, as required to meet the GVWR specified. A matching full size spare tire and rim shall be included.	Radial Tires [size]:	225/65R17
		Radial Tires [load]:	104
		Radial Tires [range]:	65,000
		Radial Tires [manufacturer]:	Kumho Solus
		Front Tires [tread design]:	BSW Touring
		Front Tires [capacity/tire]:	1984
		Rear Tires [tread design]:	BSW Touring
		Rear Tires [capacity/tire]:	1984
Front Bumper	Front bumper may be OEM chrome or high density rubber/plastic and affixed to body using corrosion resistant material hardware with rustproofing applied to finished installation.	Front Bumper [material]:	Plastic
		Front Bumper [manufacturer]:	OEM

Contractor: Shepard Bros. Inc.

LOT A

Low Floor Vehicle<10,000 lbs., 4 Passenger (3 adults/1 wheelchair)

Rear Bumper	Rear bumper shall be stainless steel or high density rubber/plastic and shall be affixed to body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]:	Plastic
		Rear Bumper [manufacturer]:	OEM
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the vehicle and shall comply with SAE J686.		
Steering	Power steering with adjustable starring wheel	Turning Diameter [at end of front bumper]:	19.6
Interior Equipment	OEM dash air conditioning, defroster, and heating system		
Interior Equipment	OEM rear view camera		
Radio	Manufacturer's standard AM/FM/CD Digital Clock Radio, with 4 cabin speakers.	Manufacturer:	OEM
		Model #:	430
Exterior Equipment	OEM cruise control		
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or fobs		
Body (see specifications below)			
Driver/Front Passenger Doors	Standard Factory OEM equipment		
Rear Passenger Doors	Manually operated or power sliding single left and right side mounted doors with a minimum of 56" clear height entry (no steps).		
Doors/Windows	OEM power windows and power locks		
Body Structure	If body on frame construction, body structure shall be in full compliance with Title 17 NYCRR Part 720.4(b)(1). A van body that is part of an overall unibody construction, then modified, is acceptable, provided the modification incorporates a stainless steel floor and door extensions. Certification of compliance with all Federal Motor Vehicle Safety Standards for passenger vehicles under 10,000lbs., plus documentation consisting of detailed explanation and dimensional drawing supporting the body structures shall be supplied with bid submission.	Exterior Siding [material/thickness]:	Aluminized Steel
		Interior Paneling [material/thickness]:	Aluminized Steel
		Insulation [material/R Value]:	N/A
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	0, Front Wheel Drive
Exterior Equipment	Reverse alarm		
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior body lights must meet current SAE standards and be armored (or low-profile design or sufficiently body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door.		
Exterior Mirrors	Driver's side and curbside exterior mirrors shall be remote controlled. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature.	Manufacturer:	OEM
		Model #:	5113409AJ
Interior Mirror	OEM rear view mirror shall be provided		
Windows	OEM supplied. Rear window shall include a defogger/defroster with wiper/washer		
Floor Covering Material	Shall be a durable nonskid transit type flooring. The floor covering shall be butt jointed and cemented to the floor with a waterproof adhesive. Mobility aid restraint tracks and seat locks shall be beveled, with no sharp edges.		
Passenger Entry	Shall be a low height and comply with ADA 1192. (no entry steps)	Top of floor above ground [inches]:	12
Passenger Access Door(s)	Door(s) shall comply with FMVSS 217. A passenger entry door located on the curbside (right side of vehicle) shall be wheelchair accessible. All items, including lighting, handrails, and interlock shall be in compliance with the American's with Disabilities Act (ADA) and FMVSS Nos. 403 & 404 and Title 17 NYCRR 720 and 721.	Entrance Door clear opening [inches]:	56
Interior	Material and treatments shall be flame retardant to meet FMVSS 302. Side panel and ceiling shall be finished with matching trim and color, and have smooth finishes without any unprotected sharp edges.		
Insulation	Fiberglass, resin-hardened-honeycomb (FRP) material, polyurethane, or closed cell EPS foam insulation in walls and ceiling (minimum R-value of R-6).		
Ramp	The ramp shall meet the requirements of Part 38 of the Americans with Disabilities Act relating to vehicle ramps. Power switches for ramp shall be provided and easily accessible on both the driver console and near passenger entry opening. Ramp shall deploy through the main passenger entry opening and be protected from moisture and debris from underside and sufficiently insulated to protect interior noise level. The ramp shall be of aluminum or stainless steel construction. The ramp must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the ramp shall be provided in the event of a power failure.	Manufacturer:	BraunAbility
		Model #:	E515DSA3050
Ramp Slope	Maximum ratio of 1:4 slope when ramp is deployed to sidewalk or roadway		
Interlock	An OEM interlock system shall be supplied that conforms with ADA requirements and NYCRR Part 720-721 regulations (IFB III.2.1 D.) and FMVSS 403 and 404. A manual override system in case of power failure shall also be provided. Ramp electric system shall be protected with fuse or circuit breaker. Labeled dash mounted visual alarm (in compliance with Chapter VI, Article III, Parts 720/721, NYCRR) to indicate special service door is not fully closed, shall be provided.		
ADA Compliance	All features required for a demand-response application shall be included in the base vehicle in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs.)		
Lighting- Driver Dome Light	OEM supplied.		
Lighting (Interior)	OEM supplied and meet ADA requirements.		
Heater	Sufficient BTU capacity heater shall be provided to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F.	Manufacturer:	OEM
Air Conditioning	OEM chassis supplied, for cooling and moisture removal from the windshield and drivers area.	Manufacturer:	Design Press

Contractor: Shepard Bros. Inc.

LOT A

Low Floor Vehicle<10,000 lbs., 4 Passenger (3 adults/1 wheelchair)

	The system shall consist of one evaporator installed in the front area with integral dash outlets and with rear outlet designed to direct the air throughout the vehicle.	Model #:	10SR17C
		A/C Capacity [Body BTUH]:	N/A
		A/C Airflow [Body CFM]:	N/A
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Driver Seat Manufacturer	OEM
		Driver's Seat Model #:	N/A
Seating	Upholstered transit type seats for a minimum of three (3) adult passengers. See specifications below and floorplan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		
Seating	Seating: OEM supplied mid-high back bench adult passenger seat shall be supplied. All passenger seats shall be of durable vinyl or Compatible Equivalent type materials that can be cleaned easily, and fully padded for occupant comfort and retention.	Manufacturer:	OEM
		Model #:	N/A
Seating	An approved retractable style integrated 3-point lap and shoulder seat belt shall be provided for each seating space and shall be in compliance with FMVSS 209 & 210. Belt retractors must not interfere with seating space, and two (2) seat belt extensions shall be provided with each vehicle.		
Wheelchair & Wheelchair Occupant Restraints	One (1) Wheelchair Restraint Systems (Wheelchair and Wheelchair Occupant) shall be provided and installed and designed for "Omni" or "L" track systems. Occupant restraint system (including lap belt, shoulder belt with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belt, and retractable shoulder belt with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-1007, Q-1008, or Sur-Lok AL812S-4C or AL860S-4C-SNC, or Compatible Equivalent. Individual storage pouches shall be provided to completely secure belts/straps on bus sidewalls when not in use. All items shall be installed in accordance with manufacturer's standards and be in compliance with the American's with Disability Act, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the vehicle interior at a minimum of one restraint position.	Manufacturer:	Q'STRAINT
		Model #:	8-1000
Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver's seat position) in the front entry area of the vehicle. Equipment location shall be clearly identified.		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]:	3
		Chassis Warranty[miles]:	36,000
Vehicle Body Warranty	Covering the integrity of the vehicle body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of five (5) years or 150,000 miles.	Body Warranty [years]:	5
		Body Warranty [miles]:	150,000
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The chassis OEM air conditioning system coverage falls under the chassis warranty.	Air Conditioning Warranty [years]:	Chassis 3yr/36k Cabin 2yrs/Unlimited mileage
Wheelchair ramp warranty	The ramp shall be fully guaranteed by the manufacturer for three (3) years (with no mileage or hour limits).		3 Years Unlimited Miles

PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section III.2 *Transit Bus Requirements* . See Section III.1.2 *Optional Equipment Unit Price* for pricing information relative to Optional Equipment.

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price
Manual Wheelchair Ramp	ILO standard power ramp, install an ADA compliant manual ramp			-$1,646.59
Camera Security System- 6 monitor	Provide and install a complete camera recording system, including software kit. Components include an 8-channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of 5 vehicle functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of 2 exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus 4 interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for 1 or more vehicles with matching camera system. Minimum components include software, mouse, 5-6" monitor, HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR:	Seon	$3,125.95
		Manufacturer and Model # of interior camera head:	Seon CJ904A20 CQ903A20 CQ903A50	
		Manufacturer and Model # of exterior camera head:	Seon CA904E120	

Contractor: Fenton Mobility Products Inc.

LOT B

High Headroom Wagon <10,000 lbs., 7 Passenger (6 adults/1 wheelchair)

PART 1: Product information for the Base Item awarded		
Chassis Model Year	The year used to designate a discrete Chassis Model, irrespective of the calendar year in which the Chassis was actually produced.	2016
Chassis Make	The OEM company name of the Chassis Model.	Ford
Chassis Model	A particular brand of Chassis sold by an OEM.	Transit 350
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	X2X
Body Model Year	The year used to designate a discrete Body Model, irrespective of the calendar year in which the Body was actually produced.	2016
Body Make	The OEM company name of the Body Model.	Ford
Body Model	A particular brand of Body sold by an OEM.	Transit 350
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	X2X

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §34, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section III.1 Price for additional information about Contract pricing.	$58,248.19

PART 3: Base Item Specifications

The terms and conditions in Contract Section III.2 *Transit Bus Requirements* shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information provided in Column D	Spec for Equipment Provided
General	Capacity: Minimum 6 adult passenger seats plus 1 wheelchair station	Capacity:	6
General	Floor plan matches "Figures" tab	Manufacturer Floor plan #	AbiliTrax
General	Drive configuration: High Headroom Passenger Wagon or MPV		
General	Have completed federal STURAA (Altoona) bus testing of not less than five (4) years/100,000 miles or have been certified as exempt as specified under FTA provisions.		
General	Original "as built" vehicle shall be manufactured and classified as a passenger vehicle.		
General	Vehicle shall be in compliance as defined as ambulettes under NYCRR Part 720-721 regulations		
General	GVWR: 9,000 lb. minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lbs]:	9000
General	Wheelbase: 148 in. (plus or minus 3")	Wheelbase [inches[:	148"
General	Minimum 75" continuous passenger aisle headroom	Headroom [inches]:	77"
Chassis (see specifications below)			
Engine	Minimum 3.7 liter V6 gasoline engine rated minimum 250 HP x 250 lb. ft. torque.	Number of Cylinders:	6
		Liters:	3.7
		Horsepower and Torque:	275/260
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 2 gallons) 25-gallon fuel tank		
Cooling System	Chassis manufacturers heaviest duty cooling system available for chassis supplied and protected to minus 30°F;		
Electrical	Heavy Duty OEM- Minimum 220 amp alternator	Alternator Capacity [amps]:	250 amps
Electrical	Dual Heavy Duty Batteries-Minimum 650 CCA which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative);	Rating of Batteries [at 0 F]:	760 at 0 F
		CCA each battery:	760 each
		Minutes RC:	120 Minutes
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	6-speed automatic transmission	Transmission Model #:	6 SD Auto SST
Front Axle	OEM Front Gross Axle Weight Rating (FGAWR)	FGAWR:	4130 lbs
Rear Axle	OEM Rear Gross Axle Weight Rating (RGAWR)	RGAWR:	5730 lbs
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	OEM supplied	Front Spring Rating [lbs]:	2065 lbs each
		Rear Spring Rating [lbs]:	2757.50 lbs each
Shock Absorbers	Heavy Duty	Make and Model #:	Macpherson
Brakes	ABS power brakes meeting Federal Motor Vehicle Safety Standard 49CFR571.105	Service Brakes [total lining or sweep area] both front & rear:	329.68 Front Sweep Area / 302 Rear Sweep Area 631.68
Parking Brake	Foot-or hand-operated parking brake		
Tires/Rims	OEM supplied Steel Wheel with Full Silver Wheel Covers plus all-season radial tread or rib tread w/mud and snow rear, as required to meet the GVWR specified. A full size spare tire and rim shall be included.	Radial Tires [size]:	235/65 R16C
		Radial Tires [load]:	3195 lbs
		Radial Tires [range]:	E
		Radial Tires [manufacturer]:	235/65 R16C
		Front Tires [tread design]:	All Season
		Front Tires [capacity/tire]:	3195 lbs
		Rear Tires [tread design]:	All Season
		Rear Tires [capacity/tire]:	3195
Front Bumper	Front bumper may be OEM chrome or high density rubber/plastic and affixed to body using corrosion resistant material hardware with rust proofing applied to finished installation.	Front Bumper [material]:	ABS Plastic
		Front Bumper [manufacturer]:	OEM Ford

Contractor: Fenton Mobility Products Inc.

LOT B

High Headroom Wagon <10,000 lbs., 7 Passenger (6 adults/1 wheelchair)

Rear Bumper	Rear bumper shall be stainless steel or high density rubber/plastic and shall be affixed to body using corrosion resistant material hardware with rust proofing applied to finished installation.	Rear Bumper [material]:	ABS Plastic
		Rear Bumper [manufacturer]:	OEM Ford
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the vehicle and shall comply with SAE J686.		
Steering	Power steering with adjustable steering wheel	Turning Diameter [at end of front bumper]:	48'
Interior Equipment	OEM dash air conditioning, defroster, and heating system		
Interior Equipment	OEM rear view camera		
Radio	Manufacturer's standard AM/FM/CD Digital Clock Radio, with 4 cabin speakers.	Manufacturer:	Ford
		Model #:	AM/FM/SGL-CD
Exterior Equipment	OEM cruise control		
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or fobs		
Body (see specifications below)			
Driver/Front Passenger	Standard Factory OEM equipment		
Passenger/Lift Door	Manually operated sliding curb side (right side) door with window. Minimum clear dimensions shall be 62" vertical and 50" horizontal		
Windows	OEM supplied windows all around with 4th row flip open glass.		
Body Structure	Shall be a Unibody construction design. Provisions shall be made to ensure full side airbag deployment with all required specified equipment (wheelchair lift, barriers, etc.) Certification of compliance with all Federal Motor Vehicle Safety Standards for passenger vehicles under 10,000lbs., plus documentation consisting of detailed explanation and dimensional drawing supporting the body structures shall be supplied with bid submission.	Exterior Siding [material/thickness]:	Steel
		Interior Paneling [material/thickness]:	ABS Plastic
		Insulation [material/R Value]:	Insulation
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	2
Exterior Equipment	Reverse alarm		
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior body lights must meet current SAE standards and be armored (or low-profile design or sufficiently body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door.		
Mud Flaps (Front and Rear)	Shall be manufacturers standard. Labeling and Advertising is prohibited, other than for necessary safety information		
Exterior Mirrors	Driver's side and curbside exterior mirrors shall be heated and remote controlled. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature.	Manufacturer:	Ford
		Model #:	542
Interior Mirror	OEM rear view mirror shall be provided		
Floor Assembly	An Abilitrax floor system or Compatible Equivalent shall be installed to include a series of longitudinal, parallel floor mounted steel tracks. The system shall be capable of accepting L style wheelchair tiedown systems and passenger seat bases throughout the floor. The floor base shall be constructed of a water resistant composite material, and the floor tracks of A1011 HSLA 50 (High Strength Low Alloy) materials. The floor system shall incorporate heating ducts and heat registers. It shall also include a cavity that allows the wheelchair lift power and interlock signal wires to be routed through the floor, allowing the lift to be changed from a rear entry to a side entry application without drilling holes through the floor system.		
Floor Covering Material	Shall be a durable nonskid transit type flooring.		
Entrance Step	Shall be a low height (lowest practical) running board, installed on the curb (right) side, continuous full length for entry assist at both the front sedan and side sliding doors.	Top of first step above ground [inches]:	Driver/Pass. Door 11" Cargo Door 12"
Door Entry Grab Rails (right and left side)	If not OEM supplied, dual entry grab rails shall be installed at the designated entry door. Handrails shall be securely fastened. A minimum 1 ¼ " diameter a high visible yellow stainless steel powder coated material, or non-slip Compatible Equivalent shall be used.		
Twin Rear Doors	OEM twin doors shall be located in the rear of the vehicle and when used as an emergency exit door, in compliance with FMVSS 571.217 and title 17 NYCRR Part 720.5 and 720.8 requirements. When the vehicle is designed such that the emergency door can be locked and not unlocked when the door latch is operated, then an interlock system must be installed to prevent the propulsion unit from starting, or after the vehicle is started, then an audible or visible alarm must be activated. If an interior locking device (vandal lock or equivalent) is provided for emergency exit door(s), then appropriate interlocking must be provided as indicated above. Each door shall include a window and a positive fastening device to hold door in the open position ("hold open" feature) when a rear wheelchair lift is installed. A reflective device for each door shall occupy at least 14 square inches and provide maximum visibility when the doors are open.		
Padded Panels	Shall be provided, attached to a vertical and horizontal stanchions where appropriate. The gap between the floor and bottom of the panel shall be 5 inches +- .5 inch.		
Insulation	OEM supplied in walls and ceiling.		
Wheelchair Lift Door	Wheelchair area opening height shall be a minimum of 56". All items, including lighting, shall be in compliance with the American's with Disabilities Act (ADA) and FMVSS Nos. 403 & 404.		
Wheelchair Lift	The wheelchair lift shall be automatic electric/hydraulic type (power-up, gravity down) using dual hydraulic cylinders. The hydraulic reservoir capacity shall be at least 1 quart, with easy access for inspection and servicing. The maximum power draw shall not exceed 70 amps at 12 volts. Wheelchair lift unit shall be a Public Use Lift and shall be installed in accordance with manufacturer's standards. The lift must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the lift shall be provided in the event of a power failure.	Manufacturer:	Ricon
		Model #:	K2010 Titanium
Wheelchair Lift	Shall be capable of a minimum of 2500 cycle operation with a minimum of 1,000lb. load.		

Contractor: Fenton Mobility Products Inc.

LOT B

High Headroom Wagon <10,000 lbs., 7 Passenger (6 adults/1 wheelchair)

Wheelchair Lift	Platform size shall be minimum 34" x 54" (of useable space) and lift capacity shall be minimum 1,000 lbs. Wheelchair lift platform shall be constructed of expanded metal grating with left and right side 2 ½" high safety stops plus a spring loaded or power activated ADA front stop. A pendent type operating control with a cable length sufficient to allow operation of lift at outermost platform position shall be provided. Lift platform shall be automatic power fold/unfold design.		
Wheelchair Lift	A transmission interlock system that utilizes intermittent fault filter technology shall be installed to prevent operation of the lift unless door(s) are opened and transmission is in park with parking brake applied. A manual override system in case of power failure shall also be provided. Lift electric system shall be protected with fuse or circuit breaker.	Manufacturer: Model #:	Intermotive ILISC515-AD
Wheelchair Lift	The spring load, deck end, stop shall be retracted while the lift deck is in the load/unload (down) position. This shall enable the operator to load the lift without holding the stop in its retracted position.		
Wheelchair Lift	Two (2) folding handrails on lift platform measuring approximately 30" Height x 8" Length (minimum) shall be provided. Handrails shall not reduce platform size.		
Wheelchair Lift	Labeled dash mounted visual alarm (in compliance with Chapter VI, Article III, Parts 720/721, NYCRR) to indicate special service door is not fully closed, shall be provided.		
Wheelchair Lift	Shall be fully guaranteed by manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency.		
Wheelchair Lift Barrier	Protective panel shall be provided as needed to prevent shearing action between the lift platform and vehicle floor or door jams in conformance with Title 17 NYCRR Part 720.8(a)(3)(b).		
ADA Compliance	All features required for a demand-response application shall be included in the base vehicle in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs.)		
Lighting- Driver Dome	OEM supplied		
Lighting (Interior)	Overhead, entrance, step well, and lift lights shall provide no less than two foot-candles of illumination on the entrance step tread, or lift or ramp platform with the door open. Outside light(s) shall provide at least one foot-candle of illumination on the street surface with 3 feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.		
Lighting (Interior)	Overhead entrance and step well lights shall be wired to and be automatically activated by a door controlled switch. Lights shall operate any time the ignition key is on and the door is opened.		
Lighting (Interior)	Interior lighting shall provide a minimum of two foot-candles of illumination at reading level. Interior lighting fixtures shall be reasonably flush with the interior walls and ceiling so no hazard exists for passengers. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.		
Interior Trim and Padding	All interior panel joints shall be covered with matching trim strips or moldings and all sharp edges, protrusions, corners etc. shall be finished in such a manner to prevent possible injury. (If vacuum lamination is used, joints shall be securely bonded and provide a finished appearance). Any exposed wheelchair lift support brackets, air conditioner units or other similar items shall be padded to prevent injury.		
Heater(s)	Sufficient BTU capacity of front and rear under seat heaters shall be provided to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F. Interior temperature shall be uniform throughout passenger compartment area by the use of heat registers in the floor	Manufacturer: Model #:	Ford Factory Front and Rear
Air Conditioning	Air conditioning system that shall be designed with sufficient BTU cooling capacity to provide a balanced cooling system capable of maintaining a 75°F inside temperature vs. an outside temperature 95°F and a relative humidity of 50%, with ability to continuously decrease temperature inside vehicle (as measured from the approximate vehicle center) a minimum of 1°F for every ninety (90) seconds. (Air Conditioner Manufacturer's Certification that performance requirement for vehicle type can be met must be submitted with bid).		
Air Conditioning	The cabin evaporator shall include directional and adjustable discharge ports. It shall be floor mounted toward the rear of the vehicle. Any sharp edges and/or exposed metal associated with the AC unit must have these edges/surfaces appropriately padded to provide for passenger protection. Aisle height requirements will be measured from a point directly in front of the AC unit.		
Air Conditioning	Each air conditioning system shall use R134A refrigerant. All system components subject to corrosion from moisture shall be aluminum, copper, stainless steel, galvanized, or epoxy coated. All exterior exposed air conditioning electrical connections must utilize weather pac plugs or Compatible Equivalent. An air intake screen shall be installed on the skirt of the vehicle to ensure sufficient airflow through the skirt mounted condenser coil. All hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.		
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric or air power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Driver Seat Manufacturer Driver's Seat Model #:	Ford 21E
Front Passenger Seat	Co-pilot (front passenger) seat shall be OEM supplied, matching driver seat (except vertical adjustment).		
Seating	Upholstered transit type seats for a minimum of six (6) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		

Contractor: Fenton Mobility Products Inc.

LOT B

High Headroom Wagon <10,000 lbs., 7 Passenger (6 adults/1 wheelchair)

Seating	Seats aft of driver shall be mid-high back, adult passenger seats shall be supplied in individual passenger modules, Freedman model "GO Seat ES", or other Compatible Equivalent. All ambulatory seats shall be forward facing. Seat cushions per passenger shall be a minimum of 17" in width and 17" in depth, and seat back shall be a minimum of 24" in height, excluding the grab handle. All cushions and seat back covers shall have easily removable covers, replaceable without removing the seat from the bus. All seat cushions in the bus shall have identical upholstery and a spring suspension system. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.	Manufacturer: Model # foldaway: Model # single seat:	Freedman/AbiliTrax 43705-ABLTX SA0001 / GO ES Flip
Seating	Seats aft of driver shall be two (2) two-passenger foldaway seats plus one (1) single passenger forward facing seat. Seat frames shall mount in track system with quick disconnect hardware. The single seat base shall include a "step and lock" type quick disconnect that features a foot activated seat base release plus wheels that allow for easy repositioning of the seat. Minimum seat widths shall be 17" single and 34" double seats. Aisle width shall be a minimum of 10".	Single Seat Width [inches]: Double Seat Width [inches]: Minimum Aisle Width [inches]:	17 34 10
Seating	Entire seat frame, except mounting brackets, shall be enclosed in energy absorbing materials. Seat covers shall be transit grade vinyl, 36 oz. per linear yard (Cameo/Predictions), or Compatible Equivalent, or transit grade fabric produced from Marquesa Lana Yarns-Interweave, or Bus Textil Level 3, or Compatible Equivalent. All cover materials must meet FMVSS 302 flammability requirements. Seat foam must meet ASTM D-3675 Radiant Flammability Test.		
Seating	An approved retractable style integrated 3-point lap and shoulder seat belt shall be provided for each seating space and shall be in compliance with FMVSS 209 & 210. Belt retractors must not interfere with seating space, and two (2) seat belt extensions shall be provided with each vehicle.		
Seating	Molded Top Grab handles/grab rails shall be provided on seat backs of all forward facing seats (including flip seats) and shall be mounted/welded to seat frame structure.		
Wheelchair & Wheelchair Occupant Restraints	One (1) Wheelchair Restraint Systems (Wheelchair and Wheelchair Occupant) shall be provided and installed and designed for "L" track systems. Occupant restraint system (including lap belt, retractable shoulder belt with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belt, and retractable shoulder belt with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-1007, or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouch shall be provided to completely secure belts/straps on bus sidewalls when not in use. All items shall be installed in accordance with manufacturer's standards and be in compliance with the American's with Disability Act, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the vehicle interior at a minimum of one restraint position.	Manufacturer: Model #:	Q-Straint Q-1007 / QS00073
Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver's seat position) in the front entry area of the vehicle. Equipment location shall be clearly identified.		
Miscellaneous	OEM supplied storage shelf shall be provided over the windshield.		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]: Chassis Warranty[miles]:	3 36000
Vehicle Body Warranty	Covering the integrity of the vehicle body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of five (5) years or 150,000 miles.	Body Warranty [years]: Body Warranty [miles]:	5 Unlimited Mileage
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The chassis OEM air conditioning system coverage falls under the chassis warranty.	Air Conditioning Warranty [years]:	3
Wheelchair Lift Warranty	The lift shall be fully guaranteed by the manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency. In addition, wheelchair lift shall be capable of a minimum of 2500 cycle operations with a minimum of 1,000 lb. load.		

PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section III.2 *Transit Bus Requirements* . See Section III.1.2 *Optional Equipment Unit Price* for pricing information relative to Optional Equipment.

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price
Additional Wheelchair Restraint System	Price one (1) additional wheelchair station above the quantity required in the base vehicle. Price is per position to include all belts, floor/ shoulder hardware, and storage container.		Q-1007 / QS00073	$630.34
Additional Seat (3-Step Fold Away; Feather Weight; and Forward	Provide and install one forward facing fold-away flip seat to accommodate two (2) ambulatory passengers, when not in use as a wheelchair station. Seat shall be of the same type (including grab handles) and color as standard seats.		SA0001 / Go ES Flip	$951.94

Contractor: **Fenton Mobility Products Inc.**

LOT B

High Headroom Wagon <10,000 lbs., 7 Passenger (6 adults/1 wheelchair)

Camera Security System- 6 monitor	Provide and install a complete camera recording system, including software kit. Components include an 8-channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of 5 vehicle functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of 2 exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus 4 interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for 1 or more vehicles with matching camera system. Minimum components include software, mouse, 5-6" monitor, HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR:	Mobile Video Systems SSD8-3G Live	$1,876.00
		Manufacturer and Model # of interior camera head:	MVC 500	
		Manufacturer and Model # of exterior camera head:	MVC 600 NIR	

Contractor: Shepard Bros. Inc.

LOT C

Single Rear Wheel Cutaway, 7 Passenger (6 adults/1 wheelchair)

PART 1: Product information for the Base Item awarded		
Chassis Model Year	The year used to designate a discrete Chassis Model, irrespective of the calendar year in which the Chassis was actually produced.	2016
Chassis Make	The OEM company name of the Chassis Model.	Ford
Chassis Model	A particular brand of Chassis sold by an OEM.	E350
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	E3F
Body Model Year	The year used to designate a discrete Body Model, irrespective of the calendar year in which the Body was actually produced.	2016
Body Make	The OEM company name of the Body Model.	Coach & Equipment
Body Model	A particular brand of Body sold by an OEM.	Phoenix SRW Metrolite
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	N/A

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §34, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section III.1 Price for additional information about Contract pricing.	$50,598.40

PART 3: Base Item Specifications

The terms and conditions in Contract Section III.2 *Transit Bus Requirements* shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information provided in Column D	Spec for Equipment Provided
General	Capacity: Minimum 6 adult passenger seats plus 1 wheelchair station	Capacity:	6 Passengers + 1 Wheelchair
General	Floor plan matches "Figures" tab	Manufacturer Floor plan #	N/A
General	Drive configuration: Forward control single rear wheel (SRW)		
General	Have completed federal STURAA (Altoona) bus testing of not less than five (5) years/150,000 miles or have been certified as exempt as specified under FTA provisions.		
General	GVWR: 10,050 lb. minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lbs]:	10050
General	Wheelbase: 140 in. (plus or minus 5")	Wheelbase [inches[:	138"
General	Minimum 72" continuous passenger aisle headroom	Headroom [inches]:	75"
Chassis (see specifications below)			
Cab	A standard sedan door on the driver's side shall be OEM chassis supplied.		
Engine	Minimum 6.0 liter,8 or 10 cylinder gasoline engine rated minimum 300 HP x 300 lb. ft. torque.	Number of Cylinders:	10
		Liters:	6.8
		Horsepower and Torque:	305 HP 420 Torque
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 5 gallons) 35-gallon fuel tank		
Cooling System	Chassis manufacturers heaviest duty cooling system available for chassis supplied and protected to minus 30°F;		
Electrical	225 amp OEM alternator	Alternator Capacity [amps]:	225
Electrical	Dual batteries (minimum 650 CCA each) which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative);	Rating of Batteries [at 0 F]:	N/A
		CCA each battery:	650
		Minutes RC:	N/A
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	Transmission shall include a 5 or 6 speed automatic transmission with heavy duty or additional oil cooler.	Transmission Model #:	Elec 6 Speed O/D with Tow Haul
Front Axle	Minimum Front Gross Axle Weight Rating (FGAWR) 4,500lbs.	FGAWR:	5000
Rear Axle	Minimum Rear Gross Axle Weight Rating (RGAWR) 6,000lbs.	RGAWR:	7800
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	Vehicle shall have Front Springs rated at 3,000lbs. minimum and Rear Springs rated at 7,200 lbs. minimum	Front Spring Rating [lbs]:	4200
		Rear Spring Rating [lbs]:	7310
Shock Absorbers	Heavy Duty	Make and Model #:	Ford OEM Gas Type
Brakes	ABS power brakes meeting Federal Motor Vehicle Safety Standard 49CFR571.105	Service Brakes [total lining or sweep area] both front & rear:	614.3
Parking Brake	Foot-operated parking brake		
Tires	Manufacturer's standard all-season radial tread or rib tread w/mud and snow rear, as required to meet the GVWR specified	Radial Tires [size]:	LT245/75R16
		Radial Tires [load]:	E
		Radial Tires [range]:	E
		Radial Tires [manufacturer]:	Hankook
		Front Tires [tread design]:	All seaon
		Front Tires [capacity/tire]:	3042
		Rear Tires [tread design]:	All Seaon
		Rear Tires [capacity/tire]:	3042
Front Bumper	Shall be made of, or covered with, a rust proof material. Front bumper may be OEM chrome or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to body using corrosion resistant material hardware with rustproofing applied to finished installation.	Front Bumper [material]:	Chrome
		Front Bumper [manufacturer]:	Ford OEM
Steering	Power steering	Turning Diameter [at end of front bumper]:	48.6
Steering Wheel	Tilt steering wheel		
Interior Equipment	OEM dash air conditioning, defroster, and heating system		
Radio	Radio: Manufacturer's standard AM/FM/CD Digital Clock Radio, with one driver speaker and two cabin speakers.	Manufacturer:	Ford OEM
		Model #:	AM/FM/CD

Contractor: Shepard Bros. Inc.

LOT C

Single Rear Wheel Cutaway, 7 Passenger (6 adults/1 wheelchair)

Exterior Equipment	Rear tow hooks		
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall be at the rear of the vehicle and shall exit on the street side, aft of the rear axle. The system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or fobs		
Body (see specifications below)			
Body Structure	Shall consist of a heavy-duty integral steel body roll cage structure (from curbside to street side floor connections) fabricated of square or rectangular tubing (or structurally equivalent hat section member) and be in full compliance with Title 17 NYCRR Part 720.4(b)(1). No wood or paper products shall be utilized in the construction of sidewall, roof or transition body panels. Roll cage shall extend forward sufficiently to protect driver in the event of rollover. Documentation consisting of detailed explanation and dimensional drawing supporting the body structures compliance shall be supplied with bid submission for each vehicle classification, including current substantiating documentation (not older than 5 years unless the structure has not been significantly modified as defined by 49 CFR 665) confirming compliance with FMVSS 220 and 221.		
Body	Maximum 85" interior body width (from sidewall to sidewall). Exterior shall be smooth and free of any visible fasteners. Exterior Siding shall be 25-gauge protected (i.e. galvanized) steel (or 24-gauge aluminum) with smooth surface or laminated fiberglass composite reinforced with insulation that is foamed in place or resin hardened honeycomb. Body shall be compliant to all stated General Body specifications. Interior sidewalls shall be fiberglass, vinyl clad aluminum or Compatible Equivalent material. Insulation in walls and ceiling shall be fiberglass, resin-hardened honeycomb (FRP) material, polyurethane, or closed cell EPS foam.	Exterior Siding [material/thickness]: Interior Paneling [material/thickness]: Insulation [material/R Value]:	Aluminum 20 Gauge FRP .06" 6
Exterior Equipment	Reverse alarm		
Exterior Equipment	Back up radar alarm with 4 bumper mounted sensors. Alarm shall provide an audible alert plus include a dash area mounted LED distance display.	Manufacturer: Model #:	Hawkeye A-Hawk401-A
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior body lights (non-OEM chassis) for these purposes must meet current SAE standards and shall be sealed Light Emitting Diode (LED) type lights on an active regulator circuit that assures uniform illumination of all the LED lighting down to 8 volts. All exterior clearance lights shall be armored (or low-profile design or sufficiently body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door. A mid-ship turn signal shall also be installed on each side of the bus body.		
Batteries	One auxiliary battery shall be mounted in an easily accessible fully enclosed and properly ventilated battery box with stainless steel (or an acceptable non-corrosive material) slide out (with roller track) battery tray located in the vehicle skirt or driver's step and shall include a clearly labeled disconnect switch that shuts off all current to the bus body. Battery Box shall be accessible through a hinged door access which shall be labeled in conformance with Title 17 NYCRR Part 720.6(a). Door shall be affixed with stainless steel fasteners. One OEM battery shall be located under the hood.		
Gutters/Drip Molding	Shall be installed above all vehicle windows and doors, preventing water from draining onto doors and windows.		
Mud Flaps (Front and Rear)	Shall be manufacturers standard. Labeling and Advertising is prohibited, other than for necessary safety information		
Rear Bumper	Shall be made of, or covered with, a rust proof material. Rear bumper shall be stainless steel or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]: Rear Bumper [manufacturer]:	Stainless Steel Tru-Form
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the vehicle and shall comply with SAE J686.		
Exterior Mirror Frames	Mirror Frames and Extension Arms shall be made of rustproof material (i.e. stainless steel/durable plastic) and shall be adequate to prevent excessive vibration of the mirror(s).	Manufacturer: Model #:	Rosco ASM00500201/ASM00
Exterior Mirrors	Driver's side and curbside exterior mirrors shall be heated and remote controlled, with the switch(s) to be installed at a prior approved location. In no case shall the switch be mounted above the windshield. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature. Extension Arms shall be provided on mirrors to allow for a clear and unobstructed view to rear regardless of vehicle width.	Manufacturer: Model #:	Rosco ASM00500201/ASM00500202
Interior Mirror	Rear view mirror 6x30" shall be provided		
Windows	Passenger windows shall be "T" slider top ventilating or push-out horizontal transit slider type with a minimum 28% tint (light reduction in the passenger compartment). Side and rear windows shall be metal frame construction (painted black) with tempered safety or laminate glass and shall meet FMVSS 217 retention requirements.	Passenger Window [type]: Passenger Window [size]:	T-Slider 31.25"x25.5"
Windows	Twin rear windows are required and shall be manufacturer's standard (6" x 18" minimum) on each side of emergency exit door or special service door. Emergency exit door, when located in rear of vehicle, shall include an upper and lower window		
Windows	Window placement shall conform to manufacturer's standard spacing for length of vehicle offered. Placement and installation of the windows shall not diminish the structural integrity of vehicle. Windows installed as emergency exits as required by FMVSS shall also comply with Title 17 NYCRR Part 720,5 requirements.		
Floor Assembly	Floor Assembly: Shall be insulated and shall include a minimum 5/8" thick marine grade plywood, or 3/4" Advantech sub-floor, or compatible equivalent with a light colored (e.g. light gray), rubber floor covering that shall meet FMVSS 302 and ADA requirements for slip resistance. Floor covering shall be a minimum .140" thick ribbed on steps (if installed) and in the aisle and .124" thick smooth under the seats. Floor shall be securely fastened to galvannealed steel or aluminum belly pan installed on chassis frame.		
Entrance Step	Shall be a low height, front entrance step (lowest practical) and shall comply with ADA 1192.	Top of first step above ground [inches]:	11.5"

Contractor: Shepard Bros. Inc.

LOT C

Single Rear Wheel Cutaway, 7 Passenger (6 adults/1 wheelchair)

Steps	All step edges shall be a minimum of 9" in depth and have a high visible yellow nosing band running the full width of each step. Buses shall have a maximum of 2 steps (not including ground to first step) with risers not to exceed 10" in height. Steps shall comply with ADA 1192.		
Entrance Door(s)	A "walk through" minimum 74" high headroom right front entrance door with a minimum clear entry opening of 28" constructed with top and bottom (or length of door) viewing windows and a heavy duty electric opener shall be provided. An interlock (Intermotive Gateway or compatable equivalent) shall be installed and programmed that prevents the door to be opened or closed unless the vehicle speed equals zero (0). Door leading and sectional edges shall be equipped with approximately 2" extruded rubber edges to form weather-tight seal. Door shall be affixed with hinges that provide corrosion protection and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Entrance door surround (portal) and step well shall be constructed from stainless steel or material with equal corrosion resistant properties. Entrance door shall comply with FMVSS 217.	Entrance Door clear opening [inches]:	28"
Door Entry Grab Rails (right and left side)	Shall be installed parallel to the steps, securely fastened and a minimum 1 ¼ " diameter made of stainless steel powder coated material, or non-slip Compatible Equivalent, and shall be a high visible yellow in color, accessible from first step to floor of vehicle.		
Emergency Exit Door	Shall be at the rear center of the bus, in compliance with FMVSS and Title 17 NYCRR Part 720.5 requirements. An interior locking device (vandal lock) shall be provided for emergency exit door(s) and an LED driver station warning light shall be provided to indicate when door is locked. A device shall be installed to prevent the engine from starting when the door is locked. Exterior door handle shall be non-locking. Door shall be constructed with two (minimum 12" x 18") windows situated at the top and bottom of door. Door surround (portal) shall be stainless steel or material with equal corrosion resistant properties. Door shall be affixed with stainless steel hinges and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable).		
Overhead Hand Rail	Two (2) full-length overhead (ceiling) handrails shall be provided and securely attached to roof structure, which shall be continuous except for a gap at the rear doorway, in accordance with Part 38 of the ADA.		
Driver Barrier	Driver Barrier constructed of a vertical and horizontal stanchion, a padded modesty panel, and transparent durable plastic material, or Compatible Equivalent, shall be installed directly behind driver seat. A gap between the ceiling and top of the plexiglass shall be 2 inches +- .5inch		
Padded Panels	Shall be provided attached to a vertical and horizontal stanchion behind the step well. The gap between the floor and bottom of the panel shall meet NYSDOT specifications.		
Interior Paneling	Minimum 24-gauge metal (embossed or with bonded vinyl fiberglass), .040" FRP, or Compatible Equivalent finish.		
Insulation	Fiberglass, resin-hardened-honeycomb (FRP) material, polyurethane, or closed cell EPS foam insulation in walls and ceiling (minimum R-value of R-6).		
Wheelchair Lift Door(s)	Install a wheelchair entrance/exit door(s) (special service door) affixed with stainless steel hinges, door trim and fasteners (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Each door shall include a window and a positive fastening device to hold door in the open position ("hold open" feature). The special service door shall be equipped with a locking device (Padlock and hasp are not acceptable). All items, including lighting, shall be in compliance with the Americans with Disabilities Act (ADA) and FMVSS Nos. 403 & 404.		
Wheelchair Lift	The wheelchair lift shall be automatic electric/hydraulic type (power-up, gravity down) using dual hydraulic cylinders. The hydraulic reservoir capacity shall be at least 1 quart, with easy access for inspection and servicing. The maximum power draw shall not exceed 70 amps at 12 volts. Wheelchair lift unit shall be a Public Use Lift and shall be installed in accordance with manufacturer's standards. The lift must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the lift shall be provided in the event of a power failure.	Manufacturer: Model #:	Braun NCL1000FIB3454-2
Wheelchair Lift	Shall be capable of a minimum of 2500 cycle operation with a minimum of 1,000lb. load.		
Wheelchair Lift	Platform size shall be minimum 34" x 54" (of useable space) and lift capacity shall be minimum 1,000 lbs. Wheelchair lift platform shall be constructed of expanded metal grating with left and right side 2 ½" high safety stops plus a spring loaded or power activated ADA front stop. A pendent type operating control with a cable length sufficient to allow operation of lift at outermost platform position shall be provided. Lift platform shall be automatic power fold/unfold design.		
Wheelchair Lift	A transmission interlock system that utilizes intermittent fault filter technology shall be installed to prevent operation of the lift unless door(s) are opened and transmission is in park with parking brake applied. A manual override system in case of power failure shall also be provided. Lift electric system shall be protected with fuse or circuit breaker.	Manufacturer: Model #:	Intermotive HL510AD
Wheelchair Lift	The spring load, deck end, stop shall be retracted while the lift deck is in the load/unload (down) position. This shall enable the operator to load the lift without holding the stop in its retracted position.		
Wheelchair Lift	Two (2) folding handrails on lift platform measuring approximately 30" Height x 8" Length (minimum) shall be provided. Handrails shall not reduce platform size.		
Wheelchair Lift	Labeled dash mounted visual alarm (in compliance with Chapter VI, Article III, Parts 720/721, NYCRR) to indicate special service door is not fully closed, shall be provided.		
Wheelchair Lift	Shall be fully guaranteed by manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency.		
Wheelchair Lift Barrier	Protective panel with vertical stanchion (consistent with Door Entry Grab Rail specifications), constructed of durable material, shall be installed directly adjacent to the wheelchair lift (when installed) to prevent shearing action between the lift platform and vehicle floor or door jams in conformance with Title 17 NYCRR Part 720.8(a)(3)(b).		
ADA Compliance	All features required for a demand-response application shall be included in the base vehicle in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs.)		

