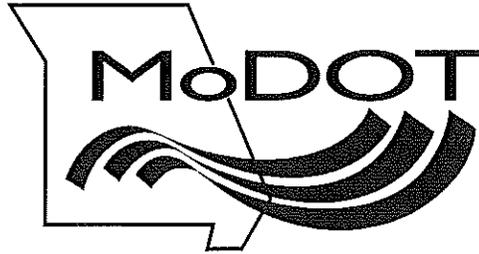


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**ADDENDUM 001
REQUEST FOR BIDS
Multimodal Transit Vehicles
Request for Bid 3-121026TV**

Bidders should acknowledge receipt of Addendum 001 (ONE) by **signing** and **including it** with the original bid. The due date for receipt of proposals remains **unchanged** by this Addendum. Accordingly, the following clarifications, questions and answers are believed to be of general interest to all potential Bidders. All other terms and conditions remain unchanged and in full force.

Name and Title of Signer (Print or type)	Name and Title of Department Authority Name Tom Veasman Title Sr. General Services Specialist
Contractor/Offeror Signature	Department of Transportation 
(Signature of person authorized to sign)	(Authorizing Signature)
Date Signed:	Date Signed: October 5, 2012

ADDENDUMS AND CLARIFICATIONS
TRANSIT VEHICLES 2013 MODEL YEAR

The purpose of this addendum is to clarify the applicable American's with Disabilities (ADA) minimum requirements as they relate to Transit Vehicles solicited for bids to MoDOT. Below are listed the ADA minimum requirements for wheelchair lifts, ramps (such as with the lowered floor minivan), mobility device securement areas in the vehicle as well general transit vehicle ADA requirements, all applicable to MoDOT's procurement of model year 2013 transit vehicles.

Applicable ADA Requirements for Wheelchair Lifts

Medium Duty Bus – Floor Plans BB and SC

Wide Body Cutaways – Floor Plans CC, EE, FF, GG, HH, II, JJ, and LL

Narrow Body Cutaways – Floor Plans OO, PP, QQ, RR and SS

MFSAB Cutaways – Floor Plan TT

The design load of a lift must be at least 800 pounds, per MoDOT specifications. Working parts must have a safety factor of at least six Non-working parts shall have a safety factor of at least three [49 CFR Part 38.23(b)(1)]

Controls must be interlocked with the brakes, transmission, or door so that the vehicle cannot move unless the interlock is engaged. [49 CFR Part 38.23(b)(2)(i)]

Controls must be "momentary contact type" (meaning they require constant pressure) and must allow the up/down cycle to be reversed without causing the platform to "stow" while occupied. [49 CFR Part 38.23(b)(2)(i)]

Lifts must be equipped with an emergency backup system. The emergency backup system shall be capable of being operated both up and down without the platforms "stowing" while occupied. [49 CFR Part 38.23(b)(3)]

Must be designed so that in the event of a power failure, the platform cannot fall faster than 12 inches per second. [49 CFR Part 38.23(b)(4)]

Must have an inner barrier or inherent design feature to prevent the mobility aid from rolling off the side closest to the vehicle until the platform is in its fully raised position. [49 CFR Part 38.23(b)(5)]

Side barriers must be at least 1 1/2 inches high. [49 CFR Part 38.23(b)(5)]

The "loading-edge" (or outer) barrier shall be sufficient to prevent a power wheelchair from riding over or otherwise defeating it. If this barrier is automatic, it must close when the platform is no more than 3 inches off the ground. If the outer barrier is to be driver operated, it must have an interlock or inherent design that prevents the platform from being raised until the barrier is closed or other system is engaged. [49 CFR Part 38.23(b)(5)]

The platform surface must be slip resistant with no protrusions over 1/4 inch. [49 CFR Part 38.23(b)(6)]

The platform must be at least 28 1/2-inches wide measured at the platform surface and at least 30 inches wide measured from 2 inches above the platform surface to 30 inches above the surface. It must also be at least 48 inches long measured from 2 inches above the surface to 30 inches above the surface. [49 CFR Part 38.23(b)(6)]

