

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT  
TECHNICAL SPECIFICATIONS FOR

VEHICLE, MODIFIED, MINIVAN, 5 PASSENGERS, 1 DRIVER, 2 WHEELCHAIR SPACES  
WITH RAMP, ONE-2 PASSENGER FOLD AWAY SEAT, WITH STANDARD EQUIPMENT  
(FLOORPLAN LAYOUT ATTACHED)

WARNING TO BIDDERS: BIDDER SHOULD COMPLETE EVERY ITEM DESCRIBED IN  
DETAIL IN THE “SPECIFICATIONS DESCRIPTION:” SECTION BY EITHER ENTERING A  
CHECK MARK IN THE SPACE PROVIDED TO INDICATE THE ITEM BEING BID IS EXACTLY  
AS SPECIFIED OR BIDDER SHOULD ENTER A WRITTEN DESCRIPTION TO INDICATE ANY  
PROPOSED ITEM WHICH WILL DEVIATE FROM THE SPECIFICATIONS.

THIS SPECIFICATION SHOULD BE EXECUTED IN ACCORDANCE WITH THE ABOVE  
INSTRUCTIONS AND RETURNED ALONG WITH BID AND LITERATURE TO BE  
CONSIDERED FOR AN AWARD.

General

These specifications describe the minimum requirements for a 5 passengers modified minivan, and 1 driver, 2 wheelchair spaces with ramp, 1-2 passenger flip seat vehicle with standard equipment. The vehicle design will allow for the copilot seat to be removed to create the additional wheelchair position. This equipment shall be new, a current year production model that has never been titled, and must meet all CFR, FMVSS, ADA, STATE and FEDERAL safety standards in effect at time of delivery. Any additions, deletions, or variations from the following specifications must be noted. Any items, appearing in the manufacturer’s regular published specifications furnished by the Bidder are assumed to be included in the “Bidder’s Proposal”. Any additions, deletions, or variations from the manufacturer’s regular published specifications must be outlined in the attached letter.

It is the intent of these specifications and sketch to describe a modified all-window vehicle for elderly and handicapped passengers and Rural Public Transportation passengers. The vehicles shall be aesthetically pleasing in design with attention to the workmanship and details. Also of concern will be the ease in boarding, passenger comfort, visibility, and safety to both passengers and driver. Parts for the body, chassis, and equipment that the vendor proposes to furnish in the vehicle shall be readily available at a convenient source with a minimum of downtime.

Workmanship

Any unit delivered under this specification is subject to rejection if there is evidence of poor workmanship, by either the vendor or the original manufacturer. Any defect, so noted, must be corrected by the vendor to the satisfaction of the Equipment Manager or his representative.

All defect corrections must be completed to the satisfaction of the Equipment Manager before invoices can be processed for payment.

Vendor installation of any portion of the equipment units must be stated in "Bidder's Proposal". Failure to note such installations can result in rejection of the unit(s) at the time of delivery.

1. Vehicle:

BASIC VEHICLE

The vehicle shall be equipped with a manually operated mobility aid ramp located at the curbside passenger entry door that deploys from, and stores in, the vehicle floor. The ramp stows in the lowered floor, providing unobstructed ambulatory passenger entry/exit when not in use. The installed ramp shall not obstruct the view of the driver through any vehicle window. When the in-floor ramp is deployed, it shall provide a minimum usable width of 30" and a slope of 12.5 degrees (maximum). The ramp surface shall be continuous and made skid resistant through powder coating. It shall have no protrusions from the surface greater than ¼" and shall accommodate both four-wheel and three-wheel mobility aids. The ramp shall have a rated capacity of 1,000 lbs., with a safety factor of at least three (3) based on the ultimate strength of the material. Each side of the ramp shall have protective barriers at least two (2) inches high to prevent mobility aids from rolling off the ramp edge.

2. Capacity:

Vehicle shall be five (5) passengers (excluding driver) and, two wheelchair space forward-facing with 1-2 passenger foldaway seat. Shall have a gross vehicle weight rating (GVWR) of not less than 6050 pounds.

