shall either be automatic or easily attached by a person familiar with the system and mobility aid and having average dexterity.

(i) Orientation. At least one securement device or system required by paragraph (a) of this section shall secure the wheelchair or mobility aid facing toward the front of the vehicle. Additional securement devices or systems shall secure the wheelchair or mobility aid facing forward or rearward. Where the wheelchair or mobility aid is secured facing the rear of the vehicle, a padded barrier shall be provided. The padded barrier shall extend from a height of 38 inches (965 mm) from the vehicle floor to a height of 56 inches (1420 mm) from the vehicle floor with a width of 18 inches (455 mm), laterally centered immediately in back of the seated individual. Such barriers need not be solid provided equivalent protection is afforded.

(5) Movement. When the wheelchair or mobility aid is secured in accordance with manufacturer's instructions, the securement system shall limit the movement of an occupied wheelchair or mobility aid to no more than 2 inches (50 mm) in any direction under normal vehicle operating conditions.

(6) Stowage. When not being used for securement, or when the securement area can be used by standees, the securement system shall not interfere with passenger movement, shall not present any hazardous condition, shall be reasonably protected from vandalism, and shall be readily accessed when needed for use.

(7) Seat belt and shoulder harness. For each wheelchair or mobility aid securement device provided, a passenger seat belt and shoulder harness, complying with all applicable provisions of the Federal Motor Vehicle Safety Standards (49 CFR part 571), shall also be provided for use by wheelchair or mobility aid users. Such seat belts and shoulder harnesses shall not be used in lieu of a device which secures the wheelchair or mobility aid itself.

§ 38.173 Automated guideway transit vehicles and systems.

(a) Automated Guideway Transit (AGT) vehicles and systems, sometimes called “people movers”, operated in airports and other areas where AGT vehicles travel at slow speed (i.e., at a speed of no more than 20 miles per hour at any location on their route during normal operation), shall comply with the provisions of §38.53 (a) through (c), and §§38.55 through 38.61 of this part for rapid rail vehicles and systems.

(b) Where the vehicle covered by paragraph (a) will operate in an accessible station, the design of vehicles shall be coordinated with the boarding platform design such that the horizontal gap between a vehicle door at rest and the platform shall be no greater than 1 inch and the height of the vehicle floor shall be within plus or minus ½ inch of the platform height.
§ 38.175 High-speed rail cars, monorails and systems.

(a) All cars for high-speed rail systems, including but not limited to those using “maglev” or high speed steel-wheel-on-steel rail technology, and monorail systems operating primarily on dedicated rail (i.e., not used by freight trains) or guideway, in which stations are constructed in accordance with part 37, subpart C of this title, shall be designed for high-platform, level boarding and shall comply with §38.111(a) of this part for each type of car which is similar to intercity rail, §§38.111(d), 38.113 (a) through (c) and (e), 38.115 (a) and (b), 38.117 (a) and (b), 38.121 through 38.123, 38.125(d), and 38.127 (if applicable) of this part. The design of cars shall be coordinated with the boarding platform design such that the horizontal gap between a car door at rest and the platform shall be no greater than 3 inches and the height of the car floor shall be within plus or minus 5⁄8 inch of the platform height under all normal passenger load conditions. Vertical alignment may be accomplished by car air suspension or other suitable means of meeting the requirement.

(c) In stations where open platforms are not protected by platform screens, a suitable device or system shall be provided to prevent, deter or warn individuals from stepping off the platform between cars. Acceptable devices include, but are not limited to, pantograph gates, chains, motion detectors or other appropriate devices.

(d) Light rail and rapid rail AGT vehicles and systems shall comply with subparts D and C of this part, respectively. AGT systems whose vehicles travel at a speed of more than 20 miles per hour at any location on their route during normal operation are covered under this paragraph rather than under paragraph (a) of this section.

(b) All other high-speed rail cars shall comply with the similar provisions of subpart F of this part.

§ 38.177 Ferries, excursion boats and other vessels. [Reserved]

§ 38.179 Trams, and similar vehicles, and systems

(a) New and used trams consisting of a tractor unit, with or without passenger accommodations, and one or more passenger trailer units, including but not limited to vehicles providing shuttle service to remote parking areas, between hotels and other public accommodations, and between and within amusement parks and other recreation areas, shall comply with this section. For purposes of determining applicability of 49 CFR 37.101, 37.103, or 37.105 the capacity of such a vehicle or “train” shall consist of the total combined seating capacity of all units, plus the driver, prior to any modification for accessibility.

(b) Each tractor unit which accommodates passengers and each trailer unit shall comply with §38.23 and §38.29 of this part. In addition, each such unit shall comply with §38.23 (b) or (c) and shall provide at least one space for wheelchair or mobility aid users complying with §38.23(d) of this part unless the complete operating unit consisting of tractor and one or more trailers can already accommodate at least two wheelchair or mobility aid users.