Gaps between the platform surface and any barrier can be no more than 5/8 inch. Semi-automatic lifts can have a handhold in the platform that measures no more than 1 1/2 inches by 4 1/2 inches. [49 CFR Part 38.23(b)(7)]

When in the fully raised position, the platform surface must be vertically within 5/8 inch of the finished floor and horizontally within 1/2 inch of the finished floor. [49 CFR Part 38.23(b)(7)]

The ramp from ground to platform (often the lowered outer barrier) must have a slope of no more than 1:8 for a maximum rise of 3 inches (i.e., if platform is 1 inch off the ground, ramp must be at least 8 inches long). If the threshold from ground to ramp (i.e., the thickness of the ramp material) is more than 1/4 inch, it must be beveled with a slope no greater than 1:2. [49 CFR Part 38.23(b)(8)]

The platform must not deflect more than 3 degrees in any direction when a 600-pound load is placed on the center of the platform. [49 CFR Part 38.23(b)(9)]

The platform must raise or lower in no more than 6 inches per second. The platform must be stowed or deployed in no more than 12 inches per second. Horizontal acceleration can be no more than 0.3 g. [49 CFR Part 38.23(b)(10)]

Components of a lift must be designed to allow boarding in either direction. [49 CFR Part 38.23(b)(11)]

Must be equipped with two handrails that move in tandem with the lift platform. Handrails must be 30-38 inches above the platform surface and must have a useable grasping area of at least 8 inches. Handrails must be capable of supporting 100 pounds, must have a cross-sectional diameter of 1 1/4 to 1 1/2 inches, and must have at least 1 1/2 inches of "knuckle clearance." [49 CFR Part 38.23(b)(13)]

Lifts may be marked to identify the preferred standing position. [49 CFR Part 38.23(b)(12)] Note – these standing position markings are not specified by MoDOT, but are acceptable, if provided.

Applicable ADA Requirements for Ramps

Lowered Floor Minivan – Floor Plans AAA and BBB

Ramps 30 inches or greater in length must have a design load of 600 pounds. Ramps under 30 inches in length must have a design load of 300 pounds. [49 CFR Part 38.23(c)(1)] Note- MoDOT specifies a maximum ramp load of 600 pounds irrespective of the ramp length.

Ramp surface must be continuous and slip resistant. Protrusions can be no more than 1/4 inch. [49 CFR Part 38.23(c)(2)]

Ramps must be at least 30 inches wide. [49 CFR Part 38.23(c)(2)]

Ramps must accommodate both three-wheeled and four-wheeled mobility aids. [49 CFR Part 38.23(c)(2)]

If the threshold from the ground to the ramp surface exceeds 1/4 inch, it must be beveled with a maximum slope of 1:2. [49 CFR Part 38.23(c)(3)]

Side barriers, at least 2 inches high, must be provided. [49 CFR Part 38.23(c)(4)]

Ramps must have the least slope practicable. When the ramp is deployed to ground, the slope cannot exceed 1:4 (i.e., for a vehicle with a finished floor 12 inches above the ground, a 48-inch ramp would be needed). When deployed to a 6-inch curb the following maximum slopes would apply:

Finished floor height above 6-inch curb

- 3 inches or less – maximum slope of 1:4
- 6 inches or less, but more than 3 inches – maximum slope of 1:6
- 9 inches or less, but more than 6 inches – maximum slope of 1:8
- Greater than 9 inches – maximum slope of 1:12

[49 CFR Part 38.23(c)(5)]

The ramp must be firmly attached to the vehicle. [49 CFR Part 38.23(c)(6)]

Gaps between the ramp and vehicle finish floor can be no more than 5/8 inch. [49 CFR Part 38.23(c)(6)]

A compartment or securement system must be provided for the ramp to keep it from impinging on the space set aside for mobility aid users and to keep it from becoming a hazard in the event of a sudden stop. [49 CFR Part 38.23(c)(7)]

Handrails are not required. If they are provided, however, they must support 100 pounds, be 30 to 38 inches above the ramp surface, have a cross-sectional diameter of 1 1/4 to 1 1/2 inches, and be continuous for the full length of the ramp. [49 CFR Part 38.23(c)(8)]