Contractor: Shepard Bros. Inc.

LOT C

Single Rear Wheel Cutaway, 7 Passenger (6 adults/1 wheelchair)

Lighting- Driver Dome Light	An independently controlled LED overhead dome light over driver area producing 6 foot candles when measured at the steering wheel.		
Lighting (Interior)	Overhead, entrance, step well, and lift lights shall be LED and provide no less than two foot-candles of illumination on the entrance step tread, or lift or ramp platform with the door open. Outside light(s) shall provide at least one foot-candle of illumination on the street surface with 3 feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.		
Lighting (Interior)	Overhead entrance and step well lights shall be wired to and be automatically activated by a door controlled switch. Lights shall operate any time the ignition key is on and the door is opened.		
Lighting (Interior)	Interior lighting shall be LED and provide a minimum of two foot-candles of illumination at reading level. Interior lighting fixtures shall be reasonably flush with the interior walls and ceiling so no hazard exists for passengers. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.		
Interior Trim and Padding	All interior panel joints shall be covered with matching trim strips or moldings and all sharp edges, protrusions, corners etc. shall be finished in such a manner to prevent possible injury. (If vacuum lamination is used, joints shall be securely bonded and provide a finished appearance). Any exposed wheelchair lift support brackets, air conditioner units or other similar items shall be padded to prevent injury.		
Heater(s)	An OEM dash air conditioning system plus one (1) 60,000 BTU rear heater shall be provided. Sufficient BTU capacity of front and rear under seat heaters shall be provided to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F. A dash mounted (or other approved location) circulating fan shall be provided for increased circulation of heating and defrosting in driver area. Interior temperature shall be uniform throughout passenger compartment area. Shut-off valves shall be provided for shut-off of main and auxiliary heaters. The first valve shall be located below or behind the driver's entry step well. The second valve shall be located downstream of the second heater. Both shall be labeled providing clear indication of the shut-off valve locations to the driver. Passenger compartment heater hoses shall be equipped with full-flow quarter-turn valves located in a protected location. Location of valves shall be indicated with a label stating "Heater Shutoff Valves" and located to be visibly obvious. All heater hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.	Manufacturer: Model #:	Pro Air 66 000 441
Air Conditioning	Air conditioning system that shall be designed with sufficient BTU cooling capacity to provide a balanced cooling system capable of maintaining a 75°F inside temperature vs. an outside temperature 95°F and a relative humidity of 50%, with ability to continuously decrease temperature inside vehicle (as measured from the approximate vehicle center) a minimum of 1°F for every ninety (90) seconds. (Air Conditioner Manufacturer's Certification that performance requirement for vehicle type can be met must be submitted with bid).		
Air Conditioning	In addition to the OEM dash system, air conditioning shall incorporate a skirt condenser and a separate passenger evaporator in the cabin area. The passenger area evaporator system shall be separately controlled from a control station in the drivers area. BTU and CFM capacities (rear system and front system together) considered minimum required are 30,000BTU and 800CFM.	Manufacturer: Model #: A/C Capacity [Chassis BTUH]: A/C Capacity [Body BTUH]: A/C Airflow [Cab CFM]: A/C Airflow [Body CFM]:	MCC 5F72-T 15000 35000 465 800
Air Conditioning	The cabin evaporator shall include directional and adjustable discharge ports. The evaporator shall be installed so as not to intrude from the rear bulk head more than approximately 9" (inches) horizontally into the passenger compartment. Any sharp edges and/or exposed metal associated with the AC unit must have these edges/surfaces appropriately padded to provide for passenger head protection. Aisle height requirements will be measured from a point directly in front of the AC unit. Side mounted evaporators are not permitted.		
Air Conditioning	Each air conditioning system shall use R134A refrigerant. All system components subject to corrosion from moisture shall be aluminum, copper, stainless steel, galvanized, or epoxy coated. All exterior exposed air conditioning electrical connections must utilize weather pac plugs or Compatible Equivalent. An air intake screen shall be installed on the skirt of the vehicle to ensure sufficient airflow through the skirt mounted condenser coil. All hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.		
Safety Vent (three way)	Shall be installed and centered on the roof of the passenger compartment. Vent shall provide for fresh air ventilation, static type exhaust with fresh air ventilation and static type exhaust; and shall be equipped with release handle to provide for emergency exit. Size shall be approximately 23" x 23".	Make: Model #: Size [inches]:	Transpec 1170 Safety Vent 23"x23"
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric or air power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Driver Seat Manufacturer Driver's Seat Model #:	Ford OEM N/A
Seating	Upholstered transit type seats for a minimum of six (6) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		
Seating	Mid-high back, adult passenger seats shall be supplied in individual passenger modules, Freedman model "GO Seat ES", or other Compatible Equivalent. All ambulatory seats shall be forward facing. Seat cushions per passenger shall be a minimum of 17" in width and 17" in depth, and seat back shall be a minimum of 24" in height, excluding the grab handle. All cushions and seat back covers shall have easily removable covers, replaceable without removing the seat from the bus. All seat cushions in the bus shall have identical upholstery and a spring suspension system. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.	Manufacturer: Model #:	Freedman GO-ES

Contractor: Shepard Bros. Inc.

LOT C

Single Rear Wheel Cutaway, 7 Passenger (6 adults/1 wheelchair)

Seating	Minimum seat widths shall be 17" single and 34" double seats. Aisle width shall be a minimum of 14".	Single Seat Width [inches]:	17.5
		Double Seat Width [inches]:	35
		Minimum Aisle Width [inches]:	14"
Seating	Entire seat frame, except mounting brackets, shall be enclosed in energy absorbing materials. Seat covers shall be transit grade vinyl, 36 oz. per linear yard (Cameo/Predictions), or Compatible Equivalent, or transit grade fabric produced from Marquesa Lana Yarns-Interweave, Regions, or Bus Textil Level 3, or Compatible Equivalent. All cover materials must meet FMVSS 302 flammability requirements. Seat foam must meet ASTM D-3675 Radiant Flammability Test.		
Seating	An approved retractable style integrated 3-point lap and shoulder seat belt shall be provided for each seating space and shall be in compliance with FMVSS 209 & 210. Belt retractors must not interfere with seating space, and two (2) seat belt extensions shall be provided with each vehicle.		
Seating	Molded Top Grab handles/grab rails shall be provided on seat backs of all forward facing seats (including flip seats) and shall be mounted/welded to seat frame structure. This does not apply to single seat positioned immediately forward of the wheelchair lift.		
Wheelchair & Wheelchair Occupant Restraints	One (1) Wheelchair Restraint Systems (Wheelchair and Wheelchair Occupant) shall be provided and installed and designed for "L" track systems. Provide and install a wheelchair and occupant restraint system (including lap belt, retractable shoulder belt with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belt, and retractable shoulder belt with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-1007, or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouches shall be provided to completely secure belts/straps on bus sidewalls when not in use. All items shall be installed in accordance with manufacturer's standards and be in compliance with the American's with Disability Act, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the vehicle interior at a minimum of one restraint position.	Manufacturer:	Q'Straint
		Model #:	Q-10007
Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver's seat position) in the front entry area of the vehicle. Equipment location shall be clearly identified.		
Miscellaneous	Storage compartment with door shall be provided and recessed in the center front cap portion of the vehicle or positioned over the driver's area if the front cap portion is not used for destination signage or air conditioner evaporator placement. The compartment must be sealed and must not have any exposed wires, protrusions or sharp edges		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]:	3
		Chassis Warranty[miles]:	36000
Vehicle Body Warranty	Covering the integrity of the vehicle body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of five (5) years or 150,000 miles.	Body Warranty [years]:	5
		Body Warranty [miles]:	150000
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The chassis OEM air conditioning system coverage falls under the chassis warranty.	Air Conditioning Warranty [years]:	2
Wheelchair Lift Warranty	The lift shall be fully guaranteed by the manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency. In addition, wheelchair lift shall be capable of a minimum of 2500 cycle operations with a minimum of 1,000 lb. load.		

PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section III.2 *Transit Bus Requirements* . See Section III.1.2 *Optional Equipment Unit Price* for pricing information relative to Optional Equipment.

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price
Additional Wheelchair Restraint System	Delete seats (4 maximum) and price one (1) additional wheelchair station above the quantity required in the base vehicle. Price is per position to includes all belts, floor/ shoulder hardware, and storage container			-$412.72
Optional Wheelchair Restraint System	For each wheelchair position in the base vehicle, plus additional optional restraint systems, if ordered, install complete "Omni" style floor securements and complete belts kits, equal to Q-Straint Q-10008 or Sur-Lok AL860S-4C-SNC.	Manufacturer and Model #:	Q straint Q-10008	-$34.30
Additional Seat (3-Step Fold Away; Feather Weight; and Forward Facing)	When not included in the base vehicle, provide and install one forward facing fold-away flip seat at a wheelchair station area which shall be a Freedman model "GO ES" seat or other pre-Compatible Equivalent. Flip seat may be lowered to accommodate two (2) ambulatory passengers, when not in use as a wheelchair station. Seat shall be of the same type (including grab handles) and color as standard seats measuring (per passenger) a minimum of 17" in width x 17" in depth x 24" in height as measured from the edge of the cushion. Raising/lowering of the seat shall be accomplished manually and shall include a lock to secure the seat in the raised position. Raised seat plus wheelchair shall not block legal aisle. Integrated 3-point lap and shoulder belts shall be provided at each seating location to accommodate an adult ambulatory passenger and shall be in compliance with FMVSS 210. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.			$860.82

Contractor: Shepard Bros. Inc.

LOT C

Single Rear Wheel Cutaway, 7 Passenger (6 adults/1 wheelchair)

Air Conditioning System (Roof Mounted Condenser)	Provide and install same requirements as base vehicle, except air conditioning system condenser shall be a roof mounted unit.			$925.14
Camera Security System- 6 monitor	Provide and install a complete camera recording system, including software kit. Components include an 8-channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of 5 vehicle functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of 2 exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus 4 interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for 1 or more vehicles with matching camera system. Minimum components include software, mouse, 5-6" monitor, HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR: Manufacturer and Model # of interior camera head: Manufacturer and Model # of exterior camera head:	Seon Seon CJ904A20 CQ903A20 CQ903A50 Seon CA904E120	$3,125.95
Back Up Camera System	Upgrade the back up radar in base vehicle to include a rear view camera.			$214.40
Spare Tire and Rim	Provide an interchangeable spare tire and rim shipped loose			$428.80
Driver Side Running Board	Install a diamond plate additional step up for driver entry.			$129.71

Contractor: Shepard Bros. Inc.

LOT D

Dual Rear Wheel Cutaway <22 ft., 9 Passenger (8 adults/1 wheelchair)

PART 1: Product information for the Base Item awarded		
Chassis Model Year	The year used to designate a discrete Chassis Model, irrespective of the calendar year in which the Chassis was actually produced.	2016
Chassis Make	The OEM company name of the Chassis Model.	Ford
Chassis Model	A particular brand of Chassis sold by an OEM.	E350
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	E3F
Body Model Year	The year used to designate a discrete Body Model, irrespective of the calendar year in which the Body was actually produced.	2016
Body Make	The OEM company name of the Body Model.	Coach & Equipment
Body Model	A particular brand of Body sold by an OEM.	Phoenix
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	N/A

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §34, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section III.1 Price for additional information about Contract pricing.	$52,611.62

PART 3: Base Item Specifications

The terms and conditions in Contract Section III.2 *Transit Bus Requirements* shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information provided in Column D	Spec for Equipment Provided
General	Capacity: Minimum 8 adult passenger seats plus 1 wheelchair station	Capacity:	8 Passenger + 1 Wheelchair
General	Floor plan matches "Figures" tab	Manufacturer Floor plan #	N/A
General	Drive configuration: Minimum forward control dual rear wheel (DRW)		
General	Have completed federal STURAA (Altoona) bus testing of not less than five (5) years/150,000 miles or have been certified as exempt as specified under FTA provisions.		
General	GVWR: 11,500 lb. minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lbs]:	11500
General	Wheelbase: 140 in. (plus or minus 5")	Wheelbase [inches[:	138"
General	Minimum 72" continuous passenger aisle headroom	Headroom [inches]:	80"
Chassis (see specifications below)			
Cab	A standard sedan door on the driver's side shall be OEM chassis supplied.		
Engine	Minimum 6.0 liter,8 or 10 cylinder gasoline engine rated minimum 300 HP x 300 lb. ft. torque.	Number of Cylinders:	10
		Liters:	6.8L
		Horsepower and Torque:	305 HP 420 Torque
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 5 gallons) 35-gallon fuel tank		
Cooling System	Chassis manufacturers heaviest duty cooling system available for chassis supplied and protected to minus 30°F;		
Electrical	225 amp OEM alternator	Alternator Capacity [amps]:	225
Electrical	Dual batteries (minimum 650 CCA each) which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative);	Rating of Batteries [at 0 F]:	N/A
		CCA each battery:	650
		Minutes RC:	N/A
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	Transmission shall include a 5 or 6 speed automatic transmission with heavy duty or additional oil cooler.	Transmission Model #:	Elec 6 Speed O/D with Tow Haul
Front Axle	Minimum Front Gross Axle Weight Rating (FGAWR) 4,100lbs.	FGAWR:	5000
Rear Axle	Minimum Rear Gross Axle Weight Rating (RGAWR) 7,500lbs.	RGAWR:	7800
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	Vehicle shall have Front Springs rated at 4,600lbs. minimum and Rear Springs rated at 8,500 lbs. minimum	Front Spring Rating [lbs]:	4600
		Rear Spring Rating [lbs]:	8500
Shock Absorbers	Heavy Duty	Make and Model #:	Ford Oem Gas Type
Brakes	ABS power brakes meeting Federal Motor Vehicle Safety Standard 49CFR571.105	Service Brakes [total lining or sweep area] both front & rear:	614.3
Parking Brake	Foot-operated parking brake		
Tires	Manufacturer's standard all-season radial tread or rib tread w/mud and snow rear, as required to meet the GVWR specified	Radial Tires [size]:	LT225/75R16E
		Radial Tires [load]:	E
		Radial Tires [range]:	E
		Radial Tires [manufacturer]:	Hankook
		Front Tires [tread design]:	LTX Mud/Snow
		Front Tires [capacity/tire]:	2680
		Rear Tires [tread design]:	LTX Mud/Snow
		Rear Tires [capacity/tire]:	2680
Front Bumper	Shall be made of, or covered with, a rust proof material. Front bumper may be OEM chrome or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to body using corrosion resistant material hardware with rustproofing applied to finished installation.	Front Bumper [material]:	Chrome
		Front Bumper [manufacturer]:	Ford OEM
Steering	Power steering	Turning Diameter [at end of front bumper]:	48.6
Steering Wheel	Tilt steering wheel		
Interior Equipment	OEM dash air conditioning, defroster, and heating system		
Radio	Radio: Manufacturer's standard AM/FM/CD Digital Clock Radio, with one driver speaker and two	Manufacturer:	FORD OEM

Contractor: Shepard Bros. Inc.

LOT D

Dual Rear Wheel Cutaway <22 ft., 9 Passenger (8 adults/1 wheelchair)

	cabin speakers.	Model #:	AM/FM/CD
Exterior Equipment	Rear tow hooks		
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall be at the rear of the vehicle and shall exit on the street side, aft of the rear axle. The system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or fobs		
Body (See specifications below)			
Body Structure	Shall consist of a heavy-duty integral steel body roll cage structure (from curbside to street side floor connections) fabricated of square or rectangular tubing (or structurally equivalent hat section member) and be in full compliance with Title 17 NYCRR Part 720.4(b)(1). No wood or paper products shall be utilized in the construction of sidewall, roof or transition body panels. Roll cage shall extend forward sufficiently to protect driver in the event of rollover. Documentation consisting of detailed explanation and dimensional drawing supporting the body structures compliance shall be supplied with bid submission for each vehicle classification, including current substantiating documentation (not older than 5 years unless the structure has not been significantly modified as defined by 49 CFR 665) confirming compliance with FMVSS 220 and 221.		
Body	Minimum 90" interior body width (from sidewall to sidewall). Exterior shall be smooth and free of any visible fasteners. Exterior Siding shall be 25-gauge protected (i.e. galvanized) steel (or 24-gauge aluminum) with smooth surface or laminated fiberglass composite reinforced with insulation that is foamed in place or resin hardened honeycomb. Body shall be compliant to all stated General Body specifications. Interior sidewalls shall be fiberglass, vinyl clad aluminum or Compatible Equivalent material. Insulation in walls and ceiling shall be fiberglass, resin-hardened honeycomb (FRP) material, polyurethane, or closed cell EPS foam.	Exterior Siding [material/thickness]:	Galvinized Steel 24 Gauge
		Interior Paneling [material/thickness]:	FRP .06"
		Insulation [material/R Value]:	6
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	2
Exterior Equipment	Reverse alarm		
Exterior Equipment	Back up radar alarm with 4 bumper mounted sensors. Alarm shall provide an audible alert plus include a dash area mounted LED distance display.	Manufacturer:	Hawkeye
		Model #:	A-Hawk401-A
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior body lights (non-OEM chassis) for these purposes must meet current SAE standards and shall be sealed Light Emitting Diode (LED) type lights on an active regulator circuit that assures uniform illumination of all the LED lighting down to 8 volts. All exterior clearance lights shall be armored (or low-profile design or sufficiently body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door. A mid-ship turn signal shall also be installed on each side of the bus body.		
Batteries	One auxiliary battery shall be mounted in an easily accessible fully enclosed and properly ventilated battery box with stainless steel (or an acceptable non-corrosive material) slide out (with roller track) battery tray located in the vehicle skirt or driver's step and shall include a clearly labeled disconnect switch that shuts off all current to the bus body. Battery Box shall be accessible through a hinged door access which shall be labeled in conformance with Title 17 NYCRR Part 720.6(a). Door shall be affixed with stainless steel fasteners. One OEM battery shall be located under the hood.		
Gutters/Drip Molding	Shall be installed above all vehicle windows and doors, preventing water from draining onto doors and windows.		
Mud Flaps (Front and Rear)	Shall be manufacturers standard. Labeling and Advertising is prohibited, other than for necessary safety information		
Rear Bumper	Shall be made of, or covered with, a rust proof material. Rear bumper shall be stainless steel or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]:	Stainless Steel
		Rear Bumper [manufacturer]:	Tru-Form
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the vehicle and shall comply with SAE J686.		
Exterior Mirror Frames	Mirror Frames and Extension Arms shall be made of rust proof material (i.e. stainless steel/durable plastic) and shall be adequate to prevent excessive vibration of the mirror(s).	Manufacturer:	Rosco
		Model #:	ASM00500201/ASM00
Exterior Mirrors	Driver's side and curbside exterior mirrors shall be heated and remote controlled, with the switch(s) to be installed at a prior approved location. In no case shall the switch be mounted above the windshield. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature. Extension Arms shall be provided on mirrors to allow for a clear and unobstructed view to rear regardless of vehicle width.	Manufacturer:	Rosco
		Model #:	ASM00500201/ASM00 500202
Interior Mirror	Rear view mirror 6x30" shall be provided		
Windows	Passenger windows shall be "T" slider top ventilating or push-out horizontal transit slider type with a minimum 28% tint (light reduction in the passenger compartment). Side and rear windows shall be metal frame construction (painted black) with tempered safety or laminate glass and shall meet FMVSS 217 retention requirements.	Passenger Window [type]:	T-Slider
		Passenger Window [size]:	31.25"x25.5"
Windows	Twin rear windows are required and shall be manufacturer's standard (6" x 18" minimum) on each side of emergency exit door or special service door. Emergency exit door, when located in rear of vehicle, shall include an upper and lower window		
Windows	Window placement shall conform to manufacturer's standard spacing for length of vehicle offered. Placement and installation of the windows shall not diminish the structural integrity of vehicle. Windows installed as emergency exits as required by FMVSS shall also comply with Title 17 NYCRR Part 720,5 requirements.		
Floor Assembly	Floor Assembly: Shall be insulated and shall include a minimum 5/8" thick marine grade plywood, or 3/4" Advantech sub-floor, or compatible equivalent with a light colored (e.g. light gray), rubber floor covering that shall meet FMVSS 302 and ADA requirements for slip resistance. Floor covering shall be a minimum .140" thick ribbed on steps (if installed) and in the aisle and .124" thick smooth under the seats. Floor shall be securely fastened to galvannealed steel or aluminum belly pan installed on chassis frame.		
Entrance Step	Shall be a low height, front entrance step (lowest practical) and shall comply with ADA 1192.	Top of first step above ground [inches]:	12"

Contractor: Shepard Bros. Inc.

LOT D

Dual Rear Wheel Cutaway <22 ft., 9 Passenger (8 adults/1 wheelchair)

Steps	All step edges shall be a minimum of 9" in depth and have a high visible yellow nosing band running the full width of each step. Buses shall have a maximum of 2 steps (not including ground to first step) with risers not to exceed 10" in height. Steps shall comply with ADA 1192.		
Entrance Door(s)	A "walk through" minimum 74" high headroom right front entrance door with a minimum clear entry opening of 28" constructed with top and bottom (or length of door) viewing windows and a heavy duty electric opener shall be provided. An interlock (Intermotive Gateway or compatable equivelant) shall be installed and programmed that prevents the door to be opened or closed unless the vehicle speed equals zero (0). Door leading and sectional edges shall be equipped with approximately 2" extruded rubber edges to form weather-tight seal. Door shall be affixed with hinges that provide corrosion protection and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Entrance door surround (portal) and step well shall be constructed from stainless steel or material with equal corrosion resistant properties. Entrance door shall comply with FMVSS 217.	Entrance Door clear opening [inches]:	30"
Door Entry Grab Rails (right and left side)	Shall be installed parallel to the steps, securely fastened and a minimum 1 ¼ " diameter made of stainless steel powder coated material, or non-slip Compatible Equivalent, and shall be a high visible yellow in color, accessible from first step to floor of vehicle.		
Emergency Exit Door	Shall be at the rear center of the bus, in compliance with FMVSS and Title 17 NYCRR Part 720.5 requirements. An interior locking device (vandal lock) shall be provided for emergency exit door(s) and an LED driver station warning light shall be provided to indicate when door is locked. A device shall be installed to prevent the engine from starting when the door is locked. Exterior door handle shall be non-locking. Door shall be constructed with two (minimum 12" x 18") windows situated at the top and bottom of door. Door surround (portal) shall be stainless steel or material with equal corrosion resistant properties. Door shall be affixed with stainless steel hinges and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable).		
Overhead Hand Rail	Two (2) full-length overhead (ceiling) handrails shall be provided and securely attached to roof structure, which shall be continuous except for a gap at the rear doorway, in accordance with Part 38 of the ADA.		
Driver Barrier	Driver Barrier constructed of a vertical and horizontal stanchion, a padded modesty panel, and transparent durable plastic material, or Compatible Equivalent, shall be installed directly behind driver seat. A gap between the ceiling and top of the plexiglass shall be 2 inches +- .5inch		
Padded Panels	Shall be provided attached to a vertical and horizontal stanchion behind the step well. The gap between the floor and bottom of the panel shall meet NYSDOT specifications.		
Interior Paneling	Minimum 24-gauge metal (embossed or with bonded vinyl fiberglass), .040" FRP, or Compatible Equivalent finish.		
Insulation	Fiberglass, resin-hardened-honeycomb (FRP) material, polyurethane, or closed cell EPS foam insulation in walls and ceiling (minimum R-value of R-6).		
Wheelchair Lift Door(s)	Install a wheelchair entrance/exit door(s) (special service door) affixed with stainless steel hinges, door trim and fasteners (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Each door shall include a window and a positive fastening device to hold door in the open position ("hold open" feature). The special service door shall be equipped with a locking device (Padlock and hasp are not acceptable). All items, including lighting, shall be in compliance with the Americans with Disabilities Act (ADA) and FMVSS Nos. 403 & 404.		
Wheelchair Lift	The wheelchair lift shall be automatic electric/hydraulic type (power-up, gravity down) using dual hydraulic cylinders. The hydraulic reservoir capacity shall be at least 1 quart, with easy access for inspection and servicing. The maximum power draw shall not exceed 70 amps at 12 volts. Wheelchair lift unit shall be a Public Use Lift and shall be installed in accordance with manufacturer's standards. The lift must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the lift shall be provided in the event of a power failure.	Manufacturer: Model #:	Braun NCL1000FIB3454-2
Wheelchair Lift	Shall be capable of a minimum of 2500 cycle operation with a minimum of 1,000lb. load.		
Wheelchair Lift	Platform size shall be minimum 34" x 54" (of useable space) and lift capacity shall be minimum 1,000 lbs. Wheelchair lift platform shall be constructed of expanded metal grating with left and right side 2 ½" high safety stops plus a spring loaded or power activated ADA front stop. A pendent type operating control with a cable length sufficient to allow operation of lift at outermost platform position shall be provided. Lift platform shall be automatic power fold/unfold design.		
Wheelchair Lift	A transmission interlock system that utilizes intermittent fault filter technology shall be installed to prevent operation of the lift unless door(s) are opened and transmission is in park with parking brake applied. A manual override system in case of power failure shall also be provided. Lift electric system shall be protected with fuse or circuit breaker.	Manufacturer: Model #:	Intermotive HL510AD
Wheelchair Lift	The spring load, deck end, stop shall be retracted while the lift deck is in the load/unload (down) position. This shall enable the operator to load the lift without holding the stop in its retracted position.		
Wheelchair Lift	Two (2) folding handrails on lift platform measuring approximately 30" Height x 8" Length (minimum) shall be provided. Handrails shall not reduce platform size.		
Wheelchair Lift	Labeled dash mounted visual alarm (in compliance with Chapter VI, Article III, Parts 720/721, NYCRR) to indicate special service door is not fully closed, shall be provided.		
Wheelchair Lift	Shall be fully guaranteed by manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency.		
Wheelchair Lift Barrier	Protective panel with vertical stanchion (consistent with Door Entry Grab Rail specifications), constructed of durable material, shall be installed directly adjacent to the wheelchair lift (when installed) to prevent shearing action between the lift platform and vehicle floor or door jams in conformance with Title 17 NYCRR Part 720.8(a)(3)(b).		
ADA Compliance	All features required for a demand-response application shall be included in the base vehicle in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs.)		
Lighting- Driver Dome Light	An independently controlled LED overhead dome light over driver area producing 6 foot candles when measured at the steering wheel.		

Contractor: Shepard Bros. Inc.

LOT D

Dual Rear Wheel Cutaway <22 ft., 9 Passenger (8 adults/1 wheelchair)

Lighting (Interior)	Overhead, entrance, step well, and lift lights shall be LED and provide no less than two foot-candles of illumination on the entrance step tread, or lift or ramp platform with the door open. Outside light(s) shall provide at least one foot-candle of illumination on the street surface with 3 feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.		
Lighting (Interior)	Overhead entrance and step well lights shall be wired to and be automatically activated by a door controlled switch. Lights shall operate any time the ignition key is on and the door is opened.		
Lighting (Interior)	Interior lighting shall be LED and provide a minimum of two foot-candles of illumination at reading level. Interior lighting fixtures shall be reasonably flush with the interior walls and ceiling so no hazard exists for passengers. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.		
Interior Trim and Padding	All interior panel joints shall be covered with matching trim strips or moldings and all sharp edges, protrusions, corners etc. shall be finished in such a manner to prevent possible injury. (If vacuum lamination is used, joints shall be securely bonded and provide a finished appearance). Any exposed wheelchair lift support brackets, air conditioner units or other similar items shall be padded to prevent injury.		
Heater(s)	An OEM dash air conditioning system plus one (1) 60,000 BTU rear heater shall be provided. Sufficient BTU capacity of front and rear under seat heaters shall be provided to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F. A dash mounted (or other approved location) circulating fan shall be provided for increased circulation of heating and defrosting in driver area. Interior temperature shall be uniform throughout passenger compartment area. Shut-off valves shall be provided for shut-off of main and auxiliary heaters. The first valve shall be located below or behind the driver's entry step well. The second valve shall be located downstream of the second heater. Both shall be labeled providing clear indication of the shut-off valve locations to the driver. Passenger compartment heater hoses shall be equipped with full-flow quarter-turn valves located in a protected location. Location of valves shall be indicated with a label stating "Heater Shutoff Valves" and located to be visibly obvious. All heater hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.	Manufacturer: Model #:	Pro Air 66 000 441
Air Conditioning	Air conditioning system that shall be designed with sufficient BTU cooling capacity to provide a balanced cooling system capable of maintaining a 75°F inside temperature vs. an outside temperature 95°F and a relative humidity of 50%, with ability to continuously decrease temperature inside vehicle (as measured from the approximate vehicle center) a minimum of 1°F for every ninety (90) seconds. (Air Conditioner Manufacturer's Certification that performance requirement for vehicle type can be met must be submitted with bid).		
Air Conditioning	Air Conditioning shall be designed as 2 independent systems. One system shall be OEM chassis supplied, dedicated for cooling and moisture removal from the windshield and drivers area. The second system shall function separate from the OEM dash, with separate controls, engine driven compressor, skirt condenser, and passenger cabin evaporator. BTU and CFM capacities (rear system and front system together) considered minimum required are 48,000BTU and 800CFM.	Manufacturer: Model #: A/C Capacity [Chassis BTUH]: A/C Capacity [Body BTUH]: A/C Airflow [Cab CFM]: A/C Airflow [Body CFM]:	MCC 6W22 MAX 15000 Chassis 45000 BODY 465 800
Air Conditioning	The cabin evaporator shall include directional and adjustable discharge ports. The evaporator shall be installed so as not to intrude from the rear bulk head more than approximately 9" (inches) horizontally into the passenger compartment. Any sharp edges and/or exposed metal associated with the AC unit must have these edges/surfaces appropriately padded to provide for passenger head protection. Aisle height requirements will be measured from a point directly in front of the AC unit. Side mounted evaporators are not permitted.		
Air Conditioning	Each air conditioning system shall use R134A refrigerant. All system components subject to corrosion from moisture shall be aluminum, copper, stainless steel, galvanized, or epoxy coated. All exterior exposed air conditioning electrical connections must utilize weather pac plugs or Compatible Equivalent. An air intake screen shall be installed on the skirt of the vehicle to ensure sufficient airflow through the skirt mounted condenser coil. All hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.		
Safety Vent (three way)	Shall be installed and centered on the roof of the passenger compartment. Vent shall provide for fresh air ventilation, static type exhaust with fresh air ventilation and static type exhaust; and shall be equipped with release handle to provide for emergency exit. Size shall be approximately 23" x 23".	Make: Model #: Size [inches]:	Transpec 1170 Safety Vent 23"x23"
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric or air power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Driver Seat Manufacturer Driver's Seat Model #:	Ford OEM N/A
Seating	Upholstered transit type seats for a minimum of eight (8) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		
Seating	Mid-high back, adult passenger seats shall be supplied in individual passenger modules, Freedman model "GO Seat ES", or other Compatible Equivalent. All ambulatory seats shall be forward facing. Seat cushions per passenger shall be a minimum of 17" in width and 17" in depth, and seat back shall be a minimum of 24" in height, excluding the grab handle. All cushions and seat back covers shall have easily removable covers, replaceable without removing the seat from the bus. All seat cushions in the bus shall have identical upholstery and a spring suspension system. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.	Manufacturer: Model #:	Freedman GO-ES

Contractor: Shepard Bros. Inc.

LOT D

Dual Rear Wheel Cutaway <22 ft., 9 Passenger (8 adults/1 wheelchair)

Seating	Minimum seat widths shall be 17" single and 34" double seats. Aisle width shall be a minimum of 14".	Single Seat Width [inches]:	17.5
		Double Seat Width [inches]:	35
		Minimum Aisle Width [inches]:	14"
Seating	Entire seat frame, except mounting brackets, shall be enclosed in energy absorbing materials. Seat covers shall be transit grade vinyl, 36 oz. per linear yard (Cameo/Predictions), or Compatible Equivalent, or transit grade fabric produced from Marquesa Lana Yarns-Interweave, Regions, or Bus Textil Level 3, or Compatible Equivalent. All cover materials must meet FMVSS 302 flammability requirements. Seat foam must meet ASTM D-3675 Radiant Flammability Test.		
Seating	An approved retractable style integrated 3-point lap and shoulder seat belt shall be provided for each seating space and shall be in compliance with FMVSS 209 & 210. Belt retractors must not interfere with seating space, and two (2) seat belt extensions shall be provided with each vehicle.		
Seating	Molded Top Grab handles/grab rails shall be provided on seat backs of all forward facing seats (including flip seats) and shall be mounted/welded to seat frame structure. This does not apply to single seat positioned immediately forward of the wheelchair lift.		
Wheelchair & Wheelchair Occupant Restraints	One (1) Wheelchair Restraint Systems (Wheelchair and Wheelchair Occupant) shall be provided and installed and designed for "L" track systems. Provide and install a wheelchair and occupant restraint system (including lap belt, retractable shoulder belt with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belt, and retractable shoulder belt with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-1007, or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouches shall be provided to completely secure belts/straps on bus sidewalls when not in use. All items shall be installed in accordance with manufacturer's standards and be in compliance with the American's with Disability Act, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the vehicle interior at a minimum of one restraint position.	Manufacturer:	Q'Straint
		Model #:	Q-10007
Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver's seat position) in the front entry area of the vehicle. Equipment location shall be clearly identified.		
Miscellaneous	Storage compartment with door shall be provided and recessed in the center front cap portion of the vehicle or positioned over the driver's area if the front cap portion is not used for destination signage or air conditioner evaporator placement. The compartment must be sealed and must not have any exposed wires, protrusions or sharp edges		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]:	3
		Chassis Warranty[miles]:	36000
Vehicle Body Warranty	Covering the integrity of the vehicle body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of five (5) years or 150,000 miles.	Body Warranty [years]:	5
		Body Warranty [miles]:	150000
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The chassis OEM air conditioning system coverage falls under the chassis warranty.	Air Conditioning Warranty [years]:	2
Wheelchair Lift Warranty	The lift shall be fully guaranteed by the manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency. In addition, wheelchair lift shall be capable of a minimum of 2500 cycle operations with a minimum of 1,000 lb. load.		

PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section III.2 *Transit Bus Requirements* . See Section III.1.2 *Optional Equipment Unit Price* for pricing information relative to Optional Equipment.

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price
Additional Wheelchair Restraint System	Delete seats (4 maximum) and price one (1) additional wheelchair station above the quantity required in the base vehicle. Price is per position to includes all belts, floor/ shoulder hardware, and storage container			-$734.32
Optional Wheelchair Restraint System	For each wheelchair position in the base vehicle, plus additional optional restraint systems, if ordered, install complete "Omni" style floor securements and complete belts kits, equal to Q-Straint Q-10008 or Sur-Lok AL860S-4C-SNC.	Manufacturer and Model #:	Q straint Q-10008	-$34.30
Continuous "L" track	Install 5 lanes of continuous L track (4 lanes floor mounts, 1 lane shoulder harness) for a single wheelchair position (48" length each)			$254.06
Raised Floor	Provide a flat Floor that is raised above the rear wheel well level of the same quality and materials as the base vehicle. The raised floor shall add a third step at the step well only; any step aft of the step well is not acceptable.			$2,904.05

Contractor: **Shepard Bros. Inc.**

LOT D

Dual Rear Wheel Cutaway <22 ft., 9 Passenger (8 adults/1 wheelchair)

Additional Seat (3-Step Fold Away; Feather Weight; and Forward Facing)	When not included in the base vehicle, provide and install one forward facing fold-away flip seat at a wheelchair station area which shall be a Freedman model "GO ES" seat or other pre-Compatible Equivalent. Flip seat may be lowered to accommodate two (2) ambulatory passengers, when not in use as a wheelchair station. Seat shall be of the same type (including grab handles) and color as standard seats measuring (per passenger) a minimum of 17" in width x 17" in depth x 24" in height as measured from the edge of the cushion. Raising/lowering of the seat shall be accomplished manually and shall include a lock to secure the seat in the raised position. Raised seat plus wheelchair shall not block legal aisle. Integrated 3-point lap and shoulder belts shall be provided at each seating location to accommodate an adult ambulatory passenger and shall be in compliance with FMVSS 210. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.			$860.82
Air Conditioning System (Roof Mounted Condenser)	Provide and install same requirements as base vehicle, except air conditioning system condenser shall be a roof mounted unit.			$874.75
Camera Security System- 6 monitor	Provide and install a complete camera recording system, including software kit. Components include an 8-channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of 5 vehicle functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of 2 exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus 4 interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for 1 or more vehicles with matching camera system. Minimum components include software, mouse, 5-6" monitor, HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR: Manufacturer and Model # of interior camera head: Manufacturer and Model # of exterior camera head:	Seon Seon CJ904A20 CQ903A20 CQ903A50 Seon CA904E120	$3,125.95
Back Up Camera System	Upgrade the back up radar in base vehicle to include a rear view camera.			$214.40
Spare Tire and Rim	Provide a matching spare tire and rim shipped loose			$348.40
Driver Side Running Board	Install a diamond plate additional step up for driver entry.			$129.71

Contractor: **Shepard Bros. Inc.**

LOT E

Dual Rear Wheel Cutaway <22 ft., 11 Passenger (10 adults/1 wheelchair)

PART 1: Product information for the Base Item awarded		
Chassis Model Year	The year used to designate a discrete Chassis Model, irrespective of the calendar year in which the Chassis was actually produced.	2016
Chassis Make	The OEM company name of the Chassis Model.	Ford
Chassis Model	A particular brand of Chassis sold by an OEM.	E350
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	E3F
Body Model Year	The year used to designate a discrete Body Model, irrespective of the calendar year in which the Body was actually produced.	2016
Body Make	The OEM company name of the Body Model.	Coach & Equipment
Body Model	A particular brand of Body sold by an OEM.	Phoenix
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	N/A

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §34, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section III.1 Price for additional information about Contract pricing.	$54,402.93

PART 3: Base Item Specifications

The terms and conditions in Contract Section III.2 *Transit Bus Requirements* shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information provided in Column D	Spec for Equipment Provided
General	Capacity: Minimum 10 adult passenger seats plus 1 wheelchair station	Capacity:	10 Passenger + 1 Wheelchair
General	Floor plan matches "Figures" tab	Manufacturer Floor plan #	N/A
General	Drive configuration: Minimum forward control dual rear wheel (DRW)		
General	Have completed federal STURAA (Altoona) bus testing of not less than five (5) years/150,000 miles or have been certified as exempt as specified under FTA provisions.		
General	GVWR: 12,500 lb. minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lbs]:	12,500
General	Wheelbase: 160 in. (plus or minus 10")	Wheelbase [inches[:	158
General	Minimum 72" continuous passenger aisle headroom	Headroom [inches]:	80"
Chassis (see specifications below)			
Cab	A standard sedan door on the driver's side shall be OEM chassis supplied.		
Engine	Minimum 6.0 liter,8 or 10 cylinder gasoline engine rated minimum 300 HP x 300 lb. ft. torque.	Number of Cylinders:	10
		Liters:	6.8L
		Horsepower and Torque:	305 HP 420 Torque
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 5 gallons) 35-gallon fuel tank		
Cooling System	Chassis manufacturers heaviest duty cooling system available for chassis supplied and protected to minus 30°F;		
Electrical	225 amp OEM alternator	Alternator Capacity [amps]:	225
Electrical	Dual batteries (minimum 650 CCA each) which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative);	Rating of Batteries [at 0 F]:	N/A
		CCA each battery:	650
		Minutes RC:	N/A
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	Transmission shall include a 5 or 6 speed automatic transmission with heavy duty or additional oil cooler.	Transmission Model #:	Elec 6 Speed O/D with Tow Haul
Front Axle	Minimum Front Gross Axle Weight Rating (FGAWR) 4,100lbs.	FGAWR:	5000
Rear Axle	Minimum Rear Gross Axle Weight Rating (RGAWR) 7,500lbs.	RGAWR:	8500
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	Vehicle shall have Front Springs rated at 5,000lbs. minimum and Rear Springs rated at 8,500 lbs. minimum	Front Spring Rating [lbs]:	5000
		Rear Spring Rating [lbs]:	8500
Shock Absorbers	Heavy Duty	Make and Model #:	Ford Oem Gas Type
Brakes	ABS power brakes meeting Federal Motor Vehicle Safety Standard 49CFR571.105	Service Brakes [total lining or sweep area] both front & rear:	614.3
Parking Brake	Foot-operated parking brake		
Tires	Manufacturer's standard all-season radial tread or rib tread w/mud and snow rear, as required to meet the GVWR specified	Radial Tires [size]:	LT225/75R16E
		Radial Tires [load]:	E
		Radial Tires [range]:	E
		Radial Tires [manufacturer]:	Hankook
		Front Tires [tread design]:	LTX Mud/Snow
		Front Tires [capacity/tire]:	2680
		Rear Tires [tread design]:	LTX Mud/Snow
		Rear Tires [capacity/tire]:	2680
Front Bumper	Shall be made of, or covered with, a rust proof material. Front bumper may be OEM chrome or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to body using corrosion resistant material hardware with rustproofing applied to finished installation.	Front Bumper [material]:	Chrome
		Front Bumper [manufacturer]:	Ford OEM
Steering	Power steering	Turning Diameter [at end of front bumper]:	54.8
Steering Wheel	Tilt steering wheel		
Interior Equipment	OEM dash air conditioning, defroster, and heating system		

Contractor: Shepard Bros. Inc.