3. Engine:

Shall be V-6, gasoline fueled engine of not less than 3.6L V-6 DOHC SMPI 24 valve engine with VVT variable valve control. The engine package shall include but not be limited to the following appurtenances:

- a. Replaceable pleated paper element type air cleaner.
- b. Replaceable full-flow type oil filter.
- c. Heavy-duty radiator and cooling system.
- d. Coolant recovery kit.
- e. Required amount of factory required antifreeze to protect the cooling system to -20°F.

4. Wheelbase & Length:

The wheelbase shall be not less than 121.6 inches and the overall length shall be not less than 203.8 inches.

5. Transmission:

Shall be a 9-speed (minimum) automatic transmission incorporating a torque converter and a separate oil cooler with automatic over drive.

6. Brakes:

Vehicle shall be equipped with a dual hydraulic power assisted system with disc type brakes on the front wheels and disc type on the rear wheels (Factory Anti-Lock Brake system). A factory hand or foot operated parking brake shall be supplied with a warning light on the dashboard. Vehicle must comply with FMVSS 105.

7. Tires:

Tires shall be first line and first quality. The combined load rating of the tires shall equal or exceed the GVW of the vehicle. A spare tire shall be furnished and mounted on a spare wheel. The spare tire and wheel shall be mounted on a rack attached under the vehicle frame or secured behind a rear seat against the rear wall. All tires shall be the same size and rating, except for spare tire, which maybe compact in size.

8. Wheels:

Aluminum or steel disc wheels shall be required. The rated capacity shall equal or excel the GVWR of the vehicle. All wheels shall be the same size and rating. Spare wheel may be compact in size.

9. Axles:

The front gross axle weight rating and the rear gross axle weight rating, in combination, shall equal or exceed the gross vehicle weight rating. The gear ratio shall provide a speed of not less than 55 mph without over-revving the engine.

10. Steering:

Shall be equipped with OEM power steering, cruise, and tilt steering is required.

11. Springs:

The front and rear springs, in combination, shall have a ground load rating equal to or exceeding the GVWR of the vehicle.

12. Fuel Capacity:

Vehicle shall have twenty (20) gallon minimum fuel tank with clearly marked fuel-type instructions.

13. Shock Absorbers:

Shall be equipped with front and rear heavy-duty, shock absorbers of sufficient capacity to adequately stabilize the loaded vehicle.

14. Stabilizer Bar:

Vehicle shall be equipped with a stabilizer bar on the rear axle.

15. Electrical System:

Vehicle shall have a 12 volt electrical system with a standard manufacturer OEM alternator of not less than 180 amps and battery with a minimum of 650 CCA. All electrical wiring shall be automotive stranded copper, of sufficient gauge to handle the load, with printed circuit identifiers. All harnesses that are modified or added to the vehicle will be secured to the frame/body at a maximum of two feet intervals with insulated clamps. All exposed terminals and wiring shall be protected from the elements and exposed wires will be wrapped in corrosion/moisture-resistant material.

16. Instrument Panel:

The panel shall be equipped with at least the following:

- a. Speedometer and odometer.
- b. Ammeter or voltmeter.
- c. Oil pressure gauge or warning light.
- d. Fuel capacity gauge.
- e. Water temperature gauge.
- f. High beam lamp indicator light.
- g. Turn indicator and flasher indicator lights.
- h. OEM AM/FM clock stereo radio with factory installed speakers.

The instrument panel shall have lamps sufficient to illuminate all instruments and be OEM standard.

17. Air Conditioning:

Shall have a factory installed front air conditioner and shall have a factory or second stage manufacture installed auxiliary rear air conditioner. All controls for both air conditioners shall be located in the driver's compartment. The rear air conditioner shall have a molded cover, covering all hoses, drains, and electrical wiring. The air conditioners should have a combined rating of approximately 29,000 B.T.U.'s.

18. Heater:

Each vehicle shall have a factory installed, hot-water type, combination fresh air and/or recirculating type heating system. Heating system shall incorporate windshield defrosters. All controls for the heating system shall

be located in the driver's compartment. Combustion heaters will not be allowed.