Applicable ADA Requirements for Mobility Device Securement Areas

Medium Duty Bus – Floor Plans BB and SC

Wide Body Cutaways – Floor Plans CC, EE, FF, GG, HH, II, JJ, and LL

Narrow Body Cutaways – Floor Plans OO, PP, QQ, RR and SS

MFSAB Cutaways – Floor Plan TT

Lowered Floor Minivans – Floor Plans AAA and BBB

Vehicles in fixed route transit service over 22 feet in length (Floor Plans BB, SC and CC also with ADA option package) must have two (2) securement locations. Vehicles in fixed route transit service 22 feet and under (Floor Plan OO with ADA option package) must have one (1) securement location. Vehicles are to be measured from the front-most part to the rear-most item (including the bumpers). [49 CFR Part 38.23(a)]

Wheelchairs and mobility aids must be oriented as follows:

- For vehicles greater than 22 feet in length, at least one securement position must be forward facing. Other securement areas can be either forward or rear facing. Note – MoDOT only specifies forward facing securement positions.
- For vehicles 22 feet in length or less, the one required position can be either forward or rear facing. Note - MoDOT only specifies forward facing securement positions.

[49 CFR Part 38.23(d)(4)]

Securement systems must have the following design loads:

- For vehicle with a GVWR of 30,000 pounds or more: 2,000 pounds for each strap/clamp and 4,000 pounds per mobility aid.
- For vehicles with a GVWR of less than 30,000 pounds: 2,500 pounds per clamp/strap and 5,000 pounds per mobility aid.

[49 CFR Part 38.23(d)(1)]

Securement area must be located as close to the accessible entrance as possible. [49 CFR Part 38.23(d)(2)]

A clear floor area of 30 inches wide by 48 inches long must be provided for each securement area. This can include an area up to 6 inches under a seat as long as there is a vertical clearance of at least 9 inches. If flip-seats are utilized, they cannot obstruct the required floor area. The required floor area can overlap the access path (the path of travel from the accessible entrance to the securement area). [49 CFR Part 38.23(d)(2)]

The securement system must accommodate all common wheelchairs and mobility aids (any mobility aid not exceeding 30 inches in width and 48 inches in length and weighing no more than 600 pounds when occupied) and be operable by someone with average dexterity that is familiar with the system. [49 CFR Part 38.23(d)(3)]

Securement systems must keep mobility aids from moving no more than 2 inches in any direction. [49 CFR Part 38.23(d)(5)]

The securement system must be located to be readily accessed when needed but must not interfere with passenger movement or be a hazard to passengers. It should also be reasonably protected from vandalism. [49 CFR Part 38.23(d)(6)]

A seat belt and shoulder harness must be provided for each securement position. The seat belt and shoulder harness must be separate from the securement system for the mobility aid. [49 CFR Part 38.23(d)(7)]

A sign must be provided which indicates that the securement area is to be used by persons who use wheelchairs and mobility aids. Characters on these signs shall have a width to height ratio between 3:5 and 1:1 and a stroke width to height ratio between 1:5 and 1:10. Minimum character height (using a capital X) shall be 5/8 inch. Wide spacing shall be used (generally the space between letters shall be 1/16 the height of upper case letters). Letters must contrast with the sign's background color. [49 CFR Part 38.27(b), 49 CFR Part 38.27(c)]

General Transit Vehicle ADA Requirements

Pertains to ALL model year modified 2013 Transit vehicles, unless noted otherwise.
Does not apply to sedans, unmodified minivans and unmodified 15 passenger vans

Aisles, steps, and floor areas must be slip resistant. [49 CFR Part 38.25(a)]

Step edges, thresholds, and the boarding edge of ramps or lift platforms, when equipped, must have a band of color that contrasts with the step/floor surface. Typically, white or bright yellow is used to contrast against dark floors. [49 CFR Part 38.25(b)]

The height of doors at accessible entrances and the interior height along the path of travel between accessible entrances and securement areas shall be as follows:

- For vehicles 22 feet or longer, the clearance from the raised lift platform or the ramp surface to the top of the door must be at least 68 inches.
- For vehicles less than 22 feet, the overhead clearance must be at least 56 inches.