LOT E

Dual Rear Wheel Cutaway <22 ft., 11 Passenger (10 adults/1 wheelchair)

Radio	Radio: Manufacturer's standard AM/FM/CD Digital Clock Radio, with one driver speaker and two cabin speakers.	Manufacturer: Model #:	Ford OEM AM/FM/CD
Exterior Equipment	Rear tow hooks		
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall be at the rear of the vehicle and shall exit on the street side, aft of the rear axle. The system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or fobs		
Body (see specifications below)			
Body Structure	Shall consist of a heavy-duty integral steel body roll cage structure (from curbside to street side floor connections) fabricated of square or rectangular tubing (or structurally equivalent hat section member) and be in full compliance with Title 17 NYCRR Part 720.4(b)(1). No wood or paper products shall be utilized in the construction of sidewall, roof or transition body panels. Roll cage shall extend forward sufficiently to protect driver in the event of rollover. Documentation consisting of detailed explanation and dimensional drawing supporting the body structures compliance shall be supplied with bid submission for each vehicle classification, including current substantiating documentation (not older than 5 years unless the structure has not been significantly modified as defined by 49 CFR 665) confirming compliance with FMVSS 220 and 221.		
Body	Minimum 90" interior body width (from sidewall to sidewall). Exterior shall be smooth and free of any visible fasteners. Exterior Siding shall be 25-gauge protected (i.e. galvanized) steel (or 24-gauge aluminum) with smooth surface or laminated fiberglass composite reinforced with insulation that is foamed in place or resin hardened honeycomb. Body shall be compliant to all stated General Body specifications. Interior sidewalls shall be fiberglass, vinyl clad aluminum or Compatible Equivalent material. Insulation in walls and ceiling shall be fiberglass, resin-hardened honeycomb (FRP) material, polyurethane, or closed cell EPS foam.	Exterior Siding [material/thickness]: Interior Paneling [material/thickness]: Insulation [material/R Value]:	Galvinized Steel 24 Gauge FRP .06" 6
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	2
Exterior Equipment	Reverse alarm		
Exterior Equipment	Back up radar alarm with 4 bumper mounted sensors. Alarm shall provide an audible alert plus include a dash area mounted LED distance display.	Manufacturer: Model #:	Hawkeye A-Hawk401-A
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior body lights (non-OEM chassis) for these purposes must meet current SAE standards and shall be sealed Light Emitting Diode (LED) type lights on an active regulator circuit that assures uniform illumination of all the LED lighting down to 8 volts. All exterior clearance lights shall be armored (or low-profile design or sufficiently body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door. A mid-ship turn signal shall also be installed on each side of the bus body.		
Batteries	One auxiliary battery shall be mounted in an easily accessible fully enclosed and properly ventilated battery box with stainless steel (or an acceptable non-corrosive material) slide out (with roller track) battery tray located in the vehicle skirt or driver's step and shall include a clearly labeled disconnect switch that shuts off all current to the bus body. Battery Box shall be accessible through a hinged door access which shall be labeled in conformance with Title 17 NYCRR Part 720.6(a). Door shall be affixed with stainless steel fasteners. One OEM battery shall be located under the hood.		
Gutters/Drip Molding	Shall be installed above all vehicle windows and doors, preventing water from draining onto doors and windows.		
Mud Flaps (Front and Rear)	Shall be manufacturers standard. Labeling and Advertising is prohibited, other than for necessary safety information		
Rear Bumper	Shall be made of, or covered with, a rust proof material. Rear bumper shall be stainless steel or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]: Rear Bumper [manufacturer]:	Stainless Steel Tru-Form
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the vehicle and shall comply with SAE J686.		
Exterior Mirror Frames	Mirror Frames and Extension Arms shall be made of rustproof material (i.e. stainless steel/durable plastic) and shall be adequate to prevent excessive vibration of the mirror(s).	Manufacturer: Model #:	Rosco ASM00500201/ASM00
Exterior Mirrors	Driver's side and curbside exterior mirrors shall be heated and remote controlled, with the switch(s) to be installed at a prior approved location. In no case shall the switch be mounted above the windshield. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature. Extension Arms shall be provided on mirrors to allow for a clear and unobstructed view to rear regardless of vehicle width.	Manufacturer: Model #:	Rosco ASM00500201/ASM00 500202
Interior Mirror	Rear view mirror 6x30" shall be provided		
Windows	Passenger windows shall be "T" slider top ventilating or push-out horizontal transit slider type with a minimum 28% tint (light reduction in the passenger compartment). Side and rear windows shall be metal frame construction (painted black) with tempered safety or laminate glass and shall meet FMVSS 217 retention requirements.	Passenger Window [type]: Passenger Window [size]:	T-Slider 31.25"x25.5"
Windows	Twin rear windows are required and shall be manufacturer's standard (6" x 18" minimum) on each side of emergency exit door or special service door. Emergency exit door, when located in rear of vehicle, shall include an upper and lower window		
Windows	Window placement shall conform to manufacturer's standard spacing for length of vehicle offered. Placement and installation of the windows shall not diminish the structural integrity of vehicle. Windows installed as emergency exits as required by FMVSS shall also comply with Title 17 NYCRR Part 720,5 requirements.		
Floor Assembly	Floor Assembly: Shall be insulated and shall include a minimum 5/8" thick marine grade plywood, or 3/4" Advantech sub-floor, or compatible equivalent with a light colored (e.g. light gray), rubber floor covering that shall meet FMVSS 302 and ADA requirements for slip resistance. Floor covering shall be a minimum .140" thick ribbed on steps (if installed) and in the aisle and .124" thick smooth under the seats. Floor shall be securely fastened to galvannealed steel or aluminum belly pan installed on chassis frame.		

Contractor: Shepard Bros. Inc.

LOT E

Dual Rear Wheel Cutaway <22 ft., 11 Passenger (10 adults/1 wheelchair)

Entrance Step	Shall be a low height, front entrance step (lowest practical) and shall comply with ADA 1192.	Top of first step above ground [inches]:	12"
Steps	All step edges shall be a minimum of 9" in depth and have a high visible yellow nosing band running the full width of each step. Buses shall have a maximum of 2 steps (not including ground to first step) with risers not to exceed 10" in height. Steps shall comply with ADA 1192. NOTE: A raised floor (3 steps) is acceptable in the base vehicle, if a standard floor cannot be offered. If a raised floor is included in the base vehicle, pricing for the "Raised Floor" Optional Equipment should be listed as $0.00.		
Entrance Door(s)	A "walk through" minimum 74" high headroom right front entrance door with a minimum clear entry opening of 28" constructed with top and bottom (or length of door) viewing windows and a heavy duty electric opener shall be provided. An interlock (Intermotive Gateway or compatable equivelant) shall be installed and programmed that prevents the door to be opened or closed unless the vehicle speed equals zero (0). Door leading and sectional edges shall be equipped with approximately 2" extruded rubber edges to form weather-tight seal. Door shall be affixed with hinges that provide corrosion protection and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Entrance door surround (portal) and step well shall be constructed from stainless steel or material with equal corrosion resistant properties. Entrance door shall comply with FMVSS 217.	Entrance Door clear opening [inches]:	30"
Door Entry Grab Rails (right and left side)	Shall be installed parallel to the steps, securely fastened and a minimum 1 ¼ " diameter made of stainless steel powder coated material, or non-slip Compatible Equivalent, and shall be a high visible yellow in color, accessible from first step to floor of vehicle.		
Emergency Exit Door	Shall be at the rear center of the bus, in compliance with FMVSS and Title 17 NYCRR Part 720.5 requirements. An interior locking device (vandal lock) shall be provided for emergency exit door(s) and an LED driver station warning light shall be provided to indicate when door is locked. A device shall be installed to prevent the engine from starting when the door is locked. Exterior door handle shall be non-locking. Door shall be constructed with two (minimum 12" x 18") windows situated at the top and bottom of door. Door surround (portal) shall be stainless steel or material with equal corrosion resistant properties. Door shall be affixed with stainless steel hinges and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable).		
Overhead Hand Rail	Two (2) full-length overhead (ceiling) handrails shall be provided and securely attached to roof structure, which shall be continuous except for a gap at the rear doorway, in accordance with Part 38 of the ADA.		
Driver Barrier	Driver Barrier constructed of a vertical and horizontal stanchion, a padded modesty panel, and transparent durable plastic material, or Compatible Equivalent, shall be installed directly behind driver seat. A gap between the ceiling and top of the plexiglass shall be 2 inches +- .5inch		
Padded Panels	Shall be provided attached to a vertical and horizontal stanchion behind the step well. The gap between the floor and bottom of the panel shall meet NYSDOT specifications.		
Interior Paneling	Minimum 24-gauge metal (embossed or with bonded vinyl fiberglass), .040" FRP, or Compatible Equivalent finish.		
Insulation	Fiberglass, resin-hardened-honeycomb (FRP) material, polyurethane, or closed cell EPS foam insulation in walls and ceiling (minimum R-value of R-6).		
Wheelchair Lift Door(s)	Install a wheelchair entrance/exit door(s) (special service door) affixed with stainless steel hinges, door trim and fasteners (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Each door shall include a window and a positive fastening device to hold door in the open position ("hold open" feature). The special service door shall be equipped with a locking device (Padlock and hasp are not acceptable). All items, including lighting, shall be in compliance with the Americans with Disabilities Act (ADA) and FMVSS Nos. 403 & 404.		
Wheelchair Lift	The wheelchair lift shall be automatic electric/hydraulic type (power-up, gravity down) using dual hydraulic cylinders. The hydraulic reservoir capacity shall be at least 1 quart, with easy access for inspection and servicing. The maximum power draw shall not exceed 70 amps at 12 volts. Wheelchair lift unit shall be a Public Use Lift and shall be installed in accordance with manufacturer's standards. The lift must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the lift shall be provided in the event of a power failure.	Manufacturer: Model #:	Braun NCL1000FIB3454-2
Wheelchair Lift	Shall be capable of a minimum of 2500 cycle operation with a minimum of 1,000lb. load.		
Wheelchair Lift	Platform size shall be minimum 34" x 54" (of useable space) and lift capacity shall be minimum 1,000 lbs. Wheelchair lift platform shall be constructed of expanded metal grating with left and right side 2 ½" high safety stops plus a spring loaded or power activated ADA front stop. A pendent type operating control with a cable length sufficient to allow operation of lift at outermost platform position shall be provided. Lift platform shall be automatic power fold/unfold design.		
Wheelchair Lift	A transmission interlock system that utilizes intermittent fault filter technology shall be installed to prevent operation of the lift unless door(s) are opened and transmission is in park with parking brake applied. A manual override system in case of power failure shall also be provided. Lift electric system shall be protected with fuse or circuit breaker.	Manufacturer: Model #:	Intermotive HL510AD
Wheelchair Lift	The spring load, deck end, stop shall be retracted while the lift deck is in the load/unload (down) position. This shall enable the operator to load the lift without holding the stop in its retracted position.		
Wheelchair Lift	Two (2) folding handrails on lift platform measuring approximately 30" Height x 8" Length (minimum) shall be provided. Handrails shall not reduce platform size.		
Wheelchair Lift	Labeled dash mounted visual alarm (in compliance with Chapter VI, Article III, Parts 720/721, NYCRR) to indicate special service door is not fully closed, shall be provided.		
Wheelchair Lift	Shall be fully guaranteed by manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency.		
Wheelchair Lift Barrier	Protective panel with vertical stanchion (consistent with Door Entry Grab Rail specifications), constructed of durable material, shall be installed directly adjacent to the wheelchair lift (when installed) to prevent shearing action between the lift platform and vehicle floor or door jams in conformance with Title 17 NYCRR Part 720.8(a)(3)(b).		

Contractor: Shepard Bros. Inc.

LOT E

Dual Rear Wheel Cutaway <22 ft., 11 Passenger (10 adults/1 wheelchair)

ADA Compliance	All features required for a demand-response application shall be included in the base vehicle in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs.)		
Lighting- Driver Dome Light	An independently controlled LED overhead dome light over driver area producing 6 foot candles when measured at the steering wheel.		
Lighting (Interior)	Overhead, entrance, step well, and lift lights shall be LED and provide no less than two foot-candles of illumination on the entrance step tread, or lift or ramp platform with the door open. Outside light(s) shall provide at least one foot-candle of illumination on the street surface with 3 feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.		
Lighting (Interior)	Overhead entrance and step well lights shall be wired to and be automatically activated by a door controlled switch. Lights shall operate any time the ignition key is on and the door is opened.		
Lighting (Interior)	Interior lighting shall be LED and provide a minimum of two foot-candles of illumination at reading level. Interior lighting fixtures shall be reasonably flush with the interior walls and ceiling so no hazard exists for passengers. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.		
Interior Trim and Padding	All interior panel joints shall be covered with matching trim strips or moldings and all sharp edges, protrusions, corners etc. shall be finished in such a manner to prevent possible injury. (If vacuum lamination is used, joints shall be securely bonded and provide a finished appearance). Any exposed wheelchair ramp support brackets, air conditioner units or other similar items shall be padded to prevent injury.		
Heater(s)	An OEM dash air conditioning system plus one (1) 60,000 BTU rear heater shall be provided. Sufficient BTU capacity of front and rear under seat heaters shall be provided to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F. A dash mounted (or other approved location) circulating fan shall be provided for increased circulation of heating and defrosting in driver area. Interior temperature shall be uniform throughout passenger compartment area. Shut-off valves shall be provided for shut-off of main and auxiliary heaters. The first valve shall be located below or behind the driver's entry step well. The second valve shall be located downstream of the second heater. Both shall be labeled providing clear indication of the shut-off valve locations to the driver. Passenger compartment heater hoses shall be equipped with full-flow quarter-turn valves located in a protected location. Location of valves shall be indicated with a label stating "Heater Shutoff Valves" and located to be visibly obvious. All heater hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.	Manufacturer: Model #:	Pro Air 66 000 441
Air Conditioning	Air conditioning system that shall be designed with sufficient BTU cooling capacity to provide a balanced cooling system capable of maintaining a 75°F inside temperature vs. an outside temperature 95°F and a relative humidity of 50%, with ability to continuously decrease temperature inside vehicle (as measured from the approximate vehicle center) a minimum of 1°F for every ninety (90) seconds. (Air Conditioner Manufacturer's Certification that performance requirement for vehicle type can be met must be submitted with bid).		
Air Conditioning	Air Conditioning shall be designed as 2 independent systems. One system shall be OEM chassis supplied, dedicated for cooling and moisture removal from the windshield and drivers area. The second system shall function separate from the OEM dash, with separate controls, engine driven compressor, skirt condenser, and passenger cabin evaporator. BTU and CFM capacities (rear system and front system together) considered minimum required are 52,000BTU and 800CFM.	Manufacturer: Model #: A/C Capacity [Chassis BTUH]: A/C Capacity [Body BTUH]: A/C Airflow [Cab CFM]: A/C Airflow [Body CFM]:	MCC 7W12-MAX 15000 chassis 50000 Body 465 1600
Air Conditioning	The cabin evaporator shall include directional and adjustable discharge ports. The evaporator shall be installed so as not to intrude from the rear bulk head more than approximately 9" (inches) horizontally into the passenger compartment. Any sharp edges and/or exposed metal associated with the AC unit must have these edges/surfaces appropriately padded to provide for passenger head protection. Aisle height requirements will be measured from a point directly in front of the AC unit. Side mounted evaporators are not permitted.		
Air Conditioning	Each air conditioning system shall use R134A refrigerant. All system components subject to corrosion from moisture shall be aluminum, copper, stainless steel, galvanized, or epoxy coated. All exterior exposed air conditioning electrical connections must utilize weather pac plugs or Compatible Equivalent. An air intake screen shall be installed on the skirt of the vehicle to ensure sufficient airflow through the skirt mounted condenser coil. All hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.		
Safety Vent (three way)	Shall be installed and centered on the roof of the passenger compartment. Vent shall provide for fresh air ventilation, static type exhaust with fresh air ventilation and static type exhaust; and shall be equipped with release handle to provide for emergency exit. Size shall be approximately 23" x 23".	Make: Model #: Size [inches]:	Transpec 1170 Safety Vent 23"x23"
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric or air power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Driver Seat Manufacturer Driver's Seat Model #:	Ford OEM N/A
Seating	Upholstered transit type seats for a minimum of ten (10) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		

Contractor: Shepard Bros. Inc.

LOT E

Dual Rear Wheel Cutaway <22 ft., 11 Passenger (10 adults/1 wheelchair)

Seating	Mid-high back, adult passenger seats shall be supplied in individual passenger modules, Freedman model "GO Seat ES", or other Compatible Equivalent. All ambulatory seats shall be forward facing. Seat cushions per passenger shall be a minimum of 17" in width and 17" in depth, and seat back shall be a minimum of 24" in height, excluding the grab handle. All cushions and seat back covers shall have easily removable covers, replaceable without removing the seat from the bus. All seat cushions in the bus shall have identical upholstery and a spring suspension system. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.	Manufacturer:	Freedman
		Model #:	GO-ES
Seating	Minimum seat widths shall be 17" single and 34" double seats. Aisle width shall be a minimum of 14".	Single Seat Width [inches]:	17.5
		Double Seat Width [inches]:	35
		Minimum Aisle Width [inches]:	14"
Seating	Entire seat frame, except mounting brackets, shall be enclosed in energy absorbing materials. Seat covers shall be transit grade vinyl, 36 oz. per linear yard (Cameo/Predictions), or Compatible Equivalent, or transit grade fabric produced from Marquesa Lana Yarns-Interweave, Regions, or Bus Textil Level 3, or Compatible Equivalent. All cover materials must meet FMVSS 302 flammability requirements. Seat foam must meet ASTM D-3675 Radiant Flammability Test.		
Seating	An approved retractable style integrated 3-point lap and shoulder seat belt shall be provided for each seating space and shall be in compliance with FMVSS 209 & 210. Belt retractors must not interfere with seating space, and two (2) seat belt extensions shall be provided with each vehicle.		
Seating	Molded Top Grab handles/grab rails shall be provided on seat backs of all forward facing seats (including flip seats) and shall be mounted/welded to seat frame structure. This does not apply to single seat positioned immediately forward of the wheelchair lift.		
Wheelchair & Wheelchair Occupant Restraints	One (1) Wheelchair Restraint Systems (Wheelchair and Wheelchair Occupant) shall be provided and installed and designed for "L" track systems. Provide and install a wheelchair and occupant restraint system (including lap belt, retractable shoulder belt with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belt, and retractable shoulder belt with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-1007, or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouches shall be provided to completely secure belts/straps on bus sidewalls when not in use. All items shall be installed in accordance with manufacturer's standards and be in compliance with the American's with Disability Act, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the vehicle interior at a minimum of one restraint position.	Manufacturer:	Q'Straint
		Model #:	Q-10007
Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver's seat position) in the front entry area of the vehicle. Equipment location shall be clearly identified.		
Miscellaneous	Storage compartment with door shall be provided and recessed in the center front cap portion of the vehicle or positioned over the driver's area if the front cap portion is not used for destination signage or air conditioner evaporator placement. The compartment must be sealed and must not have any exposed wires, protrusions or sharp edges		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]:	3
		Chassis Warranty[miles]:	36000
Vehicle Body Warranty	Covering the integrity of the vehicle body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of five (5) years or 150,000 miles.	Body Warranty [years]:	5
		Body Warranty [miles]:	150000
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The chassis OEM air conditioning system coverage falls under the chassis warranty.	Air Conditioning Warranty [years]:	2
Wheelchair Lift Warranty	The lift shall be fully guaranteed by the manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency. In addition, wheelchair lift shall be capable of a minimum of 2500 cycle operations with a minimum of 1,000 lb. load.		

PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section III.2 *Transit Bus Requirements* . See Section III.1.2 *Optional Equipment Unit Price* for pricing information relative to Optional Equipment.

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price
Additional Wheelchair Restraint System	Delete seats (4 maximum) and price one (1) additional wheelchair station above the quantity required in the base vehicle. Price is per position to includes all belts, floor/ shoulder hardware, and storage container			-$689.30
Optional Wheelchair Restraint System	For each wheelchair position in the base vehicle, plus additional optional restraint systems, if ordered, install complete "Omni" style floor securements and complete belts kits, equal to Q-Straint Q-10008 or Sur-Lok AL860S-4C-SNC.	Manufacturer and Model #:	Q straint Q-10008	-$34.30
Continuous "L" track	Install 5 lanes of continuous L track (4 lanes floor mounts, 1 lane shoulder harness) for a single wheelchair position (48" length each)			$254.06
Raised Floor	Provide a flat Floor that is raised above the rear wheel well level of the same quality and materials as the base vehicle. The raised floor shall add a third step at the step well only; any step aft of the step well is not acceptable.			$3,593.34

Contractor: **Shepard Bros. Inc.**

LOT E

Dual Rear Wheel Cutaway <22 ft., 11 Passenger (10 adults/1 wheelchair)

Additional Seat (3-Step Fold Away; Feather Weight; and Forward Facing)	When not included in the base vehicle, provide and install one forward facing fold-away flip seat at a wheelchair station area which shall be a Freedman model "GO ES" seat or other pre-Compatible Equivalent. Flip seat may be lowered to accommodate two (2) ambulatory passengers, when not in use as a wheelchair station. Seat shall be of the same type (including grab handles) and color as standard seats measuring (per passenger) a minimum of 17" in width x 17" in depth x 24" in height as measured from the edge of the cushion. Raising/lowering of the seat shall be accomplished manually and shall include a lock to secure the seat in the raised position. Raised seat plus wheelchair shall not block legal aisle. Integrated 3-point lap and shoulder belts shall be provided at each seating location to accommodate an adult ambulatory passenger and shall be in compliance with FMVSS 210. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.			$860.82
Air Conditioning System (Roof Mounted Condenser)	Provide and install same requirements as base vehicle, except air conditioning system condenser shall be a roof mounted unit.			$874.75
Camera Security System- 6 monitor	Provide and install a complete camera recording system, including software kit. Components include an 8-channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of 5 vehicle functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of 2 exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus 4 interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for 1 or more vehicles with matching camera system. Minimum components include software, mouse, 5-6" monitor, HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR: Manufacturer and Model # of interior camera head: Manufacturer and Model # of exterior camera head:	Seon Seon CJ904A20 CQ903A20 CQ903A50 Seon CA904E120	$3,125.95
Back Up Camera System	Upgrade the back up radar in base vehicle to include a rear view camera.			$214.40
Spare Tire and Rim	Provide a matching spare tire and rim shipped loose			$348.40
Driver Side Running Board	Install a diamond plate additional step up for driver entry.			$129.71

Contractor: Alliance Bus Group Inc.

LOT F

Low Floor Cutaway, 17 Passenger (15 adults/2 wheelchair)

PART 1: Product information for the Base Item awarded		
Chassis Model Year	The year used to designate a discrete Chassis Model, irrespective of the calendar year in which the Chassis was actually produced.	2016
Chassis Make	The OEM company name of the Chassis Model.	Chevy
Chassis Model	A particular brand of Chassis sold by an OEM.	Express 4500 GM Cutaway
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	CG33803
Body Model Year	The year used to designate a discrete Body Model, irrespective of the calendar year in which the Body was actually produced.	2016
Body Make	The OEM company name of the Body Model.	Arboc SV
Body Model	A particular brand of Body sold by an OEM.	Spirit of Mobility
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §34, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section III.1 Price for additional information about Contract pricing.	$137,108.80

PART 3: Base Item Specifications

The terms and conditions in Contract Section III.2 *Transit Bus Requirements* shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information provided in Column D	Spec for Equipment Provided
General	Capacity: Minimum 15 adult passenger seats plus 2 wheelchair stations	Capacity:	15pass & 2wc
General	Floor plan matches "Figures" tab	Manufacturer Floor plan #	1205007
General	Drive configuration: Minimum forward control dual rear wheel (DRW)		
General	Have completed federal STURAA (Altoona) bus testing of not less than five (5) years/150,000 miles or have been certified as exempt as specified under FTA provisions.		
General	GVWR: 14,000 lb. minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lbs]:	14,200
General	Wheelbase: 190 in. (plus or minus 10")	Wheelbase [inches[:	Base 191"
General	Minimum 75" continuous passenger aisle headroom	Headroom [inches]:	Front 85" Rear 77"
Chassis (see specifications below)			
Cab	A standard sedan door on the driver's side shall be OEM chassis supplied.		
Engine	Minimum 6.0 liter, V-8 gasoline engine rated minimum 300 HP x 300 lb. ft. torque.	Number of Cylinders:	8
		Liters:	6
		Horsepower and Torque:	300HP, 360LB/FT
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 5 gallons) 60-gallon fuel tank		
Cooling System	Chassis manufacturers heaviest duty cooling system available for chassis supplied and protected to minus 30°F;		
Electrical	145 amp OEM alternator		
Electrical	Dual batteries (minimum 650 CCA each) which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative);	Rating of Batteries [at 0 F]:	1540
		CCA each battery:	770CCA
		Minutes RC:	120RC
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	Transmission shall include a 5 or 6 speed automatic transmission with heavy duty or additional oil cooler.	Transmission Model #:	OEM 6 Speed
Front Axle	Minimum Front Gross Axle Weight Rating (FGAWR) 4,600lbs.	FGAWR:	4,600
Rear Axle	Minimum Rear Gross Axle Weight Rating (RGAWR) 9,500lbs.	RGAWR:	9,600
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	Shall have front /rear air suspension with engine driven or electric driven compressors rated minimum 5CFM @ 100 PSI and 1750 RPM that shall automatically kneel a minimum of 4".	Front Suspension Rating	4600
		Rear Suspension Rating	9600
Shock Absorbers	Heavy Duty	Make and Model #:	Front: OEM
Brakes	ABS power brakes meeting Federal Motor Vehicle Safety Standard 49CFR571.105	Service Brakes [total lining or sweep area] both front & rear:	OEM GM
Parking Brake	Foot-operated parking brake		
Tires	Manufacturer's standard all-season radial tread or rib tread w/mud and snow rear, as required to meet the GVWR specified	Radial Tires [size]:	LT225/75R16E
		Radial Tires [load]:	E
		Radial Tires [range]:	E
		Radial Tires [manufacturer]:	OEM (General)
		Front Tires [tread design]:	All weather
		Front Tires [capacity/tire]:	2680lbs @ 80psi
		Rear Tires [tread design]:	All weather
		Rear Tires [capacity/tire]:	Dual 2470lbs @ 80psi
Front Bumper	Shall be made of, or covered with, a rust proof material. Front bumper may be OEM chrome or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to body using corrosion resistant material hardware with rustproofing applied to finished installation.	Front Bumper [material]:	OEM Chrome
		Front Bumper [manufacturer]:	OEM/GM
Steering	Power steering	Turning Diameter [at end of front bumper]:	Curb to Curb 33'-6" Wall to Wall 34'-6"
Steering Wheel	Tilt steering wheel		
Interior Equipment	OEM dash air conditioning, defroster, and heating system		

Contractor: Alliance Bus Group Inc.

LOT F

Low Floor Cutaway, 17 Passenger (15 adults/2 wheelchair)

Radio	Radio: Manufacturer's standard AM/FM/CD Digital Clock Radio, with one driver speaker and two cabin speakers.	Manufacturer: Model #:	Jensen JBR550
Exterior Equipment	Rear tow hooks		
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall be at the rear of the vehicle and shall exit on the street side, aft of the rear axle. The system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or fobs		
Body (see specifications below)			
Body Structure	Shall consist of a heavy-duty integral steel body roll cage structure (from curbside to street side floor connections) fabricated of square or rectangular tubing (or structurally equivalent hat section member) and be in full compliance with Title 17 NYCRR Part 720.4(b)(1). No wood or paper products shall be utilized in the construction of sidewall, roof or transition body panels. Roll cage shall extend forward sufficiently to protect driver in the event of rollover. Documentation consisting of detailed explanation and dimensional drawing supporting the body structures compliance shall be supplied with bid submission for each vehicle classification, including current substantiating documentation (not older than 5 years unless the structure has not been significantly modified as defined by 49 CFR 665) confirming compliance with FMVSS 220, 221 and 214.		
Body	Minimum 90" interior body width (from sidewall to sidewall). Exterior shall be smooth and free of any visible fasteners. Exterior Siding shall be 25-gauge protected (i.e. galvanized) steel (or 24-gauge aluminum) with smooth surface or laminated fiberglass composite (0.090" -0.095" thick) reinforced with insulation that is foamed in place or resin hardened honeycomb. Body shall be compliant to all stated General Body specifications. Interior sidewalls shall be fiberglass, vinyl clad aluminum or Compatible Equivalent material. Insulation in walls and ceiling shall be fiberglass, resin-hardened honeycomb (FRP) material, polyurethane, or closed cell EPS foam.	Exterior Siding [material/thickness]: Interior Paneling [material/thickness]: Insulation [material/R Value]:	Lamilux 4000 1.7mm Lamilux 1000 1.2mm 1.5"-1.5lb dentsity polystyrene (R9)
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	2
Exterior Equipment	Reverse alarm		
Exterior Equipment	Back up radar alarm with 4 bumper mounted sensors. Alarm shall provide an audible alert plus include a dash area mounted LED distance display.	Manufacturer: Model #:	Romeo Rim/Hawkeye B02100201AXA
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior body lights (non-OEM chassis) for these purposes must meet current SAE standards and shall be sealed Light Emitting Diode (LED) type lights on an active regulator circuit that assures uniform illumination of all the LED lighting down to 8 volts. All exterior clearance lights shall be armored (or low-profile design or sufficiently body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door. A mid-ship turn signal shall also be installed on each side of the bus body.		
Batteries	One auxiliary battery shall be mounted in an easily accessible fully enclosed and properly ventilated battery box with stainless steel (or an acceptable non-corrosive material) slide out (with roller track) battery tray located in the vehicle skirt or driver's step and shall include a clearly labeled disconnect switch that shuts off all current to the bus body. Battery Box shall be accessible through a hinged door access which shall be labeled in conformance with Title 17 NYCRR Part 720.6(a). Door shall be affixed with stainless steel fasteners. One OEM battery shall be located under the hood.		
Gutters/Drip Molding	Shall be installed above all vehicle windows and doors, preventing water from draining onto doors and windows.		
Mud Flaps (Front and Rear)	Shall be manufacturers standard. Labeling and Advertising is prohibited, other than for necessary safety information		
Rear Bumper	Shall be made of, or covered with, a rust proof material. Rear bumper shall be stainless steel or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]: Rear Bumper [manufacturer]:	High Density Rubber Romeo Rim
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the vehicle and shall comply with SAE J686.		
Exterior Mirror Frames	Mirror Frames and Extension Arms shall be made of rustproof material (i.e. stainless steel/durable plastic) and shall be adequate to prevent excessive vibration of the mirror(s).	Manufacturer: Model #:	Velvac 2020XG
Exterior Mirrors	Driver's side and curbside exterior mirrors shall be heated and remote controlled, with the switch(s) to be installed at a prior approved location. In no case shall the switch be mounted above the windshield. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature. Extension Arms shall be provided on mirrors to allow for a clear and unobstructed view to rear regardless of vehicle width.	Manufacturer: Model #:	Velvac 2020XG-HR
Interior Mirror	Rear view mirror 6" x 30" shall be provided		
Windows	Passenger windows shall be "T" slider top ventilating or push-out horizontal transit slider type with a minimum 28% tint (light reduction in the passenger compartment). Side and rear windows shall be metal frame construction (painted black) with tempered safety or laminate glass and shall meet FMVSS 217 retention requirements.	Passenger Window [type]: Passenger Window [size]:	T-Slider 19x36, 36x36, 36x45
Windows	Twin rear windows are required and shall be manufacturer's standard (6" x 18" minimum) on each side of emergency exit door or special service door. Emergency exit door, when located in rear of vehicle, shall include an upper and lower window		
Windows	Window placement shall conform to manufacturer's standard spacing for length of vehicle offered. Placement and installation of the windows shall not diminish the structural integrity of vehicle. Windows installed as emergency exits as required by FMVSS shall also comply with Title 17 NYCRR Part 720,5 requirements.		
Floor Assembly	Shall be single piece insulating 5/8" thick marine grade plywood with sealed edges and underside of flooring completely sealed from moisture and debris using poly-urea coating, or Compatible Equivalent, and seamless transit grade flooring surface material, or Compatible Equivalent. Low floor must be sufficiently insulated to protect Interior Noise Level, which may not exceed 83 DBA anywhere within passenger compartment area. Floor covering that shall meet FMVSS 302 and ADA requirements for slip resistance.		

Contractor: Alliance Bus Group Inc.

LOT F

Low Floor Cutaway, 17 Passenger (15 adults/2 wheelchair)

Entrance Step	Shall be a low height, front entrance step (lowest practical) and shall comply with ADA 1192.	Top of first step above ground [inches]:	10.5"
Steps	Passenger steps are not permitted		
Entrance Door(s)	A "walk through" minimum 74" high headroom right front entrance door with a minimum clear entry opening of 38" constructed with top and bottom (or length of door) viewing windows and a heavy duty electric opener shall be provided. An interlock (Intermotive Gateway or compatable equivelant) shall be installed and programmed that prevents the door to be opened or closed unless the vehicle speed equals zero (0). Door leading and sectional edges shall be equipped with approximately 2" extruded rubber edges to form weather-tight seal. Door shall be affixed with hinges that provide corrosion protection and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Entrance door surround (portal) and step well shall be constructed from stainless steel or material with equal corrosion resistant properties. Entrance door shall comply with FMVSS 217.	Entrance Door clear opening [inches]:	39"x75"
Door Entry Grab Rails (right and left side)	Shall be installed on each side of entry, securely fastened and a minimum 1 ¼ " diameter made of stainless steel powder coated material, or non-slip Compatible Equivalent, and shall be a high visible yellow in color, accessible from first step to floor of vehicle.		
Emergency Exit Door	Shall be at the rear center of the bus, in compliance with FMVSS and Title 17 NYCRR Part 720.5 requirements. An interior locking device (vandal lock) shall be provided for emergency exit door(s) and an LED driver station warning light shall be provided to indicate when door is locked. A device shall be installed to prevent the engine from starting when the door is locked. Exterior door handle shall be non-locking. Door shall be constructed with two (minimum 12" x 18") windows situated at the top and bottom of door. Door surround (portal) shall be stainless steel or material with equal corrosion resistant properties. Door shall be affixed with stainless steel hinges and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable).		
Overhead Hand Rail	Two (2) full-length overhead (ceiling) handrails shall be provided and securely attached to roof structure, which shall be continuous except for a gap at the rear doorway, in accordance with Part 38 of the ADA.		
Driver Barrier	Driver Barrier constructed of a vertical and horizontal stanchion, a padded modesty panel, and transparent durable plastic material, or Compatible Equivalent, shall be installed directly behind driver seat. A gap between the ceiling and top of the plexiglass shall be 2 inches +- .5inch		
Padded Panels	Shall be provided attached to a vertical and horizontal stanchion behind the step well. The gap between the floor and bottom of the panel shall meet NYSDOT specifications.		
Interior Paneling	Minimum 24-gauge metal (embossed or with bonded vinyl fiberglass), .040" FRP, or Compatible Equivalent finish.		
Insulation	Fiberglass, resin-hardened-honeycomb (FRP) material, polyurethane, or closed cell EPS foam insulation in walls and ceiling (minimum R-value of R-6).		
Wheelchair and Passenger Access	Modify vehicle to provide a power (and manual in event of power failure) transit ramp at entrance door. All items, including lighting, shall be in compliance with the American's with Disabilities Act (ADA) and FMVSS Nos. 403 & 404.		
Ramp	The ramp shall meet the requirements of Part 38 of the Americans with Disabilities Act relating to vehicle ramps. Power switches for ramp shall be provided and easily accessible on both the driver console and body exterior near passenger entry opening. Ramp shall deploy through the main passenger entry opening and be protected from moisture and debris from underside and sufficiently insulated to protect interior noise level. The ramp shall be of aluminum or stainless steel construction, with stainless steel housing. The ramp must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the lift shall be provided in the event of a power failure.	Manufacturer: Model #:	Braun Lift Corp. BF3462Y
Ramp slope	Maximum ratio of 1:4 slope when ramp is deployed to sidewalk or roadway		
Interlock	A transmission interlock system that utilizes intermittent fault filter technology shall be installed to prevent operation of the ramp unless door(s) are opened and transmission is in park with parking brake applied. A manual override system in case of power failure shall also be provided. Ramp electric system shall be protected with fuse or circuit breaker.	Manufacturer: Model #:	Intermotive GTWY605-F-X1
Wheelchair Ramp Barrier	Protective panel with vertical stanchion (consistent with Door Entry Grab Rail specifications), constructed of durable material, shall be installed directly adjacent to the passenger entrance to prevent shearing action between the ramp and vehicle floor or door jams in conformance with Title 17 NYCRR Part 720.8(a)(3)(b).		
ADA Compliance	All features required for a demand-response application shall be included in the base vehicle in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs.)		
Lighting- Driver Dome Light	An independently controlled LED overhead dome light over driver area producing 6 foot candles when measured at the steering wheel.		
Lighting (Interior)	Overhead, entrance, step well, and lift lights shall be LED and provide no less than two foot-candles of illumination on the entrance step tread, or lift or ramp platform with the door open. Outside light(s) shall provide at least one foot-candle of illumination on the street surface with 3 feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.		
Lighting (Interior)	Overhead entrance and stepwell lights shall be wired to and be automatically activated by a door controlled switch. Lights shall operate any time the ignition key is on and the door is opened.		
Lighting (Interior)	Interior lighting shall be LED and provide a minimum of two foot-candles of illumination at reading level. Interior lighting fixtures shall be reasonably flush with the interior walls and ceiling so no hazard exists for passengers. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.		
Interior Trim and Padding	All interior panel joints shall be covered with matching trim strips or moldings and all sharp edges, protrusions, corners etc. shall be finished in such a manner to prevent possible injury. (If vacuum lamination is used, joints shall be securely bonded and provide a finished appearance). Any exposed wheelchair lift support brackets, air conditioner units or other similar items shall be padded to prevent injury.		
Heater(s)	An OEM dash air conditioning system plus two (2) rear heaters shall be provided. Sufficient BTU	Manufacturer:	Pro Air

Contractor: Alliance Bus Group Inc.

LOT F

Low Floor Cutaway, 17 Passenger (15 adults/2 wheelchair)

	capacity of front and rear under seat heaters shall be provided to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F. A dash mounted (or other approved location) circulating fan shall be provided for increased circulation of heating and defrosting in driver area. Interior temperature shall be uniform throughout passenger compartment area. Shut-off valves shall be provided for shut-off of main and auxiliary heaters. The first valve shall be located below or behind the driver's entry step well. The second valve shall be located downstream of the second heater. Both shall be labeled providing clear indication of the shut-off valve locations to the driver. Passenger compartment heater hoses shall be equipped with full-flow quarter-turn valves located in a protected location. Location of valves shall be indicated with a label stating "Heater Shutoff Valves" and located to be visibly obvious. All heater hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.	Model #:	50001250
Air Conditioning	Air conditioning system that shall be designed with sufficient BTU cooling capacity to provide a balanced cooling system capable of maintaining a 75°F inside temperature vs. an outside temperature 95°F and a relative humidity of 50%, with ability to continuously decrease temperature inside vehicle (as measured from the approximate vehicle center) a minimum of 1°F for every ninety (90) seconds. (Air Conditioner Manufacturer's Certification that performance requirement for vehicle type can be met must be submitted with bid).		
Air Conditioning	Air Conditioning shall be designed as 2 independent systems. One system shall be OEM chassis supplied, dedicated for cooling and moisture removal from the windshield and drivers area. The second system shall function separate from the OEM dash, with separate controls, engine driven compressor, roof mounted condenser, and passenger cabin evaporator. BTU and CFM capacities (rear system and front system together) considered minimum required are 68,000BTU and 1,600CFM.	Manufacturer: Model #: A/C Capacity [Chassis BTUH]: A/C Capacity [Body BTUH]: A/C Airflow [Cab CFM]: A/C Airflow [Body CFM]:	Trans Air TA73R60S 15,000 OEM 55,000 400CFM 1480CFM
Air Conditioning	The cabin evaporator shall include directional and adjustable discharge ports. The evaporator shall be installed so as not to intrude from the rear bulk head more than approximately 9" (inches) horizontally into the passenger compartment. Any sharp edges and/or exposed metal associated with the AC unit must have these edges/surfaces appropriately padded to provide for passenger head protection. Aisle height requirements will be measured from a point directly in front of the AC unit. Side mounted evaporators are not permitted.		
Air Conditioning	Each air conditioning system shall use R134A refrigerant. All system components subject to corrosion from moisture shall be aluminum, copper, stainless steel, galvanized, or epoxy coated. All exterior exposed air conditioning electrical connections must utilize weather pac plugs or Compatible Equivalent. An air intake screen shall be installed on the skirt of the vehicle to ensure sufficient airflow through the skirt mounted condenser coil. All hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.		
Safety Vent (three way)	Shall be installed and centered on the roof of the passenger compartment. Vent shall provide for fresh air ventilation, static type exhaust with fresh air ventilation and static type exhaust; and shall be equipped with release handle to provide for emergency exit. Size shall be approximately 23" x 23".	Make: Model #: Size [inches]:	Transpec T1176016001 23.5" x23.5"
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric or air power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Driver Seat Manufacturer Driver's Seat Model #:	OEM/GM OEM/GM Adnick base
Seating	Upholstered transit type seats for a minimum of fourteen (14) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		
Seating	Mid-high back, fixed and 3-step foldaway adult passenger seats shall be supplied in individual passenger modules, Freedman model "GO Seat ES", "GO-ES Seat Foldaway", or other Compatible Equivalent. All ambulatory seats shall be forward facing. Seat cushions per passenger shall be a minimum of 17" in width and 17" in depth, and seat back shall be a minimum of 24" in height, excluding the grab handle. All cushions and seat back covers shall have easily removable covers, replaceable without removing the seat from the bus. All seat cushions in the bus shall have identical upholstery and a spring suspension system. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.	Manufacturer: Model #:	Freedman Seating Co. GO-ES cellection
Seating	Minimum seat widths shall be 17" single and 34" double seats. Aisle width shall be a minimum of 14".	Single Seat Width [inches]: Double Seat Width [inches]: Minimum Aisle Width [inches]:	17.5" 35" 17.5"
Seating	Entire seat frame, except mounting brackets, shall be enclosed in energy absorbing materials. Seat covers shall be transit grade vinyl, 36 oz. per linear yard (Cameo/Predictions), or Compatible Equivalent, or transit grade fabric produced from Marquesa Lana Yarns-Interweave, Regions, or Bus Textil Level 3, or Compatible Equivalent. All cover materials must meet FMVSS 302 flammability requirements. Seat foam must meet ASTM D-3675 Radiant Flammability Test.		
Seating	An approved retractable style integrated 3-point lap and shoulder seat belt shall be provided for each seating space and shall be in compliance with FMVSS 209 & 210. Belt retractors must not interfere with seating space, and two (2) seat belt extensions shall be provided with each vehicle.		
Seating	Molded Top Grab handles/grab rails shall be provided on seat backs of all forward facing seats (including flip seats) and shall be mounted/welded to seat frame structure. This does not apply to single seat positioned immediately forward of the wheelchair lift.		