19. Additional Equipment:

The following items are supplementing, if necessary, those items already cataloged as standard shall be furnished and installed:

- a. Shall have a front and rear bumper.
- b. A 2 A-10 B: C fire extinguisher shall be furnished and mounted in the vehicle. The operating mechanism shall be sealed with a type of seal which will not interfere with the use of the fire extinguisher and pressure gauge shall be mounted on the extinguisher to be easily read without removing the extinguisher from its mounted position. Mounting of the unit shall not interfere with passenger entry or exit. A 5 lb (pound) fire extinguisher is acceptable. Fire extinguisher shall be mounted within arm's reach of driver.
- c. A 16 unit first aid kit and a blood borne pathogens clean up kit shall be furnished and mounted in the vehicle. Mounting shall not interfere with passenger entry or exit.
- d. A red warning reflector kit with not less than three reflectors shall be furnished and mounted in the vehicle. Mounting shall not interfere with passenger entry or exit.
- e. Fire Resistant Blanket
- f. There shall be sufficient interior lighting for night operation to illuminate the driver and passenger entry area and interior aisle. Overhead and lower lighting shall be installed in the interior center seat row of the vehicle at the entrance area. System shall automatically illuminate when doors are open. All vehicle lighting shall conform to ADA 49 CFR.
- g. A tire lug wrench and jack shall be furnished with provisions for storage.
- h. An interior operated hood release is required.
- i. The entire underside of the body and chassis including floor member, side panels below floor level, and fender wells shall be coated with a non-flammable material specifically designed for undercoating and comply with current Federal and State Standards. All openings in the floorboards and firewall shall be sealed.

- j. An Oxygen Holder/GO2 model number FE201122 must be installed.
- k. A color REI rear view camera, Rosco Smart Mirror, OEM Parkview rear back-up camera with 7" dash display, or approved equal shall be mounted on the rear of the bus. The monitor for the camera shall be integrated into the rearview mirror, or factory radio. Vendor to submit with their bid rear view camera system to be installed
- l. Vehicle shall have back up alarm installed.

20. Body Structure:

- a. Doors and Side Doors: Conversion shall provide a minimum clearance of 60" at the vehicle center of the interior roof. Conversion of vehicle shall require the construction that maintain OEM structural equivalent. All metal components that are added shall be welded by qualified operators and made corrosion resistant by primer application or stainless steel. Vehicle shall have the front OEM driver and passenger doors; one manual left side rear door (extended to roof level), and one manual right side mobility aid accessible door. The manual left side sliding door shall be OEM and extended to floor level to provide a minimum entry height of 56". The manual right side mobility aid accessible entry door shall offer a minimum opening height of 56", a minimum usable width of 31", and a maximum of 12.5" floor to ground height. The doors shall be capable of opening from inside of the vehicle. Doors extensions shall be constructed of stainless steel, Aluminized steel, or Aluminum. Driver's door shall be lockable by key from exterior. All access doors shall have power locks; all door locks shall be keyed alike. The rear cargo door shall be provided with a quick release, manual override for opening the door from inside. Capable of opening the door even if the door is locked. The vehicle override device shall be spring loaded and mounted on the inside of the rear door to prevent accidental release. A decal shall be installed showing instruction.
- b. Floors: Floor shall be level from front to back and from side to side, except in the wheel housing, toe board, and driver's seat platform area. The lower floor assembly shall be constructed of aluminized steel. Frame rails shall be made of formed channels and be reinforced with formed channel cross ribs. The floor shall be lower from the front firewall to just before the rear axle and the width of the floor shall extend from side doorsill to side doorsill.

Floor to roof interior height conversion shall provide a minimum clearance of 60" at the vehicle center on the interior roof. Exterior lower body panels shall be added to vehicle on both the driver and passenger sides of the vehicles. Panels to be constructed of black formed TPO (Thermoplastic Olefin) plastic which is durable, impact resistant, and widely used in the automotive industry. In addition, TPO provides the optimum balance of stiffness, cold temperature impact, and low thermal expansion. A molded step shall be incorporated into the driver and passenger front flares to aid entry and egress via the front doors. Beneath the flare's molded step surface shall be a steel support structure capable of supporting 400 lbs. with less than 1/8" deflection, which fastens directly to the vehicle's body structure. The flare's molded step surface shall have a minimum clear horizontal width of 4.5", a minimum length of 26", and utilize an anti-skid material which defines the step surface.