[49 CFR Part 38.25(c)]

At least one set of forward-facing seats must be designated as priority seats for persons with disabilities. Signs identifying these as priority seats must be provided. Characters on these signs shall have a width to height ratio between 3:5 and 1:1 and a stroke width to height ratio between 1:5 and 1:10. Minimum character height (using a capital X) shall be 5/8 inch. Wide spacing shall be used (generally the space between letters shall be 1/16 the height of upper case letters). Letters must contrast with the sign's background color. [49 CFR Part 38.27(a), 49 CFR Part 38.27(c)]

Interior handrails and stanchions should not interfere with the path of travel of a common wheelchair from the accessible entrance to the securement areas. [49 CFR Part 38.29(a)]

Handrails and stanchions shall be provided in the entrance area and through the fare collection area to assist persons with disabilities as they enter and pay a fare. Some portion of this handrail/stanchion system must be able to be grasped from outside the vehicle to assist persons as they start to board. Handrails shall have a cross-sectional diameter of 1 1/4 to 1 1/2 inches, shall provide a minimum of 1 1/2 inches of "knuckle clearance," and shall have eased edges with corner radii of not less than 1/8 inch.

On vehicles 22 feet in length or longer which have fare collection systems, a horizontal assist shall be provided across the front of the vehicle to allow a person to lean against the assist while paying a fare. [49 CFR Part 38.29(b)]

Handrails and stanchions shall also be provided to assist with on-board circulation, sitting and standing, and exiting the vehicle. [49 CFR Part 38.29(b)]

For vehicles longer than 22 feet, an overhead handrail or handrails shall be provided which are continuous from front to back except for a gap at the rear doorway. [49 CFR Part 38.29(c)]

For vehicles longer than 22 feet that have front door lifts or ramps, vertical stanchions immediately behind the driver shall either terminate at the lower edge of the aisle-facing seats or be "dog-legged" so that the floor attachment does not impede or interfere with wheelchair footrests. [49 CFR Part 38.29(e)]

If the driver's seat must be passed by a wheelchair user, the pedestal shall not extend into the aisle or vestibule beyond the wheel housing, to the maximum extent practicable. [49 CFR Part 38.29(e)]

Lighting of at least 2 foot-candles, measured on the step treads or lift platform, shall be provided in the step well or doorway immediately adjacent to the driver. Lighting shall activate when the door is opened. [49 CFR Part 38.31(a)] Other step well and doorways shall have similar lighting at all times. [49 CFR Part 38.31(b)]

Lighting of at least 1 foot-candle shall be provided outside all doorways to illuminate the street surface for an area up to 3 feet perpendicular to the bottom step tread outer edge. Lighting shall be located below window level and shall be shielded to protect the eyes of entering and exiting passengers. [49 CFR Part 38.31(c)]

Fareboxes are to be located as far forward as possible and must not obstruct traffic in the vestibule area, particularly wheelchairs and mobility aids. [49 CFR Part 38.33]

Vehicles in excess of 22 feet used in multiple-stop, fixed route service (Floor Plans BB, SC and CC with ADA option package) must be equipped with a public address system. [49 CFR Part 38.35(a)]

For vehicles in excess of 22 feet where passengers are permitted to exit at multiple stops at their option (Floor Plans BB, SC and CC with ADA option package), a "stop request" control must be provided adjacent to the securement locations. The system shall provide both auditory and visual indications that the stop has been requested. Controls shall be located from 15 to 48 inches above the floor, shall be operable with one hand, shall not require tight grasping, pinching, or twisting of the wrist, and shall be activated by a force no greater than 5 lbf. [49 CFR Part 38.37]

If destination or route information is displayed on the exterior of a vehicle (Floor Plans BB, SC, CC and OO with ADA option package), illuminated signs shall be provided at the front and boarding side of the vehicle. Characters on these signs shall have a width to height ratio between 3:5 and 1:1 and a stroke width to height ratio between 1:5 and 1:10. Minimum character height (using a capital X) shall be 1 inch for signs on the boarding side and 2 inches for front "head signs." Wide spacing shall be used (generally the space between letters shall be 1/16 the height of upper case letters). Letters must contrast with background color. [49 CFR Part 38.39]