Contractor: Alliance Bus Group Inc.

LOT F

Low Floor Cutaway, 17 Passenger (15 adults/2 wheelchair)

Wheelchair & Wheelchair Occupant Restraints	Two (2) Wheelchair Restraint Systems (Wheelchair and Wheelchair Occupant) shall be provided and installed and designed for "L" track systems. Provide and install wheelchair and occupant restraint systems (including lap belts, retractable shoulder belts with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belts, and retractable shoulder belts with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-1007, or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouches shall be provided to completely secure belts/straps on bus sidewalls when not in use. All items shall be installed in accordance with manufacturer's standards and be in compliance with the American's with Disability Act, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the vehicle interior at a minimum of one restraint position.	Manufacturer:	Q-straint
		Model #:	Q-10007
Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver's seat position) in the front entry area of the vehicle. Equipment location shall be clearly identified.		
Miscellaneous	Storage compartment with door shall be provided and recessed in the center front cap portion of the vehicle or positioned over the driver's area if the front cap portion is not used for destination signage or air conditioner evaporator placement. The compartment must be sealed and must not have any exposed wires, protrusions or sharp edges		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]:	3
		Chassis Warranty[miles]:	36,000
Vehicle Body Warranty	Covering the integrity of the vehicle body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of five (5) years or 150,000 miles.	Body Warranty [years]:	5
		Body Warranty [miles]:	150,000
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The chassis OEM air conditioning system coverage falls under the chassis warranty.	Air Conditioning Warranty [years]:	3
Wheelchair Ramp Warranty	The ramp shall be fully guaranteed by the manufacturer for three (3) years (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency.		

PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section III.2 *Transit Bus Requirements* . See Section III.1.2 *Optional Equipment Unit Price* for pricing information relative to Optional Equipment.

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price
Hybrid System Propulsion	Add a hybrid propulsion system to the base vehicle. The hybrid system will be installed downstream of the OEM engine and transmission, conserving energy through regenerative braking, and storing that energy in ultracapacitor(s) or battery(s) for an electric assist launch. The hybrid system installation and operation shall not void the OEM chassis warranty. The hybrid system shall provide a minimum 2 year/36,000 mile warranty. Compliant with SAE J2343 and NFPA 52, if applicable.	Hybrid Propulsion System Make and Model #:	XL Hybrids X3-F-300-LF	$18,009.60
Additional Wheelchair Restraint System	Delete seats (4 maximum) and price one (1) additional wheelchair station above the quantity required in the base vehicle. Price is per position to includes all belts, floor/ shoulder hardware, and storage container	Manufacturer and Model #:	Q'Straint Q-10007	-$428.80
Optional Wheelchair Restraint System	For each wheelchair position in the base vehicle, plus additional optional restraint systems, if ordered, install complete "Omni" style floor securements and complete belts kits, equal to Q-Straint Q-10008 or Sur-Lok AL860S-4C-SNC.			$53.60
Continuous "L" track	Install 5 lanes of continuous L track (4 lanes floor mounts, 1 lane shoulder harness) for a single wheelchair position (48" length each)			$80.40
Additional Seat (3-Step Fold Away; Feather Weight; and Forward Facing)	When not included in the base vehicle, provide and install one forward facing fold-away flip seat at a wheelchair station area which shall be a Freedman model "GO ES" seat or other pre-Compatible Equivalent. Flip seat may be lowered to accommodate two (2) ambulatory passengers, when not in use as a wheelchair station. Seat shall be of the same type (including grab handles) and color as standard seats measuring (per passenger) a minimum of 17" in width x 17" in depth x 24" in height as measured from the edge of the cushion. Raising/lowering of the seat shall be accomplished manually and shall include a lock to secure the seat in the raised position. Raised seat plus wheelchair shall not block legal aisle. Integrated 3-point lap and shoulder belts shall be provided at each seating location to accommodate an adult ambulatory passenger and shall be in compliance with FMVSS 210. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.			$1,179.20
Delete 4 Passenger Seat Option	Reduce body length and wheelbase as referenced in the floor plan shown in the "Figures" tab for LOT F, "Delete 4 seat option". Remove 4 passenger seats on the curb side and forward of the rear wheelwell and replace with a dedicated wheelchair station. The capacity will be reduced to 13 adults (11 seats plus 2 wheelchairs), exclusive of ordering optional foldaway seats.	Body Model #:	SOM23	-$2,948.00
		Overall Body Length :	291"	
		Wheelbase:	165"	

Contractor: **Alliance Bus Group Inc.**

LOT F

Low Floor Cutaway, 17 Passenger (15 adults/2 wheelchair)

Supplemental ADA Transit Package	Provide and install the following items (All items to be in compliance with Americans with Disabilities Act): Front and side electronic destination signs – LED type (14 rows and 72 columns minimum) and programmable with a USB key, Twin Vision Mobi-Lite or Compatible Equivalent, interior/exterior PA system, pull cord and touch strips chime signal system (at wheelchair positions), two-way radio pre-wire with 30 amp fused circuit, consisting of roof mounted antenna location access, antenna cable conduit with pull cord, and a dedicated circuit with electrical wire terminating in drivers area.			$4,824.00
Camera Security System- 6 monitor	Provide and install a complete camera recording system, including software kit. Components include an 8-channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of 5 vehicle functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of 2 exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus 4 interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for 1 or more vehicles with matching camera system. Minimum components include software, mouse, 5-6" monitor, HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR: Manufacturer and Model # of interior camera head: Manufacturer and Model # of exterior camera head:	AngelTrax, Hybrid Quest AngelTrax, HDQ2500,HDQ4000 AngelTrax, HDQ3600WPR, HDQ3600WPB	$4,824.00
Fiberglass Seating	Fiberglass Seating: Provide and install FMVSS certified fiberglass transit style seating (4ONE Gemini model, American Seating (Metropolitan and Insight) models, Freedman CitiSeat model or Compatible Equivalent) in lieu of previously specified base vehicle seating. Seats shall include a plastic back shell, anti-microbial grab rails, and padded, tough to cut vandal resistant inserts.			$2,840.80
Fare Box (Electronic)	Provide and install a fare collection system, comparable to GenFare “CENTSaBILL” or equal model with 3 height positions, that can accommodate automatic validation and processing of coins, bills, and magnetic fare cards.	Manufacturer and Model#:	Genfare Centsabill	$11,684.80
Fare Box (Manual)	Provide and install a fare collection system, comparable to Diamond Model NV or equal model, complete with all floor mounting hardware and spare vault.	Manufacturer and Model #:	Diamond, # XV	$1,393.60
Bike Rack	Provide and install a folding device attached to the front body of the vehicle that is designed and used exclusively for transporting bicycles. The device shall be stainless steel material and may not extend more than 36 inches from the front body, and the handlebars of a bicycle transported on such device may not extend more than 42 inches from the front body of the vehicle.			$2,026.08
Back Up Camera System	Upgrade the back up radar in base vehicle to include a rear view camera.			$428.80
Spare Tire and Rim	Provide a matching spare tire and rim shipped loose			$375.20
Driver Side Running Board	Install a diamond plate additional step up for driver entry.			$0.00
Alternate Transit Flooring	In lieu of rubber floor covering, supply an alternate floor covering, to be a smooth slip resistant vinyl with aluminum oxide granules throughout the entire thickness of the wear layer with silicon carbide and base color quartz in the surface layer. The floor covering shall be a minimum of 2.7mm thick. The floor covering is to include a bacteriostat to prevent growth of mold and mildew for the life of the product. Term of warranty shall be 15 years.	Brand and Model #: Thickness [mm]: Warranty [years]:	Altro #TFM 27903 Storm Grey 2.7MM 15yrs	$991.60

Contractor: Shepard Bros. Inc.

LOT G

Dual Rear Wheel Cutaway >22 ft., 16 Passenger (14 adults/2 wheelchair)

PART 1: Product information for the Base Item awarded		
Chassis Model Year	The year used to designate a discrete Chassis Model, irrespective of the calendar year in which the Chassis was actually produced.	2016
Chassis Make	The OEM company name of the Chassis Model.	Ford
Chassis Model	A particular brand of Chassis sold by an OEM.	E450
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	E4F
Body Model Year	The year used to designate a discrete Body Model, irrespective of the calendar year in which the Body was actually produced.	2016
Body Make	The OEM company name of the Body Model.	Coach and Equipment
Body Model	A particular brand of Body sold by an OEM.	Phoenix
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	N/A

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §34, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section III.1 Price for additional information about Contract pricing.	$59,973.04

PART 3: Base Item Specifications

The terms and conditions in Contract Section III.2 *Transit Bus Requirements* shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information provided in Column D	Spec for Equipment Provided
General	Capacity: Minimum 14 adult passenger seats plus 2 wheelchair stations	Capacity:	14 Passengers + 2
General	Floor plan matches "Figures" tab	Manufacturer Floor plan #	N/A
General	Drive configuration: Minimum forward control dual rear wheel (DRW)		
General	Have completed federal STURAA (Altoona) bus testing of not less than five (5) years/150,000 miles or have been certified as exempt as specified under FTA provisions.		
General	GVWR: 14,500 lb. minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lbs]:	14500
General	Wheelbase: 180 in. (plus or minus 10")	Wheelbase [inches[:	176
General	Minimum 72" continuous passenger aisle headroom	Headroom [inches]:	74"
Chassis (see specifications below)			
Cab	A standard sedan door on the driver's side shall be OEM chassis supplied.		
Engine	Minimum 6.8 liter,10 cylinder gasoline engine rated minimum 300 HP x 300 lb. ft. torque.	Number of Cylinders:	10
		Liters:	6.8L
		Horsepower and Torque:	305 HP 420 Torque
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 5 gallons) 60-gallon fuel tank		
Cooling System	Chassis manufacturers heaviest duty cooling system available for chassis supplied and protected to minus 30°F;		
Electrical	225 amp OEM alternator	Alternator Capacity [amps]:	225
Electrical	Dual batteries (minimum 650 CCA each) which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative);	Rating of Batteries [at 0 F]:	N/A
		CCA each battery:	650
		Minutes RC:	N/A
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	Transmission shall include a 5 or 6 speed automatic transmission with heavy duty or additional oil cooler.	Transmission Model #:	Elec 6 Speed O/D with Tow Haul
Front Axle	Minimum Front Gross Axle Weight Rating (FGAWR) 4,600lbs.	FGAWR:	5000
Rear Axle	Minimum Rear Gross Axle Weight Rating (RGAWR) 9,500lbs.	RGAWR:	9600
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	Vehicle shall have Front Springs rated at 5,000lbs. minimum and Rear Springs rated at 9,500 lbs. minimum	Front Spring Rating [lbs]:	5000
		Rear Spring Rating [lbs]:	9600
Shock Absorbers	Heavy Duty	Make and Model #:	Ford Oem Gas Type
Brakes	ABS power brakes meeting Federal Motor Vehicle Safety Standard 49CFR571.105	Service Brakes [total lining or sweep area] both front & rear:	614.3
Parking Brake	Foot-operated parking brake		
Tires	Manufacturer's standard all-season radial tread or rib tread w/mud and snow rear, as required to meet the GVWR specified	Radial Tires [size]:	LT225/75R16E
		Radial Tires [load]:	E
		Radial Tires [range]:	E
		Radial Tires [manufacturer]:	Hankook
		Front Tires [tread design]:	LTX Mud/Snow
		Front Tires [capacity/tire]:	2680
		Rear Tires [tread design]:	LTX Mud/Snow
		Rear Tires [capacity/tire]:	2680
Front Bumper	Shall be made of, or covered with, a rust proof material. Front bumper may be OEM chrome or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to body using corrosion resistant material hardware with rustproofing applied to finished installation.	Front Bumper [material]:	Chrome
		Front Bumper [manufacturer]:	Ford OEM
Steering	Power steering	Turning Diameter [at end of front bumper]:	60.3
Steering Wheel	Tilt steering wheel		

Contractor: Shepard Bros. Inc.

LOT G

Dual Rear Wheel Cutaway >22 ft., 16 Passenger (14 adults/2 wheelchair)

Interior Equipment	OEM dash air conditioning, defroster, and heating system		
Radio	Radio: Manufacturer's standard AM/FM/CD Digital Clock Radio, with one driver speaker and two cabin speakers.	Manufacturer:	Ford OEM
		Model #:	AM/FM/CD
Exterior Equipment	Rear tow hooks		
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall be at the rear of the vehicle and shall exit on the street side, aft of the rear axle. The system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or fobs		
Body (see specifications below)			
Body Structure	Shall consist of a heavy-duty integral steel body roll cage structure (from curbside to street side floor connections) fabricated of square or rectangular tubing (or structurally equivalent hat section member) and be in full compliance with Title 17 NYCRR Part 720.4(b)(1). No wood or paper products shall be utilized in the construction of sidewall, roof or transition body panels. Roll cage shall extend forward sufficiently to protect driver in the event of rollover. Documentation consisting of detailed explanation and dimensional drawing supporting the body structures compliance shall be supplied with bid submission for each vehicle classification, including current substantiating documentation (not older than 5 years unless the structure has not been significantly modified as defined by 49 CFR 665) confirming compliance with FMVSS 220 and 221.		
Body	Minimum 90" interior body width (from sidewall to sidewall). Exterior shall be smooth and free of any visible fasteners. Exterior Siding shall be 25-gauge protected (i.e. galvanized) steel (or 24-gauge aluminum) with smooth surface or laminated fiberglass composite reinforced with insulation that is foamed in place or resin hardened honeycomb. Body shall be compliant to all stated General Body specifications. Interior sidewalls shall be fiberglass, vinyl clad aluminum or Compatible Equivalent material. Insulation in walls and ceiling shall be fiberglass, resin-hardened honeycomb (FRP) material, polyurethane, or closed cell EPS foam.	Exterior Siding [material/thickness]:	Galvinized Steel 24 Gauge
		Interior Paneling [material/thickness]:	FRP .06"
		Insulation [material/R Value]:	6
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	2
Exterior Equipment	Reverse alarm		
Exterior Equipment	Back up radar alarm with 4 bumper mounted sensors. Alarm shall provide an audible alert plus include a dash area mounted LED distance display.	Manufacturer:	Hawkeye
		Model #:	A-Hawk401-A
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior body lights (non-OEM chassis) for these purposes must meet current SAE standards and shall be sealed Light Emitting Diode (LED) type lights on an active regulator circuit that assures uniform illumination of all the LED lighting down to 8 volts. All exterior clearance lights shall be armored (or low-profile design or sufficiently body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door. A mid-ship turn signal shall also be installed on each side of the bus body.		
Batteries	One auxiliary battery shall be mounted in an easily accessible fully enclosed and properly ventilated battery box with stainless steel (or an acceptable non-corrosive material) slide out (with roller track) battery tray located in the vehicle skirt or driver's step and shall include a clearly labeled disconnect switch that shuts off all current to the bus body. Battery Box shall be accessible through a hinged door access which shall be labeled in conformance with Title 17 NYCRR Part 720.6(a). Door shall be affixed with stainless steel fasteners. One OEM battery shall be located under the hood.		
Gutters/Drip Molding	Shall be installed above all vehicle windows and doors, preventing water from draining onto doors and windows.		
Mud Flaps (Front and Rear)	Shall be manufacturers standard. Labeling and Advertising is prohibited, other than for necessary safety information		
Rear Bumper	Shall be made of, or covered with, a rust proof material. Rear bumper shall be stainless steel or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]:	Stainless Steel
		Rear Bumper [manufacturer]:	Tru-Form
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the vehicle and shall comply with SAE J686.		
Exterior Mirror Frames	Mirror Frames and Extension Arms shall be made of rustproof material (i.e. stainless steel/durable plastic) and shall be adequate to prevent excessive vibration of the mirror(s).	Manufacturer:	Rosco
		Model #:	ASM00500201/ASM00
Exterior Mirrors	Driver's side and curbside exterior mirrors shall be heated and remote controlled, with the switch(s) to be installed at a prior approved location. In no case shall the switch be mounted above the windshield. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature. Extension Arms shall be provided on mirrors to allow for a clear and unobstructed view to rear regardless of vehicle width.	Manufacturer:	Rosco
		Model #:	ASM00500201/ASM00
Interior Mirror	Rear view mirror 6" x 30" shall be provided		
Windows	Passenger windows shall be "T" slider top ventilating or push-out horizontal transit slider type with a minimum 28% tint (light reduction in the passenger compartment). Side and rear windows shall be metal frame construction (painted black) with tempered safety or laminate glass and shall meet FMVSS 217 retention requirements.	Passenger Window [type]:	T-Slider
		Passenger Window [size]:	31.25"x25.5"
Windows	Twin rear windows are required and shall be manufacturer's standard (6" x 18" minimum) on each side of emergency exit door or special service door. Emergency exit door, when located in rear of vehicle, shall include an upper and lower window		
Windows	Window placement shall conform to manufacturer's standard spacing for length of vehicle offered. Placement and installation of the windows shall not diminish the structural integrity of vehicle. Windows installed as emergency exits as required by FMVSS shall also comply with Title 17 NYCRR Part 720,5 requirements.		
Floor	Shall be manufacturer's raised or flat floor design over the rear wheels. The floor height shall remain constant from the entry stepwell to the rear bulkhead. A separate step up aft of the entry stepwell is not acceptable.		

Contractor: Shepard Bros. Inc.

LOT G

Dual Rear Wheel Cutaway >22 ft., 16 Passenger (14 adults/2 wheelchair)

Floor Assembly	Floor Assembly: Shall be insulated and shall include a minimum 5/8" thick marine grade plywood, or 3/4" Advantech sub-floor, or compatible equivalent with a light colored (e.g. light gray), rubber floor covering that shall meet FMVSS 302 and ADA requirements for slip resistance. Floor covering shall be a minimum .140" thick ribbed on steps (if installed) and in the aisle and .124" thick smooth under the seats. Floor shall be securely fastened to galvannealed steel or aluminum belly pan installed on chassis frame. Floor shall be flat from rear of front wheel well to rear of vehicle.		
Entrance Step	Shall be a low height, front entrance step (lowest practical) and shall comply with ADA 1192.	Top of first step above ground [inches]:	12"
Steps	All step edges shall be a minimum of 8.5 in depth and have a high visible yellow nosing band running the full width of each step. Buses shall have a maximum of 3 steps (not including ground to first step) with risers not to exceed 10" in height. Steps shall comply with ADA 1192.		
Entrance Door(s)	A "walk through" minimum 74" high headroom right front entrance door with a minimum clear entry opening of 28" constructed with top and bottom (or length of door) viewing windows and a heavy duty electric opener shall be provided. An interlock (Intermotive Gateway or compatable equivelant) shall be installed and programmed that prevents the door to be opened or closed unless the vehicle speed equals zero (0). Door leading and sectional edges shall be equipped with approximately 2" extruded rubber edges to form weather-tight seal. Door shall be affixed with hinges that provide corrosion protection and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Entrance door surround (portal) and step well shall be constructed from stainless steel or material with equal corrosion resistant properties. Entrance door shall comply with FMVSS 217.	Entrance Door clear opening [inches]:	30"
Door Entry Grab Rails (right and left side)	Shall be installed parallel to the steps, securely fastened and a minimum 1 ¼ " diameter made of stainless steel powder coated material, or non-slip Compatible Equivalent, and shall be a high visible yellow in color, accessible from first step to floor of vehicle.		
Emergency Exit Door	Shall be at the rear center of the bus, in compliance with FMVSS and Title 17 NYCRR Part 720.5 requirements. An interior locking device (vandal lock) shall be provided for emergency exit door(s) and an LED driver station warning light shall be provided to indicate when door is locked. A device shall be installed to prevent the engine from starting when the door is locked. Exterior door handle shall be non-locking. Door shall be constructed with two (minimum 12" x 18") windows situated at the top and bottom of door. Door surround (portal) shall be stainless steel or material with equal corrosion resistant properties. Door shall be affixed with stainless steel hinges and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable).		
Overhead Hand Rail	Two (2) full-length overhead (ceiling) handrails shall be provided and securely attached to roof structure, which shall be continuous except for a gap at the rear doorway, in accordance with Part 38 of the ADA.		
Driver Barrier	Driver Barrier constructed of a vertical and horizontal stanchion, a padded modesty panel, and transparent durable plastic material, or Compatible Equivalent, shall be installed directly behind driver seat. A gap between the ceiling and top of the plexiglass shall be 2 inches +- .5inch		
Padded Panels	Shall be provided attached to a vertical and horizontal stanchion behind the step well. The gap between the floor and bottom of the panel shall meet NYSDOT specifications.		
Interior Paneling	Minimum 24-gauge metal (embossed or with bonded vinyl fiberglass), .040" FRP, or Compatible Equivalent finish.		
Insulation	Fiberglass, resin-hardened-honeycomb (FRP) material, polyurethane, or closed cell EPS foam insulation in walls and ceiling (minimum R-value of R-6).		
Wheelchair Lift Door(s)	Install a wheelchair entrance/exit door(s) (special service door) affixed with stainless steel hinges, door trim and fasteners (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Each door shall include a window and a positive fastening device to hold door in the open position ("hold open" feature). The special service door shall be equipped with a locking device (Padlock and hasp are not acceptable). Wheelchair area opening height shall be a minimum of 68". All items, including lighting, shall be in compliance with the American's with Disabilities Act (ADA) and FMVSS Nos. 403 & 404.		
Wheelchair Lift	The wheelchair lift shall be automatic electric/hydraulic type (power-up, gravity down) using dual hydraulic cylinders. The hydraulic reservoir capacity shall be at least 1 quart, with easy access for inspection and servicing. The maximum power draw shall not exceed 70 amps at 12 volts. Wheelchair lift unit shall be a Public Use Lift and shall be installed in accordance with manufacturer's standards. The lift must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the lift shall be provided in the event of a power failure.	Manufacturer: Model #:	Braun NCL1000FIB3454-2
Wheelchair Lift	Shall be capable of a minimum of 2500 cycle operation with a minimum of 1,000lb. load.		
Wheelchair Lift	Platform size shall be minimum 34" x 54" (of useable space) and lift capacity shall be minimum 1,000 lbs. Wheelchair lift platform shall be constructed of expanded metal grating with left and right side 2 ½" high safety stops plus a spring loaded or power activated ADA front stop. A pendent type operating control with a cable length sufficient to allow operation of lift at outermost platform position shall be provided. Lift platform shall be automatic power fold/unfold design.		
Wheelchair Lift	A transmission interlock system that utilizes intermittent fault filter technology shall be installed to prevent operation of the lift unless door(s) are opened and transmission is in park with parking brake applied. A manual override system in case of power failure shall also be provided. Lift electric system shall be protected with fuse or circuit breaker.	Manufacturer: Model #:	Intermotive HL510AD
Wheelchair Lift	The spring load, deck end, stop shall be retracted while the lift deck is in the load/unload (down) position. This shall enable the operator to load the lift without holding the stop in its retracted position.		
Wheelchair Lift	Two (2) folding handrails on lift platform measuring approximately 30" Height x 8" Length (minimum) shall be provided. Handrails shall not reduce platform size.		
Wheelchair Lift	Labeled dash mounted visual alarm (in compliance with Chapter VI, Article III, Parts 720/721, NYCRR) to indicate special service door is not fully closed, shall be provided.		
Wheelchair Lift	Shall be fully guaranteed by manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency.		

Contractor: Shepard Bros. Inc.

LOT G

Dual Rear Wheel Cutaway >22 ft., 16 Passenger (14 adults/2 wheelchair)

Wheelchair Lift Barrier	Protective panel with vertical stanchion (consistent with Door Entry Grab Rail specifications), constructed of durable material, shall be installed directly adjacent to the wheelchair lift (when installed) to prevent shearing action between the lift platform and vehicle floor or door jams in conformance with Title 17 NYCRR Part 720.8(a)(3)(b).		
ADA Compliance	All features required for a demand-response application shall be included in the base vehicle in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs.)		
Lighting- Driver Dome Light	An independently controlled LED overhead dome light over driver area producing 6 foot candles when measured at the steering wheel.		
Lighting (Interior)	Overhead, entrance, step well, and lift lights shall be LED and provide no less than two foot-candles of illumination on the entrance step tread, or lift or ramp platform with the door open. Outside light(s) shall provide at least one foot-candle of illumination on the street surface with 3 feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.		
Lighting (Interior)	Overhead entrance and step well lights shall be wired to and be automatically activated by a door controlled switch. Lights shall operate any time the ignition key is on and the door is opened.		
Lighting (Interior)	Interior lighting shall be LED and provide a minimum of two foot-candles of illumination at reading level. Interior lighting fixtures shall be reasonably flush with the interior walls and ceiling so no hazard exists for passengers. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.		
Interior Trim and Padding	All interior panel joints shall be covered with matching trim strips or moldings and all sharp edges, protrusions, corners etc. shall be finished in such a manner to prevent possible injury. (If vacuum lamination is used, joints shall be securely bonded and provide a finished appearance). Any exposed wheelchair lift support brackets, air conditioner units or other similar items shall be padded to prevent injury.		
Heater(s)	An OEM dash air conditioning system plus two (2) rear heaters shall be provided. Sufficient BTU capacity of front and rear under seat heaters shall be provided to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F. A dash mounted (or other approved location) circulating fan shall be provided for increased circulation of heating and defrosting in driver area. Interior temperature shall be uniform throughout passenger compartment area. Shut-off valves shall be provided for shut-off of main and auxiliary heaters. The first valve shall be located below or behind the driver's entry step well. The second valve shall be located downstream of the second heater. Both shall be labeled providing clear indication of the shut-off valve locations to the driver. Passenger compartment heater hoses shall be equipped with full-flow quarter-turn valves located in a protected location. Location of valves shall be indicated with a label stating "Heater Shutoff Valves" and located to be visibly obvious. All heater hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.	Manufacturer: Model #:	Pro Air 66 000 441
Air Conditioning	Air conditioning system that shall be designed with sufficient BTU cooling capacity to provide a balanced cooling system capable of maintaining a 75°F inside temperature vs. an outside temperature 95°F and a relative humidity of 50%, with ability to continuously decrease temperature inside vehicle (as measured from the approximate vehicle center) a minimum of 1°F for every ninety (90) seconds. (Air Conditioner Manufacturer's Certification that performance requirement for vehicle type can be met must be submitted with bid).		
Air Conditioning	Air Conditioning shall be designed as 2 independent systems. One system shall be OEM chassis supplied, dedicated for cooling and moisture removal from the windshield and drivers area. The second system shall function separate from the OEM dash, with separate controls, engine driven compressor, skirt condenser, and passenger cabin evaporator. BTU and CFM capacities (rear system and front system together) considered minimum required are 68,000BTU and 1,600CFM.	Manufacturer: Model #: A/C Capacity [Chassis BTUH]: A/C Capacity [Body BTUH]: A/C Airflow [Cab CFM]: A/C Airflow [Body CFM]:	MCC 7W13 MAX 15000 55000 465 1600
Air Conditioning	The cabin evaporator shall include directional and adjustable discharge ports. The evaporator shall be installed so as not to intrude from the rear bulk head more than approximately 9" (inches) horizontally into the passenger compartment. Any sharp edges and/or exposed metal associated with the AC unit must have these edges/surfaces appropriately padded to provide for passenger head protection. Aisle height requirements will be measured from a point directly in front of the AC unit. Side mounted evaporators are not permitted.		
Air Conditioning	Each air conditioning system shall use R134A refrigerant. All system components subject to corrosion from moisture shall be aluminum, copper, stainless steel, galvanized, or epoxy coated. All exterior exposed air conditioning electrical connections must utilize weather pac plugs or Compatible Equivalent. An air intake screen shall be installed on the skirt of the vehicle to ensure sufficient airflow through the skirt mounted condenser coil. All hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.		
Safety Vent (three way)	Shall be installed and centered on the roof of the passenger compartment. Vent shall provide for fresh air ventilation, static type exhaust with fresh air ventilation and static type exhaust; and shall be equipped with release handle to provide for emergency exit. Size shall be approximately 23" x 23".	Make: Model #: Size [inches]:	Transpec 1170 Safety Vent 23"x23"
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric or air power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Driver Seat Manufacturer Driver's Seat Model #:	Ford OEM N/A
Seating	Upholstered transit type seats for a minimum of fourteen (14) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		

Contractor: Shepard Bros. Inc.

LOT G

Dual Rear Wheel Cutaway >22 ft., 16 Passenger (14 adults/2 wheelchair)

Seating	Mid-high back, adult passenger seats shall be supplied in individual passenger modules, Freedman model "GO Seat ES", or other Compatible Equivalent. All ambulatory seats shall be forward facing. Seat cushions per passenger shall be a minimum of 17" in width and 17" in depth, and seat back shall be a minimum of 24" in height, excluding the grab handle. All cushions and seat back covers shall have easily removable covers, replaceable without removing the seat from the bus. All seat cushions in the bus shall have identical upholstery and a spring suspension system. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.	Manufacturer:	Freedman
		Model #:	GO-ES
Seating	Minimum seat widths shall be 17" single and 34" double seats. Aisle width shall be a minimum of 14".	Single Seat Width [inches]:	17.5
		Double Seat Width [inches]:	35
		Minimum Aisle Width [inches]:	14"
Seating	Entire seat frame, except mounting brackets, shall be enclosed in energy absorbing materials. Seat covers shall be transit grade vinyl, 36 oz. per linear yard (Cameo/Predictions), or Compatible Equivalent, or transit grade fabric produced from Marquesa Lana Yarns-Interweave, Regions, or Bus Textil Level 3, or Compatible Equivalent. All cover materials must meet FMVSS 302 flammability requirements. Seat foam must meet ASTM D-3675 Radiant Flammability Test.		
Seating	An approved retractable style integrated 3-point lap and shoulder seat belt shall be provided for each seating space and shall be in compliance with FMVSS 209 & 210. Belt retractors must not interfere with seating space, and two (2) seat belt extensions shall be provided with each vehicle.		
Seating	Molded Top Grab handles/grab rails shall be provided on seat backs of all forward facing seats (including flip seats) and shall be mounted/welded to seat frame structure. This does not apply to single seat positioned immediately forward of the wheelchair lift.		
Wheelchair & Wheelchair Occupant Restraints	Two (2) Wheelchair Restraint Systems (Wheelchair and Wheelchair Occupant) shall be provided and installed and designed for "L" track systems. Provide and install wheelchair and occupant restraint systems (including lap belts, retractable shoulder belts with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belts, and retractable shoulder belts with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-1007, or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouches shall be provided to completely secure belts/straps on bus sidewalls when not in use. All items shall be installed in accordance with manufacturer's standards and be in compliance with the American's with Disability Act, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the vehicle interior at a minimum of one restraint position.	Manufacturer:	Q'Straint
		Model #:	Q-10007
Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver's seat position) in the front entry area of the vehicle. Equipment location shall be clearly identified.		
Miscellaneous	Storage compartment with door shall be provided and recessed in the center front cap portion of the vehicle or positioned over the driver's area if the front cap portion is not used for destination signage or air conditioner evaporator placement. The compartment must be sealed and must not have any exposed wires, protrusions or sharp edges		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]:	3
		Chassis Warranty[miles]:	36000
Vehicle Body Warranty	Covering the integrity of the vehicle body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of five (5) years or 150,000 miles.	Body Warranty [years]:	5
		Body Warranty [miles]:	150000
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The chassis OEM air conditioning system coverage falls under the chassis warranty.	Air Conditioning Warranty [years]:	2
Wheelchair Lift Warranty	The lift shall be fully guaranteed by the manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency. In addition, wheelchair lift shall be capable of a minimum of 2500 cycle operations with a minimum of 1,000 lb. load.		

PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section III.2 *Transit Bus Requirements* . See Section III.1.2 *Optional Equipment Unit Price* for pricing information relative to Optional Equipment.

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price
Hybrid System Propulsion	Add a hybrid propulsion system to the base vehicle. The hybrid system will be installed downstream of the OEM engine and transmission, conserving energy through regenerative braking, and storing that energy in ultracapacitor(s) or battery(s) for an electric assist launch. The hybrid system installation and operation shall not void the OEM chassis warranty. The hybrid system shall provide a minimum 2 year/36,000 mile warranty. Compliant with SAE J2343 and NFPA 52, if applicable.	Hybrid Propulsion System Make and Model #:	XL3 Hybrid X3-D-300-050	$18,224.00
Additional Wheelchair Restraint System	Delete seats (4 maximum) and price one (1) additional wheelchair station above the quantity required in the base vehicle. Price is per position to includes all belts, floor/ shoulder hardware, and storage container	Manufacturer and Model #:	Qstraint Q-10007	-$274.43

Contractor: Shepard Bros. Inc.

LOT G

Dual Rear Wheel Cutaway >22 ft., 16 Passenger (14 adults/2 wheelchair)

Optional Wheelchair Restraint System	For each wheelchair position in the base vehicle, plus additional optional restraint systems, if ordered, install complete "Omni" style floor securements and complete belts kits, equal to Q-Straint Q-10008 or Sur-Lok AL860S-4C-SNC.	Manufacturer and Model #:	Q straint Q-10008	-$34.30
Continuous "L" track	Install 5 lanes of continuous L track (4 lanes floor mounts, 1 lane shoulder harness) for a single wheelchair position (48" length each)			$374.13
Additional Seat (3-Step Fold Away; Feather Weight; and Forward Facing)	When not included in the base vehicle, provide and install one forward facing fold-away flip seat at a wheelchair station area which shall be a Freedman model "GO ES" seat or other pre-Compatible Equivalent. Flip seat may be lowered to accommodate two (2) ambulatory passengers, when not in use as a wheelchair station. Seat shall be of the same type (including grab handles) and color as standard seats measuring (per passenger) a minimum of 17" in width x 17" in depth x 24" in height as measured from the edge of the cushion. Raising/lowering of the seat shall be accomplished manually and shall include a lock to secure the seat in the raised position. Raised seat plus wheelchair shall not block legal aisle. Integrated 3-point lap and shoulder belts shall be provided at each seating location to accommodate an adult ambulatory passenger and shall be in compliance with FMVSS 210. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.			$860.82
Air Conditioning System (Roof Mounted Condenser)	Provide and install same requirements as base vehicle, except air conditioning system condenser shall be a roof mounted unit.			$750.40
Supplemental ADA Transit Package	Provide and install the following items (All items to be in compliance with Americans with Disabilities Act): Front and side electronic destination signs – LED type (14 rows and 72 columns minimum) and programmable with a USB key, Twin Vision Mobi-Lite or Compatible Equivalent, interior/exterior PA system, pull cord and touch strips chime signal system (at wheelchair positions), two-way radio pre-wire with 30 amp fused circuit, consisting of roof mounted antenna location access, antenna cable conduit with pull cord, and a dedicated circuit with electrical wire terminating in drivers area.			$4,553.86
Camera Security System- 6 monitor	Provide and install a complete camera recording system, including software kit. Components include an 8-channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of 5 vehicle functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of 2 exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus 4 interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for 1 or more vehicles with matching camera system. Minimum components include software, mouse, 5-6" monitor, HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR: Manufacturer and Model # of interior camera head: Manufacturer and Model # of exterior camera head:	Seon Seon CJ904A20 CQ903A20 CQ903A50 Seon CA904E120	$3,125.95
Fiberglass Seating	Fiberglass Seating: Provide and install FMVSS certified fiberglass transit style seating (4ONE Gemini model, American Seating (Metropolitan and Insight) models, Freedman CitiSeat model or Compatible Equivalent) in lieu of previously specified base vehicle seating. Seats shall include a plastic back shell, anti-microbial grab rails, and padded, tough to cut vandal resistant inserts.			$0.00
Fare Box (Electronic)	Provide and install a fare collection system, comparable to GenFare "CENTSaBILL" or equal model with 3 height positions, that can accommodate automatic validation and processing of coins, bills, and magnetic fare cards.	Manufacturer and Model#:	GenFare CentsaBill	$11,505.78
Fare Box (Manual)	Provide and install a fare collection system, comparable to Diamond Model NV or equal model, complete with all floor mounting hardware and spare vault.	Manufacturer and Model #:	Diamond NV	$914.42
Bike Rack	Provide and install a folding device attached to the front body of the vehicle that is designed and used exclusively for transporting bicycles. The device shall be stainless steel material and may not extend more than 36 inches from the front body, and the handlebars of a bicycle transported on such device may not extend more than 42 inches from the front body of the vehicle.			$1,275.68
Back Up Camera System	Upgrade the back up radar in base vehicle to include a rear view camera.			$214.40
Spare Tire and Rim	Provide a matching spare tire and rim shipped loose			$348.40
Driver Side Running Board	Install a diamond plate additional step up for driver entry.			$129.71
Alternate Transit Flooring	In lieu of rubber floor covering, supply an alternate floor covering, to be a smooth slip resistant vinyl with aluminum oxide granules throughout the entire thickness of the wear layer with silicon carbide and base color quartz in the surface layer. The floor covering shall be a minimum of 2.7mm thick. The floor covering is to include a bacteriostat to prevent growth of mold and mildew for the life of the product. Term of warranty shall be 15 years.	Brand and Model #: Thickness [mm]: Warranty [years]:	Altro 2.7mm 15 years	$1,038.77

Contractor: **N/A; This Lot Discontinued**

LOT H

Dual Rear Wheel Cutaway >22 ft. (Alt. Fuels), 16 Passenger (14 adults/2 wheelchair)

PART 1: Product information for the Base Item awarded		
Chassis Model Year	The year used to designate a discrete Chassis Model, irrespective of the calendar year in which the Chassis was actually produced.	n/a
Chassis Make	The OEM company name of the Chassis Model.	
Chassis Model	A particular brand of Chassis sold by an OEM.	
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	
Body Model Year	The year used to designate a discrete Body Model, irrespective of the calendar year in which the Body was actually produced.	
Body Make	The OEM company name of the Body Model.	
Body Model	A particular brand of Body sold by an OEM.	
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §34, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section III.1 Price for additional information about Contract pricing.	