- c. The floor overlay shall have a minimum of 3/8". thermoplastic panels, consisting of a polypropylene honeycomb core with chopped glass reinforced facing on both sides – providing a durable water resistant base with superior strength to weight ratio. The panels provide a smooth surface for flooring attachment and minimize interior noise.
- d. The whole floor including aisle, entrance, and step tread areas shall be covered with Altro Transflor Meta 2.2 mm Genome (TFM2202), Gerflor or approved equal. All seams are to be heat welded to provide one piece, waterproof covering (Approximately 60" X 60").  
  
Extruded aluminum trim molding shall cover the aisle joints.
- e. Interior Paneling: All interior walls shall be paneled, including doors with a durable easily cleanable material. All interior panels shall meet FMVSS 302 and shall be OEM or OEM equivalent.
- f. Windows: Vehicle shall be an all-window unit. Side passenger windows shall be provided throughout the passenger compartment. Windows in the passenger compartment shall be original equipment manufactured with the maximum number of windows capable of opening for make and model bid. All windows shall be factory sunscreen glass.
- g. Insulation: Shall be installed in all sidewalls and roof with an R-value minimum of R-6.
- h. Paint and Trim: The exterior color of the vehicle shall be white.
- i. Line Protection: All metal and rubber fluid lines beneath vehicle that are altered or exposed as a result of floor modifications shall be

secure and reasonably protected from road damage. Any fuel and brake line modifications/alterations must be OEM equivalent material and workmanship.

Seating:

It is the intent of this portion of the specification to describe the seating requirements in the vehicles. (For DOTD purposes, the driver is never counted as a passenger.) Passenger seats shall be spring suspension type. School bus, plywood or board seats will not be accepted. The driver seat shall be equipped a reclining bucket-type high back driver's seat with adjustable height utilizing a six way power slide motor. Driver and all passenger seats are to be covered with a transportation grade vinyl and match. All seats shall be forward-facing and shall be equipped with FMVSS approved seat belts including retractors. Seating that prohibits the use of the side door(s) from being utilized as emergency exit will be considered unacceptable. An aisle width of not less than 15" shall be maintained as an access to side door(s).

- a. All seats and restraints in the vehicle as specified must comply with FMVSS standards.
- b. Front passenger seat shall be OEM, matching driver seat. The rear passenger seat shall be OEM rear bench seat, capable of accommodating three passengers, and is to be covered with transportation grade vinyl to match driver and front passenger seat. Seat shall be lowered to accommodate the lower floor.
- c. The aisle width between seats shall be no less than 15 inches.
- d. Restraints shall be furnished for all passengers and be automatic retractor. Securement devices shall meet all State and Federal Standards. Two (2) 6" seatbelt extensions must be supplies.

21. Miscellaneous Technical Specification:

- a. All metal shall be thoroughly cleaned, paint lock process or acid etched, and primed. All exterior visible metal shall be painted in addition to priming. All welded joints shall be cleaned and primed.
- b. There shall be no sharp corners on the unit that will cause injury to passengers. All corners that could cause injury to passengers shall be slightly rounded and filed smooth.
- c. All welds shall be relatively free of slag inclusions and undercut. Filet weld sizes shall be equal to the thickness of the least of the joined plates.
- d. All material installed shall be new and free of rust.