PART 3: Base Item Specifications

The terms and conditions in Contract Section III.2 *Transit Bus Requirements* shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information provided in Column D	Spec for Equipment Provided
General	Capacity: Minimum 14 adult passenger seats plus 2 wheelchair stations	Capacity:	
General	Floor plan matches "Figures" tab	Manufacturer Floor plan #	
General	Drive configuration: Minimum forward control dual rear wheel (DRW)		
General	Have completed federal STURAA (Altoona) bus testing of not less than five (5) years/150,000 miles or have been certified as exempt as specified under FTA provisions.		
General	GVWR: 14,000 lb. minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lbs]:	
General	Wheelbase: 180 in. (plus or minus 10")	Wheelbase [inches[:	
General	Minimum 72" continuous passenger aisle headroom	Headroom [inches]:	
Chassis (see specifications below)			
Cab	A standard sedan door on the driver's side shall be OEM chassis supplied.		
Engine	6.6L V8 Turbo diesel with 260hp, 525ft.lb. torque, and B20 compatibility	Number of Cylinders:	
		Liters:	
		Horsepower and Torque:	
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 5 gallons) 60-gallon fuel tank, with a 10 gallon (+- 2 gallon) DEF tank		
Cooling System	Chassis manufacturers heaviest duty cooling system available for chassis supplied and protected to minus 30°F;		
Electrical	Minimum 145 amp OEM alternator	Alternator Capacity [amps]:	
Electrical	Dual batteries (minimum 650 CCA each) which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative);	Rating of Batteries [at 0 F]:	
		CCA each battery:	
		Minutes RC:	
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	Transmission shall include a 5 or 6 speed automatic transmission with heavy duty or additional oil cooler.	Transmission Model #:	
Front Axle	Minimum Front Gross Axle Weight Rating (FGAWR) 4,600lbs.	FGAWR:	
Rear Axle	Minimum Rear Gross Axle Weight Rating (RGAWR) 9,500lbs.	RGAWR:	
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	Vehicle shall have Front Springs rated at 5,000lbs. minimum and Rear Springs rated at 9,500 lbs. minimum	Front Spring Rating [lbs]:	
		Rear Spring Rating [lbs]:	
Shock Absorbers	Heavy Duty	Make and Model #:	
Brakes	ABS power brakes meeting Federal Motor Vehicle Safety Standard 49CFR571.105	Service Brakes [total lining or sweep area] both front & rear:	
Parking Brake	Foot-operated parking brake		
Tires	Manufacturer's standard all-season radial tread or rib tread w/mud and snow rear, as required to meet the GVWR specified	Radial Tires [size]:	
		Radial Tires [load]:	
		Radial Tires [range]:	
		Radial Tires [manufacturer]:	
		Front Tires [tread design];	
		Front Tires [capacity/tire]:	
		Rear Tires [tread design];	
		Rear Tires [capacity/tire]:	
Front Bumper	Shall be made of, or covered with, a rust proof material. Front bumper may be OEM chrome or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to body using corrosion resistant material hardware with rustproofing applied to finished installation.	Front Bumper [material]:	
		Front Bumper [manufacturer]:	
Steering	Power steering	Turning Diameter [at end of front bumper]:	
Steering Wheel	Tilt steering wheel		
Interior Equipment	OEM dash air conditioning, defroster, and heating system		
Radio	Radio: Manufacturer's standard AM/FM/CD Digital Clock Radio, with one driver speaker and two cabin speakers.	Manufacturer:	
		Model #:	

Contractor: **N/A; This Lot Discontinued**

LOT H

Dual Rear Wheel Cutaway >22 ft. (Alt. Fuels), 16 Passenger (14 adults/2 wheelchair)

Exterior Equipment	Rear tow hooks		
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall be at the rear of the vehicle and shall exit on the street side, aft of the rear axle. The system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or FOBS		
Body (see specifications below)			
Body Structure	Shall consist of a heavy-duty integral steel body roll cage structure (from curbside to street side floor connections) fabricated of square or rectangular tubing (or structurally equivalent hat section member) and be in full compliance with Title 17 NYCRR Part 720.4(b)(1). No wood or paper products shall be utilized in the construction of sidewall, roof or transition body panels. Roll cage shall extend forward sufficiently to protect driver in the event of rollover. Documentation consisting of detailed explanation and dimensional drawing supporting the body structures compliance shall be supplied with bid submission for each vehicle classification, including current substantiating documentation (not older than 5 years unless the structure has not been significantly modified as defined by 49 CFR 665) confirming compliance with FMVSS 220 and 221.		
Body	Minimum 90" interior body width (from sidewall to sidewall). Exterior shall be smooth and free of any visible fasteners. Exterior Siding shall be 25-gauge protected (i.e. galvanized) steel (or 24-gauge aluminum) with smooth surface or laminated fiberglass composite reinforced with insulation that is foamed in place or resin hardened honeycomb. Body shall be compliant to all stated General Body specifications. Interior sidewalls shall be fiberglass, vinyl clad aluminum or Compatible Equivalent material. Insulation in walls and ceiling shall be fiberglass, resin-hardened honeycomb (FRP) material, polyurethane, or closed cell EPS foam.	Exterior Siding [material/thickness]: Interior Paneling [material/thickness]: Insulation [material/R Value]:	
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	
Exterior Equipment	Reverse alarm		
Exterior Equipment	Back up radar alarm with 4 bumper mounted sensors. Alarm shall provide an audible alert plus include a dash area mounted LED distance display.	Manufacturer: Model #:	
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior body lights (non-OEM chassis) for these purposes must meet current SAE standards and shall be sealed Light Emitting Diode (LED) type lights on an active regulator circuit that assures uniform illumination of all the LED lighting down to 8 volts. All exterior clearance lights shall be armored (or low-profile design or sufficiently body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door. A mid-ship turn signal shall also be installed on each side of the bus body.		
Batteries	One auxiliary battery shall be mounted in an easily accessible fully enclosed and properly ventilated battery box with stainless steel (or an acceptable non-corrosive material) slide out (with roller track) battery tray located in the vehicle skirt or driver's step and shall include a clearly labeled disconnect switch that shuts off all current to the bus body. Battery Box shall be accessible through a hinged door access which shall be labeled in conformance with Title 17 NYCRR Part 720.6(a). Door shall be affixed with stainless steel fasteners. One OEM battery shall be located under the hood.		
Gutters/Drip Molding	Shall be installed above all vehicle windows and doors, preventing water from draining onto doors and windows.		
Mud Flaps (Front and Rear)	Shall be manufacturers standard. Labeling and Advertising is prohibited, other than for necessary safety information		
Rear Bumper	Shall be made of, or covered with, a rust proof material. Rear bumper shall be stainless steel or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]: Rear Bumper [manufacturer]:	
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the vehicle and shall comply with SAE J686.		
Exterior Mirror Frames	Mirror Frames and Extension Arms shall be made of rustproof material (i.e. stainless steel/durable plastic) and shall be adequate to prevent excessive vibration of the mirror(s).	Manufacturer: Model #:	
Exterior Mirrors	Driver's side and curbside exterior mirrors shall be heated and remote controlled, with the switch(s) to be installed at a prior approved location. In no case shall the switch be mounted above the windshield. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature. Extension Arms shall be provided on mirrors to allow for a clear and unobstructed view to rear regardless of vehicle width.	Manufacturer: Model #:	
Interior Mirror	Rear view mirror 6x30" shall be provided		
Windows	Passenger windows shall be "T" slider top ventilating or push-out horizontal transit slider type with a minimum 28% tint (light reduction in the passenger compartment). Side and rear windows shall be metal frame construction (painted black) with tempered safety or laminate glass and shall meet FMVSS 217 retention requirements.	Passenger Window [type]: Passenger Window [size]:	
Windows	Twin rear windows are required and shall be manufacturer's standard (6" x 18" minimum) on each side of emergency exit door or special service door. Emergency exit door, when located in rear of vehicle, shall include an upper and lower window		
Windows	Window placement shall conform to manufacturer's standard spacing for length of vehicle offered. Placement and installation of the windows shall not diminish the structural integrity of vehicle. Windows installed as emergency exits as required by FMVSS shall also comply with Title 17 NYCRR Part 720,5 requirements.		
Floor	Shall be manufacturer's raised or flat floor design over the rear wheels. The floor height shall remain constant from the entry stepwell to the rear bulkhead. A separate step up aft of the entry stepwell is not acceptable.		

Contractor: **N/A; This Lot Discontinued**

LOT H

Dual Rear Wheel Cutaway >22 ft. (Alt. Fuels), 16 Passenger (14 adults/2 wheelchair)

Floor Assembly	Floor Assembly: Shall be insulated and shall include a minimum 5/8" thick marine grade plywood, or 3/4" Advantech sub-floor, or compatible equivalent with a light colored (e.g. light gray), rubber floor covering that shall meet FMVSS 302 and ADA requirements for slip resistance. Floor covering shall be a minimum .140" thick ribbed on steps (if installed) and in the aisle and .124" thick smooth under the seats. Floor shall be securely fastened to galvannealed steel or aluminum belly pan installed on chassis frame. Floor shall be flat from rear of front wheel well to rear of vehicle.		
Entrance Step	Shall be a low height, front entrance step (lowest practical) and shall comply with ADA 1192.	Top of first step above ground [inches]:	
Steps	All step edges shall be a minimum of 8.5 in depth and have a high visible yellow nosing band running the full width of each step. Buses shall have a maximum of 3 steps (not including ground to first step) with risers not to exceed 10" in height. Steps shall comply with ADA 1192.		
Entrance Door(s)	A "walk through" minimum 74" high headroom right front entrance door with a minimum clear entry opening of 28" constructed with top and bottom (or length of door) viewing windows and a heavy duty electric opener shall be provided. An interlock (Intermotive Gateway or compatable equivelant) shall be installed and programmed that prevents the door to be opened or closed unless the vehicle speed equals zero (0). Door leading and sectional edges shall be equipped with approximately 2" extruded rubber edges to form weather-tight seal. Door shall be affixed with hinges that provide corrosion protection and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Entrance door surround (portal) and step well shall be constructed from stainless steel or material with equal corrosion resistant properties. Entrance door shall comply with FMVSS 217.	Entrance Door clear opening [inches]:	
Door Entry Grab Rails (right and left side)	Shall be installed parallel to the steps, securely fastened and a minimum 1 ¼ " diameter made of stainless steel powder coated material, or non-slip Compatible Equivalent, and shall be a high visible yellow in color, accessible from first step to floor of vehicle.		
Emergency Exit Door	Shall be at the rear center of the bus, in compliance with FMVSS and Title 17 NYCRR Part 720.5 requirements. An interior locking device (vandal lock) shall be provided for emergency exit door(s) and an LED driver station warning light shall be provided to indicate when door is locked. A device shall be installed to prevent the engine from starting when the door is locked. Exterior door handle shall be non-locking. Door shall be constructed with two (minimum 12" x 18") windows situated at the top and bottom of door. Door surround (portal) shall be stainless steel or material with equal corrosion resistant properties. Door shall be affixed with stainless steel hinges and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable).		
Overhead Hand Rail	Two (2) full-length overhead (ceiling) handrails shall be provided and securely attached to roof structure, which shall be continuous except for a gap at the rear doorway, in accordance with Part 38 of the ADA.		
Driver Barrier	Driver Barrier constructed of a vertical and horizontal stanchion, a padded modesty panel, and transparent durable plastic material, or Compatible Equivalent, shall be installed directly behind driver seat. A gap between the ceiling and top of the plexiglass shall be 2 inches +- .5inch		
Padded Panels	Shall be provided attached to a vertical and horizontal stanchion behind the step well. The gap between the floor and bottom of the panel shall meet NYSDOT specifications.		
Interior Paneling	Minimum 24-gauge metal (embossed or with bonded vinyl fiberglass), .040" FRP, or Compatible Equivalent finish.		
Insulation	Fiberglass, resin-hardened-honeycomb (FRP) material, polyurethane, or closed cell EPS foam insulation in walls and ceiling (minimum R-value of R-6).		
Wheelchair Lift Door(s)	Install a wheelchair entrance/exit door(s) (special service door) affixed with stainless steel hinges, door trim and fasteners (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Each door shall include a window and a positive fastening device to hold door in the open position ("hold open" feature). The special service door shall be equipped with a locking device (Padlock and hasp are not acceptable). Wheelchair area opening height shall be a minimum of 68". All items, including lighting, shall be in compliance with the American's with Disabilities Act (ADA) and FMVSS Nos. 403 & 404.		
Wheelchair Lift	The wheelchair lift shall be automatic electric/hydraulic type (power-up, gravity down) using dual hydraulic cylinders. The hydraulic reservoir capacity shall be at least 1 quart, with easy access for inspection and servicing. The maximum power draw shall not exceed 70 amps at 12 volts. Wheelchair lift unit shall be a Public Use Lift and shall be installed in accordance with manufacturer's standards. The lift must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the lift shall be provided in the event of a power failure.	Manufacturer: Model #:	
Wheelchair Lift	Shall be capable of a minimum of 2500 cycle operation with a minimum of 1,000lb. load.		
Wheelchair Lift	Platform size shall be minimum 34" x 54" (of useable space) and lift capacity shall be minimum 1,000 lbs. Wheelchair lift platform shall be constructed of expanded metal grating with left and right side 2 ½" high safety stops plus a spring loaded or power activated ADA front stop. A pendent type operating control with a cable length sufficient to allow operation of lift at outermost platform position shall be provided. Lift platform shall be automatic power fold/unfold design.		
Wheelchair Lift	A transmission interlock system that utilizes intermittent fault filter technology shall be installed to prevent operation of the lift unless door(s) are opened and transmission is in park with parking brake applied. A manual override system in case of power failure shall also be provided. Lift electric system shall be protected with fuse or circuit breaker.	Manufacturer: Model #:	
Wheelchair Lift	The spring load, deck end, stop shall be retracted while the lift deck is in the load/unload (down) position. This shall enable the operator to load the lift without holding the stop in its retracted position.		
Wheelchair Lift	Two (2) folding handrails on lift platform measuring approximately 30" Height x 8" Length (minimum) shall be provided. Handrails shall not reduce platform size.		
Wheelchair Lift	Labeled dash mounted visual alarm (in compliance with Chapter VI, Article III, Parts 720/721, NYCRR) to indicate special service door is not fully closed, shall be provided.		
Wheelchair Lift	Shall be fully guaranteed by manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency.		

Contractor: **N/A; This Lot Discontinued**

LOT H

Dual Rear Wheel Cutaway >22 ft. (Alt. Fuels), 16 Passenger (14 adults/2 wheelchair)

Wheelchair Lift Barrier	Protective panel with vertical stanchion (consistent with Door Entry Grab Rail specifications), constructed of durable material, shall be installed directly adjacent to the wheelchair lift (when installed) to prevent shearing action between the lift platform and vehicle floor or door jams in conformance with Title 17 NYCRR Part 720.8(a)(3)(b).		
ADA Compliance	All features required for a demand-response application shall be included in the base vehicle in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs.)		
Lighting- Driver Dome Light	An independently controlled LED overhead dome light over driver area producing 6 foot candles when measured at the steering wheel.		
Lighting (Interior)	Overhead, entrance, step well, and lift lights shall be LED and provide no less than two foot-candles of illumination on the entrance step tread, or lift or ramp platform with the door open. Outside light(s) shall provide at least one foot-candle of illumination on the street surface with 3 feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.		
Lighting (Interior)	Overhead entrance and step well lights shall be wired to and be automatically activated by a door controlled switch. Lights shall operate any time the ignition key is on and the door is opened.		
Lighting (Interior)	Interior lighting shall be LED and provide a minimum of two foot-candles of illumination at reading level. Interior lighting fixtures shall be reasonably flush with the interior walls and ceiling so no hazard exists for passengers. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.		
Interior Trim and Padding	All interior panel joints shall be covered with matching trim strips or moldings and all sharp edges, protrusions, corners etc. shall be finished in such a manner to prevent possible injury. (If vacuum lamination is used, joints shall be securely bonded and provide a finished appearance). Any exposed wheelchair lift support brackets, air conditioner units or other similar items shall be padded to prevent injury.		
Heater(s)	An OEM dash air conditioning system plus two (2) rear heaters shall be provided. Sufficient BTU capacity of front and rear under seat heaters shall be provided to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F. A dash mounted (or other approved location) circulating fan shall be provided for increased circulation of heating and defrosting in driver area. Interior temperature shall be uniform throughout passenger compartment area. Shut-off valves shall be provided for shut-off of main and auxiliary heaters. The first valve shall be located below or behind the driver's entry step well. The second valve shall be located downstream of the second heater. Both shall be labeled providing clear indication of the shut-off valve locations to the driver. Passenger compartment heater hoses shall be equipped with full-flow quarter-turn valves located in a protected location. Location of valves shall be indicated with a label stating "Heater Shutoff Valves" and located to be visibly obvious. All heater hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.	Manufacturer: Model #:	
Air Conditioning	Air conditioning system that shall be designed with sufficient BTU cooling capacity to provide a balanced cooling system capable of maintaining a 75°F inside temperature vs. an outside temperature 95°F and a relative humidity of 50%, with ability to continuously decrease temperature inside vehicle (as measured from the approximate vehicle center) a minimum of 1°F for every ninety (90) seconds. (Air Conditioner Manufacturer's Certification that performance requirement for vehicle type can be met must be submitted with bid).		
Air Conditioning	Air Conditioning shall be designed as 2 independent systems. One system shall be OEM chassis supplied, dedicated for cooling and moisture removal from the windshield and drivers area. The second system shall function separate from the OEM dash, with separate controls, engine driven compressor, skirt condenser, and passenger cabin evaporator. BTU and CFM capacities (rear system and front system together) considered minimum required are 68,000BTU and 1,600CFM.	Manufacturer: Model #: A/C Capacity [Chassis BTUH]: A/C Capacity [Body BTUH]: A/C Airflow [Cab CFM]: A/C Airflow [Body CFM]:	
Air Conditioning	The cabin evaporator shall include directional and adjustable discharge ports. The evaporator shall be installed so as not to intrude from the rear bulk head more than approximately 9" (inches) horizontally into the passenger compartment. Any sharp edges and/or exposed metal associated with the AC unit must have these edges/surfaces appropriately padded to provide for passenger head protection. Aisle height requirements will be measured from a point directly in front of the AC unit. Side mounted evaporators are not permitted.		
Air Conditioning	Each air conditioning system shall use R134A refrigerant. All system components subject to corrosion from moisture shall be aluminum, copper, stainless steel, galvanized, or epoxy coated. All exterior exposed air conditioning electrical connections must utilize weather pac plugs or Compatible Equivalent. An air intake screen shall be installed on the skirt of the vehicle to ensure sufficient airflow through the skirt mounted condenser coil. All hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.		
Safety Vent (three way)	Shall be installed and centered on the roof of the passenger compartment. Vent shall provide for fresh air ventilation, static type exhaust with fresh air ventilation and static type exhaust; and shall be equipped with release handle to provide for emergency exit. Size shall be approximately 23" x 23".	Make: Model #: Size [inches]:	
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric or air power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Driver Seat Manufacturer Driver's Seat Model #:	
Seating	Upholstered transit type seats for a minimum of fourteen (14) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		

Contractor: **N/A; This Lot Discontinued**

LOT H

Dual Rear Wheel Cutaway >22 ft. (Alt. Fuels), 16 Passenger (14 adults/2 wheelchair)

Seating	Mid-high back, adult passenger seats shall be supplied in individual passenger modules, Freedman model "GO Seat ES", or other Compatible Equivalent. All ambulatory seats shall be forward facing. Seat cushions per passenger shall be a minimum of 17" in width and 17" in depth, and seat back shall be a minimum of 24" in height, excluding the grab handle. All cushions and seat back covers shall have easily removable covers, replaceable without removing the seat from the bus. All seat cushions in the bus shall have identical upholstery and a spring suspension system. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.	Manufacturer: Model #:	
Seating	Minimum seat widths shall be 17" single and 34" double seats. Aisle width shall be a minimum of 14".	Single Seat Width [inches]: Double Seat Width [inches]: Minimum Aisle Width [inches]:	
Seating	Entire seat frame, except mounting brackets, shall be enclosed in energy absorbing materials. Seat covers shall be transit grade vinyl, 36 oz. per linear yard (Cameo/Predictions), or Compatible Equivalent, or transit grade fabric produced from Marquesa Lana Yarns-Interweave, Regions, or Bus Textil Level 3, or Compatible Equivalent. All cover materials must meet FMVSS 302 flammability requirements. Seat foam must meet ASTM D-3675 Radiant Flammability Test.		
Seating	An approved retractable style integrated 3-point lap and shoulder seat belt shall be provided for each seating space and shall be in compliance with FMVSS 209 & 210. Belt retractors must not interfere with seating space, and two (2) seat belt extensions shall be provided with each vehicle.		
Seating	Molded Top Grab handles/grab rails shall be provided on seat backs of all forward facing seats (including flip seats) and shall be mounted/welded to seat frame structure. This does not apply to single seat positioned immediately forward of the wheelchair lift.		
Wheelchair & Wheelchair Occupant Restraints	Two (2) Wheelchair Restraint Systems (Wheelchair and Wheelchair Occupant) shall be provided and installed and designed for "L" track systems. Provide and install wheelchair and occupant restraint systems (including lap belts, retractable shoulder belts with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belts, and retractable shoulder belts with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-1007, or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouches shall be provided to completely secure belts/straps on bus sidewalls when not in use. All items shall be installed in accordance with manufacturer's standards and be in compliance with the American's with Disability Act, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the vehicle interior at a minimum of one restraint position.	Manufacturer: Model #:	
Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver's seat position) in the front entry area of the vehicle. Equipment location shall be clearly identified.		
Miscellaneous	Storage compartment with door shall be provided and recessed in the center front cap portion of the vehicle or positioned over the driver's area if the front cap portion is not used for destination signage or air conditioner evaporator placement. The compartment must be sealed and must not have any exposed wires, protrusions or sharp edges		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of five (5) years, 60,000 mile Transfer Powertrain Limited Warranty.	Chassis Warranty [years]: Chassis Warranty[miles]:	
Vehicle Body Warranty	Covering the integrity of the vehicle body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of five (5) years or 150,000 miles.	Body Warranty [years]: Body Warranty [miles]:	
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The chassis OEM air conditioning system coverage falls under the chassis warranty.	Air Conditioning Warranty [years]:	
Wheelchair Lift Warranty	The lift shall be fully guaranteed by the manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency. In addition, wheelchair lift shall be capable of a minimum of 2500 cycle operations with a minimum of 1,000 lb. load.		

PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price
Diesel Engine and Fuel Tank	6.6L V8 Turbo diesel with 260 hp, 525 ft.lb. torque, and B20 diesel compatibility. Nominal (plus or minus 5 gallons) 60-gallon fuel tank, with 10 gallon (+-2 gallon) DEF tank	Number of Cylinders: Liters: Horsepower and Torque:		
Gasoline Engine and Fuel Tank	Minimum 6.0 liter, V-8 gasoline engine rated minimum 300 HP x 300 lb. ft. torque. Nominal (plus or minus 5 gallons) 60-gallon fuel tank	Number of Cylinders: Liters: Horsepower and Torque:		
Additional Wheelchair Restraint System	Delete seats (4 maximum) and price one (1) additional wheelchair station above the quantity required in the base vehicle. Price is per position to includes all belts, floor/ shoulder hardware, and storage container	Manufacturer and Model #:		

Contractor: **N/A; This Lot Discontinued**

LOT H

Dual Rear Wheel Cutaway >22 ft. (Alt. Fuels), 16 Passenger (14 adults/2 wheelchair)

Optional Wheelchair Restraint System	For each wheelchair position in the base vehicle, plus additional optional restraint systems, if ordered, install complete "Omni" style floor securements and complete belts kits, equal to Q-Straint Q-10008 or Sur-Lok AL860S-4C-SNC.	Manufacturer and Model #:		
Continuous "L" track	Install 5 lanes of continuous L track (4 lanes floor mounts, 1 lane shoulder harness) for a single wheelchair position (48" length each)			
Additional Seat (3-Step Fold Away; Feather Weight; and Forward Facing)	When not included in the base vehicle, provide and install one forward facing fold-away flip seat at a wheelchair station area which shall be a Freedman model "GO ES" seat or other pre-Compatible Equivalent. Flip seat may be lowered to accommodate two (2) ambulatory passengers, when not in use as a wheelchair station. Seat shall be of the same type (including grab handles) and color as standard seats measuring (per passenger) a minimum of 17" in width x 17" in depth x 24" in height as measured from the edge of the cushion. Raising/lowering of the seat shall be accomplished manually and shall include a lock to secure the seat in the raised position. Raised seat plus wheelchair shall not block legal aisle. Integrated 3-point lap and shoulder belts shall be provided at each seating location to accommodate an adult ambulatory passenger and shall be in compliance with FMVSS 210. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.			
Air Conditioning System (Roof Mounted Condenser)	Provide and install same requirements as base vehicle, except air conditioning system condenser shall be a roof mounted unit.			
Supplemental ADA Transit Package	Provide and install the following items (All items to be in compliance with Americans with Disabilities Act): Front and side electronic destination signs – LED type (14 rows and 72 columns minimum) and programmable with a USB key, Twin Vision Mobi-Lite or Compatible Equivalent, interior/exterior PA system, pull cord and touch strips chime signal system (at wheelchair positions), two-way radio pre-wire with 30 amp fused circuit, consisting of roof mounted antenna location access, antenna cable conduit with pull cord, and a dedicated circuit with electrical wire terminating in drivers area.			
Camera Security System- 6 monitor	Provide and install a complete camera recording system, including software kit. Components include an 8-channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of 5 vehicle functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of 2 exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus 4 interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for 1 or more vehicles with matching camera system. Minimum components include software, mouse, 5-6" monitor, HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR: Manufacturer and Model # of interior camera head: Manufacturer and Model # of exterior camera head:		
Fiberglass Seating	Fiberglass Seating: Provide and install FMVSS certified fiberglass transit style seating (4ONE Gemini model, American Seating (Metropolitan and Insight) models, Freedman CitiSeat model or Compatible Equivalent) in lieu of previously specified base vehicle seating. Seats shall include a plastic back shell, anti-microbial grab rails, and padded, tough to cut vandal resistant inserts.			
Fare Box (Electronic)	Provide and install a fare collection system, comparable to GenFare "CENTSaBILL" or equal model with 3 height positions, that can accommodate automatic validation and processing of coins, bills, and magnetic fare cards.	Manufacturer and Model#:		
Fare Box (Manual)	Provide and install a fare collection system, comparable to Diamond Model NV or equal model, complete with all floor mounting hardware and spare vault.	Manufacturer and Model #:		
Bike Rack	Provide and install a folding device attached to the front body of the vehicle that is designed and used exclusively for transporting bicycles. The device shall be stainless steel material and may not extend more than 36 inches from the front body, and the handlebars of a bicycle transported on such device may not extend more than 42 inches from the front body of the vehicle.			
Back Up Camera System	Upgrade the back up radar in base vehicle to include a rear view camera.			
Spare Tire and Rim	Provide a matching spare tire and rim shipped loose			
Driver Side Running Board	Install a diamond plate additional step up for driver entry.			
Alternate Transit Flooring	In lieu of rubber floor covering, supply an alternate floor covering, to be a smooth slip resistant vinyl with aluminum oxide granules throughout the entire thickness of the wear layer with silicon carbide and base color quartz in the surface layer. The floor covering shall be a minimum of 2.7mm thick. The floor covering is to include a bacteriostat to prevent growth of mold and mildew for the life of the product. Term of warranty shall be 15 years.	Brand and Model #: Thickness [mm]: Warranty [years]:		

Contractor: **N/A; This Lot Discontinued**

LOT I

Medium Duty Cutaway, 20 Passenger (18 adults/2 wheelchair)

PART 1: Product information for the Base Item awarded		
Chassis Model Year	The year used to designate a discrete Chassis Model, irrespective of the calendar year in which the Chassis was actually produced.	n/a
Chassis Make	The OEM company name of the Chassis Model.	
Chassis Model	A particular brand of Chassis sold by an OEM.	
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	
Body Model Year	The year used to designate a discrete Body Model, irrespective of the calendar year in which the Body was actually produced.	
Body Make	The OEM company name of the Body Model.	
Body Model	A particular brand of Body sold by an OEM.	
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §34, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section III.1 Price for additional information about Contract pricing.	

PART 3: Base Item Specifications

The terms and conditions in Contract Section III.2 *Transit Bus Requirements* shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information provided in Column C	Spec for Equipment Provided
General	Capacity: Minimum 18 adult passenger seats plus 2 wheelchair stations	Capacity:	
General	Floor plan matches "Figures" tab	Manufacturer Floor plan #	
General	Drive configuration: Minimum forward control dual rear wheel (DRW)		
General	Have completed federal STURAA (Altoona) bus testing of not less than five (7) years/200,000 miles or have been certified as exempt as specified under FTA provisions.		
General	GVWR: 19,500 lb. minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lbs]:	
General	Wheelbase: 252 maximum	Wheelbase [inches[:	
General	Minimum 75" continuous passenger aisle headroom	Headroom [inches]:	
Chassis (see specifications below)			
Cab	A standard sedan door on the driver's side shall be OEM chassis supplied.		
Engine	Minimum 6.8 liter,8 cylinder gasoline engine rated minimum 300 HP x 300 lb. ft. torque.	Number of Cylinders:	
		Liters:	
		Horsepower and Torque:	
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 5 gallons) 40-gallon fuel tank		
Cooling System	Chassis manufacturers heaviest duty cooling system available for chassis supplied and protected to minus 30°F;		
Electrical	175 amp OEM alternator	Alternator Capacity [amps]:	
Electrical	Dual batteries (minimum 650 CCA each) which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative);	Rating of Batteries [at 0 F]:	
		CCA each battery:	
		Minutes RC:	
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	Transmission shall include a 5 or 6 speed automatic transmission with heavy duty or additional oil cooler.	Transmission Model #:	
Front Axle	Minimum Front Gross Axle Weight Rating (FGAWR) 7,000lbs.	FGAWR:	
Rear Axle	Minimum Rear Gross Axle Weight Rating (RGAWR) 14,500lbs.	RGAWR:	
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	Vehicle shall have Front Springs rated at 7,000lbs. minimum and Rear Springs rated at 14,500 lbs. minimum	Front Spring Rating [lbs]:	
		Rear Spring Rating [lbs]:	
Shock Absorbers	Heavy Duty	Make and Model #:	
Brakes	ABS power brakes meeting Federal Motor Vehicle Safety Standard 49CFR571.105	Service Brakes [total lining or sweep area] both front & rear:	
Parking Brake	Foot-operated parking brake		
Tires	Manufacturer's standard all-season radial tread or rib tread w/mud and snow rear, as required to meet the GVWR specified	Radial Tires [size]:	
		Radial Tires [load]:	
		Radial Tires [range]:	
		Radial Tires [manufacturer]:	
		Front Tires [tread design]:	
		Front Tires [capacity/tire]:	
		Rear Tires [tread design]:	
		Rear Tires [capacity/tire]:	
Front Bumper	Shall be made of, or covered with, a rust proof material. Front bumper may be OEM chrome or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to body using corrosion	Front Bumper [material]:	
		Front Bumper [manufacturer]:	
Steering	Power steering	Turning Diameter [at end of front bumper]:	
Steering Wheel	Tilt steering wheel		
Interior Equipment	OEM dash air conditioning, defroster, and heating system		
Radio	Manufacturer's standard AM/FM/CD Digital Clock Radio, with one driver speaker and 4 cabin speakers.	Manufacturer:	
		Model #:	
Exterior Equipment	Rear tow hooks		
Exterior Equipment	Standard OEM horn(s)		

Contractor: N/A; This Lot Discontinued

LOT I

Medium Duty Cutaway, 20 Passenger (18 adults/2 wheelchair)

Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall be at the rear of the vehicle and shall exit on the street side, aft of the rear axle. The system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or FOBS		
Body (see specifications below)			
Body Structure	Shall consist of a heavy-duty integral steel body roll cage structure (from curbside to street side floor connections) fabricated of square or rectangular tubing (or structurally equivalent hat section member) and be in full compliance with Title 17 NYCRR Part 720.4(b)(1). No wood or paper products shall be utilized in the construction of sidewall, roof or transition body panels. Roll cage shall extend forward sufficiently to protect driver in the event of rollover. Documentation consisting of detailed explanation and dimensional drawing supporting the body structures compliance shall be supplied with bid submission for each vehicle classification, including current substantiating documentation (not older than 5 years unless the structure has not been significantly modified as defined by 49 CFR 665) confirming compliance with FMVSS 220 and 221.		
Body	Minimum 90" interior body width (from sidewall to sidewall). Exterior shall be smooth and free of any visible fasteners. Exterior Siding shall be 25-gauge protected (i.e. galvanized) steel (or 24-gauge aluminum) with smooth surface or laminated fiberglass composite reinforced with insulation that is foamed in place or resin hardened honeycomb. Body shall be compliant to all stated General Body specifications. Interior sidewalls shall be fiberglass, vinyl clad aluminum or Compatible Equivalent material. Insulation in walls and ceiling shall be fiberglass, resin-hardened honeycomb (FRP) material, polyurethane, or closed cell EPS foam.	Exterior Siding [material/thickness]: Interior Paneling [material/thickness]: Insulation [material/R Value]:	
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	
Exterior Equipment	Reverse alarm		
Exterior Equipment	Back up radar alarm with 4 bumper mounted sensors. Alarm shall provide an audible alert plus include a dash area mounted LED distance display.	Manufacturer: Model #:	
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior body lights (non-OEM chassis) for these purposes must meet current SAE standards and shall be sealed Light Emitting Diode (LED) type lights on an active regulator circuit that assures uniform illumination of all the LED lighting down to 8 volts. All exterior clearance lights shall be armored (or low-profile design or sufficiently body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door. A mid-ship turn signal shall also be installed on each side of the bus body.		
This Row Intentionally Left Blank			
Gutters/Drip Molding	Shall be installed above all vehicle windows and doors, preventing water from draining onto doors and windows.		
Mud Flaps (Front and Rear)	Shall be manufacturers standard. Labeling and Advertising is prohibited, other than for necessary safety information		
Rear Bumper	Shall be made of, or covered with, a rust proof material. Rear bumper shall be stainless steel or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]: Rear Bumper [manufacturer]:	
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the vehicle and shall comply with SAE J686.		
Exterior Mirror Frames	Mirror Frames and Extension Arms shall be made of rustproof material (i.e. stainless steel/durable plastic) and shall be adequate to prevent excessive vibration of the mirror(s).	Manufacturer: Model #:	
Exterior Mirrors	Driver's side and curbside exterior mirrors shall be heated and remote controlled, with the switch(s) to be installed at a prior approved location. In no case shall the switch be mounted above the windshield. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature. Extension Arms shall be provided on mirrors to allow for a clear and unobstructed view to rear regardless of vehicle width.	Manufacturer: Model #:	
Interior Mirror	Rear view mirror 6" x 30" shall be provided		
Windows	Passenger windows shall be "T" slider top ventilating or push-out horizontal transit slider type with a minimum 28% tint (light reduction in the passenger compartment). Side and rear windows shall be metal frame construction (painted black) with tempered safety or laminate glass and shall meet FMVSS 217 retention requirements.	Passenger Window [type]: Passenger Window [size]:	
Windows	Twin rear windows are required and shall be manufacturer's standard (6" x 18" minimum) on each side of emergency exit door or special service door. Emergency exit door, when located in rear of vehicle, shall include an upper and lower window		
Windows	Window placement shall conform to manufacturer's standard spacing for length of vehicle offered. Placement and installation of the windows shall not diminish the structural integrity of vehicle. Windows installed as emergency exits as required by FMVSS shall also comply with Title 17 NYCRR Part 720,5 requirements.		
Floor	Shall be manufacturer's raised or flat floor design over the rear wheels. The floor height shall remain constant from the entry stepwell to the rear bulkhead. A separate step up aft of the entry stepwell is not acceptable.		
Floor Assembly	Floor Assembly: Shall be insulated and shall include a minimum 5/8" thick marine grade plywood, or 3/4" Advantech sub-floor, or compatible equivalent with a light colored (e.g. light gray), rubber floor covering that shall meet FMVSS 302 and ADA requirements for slip resistance. Floor covering shall be a minimum .140" thick ribbed on steps (if installed) and in the aisle and .124" thick smooth under the seats. Floor shall be securely fastened to galvannealed steel or aluminum belly pan installed on chassis frame. Floor shall be flat from rear of front wheel well to rear of vehicle.		
Entrance Step	Shall be a low height, front entrance step (lowest practical) and shall comply with ADA 1192.	Top of first step above ground [inches]:	
Steps	All step edges shall be a minimum of 9" in depth and have a high visible yellow nosing band running the full width of each step. Buses shall have a maximum of 3 steps (not including ground to first step) with risers not to exceed 10" in height. Steps shall comply with ADA 1192.		

Contractor: **N/A; This Lot Discontinued**

LOT I

Medium Duty Cutaway, 20 Passenger (18 adults/2 wheelchair)

Entrance Door(s)	A "walk through" minimum 74" high headroom right front entrance door with a minimum clear entry opening of 28" constructed with top and bottom (or length of door) viewing windows and a heavy duty electric opener shall be provided. An interlock (Intermotive Gateway or compatable equivelant) shall be installed and programmed that prevents the door to be opened or closed unless the vehicle speed equals zero (0). Door leading and sectional edges shall be equipped with approximately 2" extruded rubber edges to form weather-tight seal. Door shall be affixed with hinges that provide corrosion protection and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Entrance door surround (portal) and step well shall be constructed from stainless steel or material with equal corrosion resistant properties. Entrance door shall comply with FMVSS 217.	Entrance Door clear opening [inches]:	
Door Entry Grab Rails (right and left side)	Shall be installed parallel to the steps, securely fastened and a minimum 1 ¼ " diameter made of stainless steel powder coated material, or non-slip Compatible Equivalent, and shall be a high visible yellow in color, accessible from first step to floor of vehicle.		
Emergency Exit Door	Shall be at the rear center of the bus, in compliance with FMVSS and Title 17 NYCRR Part 720.5 requirements. An interior locking device (vandal lock) shall be provided for emergency exit door(s) and an LED driver station warning light shall be provided to indicate when door is locked. A device shall be installed to prevent the engine from starting when the door is locked. Exterior door handle shall be non-locking. Door shall be constructed with two (minimum 12" x 18") windows situated at the top and bottom of door. Door surround (portal) shall be stainless steel or material with equal corrosion resistant properties. Door shall be affixed with stainless steel hinges and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable).		
Overhead Hand Rail	Two (2) full-length overhead (ceiling) handrails shall be provided and securely attached to roof structure, which shall be continuous except for a gap at the rear doorway, in accordance with Part 38 of the ADA.		
Driver Barrier	Driver Barrier constructed of a vertical and horizontal stanchion, a padded modesty panel, and transparent durable plastic material, or Compatible Equivalent, shall be installed directly behind driver seat. A gap between the ceiling and top of the plexiglass shall be 2 inches +- .5inch		
Padded Panels	Shall be provided attached to a vertical and horizontal stanchion behind the step well. The gap between the floor and bottom of the panel shall meet NYSDOT specifications.		
Interior Paneling	Minimum 24-gauge metal (embossed or with bonded vinyl fiberglass), .040" FRP, or Compatible Equivalent finish.		
Insulation	Fiberglass, resin-hardened-honeycomb (FRP) material, polyurethane, or closed cell EPS foam insulation in walls and ceiling (minimum R-value of R-6).		
Wheelchair Lift Door(s)	Install a wheelchair entrance/exit door(s) (special service door) affixed with stainless steel hinges, door trim and fasteners (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Each door shall include a window and a positive fastening device to hold door in the open position ("hold open" feature). The special service door shall be equipped with a locking device (Padlock and hasp are not acceptable). Wheelchair area opening height shall be a minimum of 68". All items, including lighting, shall be in compliance with the American's with Disabilities Act (ADA) and FMVSS Nos. 403 & 404.		
Wheelchair Lift	The wheelchair lift shall be automatic electric/hydraulic type (power-up, gravity down) using dual hydraulic cylinders. The hydraulic reservoir capacity shall be at least 1 quart, with easy access for inspection and servicing. The maximum power draw shall not exceed 70 amps at 12 volts. Wheelchair lift unit shall be a Public Use Lift and shall be installed in accordance with manufacturer's standards. The lift must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the lift shall be provided in the event of a power failure.	Manufacturer: Model #:	
Wheelchair Lift	Shall be capable of a minimum of 2500 cycle operation with a minimum of 1,000lb. load.		
Wheelchair Lift	Platform size shall be minimum 34" x 54" (of useable space) and lift capacity shall be minimum 1,000 lbs. Wheelchair lift platform shall be constructed of expanded metal grating with left and right side 2 ½" high safety stops plus a spring loaded or power activated ADA front stop. A pendent type operating control with a cable length sufficient to allow operation of lift at outermost platform position shall be provided. Lift platform shall be automatic power fold/unfold design.		
Wheelchair Lift	A transmission interlock system that utilizes intermittent fault filter technology shall be installed to prevent operation of the lift unless door(s) are opened and transmission is in park with parking brake applied. A manual override system in case of power failure shall also be provided. Lift electric system shall be protected with fuse or circuit breaker.	Manufacturer: Model #:	
Wheelchair Lift	The spring load, deck end, stop shall be retracted while the lift deck is in the load/unload (down) position. This shall enable the operator to load the lift without holding the stop in its retracted position.		
Wheelchair Lift	Two (2) folding handrails on lift platform measuring approximately 30" Height x 8" Length (minimum) shall be provided. Handrails shall not reduce platform size.		
Wheelchair Lift	Labeled dash mounted visual alarm (in compliance with Chapter VI, Article III, Parts 720/721, NYCRR) to indicate special service door is not fully closed, shall be provided.		
Wheelchair Lift	Shall be fully guaranteed by manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency.		
Wheelchair Lift Barrier	Protective panel with vertical stanchion (consistent with Door Entry Grab Rail specifications), constructed of durable material, shall be installed directly adjacent to the wheelchair lift (when installed) to prevent shearing action between the lift platform and vehicle floor or door jams in conformance with Title 17 NYCRR Part 720.8(a)(3)(b).		
ADA Compliance	All features required for a demand-response application shall be included in the base vehicle in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs.)		
Lighting- Driver Dome Light	An independently controlled LED overhead dome light over driver area producing 6 foot candles when measured at the steering wheel.		