- e. No wires shall be visible on the exterior or interior of the unit.
- f. Weather stripping shall have no coating of any type.
- g. The body shall be free of all cracks, dents, and defects due to metal fatigue or physical damage.
- h. All switches shall be permanently labeled.
- i. All windows shall be free of any defects due to welding slag or assembly damage.
- j. All units shall be thoroughly cleaned and weather sealed prior to inspection.
- k. All interior and exterior signs may be painted or decals. All ADA decals shall be affixed to vehicle. Vehicle shall also have two reflective (2) 9" x 17" Caution signs as list in yellow with black lettering (2" inch lettering): CAUTION! Vehicle All interior and exterior signs may be painted or decals. Vehicle will be delivered with all appropriate ADA handicap decals and signs inside and out.
- l. Burn marks, cuts, or scuff marks will not be allowed on the interior or exterior of the unit.
- m. All hoses supplies in assembling the unit described in these specifications shall have temperature and p.s.i. ratings in excess of maximum operating temperatures and pressure of fluids or materials being transferred.
- n. The component parts of the unit shall be of the proper size and design to safely withstand maximum stresses imposed by a capacity load.
- o. The entire unit shall be watertight and tested for any water leaking into the interior of the vehicle prior to delivery.
- p. All vehicles shall be completely road tested prior to delivery.
- q. All vehicles shall be delivered with a minimum of ½ tank of fuel.

22. Change Orders:

Any modification or amendment will be set forth in a Purchase Order Change. All Change Orders will be issued by the Division of Administration's Purchasing Section by written Addendum.

23. Descriptive Literature:

UPON REQUEST TWO (2) COPIES OF DESCRIPTIVE PROJECT ADVERTISEMENT LITERATURE (BROCHURES) MUST BE FURNISHED WITHIN TEN (10) DAYS TO BE CONSIDERED FOR AN AWARD.

24. Product Support Literature:

EACH PIECE OF EQUIPMENT WILL BE ACCOMPANIED BY COPIES OF THE FOLLOWING LITERATURE:

1. Certificate of Origin (one copy)
2. Manufacturer Service Policy (one copy)
3. Owners/Operators Manual (one copy)
4. Service Manual (one copy)

To include Service/Repair information as applicable for:

- a. Chassis/understructure
  - b. Engine
  - c. Transmission
  - d. Passenger Body
5. A wiring diagram of all components installed by the vendor shall be furnished with each unit.
  6. Miscellaneous Manuals (on copy each) including:
    - a. Safety Manual describing operator “do’s & don’ts” for safe vehicle operation.
    - b. Tire maintenance/Tire Car Manual

25. Warranty:

Copies of all Manufacturers’ standard product warranties along with warranties covering any equipment sub-systems (engines, tires, accessories, etc.) attached to the principal equipment.

The **warranty** of each unit shall include chassis, engine, drive train, modifications, etc., and shall be for a minimum of **three (3) years or 36,000 miles** from date the Department of Transportation and Development puts the units into service or within 90 days after acceptance, whichever is sooner.

Any and all materials, specialties, equipment or accessories that prove defective in normal operation within the above period will be replaced or repaired by the manufacturer free of any and all cost to the vehicle operator, including material and labor.

The manufacturer will state where warranty maintenance work may be obtained in Louisiana. Warranty replacements and/or repairs will be furnished promptly by the successful bidder.

Belts, brake pads, filters, tires, fluids, light bulbs, etc., will not be included in the warranty (normal everyday wear and tear items).

The bidder will provide written assurances and warranty certifications with bid packages regarding warranty repairs.

26. General:

All equipment catalogued as standard for the basic vehicle, unless superseded by these specifications, to be furnished and included in purchase price of the vehicle.

“Caravan” or drive away” deliveries straight from the manufacturer to the state will not be accepted. A pre-delivery in-service inspection shall be performed by the vendor before delivery to LADOTD. An inspection checklist (supplied by LADOTD) shall be delivered with each vehicle. A name and location where this inspection will be performed shall be submitted with bid and shall be submitted before execution of contract for approval by LADOTD. Manufacturer checklist is not acceptable. Each unit shall be delivered completely assembled and ready to operate. Delivery Address: LADOTD Headquarters, 1201 Capitol Access Road, Baton Rouge, La. 70804

27. Louisiana Safety Inspection:

Safety inspections shall be performed on each vehicle prior to delivery and a Louisiana State safety sticker properly affixed.

28. Miscellaneous Requirements:

A mileage certification form as required by the Louisiana Public Safety Department should be completed by the vendor and furnished upon delivery of the vehicles.

Modification to the vehicles may be performed by the second-stage manufacturer.

Vehicle shall comply with Louisiana State and Federal emission requirements in effect at time of delivery.

Note: Time of delivery may be considered in determining successful bidder.