Contractor: **N/A; This Lot Discontinued**

LOT I

Medium Duty Cutaway, 20 Passenger (18 adults/2 wheelchair)

Lighting (Interior)	Overhead, entrance, step well, and lift lights shall be LED and provide no less than two foot-candles of illumination on the entrance step tread, or lift or ramp platform with the door open. Outside light(s) shall provide at least one foot-candle of illumination on the street surface with 3 feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.		
Lighting (Interior)	Overhead entrance and step well lights shall be wired to and be automatically activated by a door controlled switch. Lights shall operate any time the ignition key is on and the door is opened.		
Lighting (Interior)	Interior lighting shall be LED and provide a minimum of two foot-candles of illumination at reading level. Interior lighting fixtures shall be reasonably flush with the interior walls and ceiling so no hazard exists for passengers. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.		
Interior Trim and Padding	All interior panel joints shall be covered with matching trim strips or moldings and all sharp edges, protrusions, corners etc. shall be finished in such a manner to prevent possible injury. (If vacuum lamination is used, joints shall be securely bonded and provide a finished appearance). Any exposed wheelchair lift support brackets, air conditioner units or other similar items shall be padded to prevent injury.		
Heater(s)	An OEM dash air conditioning system plus two (2) rear heaters (with circulation pump) shall be provided. Sufficient BTU capacity of front and rear under seat heaters shall be provided to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F. A dash mounted (or other approved location) circulating fan shall be provided for increased circulation of heating and defrosting in driver area. Interior temperature shall be uniform throughout passenger compartment area. Shut-off valves shall be provided for shut-off of main and auxiliary heaters. The first valve shall be located below or behind the driver's entry step well. The second valve shall be located downstream of the second heater. Both shall be labeled providing clear indication of the shut-off valve locations to the driver. Passenger compartment heater hoses shall be equipped with full-flow quarter-turn valves located in a protected location. Location of valves shall be indicated with a label stating "Heater Shutoff Valves" and located to be visibly obvious. All heater hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.	Manufacturer: Model #:	
Air Conditioning	Air conditioning system that shall be designed with sufficient BTU cooling capacity to provide a balanced cooling system capable of maintaining a 75°F inside temperature vs. an outside temperature 95°F and a relative humidity of 50%, with ability to continuously decrease temperature inside vehicle (as measured from the approximate vehicle center) a minimum of 1°F for every ninety (90) seconds. (Air Conditioner Manufacturer's Certification that performance requirement for vehicle type can be met must be submitted with bid).		
Air Conditioning	Air Conditioning shall be designed as 2 independent systems. One system shall be OEM chassis supplied, dedicated for cooling and moisture removal from the windshield and drivers area. The second system shall function separate from the OEM dash, with separate controls, engine driven compressor, skirt condenser, and passenger cabin evaporator(s). BTU and CFM capacities (rear system and front system together) considered minimum required are 80,000BTU and 2,400CFM.	Manufacturer: Model #: A/C Capacity [Chassis BTUH]: A/C Capacity [Body BTUH]: A/C Airflow [Cab CFM]: A/C Airflow [Body CFM]:	
Air Conditioning	A low-profile evaporator shall be installed on the rear bulkhead and over the emergency exit door. In the event the rear evaporator is insufficient to produce sufficient BTU and/or CFM requirements, an additional flush mounted evaporator shall be added over the windshield. The cabin evaporator(s) shall include directional and adjustable discharge ports. The rear evaporator shall be installed so as not to intrude from the rear bulk head more than approximately 9" (inches) horizontally into the passenger compartment. Any sharp edges and/or exposed metal associated with the AC unit must have these edges/surfaces appropriately padded to provide for passenger head protection. Aisle height requirements will be measured from a point directly in front of the AC unit. A secondary side mounted evaporator in the cabin is permitted only when system capacity dictates plus the space over the windshield is occupied with a front destination sign.		
Air Conditioning	Each air conditioning system shall use R134A refrigerant. All system components subject to corrosion from moisture shall be aluminum, copper, stainless steel, galvanized, or epoxy coated. All exterior exposed air conditioning electrical connections must utilize weather pac plugs or Compatible Equivalent. An air intake screen shall be installed on the skirt of the vehicle to ensure sufficient airflow through the skirt mounted condenser coil. All hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.		
Safety Vent (three way)	Shall be installed and centered on the roof of the passenger compartment. Vent shall provide for fresh air ventilation, static type exhaust with fresh air ventilation and static type exhaust; and shall be equipped with release handle to provide for emergency exit. Size shall be approximately 23" x 23".	Make: Model #: Size [inches]:	
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric or air power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Driver Seat Manufacturer Driver's Seat Model #:	
Seating	Upholstered transit type seats for a minimum of eighteen (18) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		
Seating	Mid-high back, adult passenger seats shall be supplied in individual passenger modules, Freedman model "GO Seat ES", or other Compatible Equivalent. All ambulatory seats shall be forward facing. Seat cushions per passenger shall be a minimum of 17" in width and 17" in depth, and seat back shall be a minimum of 24" in height, excluding the grab handle. All cushions and seat back covers shall have easily removable covers, replaceable without removing the seat from the bus. All seat cushions in the bus shall have identical upholstery and a spring suspension system. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.	Manufacturer: Model #:	
Seating	Minimum seat widths shall be 17" single and 34" double seats. Aisle width shall be a minimum of 14".	Single Seat Width [inches]:	

Contractor: **N/A; This Lot Discontinued**

LOT I

Medium Duty Cutaway, 20 Passenger (18 adults/2 wheelchair)

		Double Seat Width [inches]:	
		Minimum Aisle Width [inches]:	
Seating	Entire seat frame, except mounting brackets, shall be enclosed in energy absorbing materials. Seat covers shall be transit grade vinyl, 36 oz. per linear yard (Cameo/Predictions), or Compatible Equivalent, or transit grade fabric produced from Marquesa Lana Yarns-Interweave, Regions, or Bus Textil Level 3, or Compatible Equivalent. All cover materials must meet FMVSS 302 flammability requirements. Seat foam must meet ASTM D-3675 Radiant Flammability Test.		
Seating	An approved retractable style integrated 3-point lap and shoulder seat belt shall be provided for each seating space and shall be in compliance with FMVSS 209 & 210. Belt retractors must not interfere with seating space, and two (2) seat belt extensions shall be provided with each vehicle.		
Seating	Molded Top Grab handles/grab rails shall be provided on seat backs of all forward facing seats (including flip seats) and shall be mounted/welded to seat frame structure. This does not apply to single seat positioned immediately forward of the wheelchair lift.		
Wheelchair & Wheelchair Occupant Restraints	Two (2) Wheelchair Restraint Systems (Wheelchair and Wheelchair Occupant) shall be provided and installed and designed for "L" track systems. Provide and install wheelchair and occupant restraint systems (including lap belts, retractable shoulder belts with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belts, and retractable shoulder belts with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-1007, or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouches shall be provided to completely secure belts/straps on bus sidewalls when not in use. All items shall be installed in accordance with manufacturer's standards and be in compliance with the American's with Disability Act, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the vehicle interior at a minimum of one restraint position.	Manufacturer:	
		Model #:	
Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver's seat position) in the front entry area of the vehicle. Equipment location shall be clearly identified.		
Miscellaneous	Storage compartment with door shall be provided and recessed in the center front cap portion of the vehicle or positioned over the driver's area if the front cap portion is not used for destination signage or air conditioner evaporator placement. The compartment must be sealed and must not have any exposed wires, protrusions or sharp edges		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]:	
		Chassis Warranty[miles]:	
Vehicle Body Warranty	Covering the integrity of the vehicle body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of five (5) years or 150,000 miles.	Body Warranty [years]:	
		Body Warranty [miles]:	
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The chassis OEM air conditioning system coverage falls under the chassis warranty.	Air Conditioning Warranty [years]:	
Wheelchair Lift Warranty	The lift shall be fully guaranteed by the manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency. In addition, wheelchair lift shall be capable of a minimum of 2500 cycle operations with a minimum of 1,000 lb. load.		

PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section III.2 *Transit Bus Requirements* . See Section III.1.2 *Optional Equipment Unit Price* for pricing information relative to Optional Equipment.

Optional Equipment	Specification	Information provided in Column C	Spec for Equipment Provided	Optional Equipment Unit Price
Diesel Engine and Fuel Tank(s)	Minimum 6.7 liter, 8 cylinder power stroke diesel engine rated minimum 300 HP x 600 lb. ft. torque. Nominal (plus or minus 5 gallons) 40-gallon single or dual fuel tank(s) with 10 gallon (plus or minus 2 gallon) DEF tank. Minimum 200 amp OEM alternator.	Number of Cylinders:		
		Liters:		
		Horsepower and Torque:		
LPG Engine and Fuel Tank(s)	Minimum 6.8L V10 gasoline engine rated minimum 300 HP x 425 lb. ft. torque. Add a gaseous prep package (hardened exhaust valves) and install a Propane Autogas conversion for dedicated LPG fuel. Fuel tanks shall provide a minimum 65 GGE (Gallon Gas Equivalent) useable. Compliant with SAE J2343 and NFPA 52.	Number of Cylinders:		
		Liters:		
		Horsepower and Torque:		
Additional Wheelchair Restraint System	Delete seats (4 maximum) and price one (1) additional wheelchair station above the quantity required in the base vehicle. Price is per position to includes all belts, floor/ shoulder hardware, and storage container			
Optional Wheelchair Restraint System	For each wheelchair position in the base vehicle, plus additional optional restraint systems, if ordered, install complete "Omni" style floor securements and complete belts kits, equal to Q-Straint Q-10008 or Sur-Lok AL860S-4C-SNC.	Manufacturer and Model #:		
Continuous "L" track	Install 5 lanes of continuous L track (4 lanes floor mounts, 1 lane shoulder harness) for a single wheelchair position (48" length each)			

Contractor: **N/A; This Lot Discontinued**

LOT I

Medium Duty Cutaway, 20 Passenger (18 adults/2 wheelchair)

Additional Seat (3-Step Fold Away; Feather Weight; and Forward Facing)	When not included in the base vehicle, provide and install one forward facing fold-away flip seat at a wheelchair station area which shall be a Freedman model "GO ES" seat or other pre-Compatible Equivalent. Flip seat may be lowered to accommodate two (2) ambulatory passengers, when not in use as a wheelchair station. Seat shall be of the same type (including grab handles) and color as standard seats measuring (per passenger) a minimum of 17" in width x 17" in depth x 24" in height as measured from the edge of the cushion. Raising/lowering of the seat shall be accomplished manually and shall include a lock to secure the seat in the raised position. Raised seat plus wheelchair shall not block legal aisle. Integrated 3-point lap and shoulder belts shall be provided at each seating location to accommodate an adult ambulatory passenger and shall be in compliance with FMVSS 210. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.			
Air Conditioning System (Roof Mounted Condenser)	Provide and install same requirements as base vehicle, except air conditioning system condenser shall be a roof mounted unit.			
Supplemental ADA Transit Package	Provide and install the following items (All items to be in compliance with Americans with Disabilities Act): Front and side electronic destination signs – LED type (14 rows and 72 columns minimum) and programmable with a USB key, Twin Vision Mobi-Lite or Compatible Equivalent, interior/exterior PA system, pull cord and touch strips chime signal system (at wheelchair positions), two-way radio pre-wire with 30 amp fused circuit, consisting of roof mounted antenna location access, antenna cable conduit with pull cord, and a dedicated circuit with electrical wire terminating in drivers area.			
Camera Security System- 6 monitor	Provide and install a complete camera recording system, including software kit. Components include an 8-channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of 5 vehicle functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of 2 exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus 4 interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for 1 or more vehicles with matching camera system. Minimum components include software, mouse, 5-6" monitor, HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR: Manufacturer and Model # of interior camera head: Manufacturer and Model # of exterior camera head:		
Fiberglass Seating	Fiberglass Seating: Provide and install FMVSS certified fiberglass transit style seating (4ONE Gemini model, American Seating (Metropolitan and Insight) models, Freedman CitiSeat model or Compatible Equivalent) in lieu of previously specified base vehicle seating. Seats shall include a plastic back shell, anti-microbial grab rails, and padded, tough to cut vandal resistant inserts.			
Fare Box (Electronic)	Provide and install a fare collection system, comparable to GenFare "CENTSaBILL" or equal model with 3 height positions, that can accommodate automatic validation and processing of coins, bills, and magnetic fare cards.	Manufacturer and Model#:		
Fare Box (Manual)	Provide and install a fare collection system, comparable to Diamond Model NV or equal model, complete with all floor mounting hardware and spare vault.	Manufacturer and Model #:		
Bike Rack	Provide and install a folding device attached to the front body of the vehicle that is designed and used exclusively for transporting bicycles. The device shall be stainless steel material and may not extend more than 36 inches from the front body, and the handlebars of a bicycle transported on such device may not extend more than 42 inches from the front body of the vehicle.			
Back Up Camera System	Upgrade the back up radar in base vehicle to include a rear view camera.			
Spare Tire and Rim	Provide a matching spare tire and rim shipped loose			
Rear Suspension upgrade	Replace the rear spring hangers and install rear rubber shear springs to work in conjunction with the existing leaf spring suspension system.	Manufacturer and Model #:		
Driver Side Running Board	Install a diamond plate additional step up for driver entry.			
Alternate Transit Flooring	In lieu of rubber floor covering, supply an alternate floor covering, to be a smooth slip resistant vinyl with aluminum oxide granules throughout the entire thickness of the wear layer with silicon carbide and base color quartz in the surface layer. The floor covering shall be a minimum of	Brand and Model #: Thickness [mm]: Warranty [years]:		

Contractor: **Matthews Bus Alliance, Inc. DBA Matthews Buses Commercial**

LOT J

Conventional Style, 24 Passenger (22 adults/2 wheelchair)

PART 1: Product information for the Base Item awarded		
Chassis Model Year	The year used to designate a discrete Chassis Model, irrespective of the calendar year in which the Chassis was actually produced.	2017
Chassis Make	The OEM company name of the Chassis Model.	Freightliner
Chassis Model	A particular brand of Chassis sold by an OEM.	S2C
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	
Body Model Year	The year used to designate a discrete Body Model, irrespective of the calendar year in which the Body was actually produced.	2017
Body Make	The OEM company name of the Body Model.	Champion
Body Model	A particular brand of Body sold by an OEM.	Defender
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	S2C

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §34, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section III.1 Price for additional information about Contract pricing.	$119,774.56

PART 3: Base Item Specifications

The terms and conditions in Contract Section III.2 *Transit Bus Requirements* shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information to provide in Column C	Spec for Equipment Provided
General	Capacity: Minimum 22 adult passenger seats plus 2 wheelchair stations	Capacity:	22A + 2WC
General	Floor plan matches "Figures" tab	Manufacturer Floor plan #:	CB002905
General	Drive configuration: Minimum forward control dual rear wheel (DRW)		
General	Have (1) completed federal STURAA (Altoona) bus testing of not less than seven (7) years/200,000 miles, or been certified as exempt from testing as specified under FTA provisions.		
General	GVWR: 23,500 lb. minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lbs]:	25,500
General	Wheelbase: 227in. (plus or minus 15")	Wheelbase [inches]:	219
General	Minimum 77" continuous passenger aisle headroom	Headroom [inches]:	78
Chassis (see specifications below)			
Cab	If provided, the door on the driver's side shall be a standard sedan door supplied by the Chassis OEM. A cab that does not have a drivers side door is also acceptable.		
Engine	6 or 8 cylinder diesel engine with 6.4L minimum displacement, rated at 220 HP x 520 lb. ft. torque or greater	Number of Cylinders:	6
		Liters:	6.7
		Horsepower and Torque:	220 HP / 520 TQ
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 5 gallons) 60-gallon		
DEF Tank	Nominal (plus or minus 2 gallons) 10-gallon		
Cooling System	Chassis manufacturers heaviest duty cooling system available for chassis supplied and protected to minus 30°F;		
Electrical	Alternator 270 amp minimum	Alternator Capacity [amps]:	275
Electrical	Dual batteries (minimum 1800 CCA total) which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative);	Rating of Batteries [at 0 F]:	1900
		CCA each battery:	950
		Minutes RC:	175
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	Allison 2200 PTS 5 Speed Electronic Automatic Transmission, or Compatible Equivalent or better	Transmission Model #:	2200 PTS
Front Axle	Minimum Front Gross Axle Weight Rating (FGAWR) 8,000lbs.	FGAWR:	8,000
Rear Axle	Minimum Rear Gross Axle Weight Rating (RGAWR) 15,500lbs.	RGAWR:	17,500
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	Vehicle shall have spring ratings of front 8,000lbs. minimum. Rear suspension shall be air ride rated at a minimum of 20,000lbs. Dual leveling valves shall be included.	Front Spring Rating [lbs]:	9,000
		Rear Spring Rating [lbs]:	23,000
Shock Absorbers	Heavy Duty	Make and Model #:	Sachs
Brakes	ABS power air brake system in compliance with 49CFR571.121. The air system shall include an air dryer w/ heater; Bendix AD-9 or Compatible Equivalent.	Service Brakes [total lining or sweep area] both front & rear:	780
Parking Brake	Foot or other FMVSS certified parking brake system		
Tires	Radial 14 ply rib tread front w/mud and snow rear	Radial Tires [size]:	265/70R19.5 Front
		Radial Tires [load]:	14 Ply F / 16 Ply R
		Radial Tires [range]:	H
		Radial Tires [manufacturer]:	Michelin
		Front Tires [tread design];	All Season
		Front Tires [capacity/tire]:	4940
		Rear Tires [tread design];	Mud/Snow
		Rear Tires [capacity/tire]:	4675
Front Bumper	Shall be made of, or covered with, a rust proof material. Front bumper may be OEM chrome or	Front Bumper [material]:	Chrome

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	high density rubber/plastic (i.e. HELP bumper) and shall be affixed to body using corrosion resistant material hardware with rustproofing applied to finished installation.	Front Bumper [manufacturer]:	Freightliner OEM
Steering	Power steering	Turning Diameter [at end of front bumper]:	55.7 Left / 47.7 Right; Curb to Curb Diameter, Feet
Steering Wheel	Tilt steering wheel		
Interior Equipment	OEM dash air conditioning, defroster, and heating system		
Radio	Manufacturer's standard AM/FM/CD Digital Clock Radio, with one driver speaker and 4 cabin speakers.	Manufacturer:	Jensen
		Model #:	JCD2010
Exterior Equipment	Rear tow hooks		
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall be at the rear of the vehicle and shall exit on the street side, aft of the rear axle. The system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or FOBS		
Body (see specifications below)			
Body Structure	Shall consist of a heavy-duty integral steel body roll cage structure (from curbside to street side floor connections) fabricated of square or rectangular tubing (or structurally equivalent hat section member) and be in full compliance with Title 17 NYCRR Part 720.4(b)(1). No wood or paper products shall be utilized in the construction of sidewall, roof or transition body panels. Roll cage shall extend forward sufficiently to protect driver in the event of rollover. Documentation consisting of detailed explanation and dimensional drawing supporting the body structures compliance shall be supplied with bid submission for each vehicle classification, including current substantiating documentation (not older than 5 years unless the structure has not been significantly modified as defined by 49 CFR 665) confirming compliance with FMVSS 220.		
Body	Minimum 90" interior body width (from sidewall to sidewall). Exterior shall be smooth and free of any visible fasteners. Exterior Siding shall be 25-guage protected (i.e. galvanized) steel (or 24-guage aluminum) with smooth surface or laminated fiberglass reinforced with insulation that is foamed in place or resin hardened honeycomb. Body shall be compliant to all stated General Body specifications. Interior sidewalls shall be fiberglass, vinyl clad aluminum or equal material. Insulation in walls and ceiling shall be fiberglass, resin-hardened honeycomb (FRP) material, polyurethane, or closed cell EPS foam.	Exterior Siding [material/thickness]:	FRP / 3.9mm
		Interior Paneling [material/thickness]:	FRP / 3.9mm
		Insulation [material/R Value]:	Polyurethane / 8.5
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	4
Exterior Equipment	Reverse alarm		
Exterior Equipment	Back up radar alarm with 4 bumper mounted sensors. Alarm shall provide an audible alert plus include a dash area mounted LED distance display.	Manufacturer:	Rosco
		Model #:	BSSK1000
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior body lights (non-OEM chassis) for these purposes must meet current SAE standards and shall be sealed Light Emitting Diode (LED) type lights on an active regulator circuit that assures uniform illumination of all the LED lighting down to 8 volts. All exterior clearance lights shall be armored (or low-profile design or sufficiently body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door. A mid-ship turn signal shall also be installed on each side of the bus body.		
Batteries	Batteries shall be mounted in an easily accessible fully enclosed and properly ventilated battery box with stainless steel (or an acceptable non-corrosive material) slide out (with roller track) battery tray located in the vehicle skirt or driver's step and shall include a clearly labeled disconnect switch that shuts off all current to the bus body. Battery Box shall be accessible through a hinged door access which shall be labeled in conformance with Title 17 NYCRR Part 720.6(a). Door shall be affixed with stainless steel fasteners.		
Gutters/Drip Molding	Shall be installed above all vehicle windows and doors, preventing water from draining onto doors and windows.		
Mud Flaps (Front and Rear)	Shall be manufacturers standard. Labeling and Advertising is prohibited, other than for necessary safety information		
Rear Bumper	Shall be made of, or covered with, a rust proof material. Rear bumper shall be stainless steel or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]:	Stainless Steel
		Rear Bumper [manufacturer]:	Champion
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the vehicle and shall comply with SAE J686.		
Exterior Mirror Frames	Mirror Frames and Extension Arms shall be made of rustproof material (i.e. stainless steel/durable plastic) and shall be adequate to prevent excessive vibration of the mirror(s).	Manufacturer:	Rosco
		Model #:	Accustyle Stainless
Exterior Mirrors	Driver's side and curbside exterior mirrors shall be heated and remote controlled, with the switch(s) to be installed at a prior approved location. In no case shall the switch be mounted above the windshield. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature. Extension Arms shall be provided on mirrors to allow for a clear and	Manufacturer:	Rosco
		Model #:	Accustyle Remote/Htd
Interior Mirror	Rear view mirror 6x30" shall be provided		
Windows	Passenger windows shall be "T" slider top ventilating or push-out horizontal transit slider type with a minimum 28% tint (light reduction in the passenger compartment). Side and rear windows shall be metal frame construction (painted black) with tempered safety or laminate glass and shall meet FMVSS 217 retention requirements.	Passenger Window [type]:	T-Slide
		Passenger Window [size]:	36" x 46"
Windows	Twin rear windows are required and shall be manufacturer's standard (6" x 18" minimum) on each side of emergency exit door or special service door. Emergency exit door, when located in rear of vehicle, shall include an upper and lower window		
Windows	Window placement shall conform to manufacturer's standard spacing for length of vehicle offered. Placement and installation of the windows shall not diminish the structural integrity of vehicle. Windows installed as emergency exits as required by FMVSS shall also comply with Title 17 NYCRR Part 720,5 requirements.		

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Floor	Shall be manufacturer's raised or flat floor design over the rear wheels. The floor height shall remain constant from the entry stepwell to the rear bulkhead. A separate step up aft of the entry stepwell is not acceptable.		
Floor Assembly	Shall be insulated and shall include a minimum 5/8" thick marine grade plywood, 3/4" Advantech sub-floor, or Compatible Equivalent, with a light colored (e.g. light gray), rubber floor covering that shall meet FMVSS 302 and ADA requirements for slip resistance. Floor covering shall be a minimum .140" thick ribbed on steps (if installed) and in the aisle and .124" thick smooth under the seats. Floor shall be securely fastened to galvannealed steel or aluminum belly pan installed on chassis frame. Floor shall be flat from rear of front wheel well to rear of vehicle.		
Entrance Step	Shall be a low height, front entrance step (lowest practical) and shall comply with ADA 1192.	Top of first step above ground [inches]:	12
Steps	All step edges shall be a minimum of 9" in depth and have a high visible yellow nosing band running the full width of each step. Buses shall have a maximum of 3 steps (not including ground to first step) with risers not to exceed 10" in height. Steps shall comply with ADA 1192.		
Entrance Door(s)	A "walk through" minimum 74" high headroom right front entrance door with a minimum clear entry opening of 28" constructed with top and bottom (or length of door) viewing windows and a heavy duty electric opener shall be provided. An interlock (Intermotive Gateway or Compatable Equivalent) shall be installed and programmed that prevents the door to be opened or closed unless the vehicle speed equals zero (0). Door leading and sectional edges shall be equipped with approximately 2" extruded rubber edges to form weather-tight seal. Door shall be affixed with hinges that provide corrosion protection and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Entrance door surround (portal) and step well shall be constructed from stainless steel or material with equal corrosion resistant properties. Entrance door shall comply with FMVSS 217.	Entrance Door clear opening [inches]:	30
Door Entry Grab Rails (right and left side)	Shall be installed parallel to the steps, securely fastened and a minimum 1 ¼ " diameter made of stainless steel powder coated material, or non-slip Compatible Equivalent, and shall be a high visible yellow in color, accessible from first step to floor of vehicle.		
Emergency Exit Door	Shall be at the rear center of the bus, in compliance with FMVSS and Title 17 NYCRR Part 720.5 requirements. An interior locking device (vandal lock) shall be provided for emergency exit door(s) and an LED driver station warning light shall be provided to indicate when door is locked. A device shall be installed to prevent the engine from starting when the door is locked. Exterior door handle shall be non-locking. Door shall be constructed with two (minimum 12" x 18") windows situated at the top and bottom of door. Door surround (portal) shall be stainless steel or material with equal corrosion resistant properties. Door shall be affixed with stainless steel hinges and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable).		
Overhead Hand Rail	Two (2) full-length overhead (ceiling) handrails shall be provided and securely attached to roof structure, which shall be continuous except for a gap at the rear doorway, in accordance with Part 38 of the ADA.		
Driver Barrier	Driver Barrier constructed of a vertical and horizontal stanchion, a padded modesty panel, and transparent durable plastic material, or Compatible Equivalent, shall be installed directly behind driver seat. A gap between the ceiling and top of the plexiglass shall be 2 inches +- .5inch		
Padded Panels	Shall be provided attached to a vertical and horizontal stanchion behind the step well. The gap between the floor and bottom of the panel shall meet NYSDOT specifications.		
Interior Paneling	Minimum 24-gauge metal (embossed or with bonded vinyl fiberglass), .040" FRP, or Compatible Equivalent finish.		
Insulation	Fiberglass, resin-hardened-honeycomb (FRP) material, polyurethane, or closed cell EPS foam insulation in walls and ceiling (minimum R-value of R-6).		
Wheelchair Lift Door(s)	Install a wheelchair entrance/exit door(s) (special service door) affixed with stainless steel hinges, door trim and fasteners (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Each door shall include a window and a positive fastening device to hold door in the open position ("hold open" feature). The special service door shall be equipped with a locking device (Padlock and hasp are not acceptable). Wheelchair area opening height shall be a minimum of 68". All items, including lighting, shall be in compliance with the Americans with Disabilities Act (ADA) and FMVSS Nos. 403 & 404.		
Wheelchair Lift	The wheelchair lift shall be automatic electric/hydraulic type (power-up, gravity down) using dual hydraulic cylinders. The hydraulic reservoir capacity shall be at least 1 quart, with easy access for inspection and servicing. The maximum power draw shall not exceed 70 amps at 12 volts. Wheelchair lift unit shall be a Public Use Lift and shall be installed in accordance with manufacturer's standards. The lift must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the lift shall be provided in the event of a power failure.	Manufacturer: Model #:	Braun NCL1000
Wheelchair Lift	Shall be capable of a minimum of 2500 cycle operation with a minimum of 1,000lb. load.		
Wheelchair Lift	Platform size shall be minimum 34" x 54" (of useable space) and lift capacity shall be minimum 1,000 lbs. Wheelchair lift platform shall be constructed of expanded metal grating with left and right side 2 ½" high safety stops plus a spring loaded or power activated ADA front stop. A pendent type operating control with a cable length sufficient to allow operation of lift at outermost platform position shall be provided. Lift platform shall be automatic power fold/unfold design.		
Wheelchair Lift	A transmission interlock system that utilizes intermittent fault filter technology shall be installed to prevent operation of the lift unless door(s) are opened and transmission is in park with parking brake applied. A manual override system in case of power failure shall also be provided. Lift electric system shall be protected with fuse or circuit breaker.	Manufacturer: Model #:	Intermotive Gateway AI
Wheelchair Lift	The spring load, deck end, stop shall be retracted while the lift deck is in the load/unload (down) position. This shall enable the operator to load the lift without holding the stop in its retracted position.		
Wheelchair Lift	Two (2) folding handrails on lift platform measuring approximately 30" Height x 8" Length (minimum) shall be provided. Handrails shall not reduce platform size.		

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Wheelchair Lift	Labeled dash mounted visual alarm (in compliance with Chapter VI, Article III, Parts 720/721, NYCRR) to indicate special service door is not fully closed, shall be provided.		
Wheelchair Lift	Shall be fully guaranteed by manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency.		
Wheelchair Lift Barrier	Protective panel with vertical stanchion (consistent with Door Entry Grab Rail specifications), constructed of durable material, shall be installed directly adjacent to the wheelchair lift (when installed) to prevent shearing action between the lift platform and vehicle floor or door jams in conformance with Title 17 NYCRR Part 720.8(a)(3)(b).		
ADA Compliance	All features required for a demand-response application shall be included in the base vehicle in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs.)		
Lighting- Driver Dome Light	An independently controlled LED overhead dome light over driver area producing 6 foot candles when measured at the steering wheel.		
Lighting (Interior)	Overhead, entrance, step well, and lift lights shall be LED and provide no less than two foot-candles of illumination on the entrance step tread, or lift or ramp platform with the door open. Outside light(s) shall provide at least one foot-candle of illumination on the street surface with 3 feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.		
Lighting (Interior)	Overhead entrance and step well lights shall be wired to and be automatically activated by a door controlled switch. Lights shall operate any time the ignition key is on and the door is opened.		
Lighting (Interior)	Interior lighting shall be LED and provide a minimum of two foot-candles of illumination at reading level. Interior lighting fixtures shall be reasonably flush with the interior walls and ceiling so no hazard exists for passengers. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.		
Interior Trim and Padding	All interior panel joints shall be covered with matching trim strips or moldings and all sharp edges, protrusions, corners etc. shall be finished in such a manner to prevent possible injury. (If vacuum lamination is used, joints shall be securely bonded and provide a finished appearance). Any exposed wheelchair lift support brackets, air conditioner units or other similar items shall be padded to prevent injury.		
Heater(s)	An OEM dash air conditioning system plus two (2) rear heaters (with circulation pump) shall be provided. Sufficient BTU capacity of front and rear under seat heaters shall be provided to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F. A dash mounted (or other approved location) circulating fan shall be provided for increased circulation of heating and defrosting in driver area. Interior temperature shall be uniform throughout passenger compartment area. Shut-off valves shall be provided for shut-off of main and auxiliary heaters. The first valve shall be located below or behind the driver's entry step well. The second valve shall be located downstream of the second heater. Both shall be labeled providing clear indication of the shut-off valve locations to the driver. Passenger compartment heater hoses shall be equipped with full-flow quarter-turn valves located in a protected location. Location of valves shall be indicated with a label stating "Heater Shutoff Valves" and located to be visibly obvious. All heater hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.	Manufacturer: Model #:	ProAir 466
Air Conditioning	Air conditioning system that shall be designed with sufficient BTU cooling capacity to provide a balanced cooling system capable of maintaining a 75°F inside temperature vs. an outside temperature 95°F and a relative humidity of 50%, with ability to continuously decrease temperature inside vehicle (as measured from the approximate vehicle center) a minimum of 1°F for every ninety (90) seconds. (Air Conditioner Manufacturer's Certification that performance requirement for vehicle type can be met must be submitted with bid).		
Air Conditioning	Air Conditioning shall be designed as 2 independent systems. One system shall be OEM chassis supplied, dedicated for cooling and moisture removal from the windshield and drivers area. The second system shall function separate from the OEM dash, with separate controls, engine driven compressor, skirt condenser, and passenger cabin evaporator(s). BTU and CFM capacities (rear system and front system together) considered minimum required are 80,000BTU and 2,400CFM.	Manufacturer: Model #: A/C Capacity [Chassis BTUH]: A/C Capacity [Body BTUH]: A/C Airflow [Cab CFM]: A/C Airflow [Body CFM]:	ACT ACT 963/21 15,000 82,000 300 2400
Air Conditioning	A low-profile evaporator shall be installed on the rear bulkhead and over the emergency exit door. In the event the rear evaporator is insufficient to produce sufficient BTU and/or CFM requirements, an additional flush mounted evaporator shall be added over the windshield. The cabin evaporator(s) shall include directional and adjustable discharge ports. The rear evaporator shall be installed so as not to intrude from the rear door or window more than 12" (inches) horizontally into the passenger compartment. Any sharp edges and/or exposed metal associated with the AC unit must have these edges/surfaces appropriately padded to provide for passenger head protection. Aisle height requirements will be measured from a point directly in front of the AC unit. A secondary side mounted evaporator in the cabin is permitted only when system capacity dictates plus the space over the windshield is occupied with a front destination sign.		
Air Conditioning	Each air conditioning system shall use R134A refrigerant. All system components subject to corrosion from moisture shall be aluminum, copper, stainless steel, galvanized, or epoxy coated. All exterior exposed air conditioning electrical connections must utilize weather pac plugs or Compatible Equivalent. An air intake screen shall be installed on the skirt of the vehicle to ensure sufficient airflow through the skirt mounted condenser coil. All hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.		
Safety Vent (three way)	Two (2) vents shall be installed on the roof of the passenger compartment. Each vent shall provide for fresh air ventilation, static type exhaust with fresh air ventilation and static type exhaust; and shall be equipped with release handle to provide for emergency exit. Size shall be approximately 23" x 23".	Make: Model #: Size [inches]:	Transpec 1076-016-001 23" x 23"

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Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric or air power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Driver Seat Manufacturer Driver's Seat Model #:	National Talladega
Seating	Upholstered transit type seats for a minimum of twenty two (22) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		
Seating	Mid-high back, adult passenger seats shall be supplied in individual passenger modules, Freedman model "GO Seat ES", or other Compatible Equivalent. All ambulatory seats shall be forward facing. Seat cushions per passenger shall be a minimum of 17" in width and 17" in depth, and seat back shall be a minimum of 24" in height, excluding the grab handle. All cushions and seat back covers shall have easily removable covers, replaceable without removing the seat from the bus. All seat cushions in the bus shall have identical upholstery and a spring suspension system. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.	Manufacturer: Model #:	Freedman GO-ES
Seating	Minimum seat widths shall be 17" single and 34" double seats. Aisle width shall be a minimum of 14".	Single Seat Width [inches]: Double Seat Width [inches]: Minimum Aisle Width [inches]:	17.5 35 15
Seating	Entire seat frame, except mounting brackets, shall be enclosed in energy absorbing materials. Seat covers shall be transit grade vinyl, 36 oz. per linear yard (Cameo/Predictions), or Compatible Equivalent, or transit grade fabric produced from Marquesa Lana Yarns-Interweave, Regions, or Bus Textil Level 3, or Compatible Equivalent. All cover materials must meet FMVSS 302 flammability requirements. Seat foam must meet ASTM D-3675 Radiant Flammability Test.		
Seating	An approved retractable style integrated 3-point lap and shoulder seat belt shall be provided for each seating space and shall be in compliance with FMVSS 209 & 210. Belt retractors must not interfere with seating space, and two (2) seat belt extensions shall be provided with each vehicle.		
Seating	Molded Top Grab handles/grab rails shall be provided on seat backs of all forward facing seats (including flip seats) and shall be mounted/welded to seat frame structure. This does not apply to single seat positioned immediately forward of the wheelchair lift.		
Wheelchair & Wheelchair Occupant Restraints	Two (2) Wheelchair Restraint Systems (Wheelchair and Wheelchair Occupant) shall be provided and installed and designed for "L" track systems. Provide and install wheelchair and occupant restraint systems (including lap belts, retractable shoulder belts with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belts, and retractable shoulder belts with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-1007, or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouches shall be provided to completely secure belts/straps on bus sidewalls when not in use. All items shall be installed in accordance with manufacturer's standards and be in compliance with the American's with Disability Act, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the vehicle interior at a minimum of one restraint position.	Manufacturer: Model #:	Q'Straint Q-10007
Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver's seat position) in the front entry area of the vehicle. Equipment location shall be clearly identified.		
Miscellaneous	Storage compartment with door shall be provided and recessed in the center front cap portion of the vehicle or positioned over the driver's area if the front cap portion is not used for destination signage or air conditioner evaporator placement. The compartment must be sealed and must not have any exposed wires, protrusions or sharp edges		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]: Chassis Warranty[miles]:	3 50,000
Vehicle Body Warranty	Covering the integrity of the vehicle body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of five (5) years or 150,000 miles.	Body Warranty [years]: Body Warranty [miles]:	5 150,000
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The chassis OEM air conditioning system coverage falls under the chassis warranty.	Air Conditioning Warranty [years]:	2
Wheelchair Lift Warranty	The lift shall be fully guaranteed by the manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency. In addition, wheelchair lift shall be capable of a minimum of 2500 cycle operations with a minimum of 1,000 lb. load.		

PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section III.2 *Transit Bus Requirements*. See Section III.1.2 *Optional Equipment Unit Price* for pricing information relative to Optional Equipment.

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price

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Hydraulic Brakes	Substitute a complete ABS power brake system meeting Federal Motor Vehicle Safety Standard 49CFR571.105 ilo air brakes, with no change to base suspension specified.	Service Brakes [total lining or sweep area] both front & rear:	776	-$804.00
Additional Wheelchair Restraint System	Delete the minimum number of seats required for proper spacing (4 maximum) and price one (1) additional wheelchair station above the quantity required in the base vehicle. Price is per position to includes all belts, floor/ shoulder hardware, and storage container			-$814.72
Optional Wheelchair Restraint System	For each wheelchair position in the base vehicle, plus additional optional restraint systems, if ordered, install complete "Omni" style floor securements and complete belts kits, equal to Q-Straint Q-10008 or Sur-Lok AL860S-4C-SNC.	Manufacturer and Model #:	Q'STRAINT QRT-360 Q-10008	$187.60
Continuous "L" track	Install 5 lanes of continuous L track (4 lanes floor mounts, 1 lane shoulder harness) for a single wheelchair position (48" length each)			$268.00
Additional Seat (3-Step Fold Away; Feather Weight; and Forward Facing)	When not included in the base vehicle, provide and install one forward facing fold-away flip seat at a wheelchair station area which shall be a Freedman model "GO ES" seat or other pre-Compatible Equivalent. Flip seat may be lowered to accommodate two (2) ambulatory passengers, when not in use as a wheelchair station. Seat shall be of the same type (including grab handles) and color as standard seats measuring (per passenger) a minimum of 17" in width x 17" in depth x 24" in height as measured from the edge of the cushion. Raising/lowering of the seat shall be accomplished manually and shall include a lock to secure the seat in the raised position. Raised seat plus wheelchair shall not block legal aisle. Integrated 3-point lap and shoulder belts shall be provided at each seating location to accommodate an adult ambulatory passenger and shall be in compliance with FMVSS 210. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.			$959.44
Air Conditioning System (Roof Mounted Condenser)	Provide and install same requirements as base vehicle, except air conditioning system condenser shall be a roof mounted unit.			$1,125.60
Supplemental ADA Transit Package	Provide and install the following items (All items to be in compliance with Americans with Disabilities Act): Front and side electronic destination signs – LED type (14 rows and 72 columns minimum) and programmable with a USB key, Twin Vision Mobi-Lite or Compatible Equivalent, interior/exterior PA system, pull cord and touch strips chime signal system (at wheelchair positions), two-way radio pre-wire with 30 amp fused circuit, consisting of roof mounted antenna location access, antenna cable conduit with pull cord, and a dedicated circuit with electrical wire terminating in drivers area. When purchasing this option, the transmission shall be upgraded to the Allison B200 series.			$5,124.16
Camera Security System 6 monitor	Provide and install a complete camera recording system, including software kit. Components include an 8-channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of 5 vehicle functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of 2 exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus 4 interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for 1 or more vehicles with matching camera system. Minimum components include software, mouse, 5-6" monitor, HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR: Manufacturer and Model # of interior camera head: Manufacturer and Model # of exterior camera head:	247, Zeus 1TB; 10 Year Warranty on hard 247, Various Model #s, IR 247, Various Model #s, IR	$3,119.52
Fiberglass Seating	Fiberglass Seating: Provide and install FMVSS certified fiberglass transit style seating (4ONE Gemini model, American Seating (Metropolitan and Insight) models, Freedman CitiSeat model or Compatible Equivalent) in lieu of previously specified base vehicle seating. Seats shall include a plastic back shell, anti-microbial grab rails, and padded, tough to cut vandal resistant inserts.			-$5,960.32
Fare Box (Electronic)	Provide and install a fare collection system, comparable to GenFare "CENTSaBILL" or equal model with 3 height positions, that can accommodate automatic validation and processing of coins, bills, and magnetic fare cards.	Manufacturer and Model#:	GenFare CENTSaBILL	$7,289.60
Fare Box (Manual)	Provide and install a fare collection system, comparable to Diamond Model NV or equal model, complete with all floor mounting hardware and spare vault.	Manufacturer and Model #:	Diamond NV	$1,415.04
Bike Rack	Provide and install a folding device attached to the front body of the vehicle that is designed and used exclusively for transporting bicycles. The device shall be stainless steel material and may not extend more than 36 inches from the front body, and the handlebars of a bicycle transported on such device may not extend more than 42 inches from the front body of the vehicle.			$1,725.92
Back Up Camera System	Upgrade the back up radar in base vehicle to include a rear view camera.			$402.00
Spare Tire and Rim	Provide a matching spare tire and rim shipped loose			$836.16
Driver Side Running Board	Install a diamond plate additional step up for driver entry.			$0.00
Alternate Transit Flooring	In lieu of rubber floor covering, supply an alternate floor covering, to be a smooth slip resistant vinyl with aluminum oxide granules throughout the entire thickness of the wear layer with silicon carbide and base color quartz in the surface layer. The floor covering shall be a minimum of 2.7mm thick. The floor covering is to include a bacteriostat to prevent growth of mold and mildew for the life of the product. Term of warranty shall be 15 years.	Brand and Model #: Thickness [mm]: Warranty [years]:	Altro TFM27903 2.7 15	$938.00

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Conventional Style, 28 Passenger (26 adults/2 wheelchair)

PART 1: Product information for the Base Item awarded		
Chassis Model Year	The year used to designate a discrete Chassis Model, irrespective of the calendar year in which the Chassis was actually produced.	2017
Chassis Make	The OEM company name of the Chassis Model.	Freightliner Custom Chassis
Chassis Model	A particular brand of Chassis sold by an OEM.	S2C
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	
Body Model Year	The year used to designate a discrete Body Model, irrespective of the calendar year in which the Body was actually produced.	2017
Body Make	The OEM company name of the Body Model.	Champion
Body Model	A particular brand of Body sold by an OEM.	Defender
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	S2C

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §34, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section III.1 Price for additional information about Contract pricing.	$123,334.67