Invoices will not be accepted until the delivered unit passes inspection for specification compliance.

A notarized Bill of Sale must be furnished with each unit upon acceptance.

Vendor/Contractor shall be ISO 9001:2015 Certified and provide certification with bid.

Converted Minivan must have been submitted to Altoona Bus Test Center for testing. A copy of test report shall be made available to the state upon request.

## 29. Standard Equipment:

1. Mobility Aid Ramp: The vehicle shall be equipped with a manually operated, 80-degree swing-away mobility access ramp which stows vertically and folds and unfolds through the right side door. The fold and unfold motion of the ramp must be counter balanced so that the force exerted by the operator does not exceed 15 lbs. The installed ramp shall not obstruct the view of the driver through any vehicle window. The ramp shall have a minimum usable width of 30" and a slope meeting the Requirements of ADA, 49 CFR. The ramp surface shall be continuous and made skid resistant through powder coating. It shall have no protrusions from the surface greater than 1/4" and shall accommodate both four-wheel and three-wheel mobility aids. The ramp shall have a rated capacity of 600 lbs, with a safety factor of at least three (3) based on the ultimate strength of the material. Each side of the ramp shall have protective barriers at least two (2) inches high to prevent mobility aids from rolling off of the ramp edge.

Control Interlock: The ramp doors shall be interlocked with the vehicle transmission to ensure the vehicle cannot be moved when the ramp is deployed.

2. Mobility Aid/Occupant Restraint Systems: Each vehicle shall be equipped with one (1) Q-Straint Q-8100-A1-SC forward facing mobility aid securement and occupant restraint system. The system shall utilize flanged "L" continuous track, capable of securing a variety of common mobility aid designs and accommodate a wide range of occupant sizes. All attachment hardware and anchorages shall meet or exceed the 30 mph/20 Impact Test criteria per SAE J2249, 36 CFR Part 1192 and CFR Part 38, and all applicable Federal Motor Vehicle Safety Standards, as amended. Each securement position system shall consist of four (4) adjustable securement strap assemblies that attach to the structural frame of the mobility aid at four separate points and anchor into the track on the vehicle floor at four separate points. Each securement system shall have a corresponding occupant restraint system. The occupant restraint system shall consist of an adjustable lap and a shoulder belt and shall meet all applicable Federal Motor Vehicle Safety Standards. Securement system shall include

retractors, occupant restraint, and bases. One (1) Q'Straint Q5-7590 belt cutter or approved equal shall be supplied with vehicle. One (1) mesh storage container Q'Straint Q5-8522 or approved equal shall be included and installed. Location of installation shall be determined during preproduction meeting before delivery of first vehicle.

3. Freedman 3 Step Foldaway Passenger flip seat, or approved equal shall be installed for middle seat position. This fold-a-way seat shall be installed on the left side of the vehicle (see floorplan attached). This seat shall have lap retractor seat belts.

4. BUS DIGITAL SECURITY CAMERA SYSTEM:

A 2 digital cameras system shall be installed with dual hard drives and 1 audio microphone per camera. The location of hard drive and cameras shall be determined during pre-production meeting before any buses are built. Cameras will be located for viewing as follows: front to Back, and back to front.

The digital security camera system shall include all necessary hardware, licenses and equipment needed for complete operation of the security camera system.

Bidder are to provide information of the type/brand of system they will be providing in the vehicle and the reliability of the mobile video security system as used in other public transit bus applications. All information shall be submitted with their bid.

Camera systems:

- System shall have a recording capacity shall have a minimum of 30 frames per second from a maximum of one (1) color video cameras.
- A minimum 30 days or up to 300 hours recording time shall be available.
- Recording media shall be hard drive based.
- System shall be capable of easy recording media hard drive swapping from one transit vehicle to another without requiring user intervention to reformat the hard drive. Programmable recording start/end times or after bus has been idles for longer than a set period of time.
- System shall be synchronized audio/video multi-channel video viewing from the installed video cameras and microphones.
- The cameras must maximize image quality and automatically adjust through the changing lighting conditions including extremely low light and night time operations using infrared illumination or approved equal.
- The cameras shall be mounted in a tamper resistant housing.

- Digital recording unit shall power down at a user selectable time after switched power is removed. If unable to power down automatically, the unit shall tolerate having power removed suddenly with no negative effect on the recording unit, system hardware, operating system, stored date/video/audio, or on the system's ability to function normally once power is restored.
- Vibration resistant recording unit capable of rigorous demands associated with public transit vehicles.
- Capable of GPS automated time/date stamp and auto-updating for daylight savings time.
- System shall be capable of recording events while transit vehicle ignition is OFF for a preprogrammed time period.
- System shall be capable of optional event recording such as transit vehicle speedometer.
- From existing dashboard mounted event trigger button, a simple steady-ON or OFF warning light to notify bus operator that system is active or has failed.
- Digital recording unit must support continuous "loop" recording.
- The system shall be adequately installed to withstand the rigors (starts/stops, shocks and vibration) of a public transit vehicle as well as temperature changes from summer highs of 100 plus degrees to winter lows of 40 degrees Fahrenheit.
- The system should be encased in a key-operated locking enclosure.

#### Video Playback Minimum Requirements:

- Captured video shall not require a specialized Personal Computer (PC) or other proprietary PC equipment to access and view recorded events.
- Tamper proof recording format, recorded data shall be deemed acceptable as evidence in legal proceedings.
- Captured incident clip/event shall be date and time stamped.
- Captured video shall have a zoom function to allow the system user to zoom in on a particular area of the recorded video.
- System shall have industry standard video format for playback on standard purchase Windows PC.
- System shall have video manipulation with ability to clip segments and capture still images.
- Ability to easily transfer video clips and still images to industry standard CD-ROM, USB flash memory stick or DVD formats.
- Capable of recording incident clips/events in a format that does not require additional software to playback on a standard PC.

- Video playback from removable hard drive recording media shall take no more than 60 seconds to access and view on PC.
- Playback must allow watching a selected camera or cameras while listening to the mic from a different camera.

#### Wiring and Cabling:

- The Vendor shall submit wiring and cabling diagram of video/camera equipment with the bid.
- All connectors and sockets shall be of positive locking design and shall be equipped with gold contacts or similar other rust or oxidation inhibiting contacts.
- Plug in connectors shall have industry standard crimp wiring. Connections shall be made at terminal block ends or be soldered.
- Wiring shall be uniformly color coded and tagged.
- The power source wires must be sized appropriately to meet specified requirements for unit start up and normal operation and should prevent unacceptable voltage drops.
- Wherever there is a possibility of interference, wiring and interconnecting cables shall be properly shielded.
- Video and audio cables shall be gauged to minimize signal loss.
- A protective plastic or rubber grommet must be installed in every hole that provides passage for conduit or wiring to avoid chaffing or cutting of the conduit or wiring.
- Conduit shall be installed and secured in all vehicles.
- All wires and cabling shall to be concealed in a vandal resistant manner.

#### Warranty:

- Vendor shall provide a minimum standard warranty on all equipment and shall maintain this equipment during the warranty period.
- All vendors must provide a list of recommended spare parts, including unit costs.

#### 5. DECALS:

The Louisiana transit decal with parish name and phone number shall be installed on both sides of vehicles for all vehicles before deliver to DOTD. See below for sizes and dimensions. Locations of

decals to be determine during preproduction meetings. The colors and materials required are 3M Brand 3650-53 Cardinal Red (Louisiana); 3M Brand 7725-37 Sapphire Blue (Parish Name, Number, Transit and State of Louisiana) and 3m Brand 7725-12 Black (State of Louisiana). The parish names and phone numbers will be supplied to vendor by LADOTD. See Examples below:

Parish Name & Phone # 3" x 68" Example: 3M Brand 7725-37 Sapphire Blue

West Baton Rouge Parish (225) 225-1234

Minivans – 11"x 53.75"

Buses – 18"x 87"

Modified vans – 22.25"x 126.5"





**MINI-VAN, TYPE 5-2 MV****(ADA ACCESSIBLE)**

Capacity: 5 passengers and 1 driver, 2 wheelchair space with wheelchair securements and ramp, 1-2 passenger fold away seat