PART 3: Base Item Specifications

The terms and conditions in Contract Section III.2 *Transit Bus Requirements* shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information to provide in Column C	Spec for Equipment Provided
General	Capacity: Minimum 26 adult passenger seats plus 2 wheelchair stations	Capacity:	26A + 2WC
General	Floor plan matches "Figures" tab	Manufacturer Floor plan #	CB002906
General	Drive configuration: Minimum forward control dual rear wheel (DRW)		
General	Have completed federal STURAA (Altoona) bus testing of not less than ten (10) years/350,000 miles, or been certified as exempt from testing as specified under FTA provisions.		
General	GVWR: 26,000 lb. minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lbs]:	26,000
General	Wheelbase: 265 in. (plus or minus 15")	Wheelbase [inches[:	259
General	Minimum 77" continuous passenger aisle headroom	Headroom [inches]:	78
Chassis (see specifications below)			
Cab	If provided, the door on the driver's side shall be a standard sedan door supplied by the Chassis OEM. A cab that does not have a drivers side door is also acceptable.		
Engine	6 or 8 cylinder diesel engine with 6.4L minimum displacement, rated at 220 HP x 520 lb. ft. torque or greater	Number of Cylinders:	6
		Liters:	6.7
		Horsepower and Torque:	220 HP / 520 TQ
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 5 gallons) 60-gallon		
DEF Tank	Nominal (plus or minus 2 gallons) 10-gallon		
Cooling System	Chassis manufacturers heaviest duty cooling system available for chassis supplied and protected to minus 30°F;		
Electrical	Alternator 270 amp minimum	Alternator Capacity [amps]:	275
Electrical	Dual batteries (minimum 1800 CCA total) which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative);	Rating of Batteries [at 0 F]:	1900
		CCA each battery:	950
		Minutes RC:	175
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	Allison 2500 PTS 5 Speed Electronic Automatic Transmission, or Compatible Equivalent or better	Transmission Model #:	2500 PTS
Front Axle	Minimum Front Gross Axle Weight Rating (FGAWR) 9,500lbs.	FGAWR:	10,000
Rear Axle	Minimum Rear Gross Axle Weight Rating (RGAWR) 17,500lbs.	RGAWR:	17,500
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	Vehicle shall have front springs rated at 10,000lbs. Minimum. Rear suspension shall be air ride rated at a minimum of 20,000lbs. Dual leveling valves shall be included.	Front Spring Rating [lbs]:	10,000
		Rear Spring Rating [lbs]:	23,000
Shock Absorbers	Heavy Duty	Make and Model #:	Sachs
Brakes	ABS power air brake system in compliance with 49CFR571.121. The air system shall include an air dryer w/ heater; Bendix AD-9 or Compatible Equivalent.	Service Brakes [total lining or sweep area] both front &	780
Parking Brake	Spring brake chamber controlled by a push-pull dash mounted control valve.		
Tires	Radial "G" rated 14 ply rib tread front w/mud and snow rear	Radial Tires [size]:	265/70R19.5 Front 245/70R19.5 Rear
		Radial Tires [load]:	14 Ply F / 16 Ply R
		Radial Tires [range]:	H
		Radial Tires [manufacturer]:	Michelin
		Front Tires [tread design];	All Season
		Front Tires [capacity/tire]:	4940
		Rear Tires [tread design];	Mud/Snow

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		Rear Tires [capacity/tire]:	4675
Front Bumper	Shall be made of, or covered with, a rust proof material. Front bumper may be OEM chrome or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to body using corrosion resistant material hardware with rustproofing applied to finished installation.	Front Bumper [material]:	Chrome
		Front Bumper [manufacturer]:	Freightliner OEM
Steering	Power steering	Turning Diameter [at end of front bumper]:	63.9 Left / 56 Right
Steering Wheel	Tilt steering wheel		
Interior Equipment	OEM dash air conditioning, defroster, and heating system		
Radio	Manufacturer's standard AM/FM/CD Digital Clock Radio, with one driver speaker and 4 cabin speakers.	Manufacturer:	Jensen
		Model #:	JCD2010
Exterior Equipment	Rear tow hooks		
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall be at the rear of the vehicle and shall exit on the street side, aft of the rear axle. The system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or FOBS		
Body (see specifications below)			
Body Structure	Shall consist of a heavy-duty integral steel body roll cage structure (from curbside to street side floor connections) fabricated of square or rectangular tubing (or structurally equivalent hat section member) and be in full compliance with Title 17 NYCRR Part 720.4(b)(1). No wood or paper products shall be utilized in the construction of sidewall, roof or transition body panels. Roll cage shall extend forward sufficiently to protect driver in the event of rollover. Documentation consisting of detailed explanation and dimensional drawing supporting the body structures compliance shall be supplied with bid submission for each vehicle classification, including current substantiating documentation (not older than 5 years unless the structure has not been significantly modified as defined by 49 CFR 665) confirming compliance with FMVSS 220.		
Body	Minimum 90" interior body width (from sidewall to sidewall). Exterior shall be smooth and free of any visible fasteners. Exterior Siding shall be 25-guage protected (i.e. galvanized) steel (or 24-guage aluminum) with smooth surface or laminated fiberglass reinforced with insulation that is foamed in place or resin hardened honeycomb. Body shall be compliant to all stated General Body specifications. Interior sidewalls shall be fiberglass, vinyl clad aluminum or equal material. Insulation in walls and ceiling shall be fiberglass, resin-hardened honeycomb (FRP) material, polyurethane, or closed cell EPS foam.	Exterior Siding [material/thickness]:	FRP / 3.9mm
		Interior Paneling [material/thickness]:	FRP / 3.9mm
		Insulation [material/R Value]:	Polyurethane / 8.5
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	5
Exterior Equipment	Reverse alarm		
Exterior Equipment	Back up radar alarm with 4 bumper mounted sensors. Alarm shall provide an audible alert plus include a dash area mounted LED distance display.	Manufacturer:	Rosco
		Model #:	BSSK1000
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior body lights (non-OEM chassis) for these purposes must meet current SAE standards and shall be sealed Light Emitting Diode (LED) type lights on an active regulator circuit that assures uniform illumination of all the LED lighting down to 8 volts. All exterior clearance lights shall be armored (or low-profile design or sufficiently body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door. A mid-ship turn signal shall also be installed on each side of the bus body.		
Batteries	Batteries shall be mounted in an easily accessible fully enclosed and properly ventilated battery box with stainless steel (or an acceptable non-corrosive material) slide out (with roller track) battery tray located in the vehicle skirt or driver's step and shall include a clearly labeled disconnect switch that shuts off all current to the bus body. Battery Box shall be accessible through a hinged door access which shall be labeled in conformance with Title 17 NYCRR Part 720.6(a). Door shall be affixed with stainless steel fasteners.		
Gutters/Drip Molding	Shall be installed above all vehicle windows and doors, preventing water from draining onto doors and windows.		
Mud Flaps (Front and Rear)	Shall be manufacturers standard. Labeling and Advertising is prohibited, other than for necessary safety information		
Rear Bumper	Shall be made of, or covered with, a rust proof material. Rear bumper shall be stainless steel or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]:	Stainless Steel
		Rear Bumper [manufacturer]:	Champion
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the vehicle and shall comply with SAE J686.		
Exterior Mirror Frames	Mirror Frames and Extension Arms shall be made of rust proof material (i.e. stainless steel/durable plastic) and shall be adequate to prevent excessive vibration of the mirror(s).	Manufacturer:	Rosco
		Model #:	Accustyle Stainless
Exterior Mirrors	Driver's side and curbside exterior mirrors shall be heated and remote controlled, with the switch(s) to be installed at a prior approved location. In no case shall the switch be mounted above the windshield. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature. Extension Arms shall be provided on mirrors to allow for a clear and unobstructed view to rear regardless of vehicle width.	Manufacturer:	Rosco
		Model #:	Accustyle Remote/Htd
Interior Mirror	Rear view mirror 6x30" shall be provided		
Windows	Passenger windows shall be "T" slider top ventilating or push-out horizontal transit slider type with a minimum 28% tint (light reduction in the passenger compartment). Side and rear windows shall be metal frame construction (painted black) with tempered safety or laminate glass and shall meet FMVSS 217 retention requirements.	Passenger Window [type]:	T-Slide
		Passenger Window [size]:	36" x 46"
Windows	Twin rear windows are required and shall be manufacturer's standard (6" x 18" minimum) on each side of emergency exit door or special service door. Emergency exit door, when located in rear of vehicle, shall include an upper and lower window		

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Windows	Window placement shall conform to manufacturer's standard spacing for length of vehicle offered. Placement and installation of the windows shall not diminish the structural integrity of vehicle. Windows installed as emergency exits as required by FMVSS shall also comply with Title 17 NYCRR Part 720,5 requirements.		
Floor	Shall be manufacturer's raised or flat floor design over the rear wheels. The floor height shall remain constant from the entry stepwell to the rear bulkhead. A separate step up aft of the entry stepwell is not acceptable.		
Floor Assembly	Shall be insulated and shall include a minimum 5/8" thick marine grade plywood, 3/4" Advantech sub-floor, or Compatible Equivalent, with a light colored (e.g. light gray), rubber floor covering that shall meet FMVSS 302 and ADA requirements for slip resistance. Floor covering shall be a minimum .140" thick ribbed on steps (if installed) and in the aisle and .124" thick smooth under the seats. Floor shall be securely fastened to galvannealed steel or aluminum belly pan installed on chassis frame. Floor shall be flat from rear of front wheel well to rear of vehicle.		
Entrance Step	Shall be a low height, front entrance step (lowest practical) and shall comply with ADA 1192.	Top of first step above ground [inches]:	12
Steps	All step edges shall be a minimum of 9" in depth and have a high visible yellow nosing band running the full width of each step. Buses shall have a maximum of 3 steps (not including ground to first step) with risers not to exceed 10" in height. Steps shall comply with ADA 1192.		
Entrance Door(s)	A "walk through" minimum 74" high headroom right front entrance door with a minimum clear entry opening of 28" constructed with top and bottom (or length of door) viewing windows and a heavy duty electric opener shall be provided. An interlock (Intermotive Gateway or compatable equivelant) shall be installed and programmed that prevents the door to be opened or closed unless the vehicle speed equals zero (0). Door leading and sectional edges shall be equipped with approximately 2" extruded rubber edges to form weather-tight seal. Door shall be affixed with hinges that provide corrosion protection and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Entrance door surround (portal) and step well shall be constructed from stainless steel or material with equal corrosion resistant properties. Entrance door shall comply with FMVSS 217.	Entrance Door clear opening [inches]:	30
Door Entry Grab Rails (right and left side)	Shall be installed parallel to the steps, securely fastened and a minimum 1 ¼ " diameter made of stainless steel powder coated material, or non-slip Compatible Equivalent, and shall be a high visible yellow in color, accessible from first step to floor of vehicle.		
Emergency Exit Door	Shall be at the rear center of the bus, in compliance with FMVSS and Title 17 NYCRR Part 720.5 requirements. An interior locking device (vandal lock) shall be provided for emergency exit door(s) and an LED driver station warning light shall be provided to indicate when door is locked. A device shall be installed to prevent the engine from starting when the door is locked. Exterior door handle shall be non-locking. Door shall be constructed with two (minimum 12" x 18") windows situated at the top and bottom of door. Door surround (portal) shall be stainless steel or material with equal corrosion resistant properties. Door shall be affixed with stainless steel hinges and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable).		
Overhead Hand Rail	Two (2) full-length overhead (ceiling) handrails shall be provided and securely attached to roof structure, which shall be continuous except for a gap at the rear doorway, in accordance with Part 38 of the ADA.		
Driver Barrier	Driver Barrier constructed of a vertical and horizontal stanchion, a padded modesty panel, and transparent durable plastic material, or Compatible Equivalent, shall be installed directly behind driver seat. A gap between the ceiling and top of the plexiglass shall be 2 inches +- .5inch		
Padded Panels	Shall be provided attached to a vertical and horizontal stanchion behind the step well. The gap between the floor and bottom of the panel shall meet NYSDOT specifications.		
Interior Paneling	Minimum 24-gauge metal (embossed or with bonded vinyl fiberglass), .040" FRP, or Compatible Equivalent finish.		
Insulation	Fiberglass, resin-hardened-honeycomb (FRP) material, polyurethane, or closed cell EPS foam insulation in walls and ceiling (minimum R-value of R-6).		
Wheelchair Lift Door(s)	Install a wheelchair entrance/exit door(s) (special service door) affixed with stainless steel hinges, door trim and fasteners (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Each door shall include a window and a positive fastening device to hold door in the open position ("hold open" feature). The special service door shall be equipped with a locking device (Padlock and hasp are not acceptable). Wheelchair area opening height shall be a minimum of 68". All items, including lighting, shall be in compliance with the American's with Disabilities Act (ADA) and FMVSS Nos. 403 & 404.		
Wheelchair Lift	The wheelchair lift shall be automatic electric/hydraulic type (power-up, gravity down) using dual hydraulic cylinders. The hydraulic reservoir capacity shall be at least 1 quart, with easy access for inspection and servicing. The maximum power draw shall not exceed 70 amps at 12 volts. Wheelchair lift unit shall be a Public Use Lift and shall be installed in accordance with manufacturer's standards. The lift must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the lift shall be provided in the event of a power failure.	Manufacturer: Model #:	Braun NCL1000
Wheelchair Lift	Shall be capable of a minimum of 2500 cycle operation with a minimum of 1,000lb. load.		
Wheelchair Lift	Platform size shall be minimum 34" x 54" (of useable space) and lift capacity shall be minimum 1,000 lbs. Wheelchair lift platform shall be constructed of expanded metal grating with left and right side 2 ½" high safety stops plus a spring loaded or power activated ADA front stop. A pendent type operating control with a cable length sufficient to allow operation of lift at outermost platform position shall be provided. Lift platform shall be automatic power fold/unfold design.		
Wheelchair Lift	A transmission interlock system that utilizes intermittent fault filter technology shall be installed to prevent operation of the lift unless door(s) are opened and transmission is in park with parking brake applied. A manual override system in case of power failure shall also be provided. Lift electric system shall be protected with fuse or circuit breaker.	Manufacturer: Model #:	Intermotive Gateway AI

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Wheelchair Lift	The spring load, deck end, stop shall be retracted while the lift deck is in the load/unload (down) position. This shall enable the operator to load the lift without holding the stop in its retracted position.		
Wheelchair Lift	Two (2) folding handrails on lift platform measuring approximately 30" Height x 8" Length (minimum) shall be provided. Handrails shall not reduce platform size.		
Wheelchair Lift	Labeled dash mounted visual alarm (in compliance with Chapter VI, Article III, Parts 720/721, NYCRR) to indicate special service door is not fully closed, shall be provided.		
Wheelchair Lift	Shall be fully guaranteed by manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency.		
Wheelchair Lift Barrier	Protective panel with vertical stanchion (consistent with Door Entry Grab Rail specifications), constructed of durable material, shall be installed directly adjacent to the wheelchair lift (when installed) to prevent shearing action between the lift platform and vehicle floor or door jams in conformance with Title 17 NYCRR Part 720.8(a)(3)(b).		
ADA Compliance	All features required for a demand-response application shall be included in the base vehicle in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs.)		
Lighting- Driver Dome Light	An independently controlled LED overhead dome light over driver area producing 6 foot candles when measured at the steering wheel.		
Lighting (Interior)	Overhead, entrance, step well, and lift lights shall be LED and provide no less than two foot-candles of illumination on the entrance step tread, or lift or ramp platform with the door open. Outside light(s) shall provide at least one foot-candle of illumination on the street surface with 3 feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.		
Lighting (Interior)	Overhead entrance and step well lights shall be wired to and be automatically activated by a door controlled switch. Lights shall operate any time the ignition key is on and the door is opened.		
Lighting (Interior)	Interior lighting shall be LED and provide a minimum of two foot-candles of illumination at reading level. Interior lighting fixtures shall be reasonably flush with the interior walls and ceiling so no hazard exists for passengers. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.		
Interior Trim and Padding	All interior panel joints shall be covered with matching trim strips or moldings and all sharp edges, protrusions, corners etc. shall be finished in such a manner to prevent possible injury. (If vacuum lamination is used, joints shall be securely bonded and provide a finished appearance). Any exposed wheelchair lift support brackets, air conditioner units or other similar items shall be padded to prevent injury.		
Heater(s)	An OEM dash air conditioning system plus two (2) rear heaters (with circulation pump) shall be provided. Sufficient BTU capacity of front and rear under seat heaters shall be provided to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F. A dash mounted (or other approved location) circulating fan shall be provided for increased circulation of heating and defrosting in driver area. Interior temperature shall be uniform throughout passenger compartment area. Shut-off valves shall be provided for shut-off of main and auxiliary heaters. The first valve shall be located below or behind the driver's entry step well. The second valve shall be located downstream of the second heater. Both shall be labeled providing clear indication of the shut-off valve locations to the driver. Passenger compartment heater hoses shall be equipped with full-flow quarter-turn valves located in a protected location. Location of valves shall be indicated with a label stating "Heater Shutoff Valves" and located to be visibly obvious. All heater hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.	Manufacturer: Model #:	ProAir 466
Air Conditioning	Air conditioning system that shall be designed with sufficient BTU cooling capacity to provide a balanced cooling system capable of maintaining a 75°F inside temperature vs. an outside temperature 95°F and a relative humidity of 50%, with ability to continuously decrease temperature inside vehicle (as measured from the approximate vehicle center) a minimum of 1°F for every ninety (90) seconds. (Air Conditioner Manufacturer's Certification that performance requirement for vehicle type can be met must be submitted with bid).		
Air Conditioning	Air Conditioning shall be designed as 2 independent systems. One system shall be OEM chassis supplied, dedicated for cooling and moisture removal from the windshield and drivers area. The second system shall function separate from the OEM dash, with separate controls, engine driven compressor, skirt condenser, and passenger cabin evaporator(s). BTU and CFM capacities (rear system and front system together) considered minimum required are 80,000BTU and 2,400CFM.	Manufacturer: Model #: A/C Capacity [Chassis BTUH]: A/C Capacity [Body BTUH]: A/C Airflow [Cab CFM]: A/C Airflow [Body CFM]:	ACT ACT 963/21 15,000 82,000 300 2400
Air Conditioning	A low-profile evaporator shall be installed on the rear bulkhead and over the emergency exit door. In the event the rear evaporator is insufficient to produce sufficient BTU and/or CFM requirements, an additional flush mounted evaporator shall be added over the windshield. The cabin evaporator(s) shall include directional and adjustable discharge ports. The rear evaporator shall be installed so as not to intrude from the rear door or window more than 12" (inches) horizontally into the passenger compartment. Any sharp edges and/or exposed metal associated with the AC unit must have these edges/surfaces appropriately padded to provide for passenger head protection. Aisle height requirements will be measured from a point directly in front of the AC unit. A secondary side mounted evaporator in the cabin is permitted only when system capacity dictates plus the space over the windshield is occupied with a front destination sign.		
Air Conditioning	Each air conditioning system shall use R134A refrigerant. All system components subject to corrosion from moisture shall be aluminum, copper, stainless steel, galvanized, or epoxy coated. All exterior exposed air conditioning electrical connections must utilize weather pac plugs or Compatible Equivalent. An air intake screen shall be installed on the skirt of the vehicle to ensure sufficient airflow through the skirt mounted condenser coil. All hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.		

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Safety Vent (three way)	Two (2) vents shall be installed on the roof of the passenger compartment. Each vent shall provide for fresh air ventilation, static type exhaust with fresh air ventilation and static type exhaust; and shall be equipped with release handle to provide for emergency exit. Size shall be approximately 23" x 23".	Make: Model #: Size [inches]:	Transpec 1076-016-001 23" x 23"
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric or air power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Driver Seat Manufacturer Driver's Seat Model #:	National Talladega
Seating	Upholstered transit type seats for a minimum of twenty six (26) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		
Seating	Mid-high back, adult passenger seats shall be supplied in individual passenger modules, Freedman model "GO Seat ES", or other Compatible Equivalent. All ambulatory seats shall be forward facing. Seat cushions per passenger shall be a minimum of 17" in width and 17" in depth, and seat back shall be a minimum of 24" in height, excluding the grab handle. All cushions and seat back covers shall have easily removable covers, replaceable without removing the seat from the bus. All seat cushions in the bus shall have identical upholstery and a spring suspension system. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.	Manufacturer: Model #:	Freedman GO-ES
Seating	Minimum seat widths shall be 17" single and 34" double seats. Aisle width shall be a minimum of 14".	Single Seat Width [inches]: Double Seat Width [inches]: Minimum Aisle Width [inches]:	17.5 35 15
Seating	Entire seat frame, except mounting brackets, shall be enclosed in energy absorbing materials. Seat covers shall be transit grade vinyl, 36 oz. per linear yard (Cameo/Predictions), or Compatible Equivalent, or transit grade fabric produced from Marquesa Lana Yarns-Interweave, Regions, or Bus Textil Level 3, or Compatible Equivalent. All cover materials must meet FMVSS 302 flammability requirements. Seat foam must meet ASTM D-3675 Radiant Flammability Test.		
Seating	An approved retractable style integrated 3-point lap and shoulder seat belt shall be provided for each seating space and shall be in compliance with FMVSS 209 & 210. Belt retractors must not interfere with seating space, and two (2) seat belt extensions shall be provided with each vehicle.		
Seating	Molded Top Grab handles/grab rails shall be provided on seat backs of all forward facing seats (including flip seats) and shall be mounted/welded to seat frame structure. This does not apply to single seat positioned immediately forward of the wheelchair lift.		
Wheelchair & Wheelchair Occupant Restraints	Two (2) Wheelchair Restraint Systems (Wheelchair and Wheelchair Occupant) shall be provided and installed and designed for "L" track systems. Provide and install wheelchair and occupant restraint systems (including lap belts, retractable shoulder belts with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belts, and retractable shoulder belts with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-1007, or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouches shall be provided to completely secure belts/straps on bus sidewalls when not in use. All items shall be installed in accordance with manufacturer's standards and be in compliance with the American's with Disability Act, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the vehicle interior at a minimum of one restraint position.	Manufacturer: Model #:	Q'Straint Q-10007
Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver's seat position) in the front entry area of the vehicle. Equipment location shall be clearly identified.		
Miscellaneous	Storage compartment with door shall be provided and recessed in the center front cap portion of the vehicle or positioned over the driver's area if the front cap portion is not used for destination signage or air conditioner evaporator placement. The compartment must be sealed and must not have any exposed wires, protrusions or sharp edges		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]: Chassis Warranty[miles]:	3 50,000
Vehicle Body Warranty	Covering the integrity of the vehicle body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of five (5) years or 150,000 miles.	Body Warranty [years]: Body Warranty [miles]:	5 150,000
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The chassis OEM air conditioning system coverage falls under the chassis warranty.	Air Conditioning Warranty [years]:	2
Wheelchair Lift Warranty	The lift shall be fully guaranteed by the manufacturer for twelve (12) months (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency. In addition, wheelchair lift shall be capable of a minimum of 2500 cycle operations with a minimum of 1,000 lb. load.		

PART 4: Optional Equipment Specifications and Pricing

Contractor: **Matthews Bus Alliance, Inc. DBA Matthews Buses Commercial**

LOT K

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section III.2 *Transit Bus Requirements*. See Section III.1.2 *Optional Equipment Unit Price* for pricing information relative to Optional Equipment.

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price
Additional Wheelchair Restraint System	Delete the minimum number of seats required for proper spacing (4 maximum) and price one (1) additional wheelchair station above the quantity required in the base vehicle. Price is per position to includes all belts, floor/ shoulder hardware, and storage container			-$814.72
Optional Wheelchair Restraint System	For each wheelchair position in the base vehicle, plus additional optional restraint systems, if ordered, install complete "Omni" style floor securements and complete belts kits, equal to Q-Straint Q-10008 or Sur-Lok AL860S-4C-SNC.	Manufacturer and Model #:	Q'STRAINT QRT-360 Q-10008	$187.60
Continuous "L" track	Install 5 lanes of continuous L track (4 lanes floor mounts, 1 lane shoulder harness) for a single wheelchair position (48" length each)			$268.00
Additional Seat (3-Step Fold Away; Feather Weight; and Forward Facing)	When not included in the base vehicle, provide and install one forward facing fold-away flip seat at a wheelchair station area which shall be a Freedman model "GO ES" seat or other pre-Compatible Equivalent. Flip seat may be lowered to accommodate two (2) ambulatory passengers, when not in use as a wheelchair station. Seat shall be of the same type (including grab handles) and color as standard seats measuring (per passenger) a minimum of 17" in width x 17" in depth x 24" in height as measured from the edge of the cushion. Raising/lowering of the seat shall be accomplished manually and shall include a lock to secure the seat in the raised position. Raised seat plus wheelchair shall not block legal aisle. Integrated 3-point lap and shoulder belts shall be provided at each seating location to accommodate an adult ambulatory passenger and shall be in compliance with FMVSS 210. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.			$959.44
Air Conditioning System (Roof Mounted Condenser)	Provide and install same requirements as base vehicle, except air conditioning system condenser shall be a roof mounted unit.			$1,125.60
Supplemental ADA Transit Package	Provide and install the following items (All items to be in compliance with Americans with Disabilities Act): Front and side electronic destination signs – LED type (14 rows and 72 columns minimum) and programmable with a USB key, Twin Vision Mobi-Lite or Compatible Equivalent, interior/exterior PA system, pull cord and touch strips chime signal system (at wheelchair positions), two-way radio pre-wire with 30 amp fused circuit, consisting of roof mounted antenna location access, antenna cable conduit with pull cord, and a dedicated circuit with electrical wire terminating in drivers area. When purchasing this option, the transmission shall be upgraded to the Allison B200 series.			$4,422.00
Camera Security System-6 monitor	Provide and install a complete camera recording system, including software kit. Components include an 8-channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of 5 vehicle functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of 2 exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus 4 interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for 1 or more vehicles with matching camera system. Minimum components include software, mouse, 5-6" monitor, HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR: Manufacturer and Model # of interior camera head: Manufacturer and Model # of exterior camera head:	247, Zeus 1TB 247, Various Model #s, IR 247, Various Model #s, IR	$3,119.52
Fiberglass Seating	Fiberglass Seating: Provide and install FMVSS certified fiberglass transit style seating (4ONE Gemini model, American Seating (Metropolitan and Insight) models, Freedman CitiSeat model or Compatible Equivalent) in lieu of previously specified base vehicle seating. Seats shall include a plastic back shell, anti-microbial grab rails, and padded, tough to cut vandal resistant inserts.			-$7,075.20
Fare Box (Electronic)	Provide and install a fare collection system, comparable to GenFare "CENTSaBILL" or equal model with 3 height positions, that can accommodate automatic validation and processing of	Manufacturer and Model #:	GenFare CENTSaBILL	$7,289.60
Fare Box (Manual)	Provide and install a fare collection system, comparable to Diamond Model NV or equal model, complete with all floor mounting hardware and spare vault.	Manufacturer and Model #:	Diamond NV	$1,415.04
Bike Rack	Provide and install a folding device attached to the front body of the vehicle that is designed and used exclusively for transporting bicycles. The device shall be stainless steel material and may not extend more than 36 inches from the front body, and the handlebars of a bicycle transported on such device may not extend more than 42 inches from the front body of the vehicle.			$1,725.92
Back Up Camera System	Upgrade the back up radar in base vehicle to include a rear view camera.			$402.00
Spare Tire and Rim	Provide a matching spare tire and rim shipped loose			$836.16
Driver Side Running Board	Install a diamond plate additional step up for driver entry.			$0.00
Alternate Transit Flooring	In lieu of rubber floor covering, supply an alternate floor covering, to be a smooth slip resistant vinyl with aluminum oxide granules throughout the entire thickness of the wear layer with silicon carbide and base color quartz in the surface layer. The floor covering shall be a minimum of 2.7mm thick. The floor covering is to include a bacteriostat to prevent growth of mold and mildew for the life of the product. Term of warranty shall be 15 years.	Brand and Model #: Thickness [mm]: Warranty [years]:	Altro TFM27903 2.7 15	$938.00

Contractor: Empire Bus Sales LLC

LOT L

Low Floor (Front Engine), 25 Passenger (23 adults/2 wheelchair)

PART 1: Product information for the Base Item awarded		
Chassis Model Year	The year used to designate a discrete Chassis Model, irrespective of the calendar year in which the Chassis was actually produced.	2016
Chassis Make	The OEM company name of the Chassis Model.	IC (International)
Chassis Model	A particular brand of Chassis sold by an OEM.	TC
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	NA
Body Model Year	The year used to designate a discrete Body Model, irrespective of the calendar year in which the Body was actually produced.	2016
Body Make	The OEM company name of the Body Model.	Eldorado National
Body Model	A particular brand of Body sold by an OEM.	Passport
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	35HD

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §34, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section III.1 Price for additional information about Contract pricing.	$254,104.74

PART 3: Base Item Specifications

The terms and conditions in Contract Section III.2 *Transit Bus Requirements* shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information to provide in Column C	Spec for Equipment Provided
General	Capacity: Minimum 23 adult passenger seats plus 2 wheelchair stations	Capacity:	24 SEATED PLUS 2 WC
General	Floor plan matches "Figures" tab	Manufacturer Floor plan #	P61F3AF0001
General	Drive configuration: Minimum forward control dual rear wheel (DRW)		
General	Have completed federal STURAA (Altoona) bus testing of not less than ten (10) years/350,000 miles, or been certified as exempt from testing as specified under FTA provisions.		
General	GVWR: 29,000 lb. minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lbs]:	29,900
General	Wheelbase: 254 in. (plus or minus 10")	Wheelbase [inches[:	254"
General	Minimum 75" continuous passenger aisle headroom	Headroom [inches]:	95 front / 76 rear
Chassis (see specifications below)			
Cab	A standard sedan door on the driver's side shall be OEM chassis supplied.		
Engine	6 or 8 cylinder diesel engine with 6.4L minimum displacement, rated at 230 HP x 660 lb. ft. torque or greater	Number of Cylinders:	6
		Liters:	6.7
		Horsepower and Torque:	240hp, 660 lb ft torque
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 5 gallons) 50-gallon fuel tank		
DEF Tank	Nominal (plus or minus 2 gallons) 10-gallon		
Cooling System	Chassis manufacturers heaviest duty cooling system available for chassis supplied and protected to minus 30°F;		
Electrical	320 amp OEM alternator or greater	Alternator Capacity [amps]:	320
Electrical	Dual batteries (minimum 1800 CCA total) which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative);	Rating of Batteries [at 0 F]:	1800
		CCA each battery:	900
		Minutes RC:	240
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	Allison 3000 PTS with Telma Focal Retarder or Compatible Equivalent	Transmission Model #:	3000PTS
Front Axle	Minimum Front Gross Axle Weight Rating (FGAWR) 10,000lbs.	FGAWR:	10,000
Rear Axle	Minimum Rear Gross Axle Weight Rating (RGAWR) 19,500lbs.	RGAWR:	21,000
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	Shall have front taper leaf spring rated at 10,000lbs. minimum, rear air suspension with dual leveling valves rated at 20,000lbs. minimum	Front Suspension Rating [lbs]:	10,000
		Rear Suspension Rating [lbs]:	20,000
Shock Absorbers	Heavy Duty	Make and Model #:	Navistar
Brakes	ABS power air brake system in compliance with 49CFR571.121. The air system shall include an air dryer w/ heater; Bendix AD-9 or Compatible Equivalent.	Service Brakes [total lining or sweep area] both front & rear:	120Sq. In. Front Plus 260 Sq. In. Rear
Parking Brake	Spring brake chamber controlled by a push-pull dash mounted control valve.		
Tires	Radial "G" rated 14 ply rib tread front w/mud and snow rear	Radial Tires [size]:	265/70R19.5
		Radial Tires [load]:	5510
		Radial Tires [range]:	G
		Radial Tires [manufacturer]:	MICHELIN
		Front Tires [tread design]:	STEER
		Front Tires [capacity/tire]:	5510
		Rear Tires [tread design];	MUD AND SNOW
		Rear Tires [capacity/tire]:	5205

Contractor: Empire Bus Sales LLC

LOT L			
Front Bumper	Shall be made of, or covered with, a rust proof material. Front bumper may be OEM chrome or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to body using corrosion resistant material hardware with rustproofing applied to finished installation.	Front Bumper [material]:	Steel Chrome
		Front Bumper [manufacturer]:	International
Steering	Power steering	Turning Diameter [at end of front bumper]:	73', 10"
Steering Wheel	Tilt steering wheel		
Interior Equipment	OEM dash air conditioning, defroster, and heating system		
Radio	Manufacturer's standard AM/FM/CD Digital Clock Radio, with one driver speaker and 4 cabin speakers.	Manufacturer:	Jensen
		Model #:	JBH2630BT
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall be at the rear of the vehicle and shall exit on the street side, aft of the rear axle. The system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or fobs		
Body (see specifications below)			
Body Structure	Shall consist of a heavy-duty integral steel body roll cage structure (from curbside to street side floor connections) fabricated of square or rectangular tubing (or structurally equivalent hat section member) and be in full compliance with Title 17 NYCRR Part 720.4(b)(1). No wood or paper products shall be utilized in the construction of sidewall, roof or transition body panels. Roll cage shall extend forward sufficiently to protect driver in the event of rollover. Documentation consisting of detailed explanation and dimensional drawing supporting the body structures compliance shall be supplied with bid submission for each vehicle classification, including current substantiating documentation (not older than 5 years unless the structure has not been significantly modified as defined by 49 CFR 665) confirming compliance with FMVSS 220.		
Crashworthiness	Construction design shall conform with the APTA Bus Procurement Guidelines TS23.2 Crashworthiness standards. The bus body and roof structure shall withstand a static load equal to 150 percent of the curb weight evenly distributed on the roof with no more than a 6 inch reduction in any interior dimension. Windows shall remain in place and shall not open under such a load. These requirements must be met without the roof-mounted equipment installed. The bus shall withstand a 25 mph impact by a 4000-pound automobile at any side, excluding doorways along either side of the bus with no more than 3 inches of permanent structural deformation at seated passenger hip height. This impact shall not result in sharp edges or protrusions in the bus interior. Exterior panels below 35 inches from ground level shall withstand a static load of 2000 lbs. applied perpendicular to the bus by a pad no larger than 5 square inches. This load shall not result in deformation that prevents installation of new exterior panels to restore the original appearance of the bus.		
Body	Minimum 90" interior body width (from sidewall to sidewall). Exterior shall be smooth and free of any visible fasteners. Exterior Siding shall be laminated fiberglass siding reinforced with insulation that is foamed in place or resin hardened honeycombed craft, 15-guage exterior laminated galvanized steel siding, or 15-guage exterior laminated aluminum. Interior sidewalls shall be fiberglass, vinyl clad aluminum or equal material. Insulation in walls and ceiling shall be fiberglass, resin-hardened honeycomb (FRP) material, polyurethane, or closed cell EPS foam.	Exterior Siding [material/thickness]:	.080 Aluminum
		Interior Paneling [material/thickness]:	Laminated Melamine, 1/10th"
		Insulation [material/R Value]:	R6
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	2
Exterior Equipment	Reverse alarm		
Exterior Equipment	Back up radar alarm with 4 bumper mounted sensors. Alarm shall provide an audible alert plus include a dash area mounted LED distance display.	Manufacturer:	Audiovox
		Model #:	4S
Exterior Lighting (Brake; Turn Signal; Clearance; Back Up; Tail; License Plate)	All exterior body lights (non-OEM chassis) for these purposes must meet current SAE standards and shall be sealed Light Emitting Diode (LED) type lights on an active regulator circuit that assures uniform illumination of all the LED lighting down to 8 volts. All exterior clearance lights shall be armored (or low-profile design or sufficiently body-recessed) to provide protection from impact of branches, etc. Rear brake lights include a third light installed over the rear emergency door. A mid-ship turn signal shall also be installed on each side of the bus body.		
Batteries	Batteries shall be mounted in an easily accessible fully enclosed and properly ventilated battery box with stainless steel (or an acceptable non-corrosive material) slide out (with roller track) battery tray located in the vehicle skirt or driver's step and shall include a clearly labeled disconnect switch that shuts off all current to the bus body. Battery Box shall be accessible through a hinged door access which shall be labeled in conformance with Title 17 NYCRR Part 720.6(a). Door shall be affixed with stainless steel fasteners.		Intergrated into driver entry step. This is IC (International) OEM
Gutters/Drip Molding	Shall be installed above all vehicle windows and doors, preventing water from draining onto doors and windows.		
Mud Flaps (Front and Rear)	Shall be manufacturers standard. Labeling and Advertising is prohibited, other than for necessary safety information		
Rear Bumper	Shall be made of, or covered with, a rustproof material. Rear bumper shall be stainless steel or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]:	Rubber
		Rear Bumper [manufacturer]:	Romeo Rim
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the vehicle and shall comply with SAE J686.		
Exterior Mirror Frames	Mirror Frames and Extension Arms shall be made of rustproof material (i.e. stainless steel/durable plastic) and shall be adequate to prevent excessive vibration of the mirror(s).	Manufacturer:	Navistar
		Model #:	Stainless
Exterior Mirrors	Driver's side and curbside exterior mirrors shall be heated and remote controlled, with the switch(s) to be installed at a prior approved location. In no case shall the switch be mounted above the windshield. Each mirror head shall be constructed of high impact ABS and include a	Manufacturer:	Navistar
		Model #:	Heated/Remote

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	flat and convex feature. Extension Arms shall be provided on mirrors to allow for a clear and unobstructed view to rear regardless of vehicle width.		
Interior Mirror	Rear view mirror 6x30" shall be provided		
Windows	Passenger windows shall be "T" slider top ventilating or push-out horizontal transit slider type with a minimum 28% tint (light reduction in the passenger compartment). Side and rear windows shall be metal frame construction (painted black) with tempered safety or laminate glass and shall meet FMVSS 217 retention requirements.	Passenger Window [type]: Passenger Window [size]:	Top T-Slider Front Section 43" high, Rear Section 33' High. Widths are 46", 39", and 22"
Windows	Window placement shall conform to manufacturer's standard spacing for length of vehicle offered. Placement and installation of the windows shall not diminish the structural integrity of vehicle. Windows installed as emergency exits as required by FMVSS 217 shall also comply with Title 17 NYCRR Part 720,5 requirements.		
Floor Assembly	Shall be single piece insulating 5/8" thick marine grade plywood with sealed edges and underside of flooring completely sealed from moisture and debris using poly-urea coating, or Compatible Equivalent, and seamless transit grade flooring surface material, or Compatible Equivalent. Low floor must be sufficiently insulated to protect Interior Noise Level, which may not exceed 83 DBA anywhere within passenger compartment area. Floor covering that shall meet FMVSS 302 and ADA requirements for slip resistance.		
Entrance Step	Shall be a low height, front entrance step (lowest practical) and shall comply with ADA 1192.	Top of first step above ground [inches]:	14.5"
Steps	Passenger steps in entry stepwell are not permitted		
Entrance Door(s)	A "walk through" minimum 74" high headroom right front entrance door with a minimum clear entry opening of 34" constructed with top and bottom (or length of door) viewing windows and a heavy duty electric opener shall be provided. An interlock shall be installed prohibiting the vehicle from moving while the door is in the open position. Door leading and sectional edges shall be equipped with approximately 2" extruded rubber edges to form weather-tight seal. Door shall be affixed with hinges that provide corrosion protection and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Entrance door surround (portal) and step well shall be constructed from stainless steel or material with equal corrosion resistant properties. Entrance door shall comply with FMVSS 217.	Entrance Door clear opening [inches]:	34"
Door Entry Grab Rails (right and left side)	Shall be installed on each side of entry, securely fastened and a minimum 1 ¼ " diameter made of stainless steel powder coated material, or non-slip Compatible Equivalent, and shall be a high visible yellow in color, accessible from first step to floor of vehicle.		
Overhead Hand Rail	Two (2) full-length overhead (ceiling) handrails shall be provided and securely attached to roof structure, which shall be continuous except for a gap at the rear doorway, in accordance with Part 38 of the ADA.		
Driver Barrier	Driver Barrier constructed of a vertical and horizontal stanchion, a padded modesty panel, and transparent durable plastic material, or Compatible Equivalent, shall be installed directly behind driver seat. A gap between the ceiling and top of the plexiglass shall be 2 inches +- .5inch		
Padded Panels	Shall be provided attached to a vertical and horizontal stanchion behind the step well. The gap between the floor and bottom of the panel shall meet NYSDOT specifications.		
Interior Paneling	Minimum 24-gauge metal (embossed or with bonded vinyl fiberglass), .040" FRP, or Compatible Equivalent finish.		
Insulation	Fiberglass, resin-hardened-honeycomb (FRP) material, polyurethane, or closed cell EPS foam insulation in walls and ceiling (minimum R-value of R-6).		
Wheelchair and Passenger Access	Modify vehicle to provide a power (and manual in event of power failure) transit ramp at entrance door. All items, including lighting, shall be in compliance with the Americans with Disabilities Act (ADA).		
Ramp	The ramp shall meet the requirements of Part 38 of the Americans with Disabilities Act relating to vehicle ramps. Power switches for ramp shall be provided and easily accessible on both the driver console and body exterior near passenger entry opening. Ramp shall deploy through the main passenger entry opening and be protected from moisture and debris from underside and sufficiently insulated to protect interior noise level. The ramp shall be of aluminum or stainless steel construction. The ramp must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the ramp shall be provided in the event of a power failure.	Manufacturer: Model #:	Braun RA 300 Transit Ramp
Ramp slope	Maximum ratio of 1:4 slope when ramp is deployed to sidewalk or roadway		
Interlock	A transmission interlock system that utilizes intermittent fault filter technology shall be installed to prevent operation of the ramp unless door(s) are opened and transmission is in neutral with parking brake applied. A manual override system in case of power failure shall also be provided. Ramp electric system shall be protected with fuse or circuit breaker.	Manufacturer: Model #:	Eldorado National P1
Wheelchair Ramp Barrier	Protective panel with vertical stanchion (consistent with Door Entry Grab Rail specifications), constructed of durable material, shall be installed directly adjacent to the passenger entrance to prevent shearing action between the ramp and vehicle floor or door jams in conformance with Title 17 NYCRR Part 720.8(a)(3)(b).		
ADA Compliance	All features required for a demand-response application shall be included in the base vehicle in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs.)		
Lighting- Driver Dome Light	An independently controlled LED overhead dome light over driver area producing 6 foot candles when measured at the steering wheel.		
Lighting (Interior)	Overhead, entrance, step well, and lift lights shall be LED and provide no less than two foot-candles of illumination on the entrance step tread, or lift or ramp platform with the door open. Outside light(s) shall provide at least one foot-candle of illumination on the street surface with 3 feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.		

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Lighting (Interior)	Overhead entrance and step well lights shall be wired to and be automatically activated by a door controlled switch. Lights shall operate any time the ignition key is on and the door is opened.		
Lighting (Interior)	Interior lighting shall be LED and provide a minimum of two foot-candles of illumination at reading level. Interior lighting fixtures shall be reasonably flush with the interior walls and ceiling so no hazard exists for passengers. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.		
Interior Trim and Padding	All interior panel joints shall be covered with matching trim strips or moldings and all sharp edges, protrusions, corners etc. shall be finished in such a manner to prevent possible injury. (If vacuum lamination is used, joints shall be securely bonded and provide a finished appearance). Any exposed wheelchair ramp support brackets, air conditioner units or other similar items shall be padded to prevent injury.		
Heater(s)	An OEM dash air conditioning system plus two (2) rear heaters (with circulation pump) shall be provided. Sufficient BTU capacity of front and rear under seat heaters shall be provided to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F. A dash mounted (or other approved location) circulating fan shall be provided for increased circulation of heating and defrosting in driver area. Interior temperature shall be uniform throughout passenger compartment area. Shut-off valves shall be provided for shut-off of main and auxiliary heaters. The first valve shall be located below or behind the driver's entry step well. The second valve shall be located downstream of the second heater. Both shall be labeled providing clear indication of the shut-off valve locations to the driver. Passenger compartment heater hoses shall be equipped with full-flow quarter-turn valves located in a protected location. Location of valves shall be indicated with a label stating "Heater Shutoff Valves" and located to be visibly obvious. All heater hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.	Manufacturer: Model #:	Pro-Air 465
Air Conditioning	Air conditioning system that shall be designed with sufficient BTU cooling capacity to provide a balanced cooling system capable of maintaining a 75°F inside temperature vs. an outside temperature 95°F and a relative humidity of 50%, with ability to continuously decrease temperature inside vehicle (as measured from the approximate vehicle center) a minimum of 1°F for every ninety (90) seconds. (Air Conditioner Manufacturer's Certification that performance requirement for vehicle type can be met must be submitted with bid).		
Air Conditioning	Air Conditioning shall be designed as 2 independent systems. One system shall be OEM chassis supplied, dedicated for cooling and moisture removal from the windshield and drivers area. The second system shall function separate from the OEM dash, with separate controls, engine driven compressor, roof condenser, and passenger cabin evaporator. BTU and CFM capacities (rear system and front system together) considered minimum required are 80,000BTU and 2,400CFM.	Manufacturer: Model #: A/C Capacity [Chassis BTUH]: A/C Capacity [Body BTUH]: A/C Airflow [Cab CFM]: A/C Airflow [Body CFM]:	Thermo King SR50C 24,000 110,000 BTU 800 2,100
Air Conditioning	The cabin evaporator shall be installed on the rear bulkhead and over the emergency exit window. The evaporator shall include directional and adjustable discharge ports. Any sharp edges and/or exposed metal associated with the AC unit must have these edges/surfaces appropriately padded to provide for passenger head protection. At the rear davenport, minimum clearance between the top of seat cushions adjacent to the seat back and any overhead component shall be 35 inches and in compliance with Title 17 NYCRR Part 720.4(P)(1)(e). Side mounted evaporators are not permitted.		
Air Conditioning	Each air conditioning system shall use R134A refrigerant. All system components subject to corrosion from moisture shall be aluminum, copper, stainless steel, galvanized, or epoxy coated. All exterior exposed air conditioning electrical connections must utilize weather pac plugs or Compatible Equivalent. All hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.		
Safety Vent (three way)	Two (2) vents shall be installed on the roof of the passenger compartment. Vent shall provide for fresh air ventilation, static type exhaust with fresh air ventilation and static type exhaust; and shall be equipped with release handle to provide for emergency exit. Size shall be approximately 23" x 23".	Make: Model #: Size [inches]:	Transpec 1000 Series 23" x 23"
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric or air power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Driver Seat Manufacturer Driver's Seat Model #:	Recaro Ergo
Seating	Upholstered transit type seats for a minimum of twenty three (23) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		
Seating	Mid-high back, adult passenger seats shall be supplied in individual passenger modules, Freedman model "Featherweight", or other Compatible Equivalent. All ambulatory seats shall be forward facing. Seat cushions per passenger shall be a minimum of 17" in width and 17" in depth, and seat back shall be a minimum of 24" in height, excluding the grab handle. All cushions and seat back covers shall have easily removable covers, replaceable without removing the seat from the bus. All seat cushions in the bus shall have identical upholstery and a spring suspension system. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.	Manufacturer: Model #:	Freedman Mid-High
Seating	Minimum seat widths shall be 17" single and 34" double seats. Aisle width shall be a minimum of 14".	Single Seat Width [inches]: Double Seat Width [inches]: Minimum Aisle Width [inches]:	17" 34" 24"

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Seating	Entire seat frame, except mounting brackets, shall be enclosed in energy absorbing materials. Seat covers shall be transit grade vinyl, 36 oz. per linear yard (Cameo/Predictions), or Compatible Equivalent, or transit grade fabric produced from Marquesa Lana Yarns-Interweave, Regions, or Bus Textil Level 3, or Compatible Equivalent. All cover materials must meet FMVSS 302 flammability requirements. Seat foam must meet ASTM D-3675 Radiant Flammability Test.		
Seating	Molded Top Grab handles/grab rails shall be provided on seat backs of all forward facing seats (including flip seats) and shall be mounted/welded to seat frame structure. This does not apply to the rear davenport seats.		
Wheelchair & Wheelchair Occupant Restraints	Two (2) Wheelchair Restraint Systems (Wheelchair and Wheelchair Occupant) shall be provided and installed and designed for "L" track systems. Provide and install wheelchair and occupant restraint systems (including lap belts, retractable shoulder belts with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belts, and retractable shoulder belts with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-1007, or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouches shall be provided to completely secure belts/straps on bus sidewalls when not in use. All items shall be installed in accordance with manufacturer's standards and be in compliance with the American's with Disability Act, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the vehicle interior at a minimum of one restraint position.	Manufacturer: Model #:	Q'Straint Q-10007
Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver's seat position) in the front entry area of the vehicle. Equipment location shall be clearly identified.		
Miscellaneous	Storage compartment with door shall be provided and recessed in the center front cap portion of the vehicle or positioned over the driver's area if the front cap portion is not used for destination signage or air conditioner evaporator placement. The compartment must be sealed and must not have any exposed wires, protrusions or sharp edges		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]: Chassis Warranty[miles]:	3 36,000
Vehicle Body Warranty	Covering the integrity of the vehicle body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of five (5) years or 150,000 miles.	Body Warranty [years]: Body Warranty [miles]:	5 150,000
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The chassis OEM air conditioning system coverage falls under the chassis warranty.	Air Conditioning Warranty [years]:	2
Wheelchair Ramp Warranty	The ramp shall be fully guaranteed by the manufacturer for three (3) years (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency.		

PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section III.2 *Transit Bus Requirements* . See Section III.1.2 *Optional Equipment Unit Price* for pricing information relative to Optional Equipment.

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price
Additional Wheelchair Restraint System	Delete seats (4 maximum) and price one (1) additional wheelchair station above the quantity required in the base vehicle. Price is per position to includes all belts, floor/ shoulder hardware, and storage container			$514.56
Optional Wheelchair Restraint System	For each wheelchair position in the base vehicle, plus additional optional restraint systems, if ordered, install complete "Omni" style floor securements and complete belts kits, equal to Q-Straint Q-10008 or Sur-Lok AL860S-4C-SNC.	Manufacturer and Model #:	Q'Straint Q-10008	$730.03
Additional Seat (3-Step Fold Away; Feather Weight; and Forward Facing)	When not included in the base vehicle, provide and install one forward facing fold-away flip seat at a wheelchair station area which shall be a Freedman model "Featherweight" seat or other pre-Compatible Equivalent. Flip seat may be lowered to accommodate two (2) ambulatory passengers, when not in use as a wheelchair station. Seat shall be of the same type (including grab handles) and color as standard seats measuring (per passenger) a minimum of 17" in width x 17" in depth x 24" in height as measured from the edge of the cushion. Raising/lowering of the seat shall be accomplished manually and shall include a lock to secure the seat in the raised position. Raised seat plus wheelchair shall not block legal aisle. Integrated 3-point lap and shoulder belts shall be provided at each seating location to accommodate an adult ambulatory passenger and shall be in compliance with FMVSS 210. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.			$1,646.59
Supplemental ADA Transit Package	Provide and install the following items (All items to be in compliance with Americans with Disabilities Act): Front and side electronic destination signs – LED type (14 rows and 72 columns minimum) and programmable with a USB key, Twin Vision Mobi-Lite or Compatible Equivalent, interior/exterior PA system, pull cord and touch strips chime signal system (at wheelchair positions), two-way radio pre-wire with 30 amp fused circuit, consisting of roof mounted antenna location access, antenna cable conduit with pull cord, and a dedicated circuit with electrical wire terminating in drivers area.			$8,433.42
Camera Security System-6 monitor	Provide and install a complete camera recording system, including software kit. Components include an 8-channel DVR capable of vertical or horizontal installation, plus simultaneous video	Manufacturer and Model # of DVR:	Seon- TX8 FH640	$5,506.86

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	recording for all camera heads. DVR shall be "user" programmable to record a minimum of 5 vehicle functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of 2 exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus 4 interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for 1 or more vehicles with matching camera system. Minimum components include software, mouse, 5-6" monitor, HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of interior camera head: Manufacturer and Model # of exterior camera head:	Seon-CJ904A20 & 50 Seon - CA904E 120	
3-Point Seating	Provide and install a retractable style integrated 3-point lap and shoulder seat belt (Freedman "GO-ES" or Compatible Equivalent) for each seating space in specified in base vehicle. Seats shall be in compliance with FMVSS 209 & 210. Belt retractors must not interfere with seating space.			$5,777.01
Fiberglass Seating	Fiberglass Seating: Provide and install FMVSS certified fiberglass transit style seating (4ONE Gemini model, American Seating (Metropolitan and Insight) models, Freedman CitiSeat model or Compatible Equivalent) in lieu of previously specified base vehicle seating. Seats shall include a plastic back shell, anti-microbial grab rails, and padded, tough to cut vandal resistant inserts.			$3,317.84
Fare Box (Electronic)	Provide and install a fare collection system, comparable to GenFare “CENTSaBILL” or equal model with 3 height positions, that can accommodate automatic validation and processing of coins, bills, and magnetic fare cards.	Manufacturer and Model#:	GFI Cents a Bill	$14,966.19
Fare Box (Manual)	Provide and install a fare collection system, comparable to Diamond Model NV or equal model, complete with all floor mounting hardware and spare vault.	Manufacturer and Model #:	Diamond Model NV	$1,100.94
Bike Rack	Provide and install a folding device attached to the front body of the vehicle that is designed and used exclusively for transporting bicycles. The device shall be stainless steel material and may not extend more than 36 inches from the front body, and the handlebars of a bicycle transported on such device may not extend more than 42 inches from the front body of the vehicle.		Sportsworks Stainless Steel Two Position	$2,127.92
Back Up Camera System	Upgrade the back up radar in base vehicle to include a rear view camera.			$857.60
Spare Tire and Rim	Provide a matching spare tire and rim shipped loose			$911.20
Driver Side Running Board	Install a diamond plate additional step up for driver entry.			$0.00
Alternate Transit Flooring	In lieu of rubber floor covering, supply an alternate floor covering, to be a smooth slip resistant vinyl with aluminum oxide granules throughout the entire thickness of the wear layer with silicon carbide and base color quartz in the surface layer. The floor covering shall be a minimum of 2.7mm thick. The floor covering is to include a bacteriostat to prevent growth of mold and mildew for the life of the product. Term of warranty shall be 15 years.	Brand and Model #: Thickness [mm]: Warranty [years]:	Altro 2.7 15	$1,173.84

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Low Floor (Rear Engine), 35 Passenger (33 adults/2 wheelchair)

PART 1: Product information for the Base Item awarded		
Chassis Model Year	The year used to designate a discrete Chassis Model, irrespective of the calendar year in which the Chassis was actually produced.	2016
Chassis Make	The OEM company name of the Chassis Model.	ELDORADO
Chassis Model	A particular brand of Chassis sold by an OEM.	EZ-RIDER II MAX
Chassis Model Code	The OEM code used to identify a particular subset of a Chassis Model.	35
Body Model Year	The year used to designate a discrete Body Model, irrespective of the calendar year in which the Body was actually produced.	2016
Body Make	The OEM company name of the Body Model.	ELDORADO
Body Model	A particular brand of Body sold by an OEM.	EZ-RIDER II MAX
Body Model Code	The OEM code used to identify a particular subset of a Body Model.	35

PART 2: Base Item Unit Price		
Base Item Unit Price	"Base Item Unit Price" is the per unit NYS Contract Price for the Transit Bus described in the Base Item Specifications and includes any OEM fees, all customs duties and charges, all vehicle preparation and clean-up charges, NYS DMV and DOT inspection, installation charges, delivery and all other incidentals normally included with providing a Transit Bus, but excludes Optional Equipment. Pursuant to Appendix B §34, Shipping/Receipt of Product, freight terms are F.O.B. Destination. See Contract Section III.1 Price for additional information about Contract pricing.	$349,732.50

PART 3: Base Item Specifications

The terms and conditions in Contract Section III.2 *Transit Bus Requirements* shall be considered minimum requirements for the Transit Bus provided by the Contractor. Supplemental required specifications for the Transit Buses awarded for this Lot are listed below. The actual Transit Bus awarded may exceed the minimum specifications listed below.

Category	Specification	Information to provide in Column C	Spec for Equipment Provided
General	Capacity: Minimum 33 adult passenger seats plus 2 wheelchair stations	Capacity:	33 / 2WC
General	Floor plan matches "Figures" tab	Manufacturer Floor plan #	E61F3AF003
General	Drive configuration: Minimum forward control, rear engine drive		
General	Have completed federal STURAA (Altoona) bus testing of not less than twelve (12) years/500,000 miles, or been certified as exempt from testing as specified under FTA provisions.		
General	GVWR: 30,000 lb. minimum. The OEM's original rating and no other rating for the GVWR shall be used.	GVWR [lbs]:	35000
General	Wheelbase: 220 in. (plus or minus 10")	Wheelbase [inches[:	220
General	Minimum 75" continuous passenger aisle headroom	Headroom [inches]:	95 Front / 75 Rear
Chassis (see specifications below)			
Engine	6 or 8 cylinder diesel engine with 6.4L minimum displacement, rated at 250 HP x 660 lb. ft. torque or greater	Number of Cylinders:	6
		Liters:	6.7
		Horsepower and Torque:	250 hp / 660 lb.ft. torque
Engine	Ready access to engine compartment is required for servicing and routine maintenance of engine and engine components.		
Fuel Tank	Nominal (plus or minus 5 gallons) 70-gallon fuel tank		80
DEF Tank	Nominal (plus or minus 2 gallons) 10-gallon		10
Cooling System	Chassis manufacturers heaviest duty cooling system available for chassis supplied and protected to minus 30°F;		Modine Cross Flow
Electrical	Multiplex system of modular design, capable of operating both 12V and 24V electrical functions through a single master controller or PLC. The system shall manage all electrical components as specified in the body and chassis specifications, and future expansion shall be provided for by expandable system architecture.		I/O Controls G2A
Electrical	Single or dual alternator configuration rated with a minimum total output of 300 amps at 12V DC.	Alternator Capacity [amps]:	300
Electrical	Dual batteries (minimum 1800 CCA total) which shall have protective rubber jacket at connection terminals (pigmented red to indicate positive and black to indicate negative);	Rating of Batteries [at 0 F]:	2300
		CCA each battery:	1150
		Minutes RC:	380
Electrical	Manufacturer's standard dash-mounted gauges (not lights)		
Transmission	Allison B300R or Compatible Equivalent	Transmission Model #:	B300R
Front Axle	Minimum Front Gross Axle Weight Rating (FGAWR) 10,500lbs.	FGAWR:	12,000
Rear Axle	Minimum Rear Gross Axle Weight Rating (RGAWR) 20,500lbs.	RGAWR:	23,000
Suspension	Chassis manufacturer's heaviest duty suspension system (front and rear) available for GVWR specified.		
Suspension	Shall have front air suspension rated at 10,000lbs. minimum, rear air suspension with dual leveling valves rated at 20,000lbs. minimum. Front suspension shall incorporate a kneeling feature with brake and throttle interlock, that lowers the front entrance door approximately 3" from ride height.	Front Suspension Rating	12,300
		Rear Suspension Rating [lbs]:	23,000
Shock Absorbers	Heavy Duty	Make and Model #:	Varies
Brakes	ABS power air brake system in compliance with 49CFR571.121. The air system shall include an air dryer w/ heater; Bendix AD-9 or Compatible Equivalent.	Service Brakes [total lining or sweep area] both front & rear:	384 Front 462 Rear
Parking Brake	Spring brake chamber controlled by a push-pull dash mounted control valve.		
Tires	Radial "H" rated 16 ply rib tread front w/mud and snow rear	Radial Tires [size]:	275/70R 22.5
		Radial Tires [load]:	6940

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		Radial Tires [range]:	J
		Radial Tires [manufacturer]:	Michelin
		Front Tires [tread design];	Steer
		Front Tires [capacity/tire]:	6940
		Rear Tires [tread design];	Mud and Snow
		Rear Tires [capacity/tire]:	6395
Front Bumper	Shall be made of, or covered with, a rust proof material. Front bumper shall be high density rubber/plastic (i.e. HELP bumper) and shall be affixed to body using corrosion resistant material hardware with rustproofing applied to finished installation.	Front Bumper [material]:	Rubber
		Front Bumper [manufacturer]:	Transpec
Steering	Power steering	Turning Diameter [at end of front bumper]:	68' 4"
Steering Wheel	Tilt steering wheel		
Interior Equipment	OEM dash air conditioning, defroster, and heating system		
Radio	Manufacturer's standard AM/FM/CD Digital Clock Radio, with one driver speaker and 4 cabin speakers.	Manufacturer:	Jensen
		Model #:	JHB3630BT
Exterior Equipment	Rear tow hooks		
Exterior Equipment	Standard OEM horn(s)		
Head Lights	OEM standard includes daytime running headlights		
Exterior Equipment	Reflectors		
Exterior Equipment	Exhaust system shall be at the rear of the vehicle and shall exit to the road side rear upper corner of the roof, aft of the rear axle. The system shall meet current USEPA emission requirements.		
Miscellaneous	Minimum two (2) OEM keys or fobs		
Body (see specifications below)			
Body Structure	Shall consist of a heavy-duty integral steel body roll cage structure (from curbside to street side floor connections) fabricated of square or rectangular tubing (or structurally equivalent hat section member) and be in full compliance with Title 17 NYCRR Part 720.4(b)(1). No wood or paper products shall be utilized in the construction of sidewall, roof or transition body panels. Roll cage shall extend forward sufficiently to protect driver in the event of rollover. Documentation consisting of detailed explanation and dimensional drawing supporting the body structures compliance shall be supplied with bid submission for each vehicle classification, including current substantiating documentation (not older than 5 years unless the structure has not been significantly modified as defined by 49 CFR 665) confirming compliance with FMVSS 220.		
Crashworthiness	Construction design shall conform with the APTA Bus Procurement Guidelines TS23.2 Crashworthiness standards. The bus body and roof structure shall withstand a static load equal to 150 percent of the curb weight evenly distributed on the roof with no more than a 6 inch reduction in any interior dimension. Windows shall remain in place and shall not open under such a load. These requirements must be met without the roof-mounted equipment installed. The bus shall withstand a 25 mph impact by a 4000-pound automobile at any side, excluding doorways along either side of the bus with no more than 3 inches of permanent structural deformation at seated passenger hip height. This impact shall not result in sharp edges or protrusions in the bus interior. Exterior panels below 35 inches from ground level shall withstand a static load of 2000 lbs. applied perpendicular to the bus by a pad no larger than 5 square inches. This load shall not result in deformation that prevents installation of new exterior panels to restore the original appearance of the bus.		
Body	Minimum 90" interior body width (from sidewall to sidewall). Exterior shall be smooth and free of any visible fasteners. Exterior Siding shall be laminated fiberglass siding reinforced with insulation that is foamed in place or resin hardened honeycombed craft, 15-guage exterior laminated galvanized steel siding, or 15-guage exterior laminated aluminum. Interior sidewalls shall be fiberglass, vinyl clad aluminum or equal material. Insulation in walls and ceiling shall be fiberglass, resin-hardened honeycomb (FRP) material, polyurethane, or closed cell EPS foam.	Exterior Siding [material/thickness]:	Roller Leveled 5052 Aluminum / .080
		Interior Paneling [material/thickness]:	Laminated Melamine, 1/10 "
		Insulation [material/R Value]:	R6
Drive Shaft Guard(s)	Metal Guard(s) in accordance with NYSDOT Title 17 720.4 (Y) (1) (h)	Drive Shaft Guards [quantity]:	2, Chassis Frame Integrated
Exterior Equipment	Reverse alarm		
Exterior Equipment	Back up radar alarm with 4 bumper mounted sensors. Alarm shall provide an audible alert plus include a dash area mounted LED distance display.	Manufacturer:	Audiovox
		Model #:	PSB Audable alarm and distance display
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Batteries	Batteries shall be mounted in an easily accessible fully enclosed and properly ventilated battery box with stainless steel (or an acceptable non-corrosive material) slide out (with roller track) battery tray located in the vehicle skirt or driver's step and shall include a clearly labeled disconnect switch that shuts off all current to the bus body. Battery Box shall be accessible through a hinged door access which shall be labeled in conformance with Title 17 NYCRR Part 720.6(a). Door shall be affixed with stainless steel fasteners.		
Gutters/Drip Molding	Shall be installed above all vehicle windows and doors, preventing water from draining onto doors and windows.		
Mud Flaps (Front and Rear)	Shall be manufacturers standard. Labeling and Advertising is prohibited, other than for necessary safety information		
Rear Bumper	Shall be made of, or covered with, a rustproof material. Rear bumper shall be stainless steel or high density rubber/plastic (i.e. HELP bumper) and shall be affixed to body using corrosion resistant material hardware with rustproofing applied to finished installation.	Rear Bumper [material]:	Rubber
		Rear Bumper [manufacturer]:	Transpec
License Plates	Provisions shall be made for the mounting of standard U.S. license plates on the front and rear of the vehicle and shall comply with SAE J686.		
Exterior Mirror Frames	Mirror Frames and Extension Arms shall be made of rustproof material (i.e. stainless steel/durable plastic) and shall be adequate to prevent excessive vibration of the mirror(s).	Manufacturer:	Lucerex
		Model #:	Eldorado

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Exterior Mirrors	Driver's side and curb side exterior mirrors shall be heated and remote controlled, with the switch(s) to be installed at a prior approved location. In no case shall the switch be mounted above the windshield. Each mirror head shall be constructed of high impact ABS and include a flat and convex feature. Extension Arms shall be provided on mirrors to allow for a clear and unobstructed view to rear regardless of vehicle width.	Manufacturer: Model #:	Lucerex Eldorado
Interior Mirror	Rear view mirror 6x30" shall be provided		
Windows	Passenger windows shall be "T" slider top ventilating or push-out horizontal transit slider type with a minimum 28% tint (light reduction in the passenger compartment). Windows shall be metal frame construction (painted black) with tempered safety or laminate glass and shall meet FMVSS 217 retention requirements.	Passenger Window [type]: Passenger Window [size]:	T-Slider Varies by location
Windows	Window placement shall conform to manufacturer's standard spacing for length of vehicle offered. Placement and installation of the windows shall not diminish the structural integrity of vehicle. Windows installed as emergency exits as required by FMVSS 217 shall also comply with Title 17 NYCRR Part 720,5 requirements.		
Floor Assembly	Shall be single piece insulating 5/8" thick marine grade plywood with sealed edges and underside of flooring completely sealed from moisture and debris using poly-urea coating, or Compatible Equivalent, and seamless transit grade flooring surface material, or Compatible Equivalent. Low floor must be sufficiently insulated to protect Interior Noise Level, which may not exceed 83 DBA anywhere within passenger compartment area. Floor covering that shall meet FMVSS 302 and ADA requirements for slip resistance.		
Entrance Step	Shall be a low height, front entrance step (lowest practical) and shall comply with ADA 1192.	Top of first step above ground [inches]:	14
Steps	Passenger steps in entry stepwell are not permitted		
Entrance Door(s)	A "walk through" minimum 74" high headroom right front entrance door with a minimum clear entry opening of 34" constructed with top and bottom (or length of door) viewing windows and a heavy duty electric opener shall be provided. An interlock shall be installed prohibiting the vehicle from moving while the door is in the open position. A kneeling function shall also be provided allowing the driver to reduce the ground to step height. Door leading and sectional edges shall be equipped with approximately 2" extruded rubber edges to form weather-tight seal. Door shall be affixed with hinges that provide corrosion protection and fasteners or hex rod (aluminum or zinc die cast hinge with stainless steel pin also acceptable). Entrance door surround (portal) and step well shall be constructed from stainless steel or material with equal corrosion resistant properties. Entrance door shall comply with FMVSS 217.	Entrance Door clear opening [inches]:	34
Door Entry Grab Rails (right and left side)	Shall be installed on each side of entry, securely fastened and a minimum 1 ¼ " diameter made of stainless steel powder coated material, or non-slip Compatible Equivalent, and shall be a high visible yellow in color, accessible from first step to floor of vehicle.		
Overhead Hand Rail	Two (2) full-length overhead (ceiling) handrails shall be provided and securely attached to roof structure, which shall be continuous except for a gap at the rear doorway, in accordance with Part 38 of the ADA.		
Driver Barrier	Driver Barrier constructed of a vertical and horizontal stanchion, a padded modesty panel, and transparent durable plastic material, or Compatible Equivalent, shall be installed directly behind driver seat. A gap between the ceiling and top of the plexiglass shall be 2 inches +- .5inch		
Padded Panels	Shall be provided attached to a vertical and horizontal stanchion behind the step well. The gap between the floor and bottom of the panel shall meet NYSDOT specifications.		
Interior Paneling	All interior wall and ceiling panels, including HVAC ducting, shall be minimum 24-gauge metal (embossed or with bonded vinyl fiberglass), .040" FRP, or Compatible Equivalent finish.		
Insulation	Fiberglass, resin-hardened-honeycomb (FRP) material, polyurethane, or closed cell EPS foam insulation in walls and ceiling (minimum R-value of R-6).		
Wheelchair and Passenger Access	Modify vehicle to provide a power (and manual in event of power failure) transit ramp at entrance door. All items, including lighting, shall be in compliance with the Americans with Disabilities Act (ADA).		
Ramp	The ramp shall meet the requirements of Part 38 of the Americans with Disabilities Act relating to vehicle ramps. Power switches for ramp shall be provided and easily accessible on both the driver console and body exterior near passenger entry opening. Ramp shall deploy through the main passenger entry opening and be protected from moisture and debris from underside and sufficiently insulated to protect interior noise level. The ramp shall be of aluminum or stainless steel construction. The ramp must have a fail safe system that allows stowing if any solenoid seizes. A manual method to raise and stow the ramp shall be provided in the event of a power failure.	Manufacturer: Model #:	Ricon FR2SS
Ramp slope	Maximum ratio of 1:4 slope when ramp is deployed to sidewalk or roadway		
Interlock	A transmission interlock system that utilizes intermittent fault filter technology shall be installed to prevent operation of the ramp unless door(s) are opened and transmission is in neutral with parking brake applied. A manual override system in case of power failure shall also be provided. Ramp electric system shall be protected with fuse or circuit breaker.	Manufacturer: Model #:	Eldorado EZ-1
Wheelchair Ramp Barrier	Protective panel with vertical stanchion (consistent with Door Entry Grab Rail specifications), constructed of durable material, shall be installed directly adjacent to the passenger entrance to prevent shearing action between the ramp and vehicle floor or door jams in conformance with Title 17 NYCRR Part 720.8(a)(3)(b).		
ADA Compliance	All features required for a demand-response application shall be included in the base vehicle in accordance with 49 CFR Subtitle A Subpart B (excluding paragraphs 38.33 Fare box, 38.35 Public information system, 38.37 Stop request, and 38.39 Destination and route signs.)		

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Lighting- Driver Dome Light	An independently controlled LED overhead dome light over driver area producing 6 foot candles when measured at the steering wheel.		
Lighting (Interior)	Overhead, entrance, step well, and lift lights shall be LED and provide no less than two foot-candles of illumination on the entrance step tread, or lift or ramp platform with the door open. Outside light(s) shall provide at least one foot-candle of illumination on the street surface with 3 feet of step tread outer edge. This system shall provide illumination automatically when the door is open and meet ADA requirements.		
Lighting (Interior)	Overhead entrance and step well lights shall be wired to and be automatically activated by a door controlled switch. Lights shall operate any time the ignition key is on and the door is opened.		
Lighting (Interior)	Interior lighting shall be LED and provide a minimum of two foot-candles of illumination at reading level. Interior lighting fixtures shall be continuous from front to rear and designed into the air distribution duct. All interior lights shall be grounded by an in-harness ground attached in the fuse panel to a common grounding point.		
Interior Trim and Padding	All interior panel joints shall be covered with matching trim strips or moldings and all sharp edges, protrusions, corners etc. shall be finished in such a manner to prevent possible injury. (If vacuum lamination is used, joints shall be securely bonded and provide a finished appearance). Any exposed wheelchair ramp support brackets, air conditioner units or other similar items shall be padded to prevent injury.		
HVAC System	A roof or rear-mounted Heating, Ventilating, and Air Conditioning (HVAC) climate control system shall be integrated into the base vehicle. The air conditioning portion shall be designed with sufficient BTU cooling capacity to provide a balanced cooling system capable of maintaining a 75°F inside temperature vs. an outside temperature 95°F and a relative humidity of 50%, with ability to continuously decrease temperature inside vehicle (as measured from the approximate vehicle center) a minimum of 1°F for every ninety (90) seconds. The heating portion shall provide sufficient BTU capacity to attain a 50°F temperature rise from a mean ambient winter temperature of 21°F. System capacity testing, including pull-down/warm-up, stabilization and profile, shall be conducted in accordance to APTA's Recommended Practice "Transit Bus HVAC System Instrumentation and Performance Testing (Air Conditioner Manufacturer's Certification that performance requirement for vehicle type can be met must be submitted with bid). Heater hoses shall be equipped with full-flow quarter-turn valves located in a protected location. Location of valves shall be indicated with a label stating "Heater Shutoff Valves" and located to be visibly obvious. All heater hoses shall be supported at a maximum of twenty-four (24) inch intervals by clamps.	Manufacturer: Model #: A/C Capacity [BTUH]: A/C Capacity [BTUH]: A/C Airflow [Cab CFM]: A/C Airflow [Body CFM]:	Thermo King Athenia AMII 24,000 90,000 475 3,200
Air Distribution	The drivers area shall be regulated with separate controls for a forced air heater and defroster, with sufficient capacity to maintain visibility across the windshield and side windows. The cabin shall be heated and cooled through a combination of ducted airflow above and convective heating on each sidewall at floor level and designed to prevent hot and/or cold spots. Interior temperature distribution shall be regulated by a fully automatic climate control system.		
Auxiliary Heater	An auxiliary heater fired by diesel fuel shall be provided to supplement the heat supplied by the engine as well as assist in quick starts on cold mornings. The "preheat" mode shall be manually controlled. The "supplemental" mode shall be automatic, cycling the auxiliary heater "on" and "off" according to the coolant temperature and without driver input.	Manufacturer: Model #:	Webasto Thermo 300
Safety Vent (three way)	Two (2) vents shall be installed on the roof of the passenger compartment. Vents shall provide for fresh air ventilation, static type exhaust with fresh air ventilation and static type exhaust; and shall be equipped with release handle to provide for emergency exit. Size shall be approximately 23" x 23".	Make: Model #: Size [inches]:	Transpec 1000 23" x23"
Driver Seat	Driver's seat shall be high back; fully adjustable (vertically and horizontally with electric or air power seat pedestal); include lumbar support; suspension seating (minimally spring suspension); foam padded; fabric upholstered; w/retractable 3-point lap/shoulder seat belt (in compliance with FMVSS 209 & 210). Seat color shall complement interior seating color.	Driver Seat Manufacturer Driver's Seat Model #:	Recaro Ergo
Seating	Upholstered transit type seats for a minimum of thirty three (33) adult passengers. See specifications below and floor plan attached (Figures).		
Seating	Seat assemblies and components of identical seats shall be mechanically interchangeable.		
Seating	Mid-high back, adult passenger seats shall be supplied in individual passenger modules, Freedman model "Featherweight", or other Compatible Equivalent. Seat cushions per passenger shall be a minimum of 17" in width and 17" in depth, and seat back shall be a minimum of 24" in height, excluding the grab handle. All cushions and seat back covers shall have easily removable covers, replaceable without removing the seat from the bus. All seat cushions in the bus shall have identical upholstery and a spring suspension system. Side facing seats shall have a swing-up armrest securely attached to the end of each seat group.	Manufacturer: Model #:	Freedman Mid-High
Seating	Minimum seat widths shall be 17" single and 34" double seats. Aisle width shall be a minimum of 14".	Single Seat Width [inches]: Double Seat Width [inches]: Minimum Aisle Width [inches]:	17.5 35 22
Seating	Entire seat frame, except mounting brackets, shall be enclosed in energy absorbing materials. Seat covers shall be transit grade vinyl, 36 oz. per linear yard (Cameo/Predictions), or Compatible Equivalent, or transit grade fabric produced from Marquesa Lana Yarns-Interweave, Regions, or Bus Textil Level 3, or Compatible Equivalent. All cover materials must meet FMVSS 302 flammability requirements. Seat foam must meet ASTM D-3675 Radiant Flammability Test.		

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Seating	Molded Top Grab handles/grab rails shall be provided on seat backs of all forward facing seats (excluding rear davenport and side facing seats) and shall be mounted/welded to seat frame structure.		
Wheelchair & Wheelchair Occupant Restraints	Two (2) Wheelchair Restraint Systems (Wheelchair and Wheelchair Occupant) shall be provided and installed and designed for "L" track systems. Provide and install wheelchair and occupant restraint systems (including lap belts, retractable shoulder belts with height adjustment, floor inserts, retractable wheelchair restraint/tie-downs, and restraint mounting hardware) meeting the required 30" wide x 48" long ADA envelope (or amendments thereto) adjacent to lift at rear of bus and ADA wheelchair space maneuvering clearances (or any amendments thereto). Wheelchair restraint/tie-downs (retractable), lap belts, and retractable shoulder belts with height adjustment shall be in compliance with FMVSS 209 210, shall be forward facing, and shall be a Q-Straint Q-1007, or Sur-Lok AL812S-4C, or Compatible Equivalents. Individual storage pouches shall be provided to completely secure belts/straps on bus sidewalls when not in use. All items shall be installed in accordance with manufacturer's standards and be in compliance with the American's with Disability Act, SAE Standard J2249, ANSI/RESNA WC-18, and ISO Standard 10542. Instructions on use of the wheelchair restraint system shall be affixed to the vehicle interior at a minimum of one restraint position.	Manufacturer: Model #:	Q'Straint Q-1007
Miscellaneous	Fire Extinguisher (2.5 lb. U/L or Factory Mutual Laboratories approved), First Aid Kit (10 unit), ICC Reflectors, Fire Blanket (bagged and mounted), and a Seat Belt Cutter shall be provided and shall be in compliance with FMVSS regulations and Title 17 NYCRR Part 720.7(a). Items shall be located in a readily accessible location to the driver (seat belt cutter must be accessible while driver is in belted driver's seat position) in the front entry area of the vehicle. Equipment location shall be clearly identified.		
Miscellaneous	Storage compartment with door shall be provided and recessed in the center front cap portion of the vehicle or positioned over the driver's area if the front cap portion is not used for destination signage or air conditioner evaporator placement. The compartment must be sealed and must not have any exposed wires, protrusions or sharp edges		
Equipment Warranty	All equipment furnished under this contract (unless otherwise noted) must have a minimum warranty period of one (1) year regardless of mileage.		
Chassis Warranty	Minimum of three (3) years, 36,000 miles	Chassis Warranty [years]: Chassis Warranty[miles]:	3 36,000
Vehicle Body Warranty	Covering the integrity of the vehicle body internal steel frame structure (including corrosion damage) and/or fatigue failure for a period of five (5) years or 150,000 miles.	Body Warranty [years]: Body Warranty [miles]:	5 150,000
Air Conditioning Warranty	The cabin air conditioning system shall be supported by a two (2) year, unlimited mileage warranty. The chassis OEM air conditioning system coverage falls under the chassis warranty.	Air Conditioning Warranty [years]:	3
Wheelchair Ramp Warranty	The ramp shall be fully guaranteed by the manufacturer for three (3) years (with no mileage or hour limits) and any in-warranty service required shall be performed without charge to using agency.		3

PART 4: Optional Equipment Specifications and Pricing

An Authorized User may choose one (1) or more of the Optional Equipment from the list of below, for the Transit Bus awarded for the Lot. The Contractor shall be required to honor all such requests, provided that adding the requested combination of Optional Equipment results in a Transit Bus that meets the minimum specifications stated in Contract Section III.2 *Transit Bus Requirements*. See Section III.1.2 *Optional Equipment Unit Price* for pricing information relative to Optional Equipment.

Optional Equipment	Specification	Information provided in Column D	Spec for Equipment Provided	Optional Equipment Unit Price
Additional Wheelchair Restraint System	Delete seats (4 maximum) and price one (1) additional wheelchair station above the quantity required in the base vehicle. Price is per position to includes all belts, floor/ shoulder hardware, and storage container			$514.56
Optional Wheelchair Restraint System	For each wheelchair position in the base vehicle, plus additional optional restraint systems, if ordered, install complete "Omni" style floor securements and complete belts kits, equal to Q-Straint Q-10008 or Sur-Lok AL860S-4C-SNC.	Manufacturer and Model #:	Q-10008	$802.93
Additional Seat (3-Step Fold Away; Feather Weight; and Forward Facing)	When not included in the base vehicle, provide and install one forward facing fold-away flip seat at a wheelchair station area which shall be a Freedman model "GO ES" seat or other pre-Compatible Equivalent. Flip seat may be lowered to accommodate two (2) ambulatory passengers, when not in use as a wheelchair station. Seat shall be of the same type (including grab handles) and color as standard seats measuring (per passenger) a minimum of 17" in width x 17" in depth x 24" in height as measured from the edge of the cushion. Raising/lowering of the seat shall be accomplished manually and shall include a lock to secure the seat in the raised position. Raised seat plus wheelchair shall not block legal aisle. Integrated 3-point lap and shoulder belts shall be provided at each seating location to accommodate an adult ambulatory passenger and shall be in compliance with FMVSS 210. Seats shall have a swing-up armrest securely attached to the aisle end of each seat.			$1,646.59
Center Passenger Door	Delete seats (4 maximum) and provide an additional air operated transit door, located in the center of the vehicle. The door actuation is controlled by a five-position Vapor (or Compatible Equivalent) door controller, mounted within the drivers compartment. The center door is interlocked by a door switch controlling the brakes and accelerator. Sensitive door edges shall be included that cycle the center door back to the open position should an obstruction be encountered during the closing cycle.	Manufacturer and Model #	Vapor Air/Electric	$4,821.86

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Supplemental ADA Transit Package	Provide and install the following items (All items to be in compliance with Americans with Disabilities Act): Front and side electronic destination signs – LED type (14 rows and 72 columns minimum) and programmable with a USB key, Twin Vision Mobi-Lite or Compatible Equivalent, interior/exterior PA system, pull cord and touch strips chime signal system (at wheelchair positions), two-way radio pre-wire with 30 amp fused circuit, consisting of roof mounted antenna location access, antenna cable conduit with pull cord, and a dedicated circuit with electrical wire terminating in drivers area.			$8,522.40
Camera Security System-6 monitor	Provide and install a complete camera recording system, including software kit. Components include an 8-channel DVR capable of vertical or horizontal installation, plus simultaneous video recording for all camera heads. DVR shall be "user" programmable to record a minimum of 5 vehicle functions (signals) such as brake lights, turn signal, wheelchair lift, etc. A driver trip feature shall also be included. Camera heads to include a minimum of 2 exterior heads @ 600 TV lines resolution, with infrared feature and no audio, plus 4 interior camera heads @ 600 TV lines resolution, with infrared and audio. Install kit shall be universal for 1 or more vehicles with matching camera system. Minimum components include software, mouse, 5-6" monitor, HDD USB docking station, HDD adapter, and BNC F-RCA adapter. A compatible system is acceptable provided all functionality is maintained.	Manufacturer and Model # of DVR: Manufacturer and Model # of interior camera head: Manufacturer and Model # of exterior camera head:	SEON TX8 FH640 SEON-CJ904A20 & 50 SEON - CA904E 120	$5,506.86
Fiberglass Seating	Fiberglass Seating: Provide and install FMVSS certified fiberglass transit style seating (4ONE Gemini model, American Seating (Metropolitan and Insight) models, Freedman CitiSeat model or Compatible Equivalent) in lieu of previously specified base vehicle seating. Seats shall include a plastic back shell, anti-microbial grab rails, and padded, tough to cut vandal resistant inserts.			$4,525.98
Fare Box (Electronic)	Provide and install a fare collection system, comparable to GenFare “CENTSaBILL” or equal model with 3 height positions, that can accommodate automatic validation and processing of coins, bills, and magnetic fare cards.	Manufacturer and Model#:	GFI CENTS-A-BILL	$14,966.19
Fare Box (Manual)	Provide and install a fare collection system, comparable to Diamond Model NV or equal model, complete with all floor mounting hardware and spare vault.	Manufacturer and Model #:	DIAMOND MODEL NV	$1,100.94
Bike Rack	Provide and install a folding device attached to the front body of the vehicle that is designed and used exclusively for transporting bicycles. The device shall be stainless steel material and may not extend more than 36 inches from the front body, and the handlebars of a bicycle transported on such device may not extend more than 42 inches from the front body of the vehicle.		SPORTWORKS STAINLESS STEEL TWO POSITION	$1,913.52
Back Up Camera System	Upgrade the back up radar in base vehicle to include a rear view camera.			$857.60
Spare Tire and Rim	Provide a matching spare tire and rim shipped loose			$911.20
Alternate Transit Flooring	In lieu of rubber floor covering, supply an alternate floor covering, to be a smooth slip resistant vinyl with aluminum oxide granules throughout the entire thickness of the wear layer with silicon carbide and base color quartz in the surface layer. The floor covering shall be a minimum of 2.7mm thick. The floor covering is to include a bacteriostat to prevent growth of mold and mildew for the life of the product. Term of warranty shall be 15 years.	Brand and Model #: Thickness [mm]: Warranty [years]:	ALTRO 2.7 15	$1,170.62