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2010 ADA Standards for Accessible Design September 15, 2010

The Department of Justice published revised regulations for Titles II and III of the Americans with Disabilities Act of 1990 ADA in the Federal Register on September 15, 2010. These regulations adopted revised, enforceable accessibility standards called the 2010 ADA Standards for Accessible Design 2010 Standards or Standards. The 2010 Standards set minimum requirements – both scoping and technical – for newly designed and constructed or altered State and local government facilities, public accommodations, and commercial facilities to be readily accessible to and usable by individuals with disabilities.

Law, Regulations, & Standards

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Introduction

The Department of Justice published revised regulations for Titles II and III of the Americans with Disabilities Act of 1990 “ADA” in the Federal Register on September 15, 2010. These regulations adopted revised, enforceable accessibility standards called the 2010 ADA Standards for Accessible Design “2010 Standards” or “Standards”. The 2010 Standards set minimum requirements – both scoping and technical – for newly designed and constructed or altered State and local government facilities, public accommodations, and commercial facilities to be readily accessible to and usable by individuals with disabilities.

Adoption of the 2010 Standards also establishes a revised reference point for Title II entities that choose to make structural changes to existing facilities to meet their program accessibility requirements; and it establishes a similar reference for Title III entities undertaking readily achievable barrier removal.

The Department has assembled this online version of the official 2010 Standards to increase its ease of use. This version includes:

2010 Standards for State and Local Government Facilities Title II

2010 Standards for Public Accommodations and Commercial Facilities Title III

The Department has assembled into a separate publication the revised regulation guidance that applies to the Standards. The Department included guidance in its revised ADA regulations published on September 15, 2010. This guidance provides detailed information about the Department’s adoption of the 2010 Standards including changes to the Standards, the reasoning behind those changes, and responses to public comments received on these topics. The document, Guidance on the 2010 ADA Standards for Accessible Design, can be downloaded from <https://www.ada.gov/law-and-regs/design-standards/standards-guidance/>

For More Information

For information about the ADA, including the revised 2010 ADA regulations, please visit the Department's website www.ADA.gov; or, for answers to specific questions, call the toll-free ADA Information Line at 800-514-0301 (Voice) or 833-610-1264 (TTY).

2010 STANDARDS FOR STATE AND LOCAL GOVERNMENT FACILITIES: TITLE II

State and local government facilities must follow the requirements of the 2010 Standards, including both the Title II regulations at 28 CFR 35.151; and the 2004 ADAAG at 36 CFR part 1191, appendices B and D.

a figure showing 28 CFR part 35.151 plus the 2004 ADAAG equal the 2010 ADA Standards for title II facilities

In the few places where requirements between the two differ, the requirements of 28 CFR 35.151 prevail.

Compliance Date for Title II

If the start date for construction is on or after March 15, 2012, all newly constructed or altered State and local government facilities must comply with the 2010 Standards. Before that date, the 1991 Standards (without the elevator exemption), the UFAS, or the 2010 Standards may be used for such projects when the start of construction commences on or after September 15, 2010.

28 CFR 35.151 New construction and alterations

(a) Design and construction.

(1) Each facility or part of a facility constructed by, on behalf of, or for the use of a public entity shall be designed and constructed in such manner that the facility or part of the facility is readily accessible to and usable by individuals with disabilities, if the construction was commenced after January 26, 1992.

(2) Exception for structural impracticability.

(i) Full compliance with the requirements of this section is not required where a public entity can demonstrate that it is structurally impracticable to meet the requirements. Full compliance will be considered structurally impracticable only in those rare circumstances when the unique characteristics of terrain prevent the incorporation of accessibility features.

(ii) If full compliance with this section would be structurally impracticable, compliance with this section is required to the extent that it is not structurally impracticable. In that case, any portion of the facility that can be made accessible shall be made accessible to the extent that it is not structurally impracticable.

(iii) If providing accessibility in conformance with this section to individuals with certain disabilities (e.g., those who use wheelchairs) would be structurally impracticable, accessibility shall nonetheless be ensured to persons with other types of disabilities, (e.g., those who use crutches or who have sight, hearing, or mental impairments) in accordance with this section.

(b) Alterations.

(1) Each facility or part of a facility altered by, on behalf of, or for the use of a public entity in a manner that affects or could affect the usability of the facility or part of the facility shall, to the maximum extent feasible, be altered in such manner that the altered portion of the facility is readily accessible to and usable by individuals with disabilities, if the alteration was commenced after January 26, 1992.

(2) The path of travel requirements of § 35.151(b)(4) shall apply only to alterations undertaken solely for purposes other than to meet the program accessibility requirements of § 35.150.

(3)

(i) Alterations to historic properties shall comply, to the maximum extent feasible, with the provisions applicable to historic properties in the design standards specified in § 35.151(c).

(ii) If it is not feasible to provide physical access to an historic property in a manner that will not threaten or destroy the historic significance of the building or facility, alternative methods of access shall be provided pursuant to the requirements of § 35.150.

(4) Path of travel. An alteration that affects or could affect the usability of or access to an area of a facility that contains a primary function shall be made so as to ensure that, to the maximum extent feasible, the path of travel to the altered area and the restrooms, telephones, and drinking fountains serving the altered area are readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, unless the cost and scope of such alterations is disproportionate to the cost of the overall alteration.

(i) Primary function. A “primary function” is a major activity for which the facility is intended. Areas that contain a primary function include, but are not limited to, the dining area of a cafeteria, the meeting rooms in a conference center, as well as offices and other work areas in which the activities of the public entity using the facility are carried out.

(A) Mechanical rooms, boiler rooms, supply storage rooms, employee lounges or locker rooms, janitorial closets, entrances, and corridors are not areas containing a primary function. Restrooms are not areas containing a primary function unless the provision of restrooms is a primary purpose of the area, e.g., in highway rest stops.

(B) For the purposes of this section, alterations to windows, hardware, controls, electrical outlets, and signage shall not be deemed to be alterations that affect the usability of or access to an area containing a primary function.

(ii) A “path of travel” includes a continuous, unobstructed way of pedestrian passage by means of which the altered area may be approached, entered, and exited, and which connects the altered area with an exterior approach (including sidewalks, streets, and parking areas), an entrance to the facility, and other parts of the facility.

(A) An accessible path of travel may consist of walks and sidewalks, curb ramps and other interior or exterior pedestrian ramps; clear floor paths through lobbies, corridors, rooms, and other improved areas; parking access aisles; elevators and lifts; or a combination of these elements.

(B) For the purposes of this section, the term “path of travel” also includes the restrooms, telephones, and drinking fountains serving the altered area.

(C) Safe harbor. If a public entity has constructed or altered required elements of a path of travel in accordance with the specifications in either the 1991 Standards or the Uniform Federal Accessibility Standards before March 15, 2012, the public entity is not required to retrofit such elements to reflect incremental changes in the 2010 Standards solely because of an alteration to a primary function area served by that path of travel.

(iii) Disproportionality.

(A) Alterations made to provide an accessible path of travel to the altered area will be deemed disproportionate to the overall alteration when the cost exceeds 20 % of the cost of the alteration to the primary function area.

(B) Costs that may be counted as expenditures required to provide an accessible path of travel may include:

(1) Costs associated with providing an accessible entrance and an accessible route to the altered area, for example, the cost of widening doorways or installing ramps;

(2) Costs associated with making restrooms accessible, such as installing grab bars, enlarging toilet stalls, insulating pipes, or installing accessible faucet controls;

(3) Costs associated with providing accessible telephones, such as relocating the telephone to an accessible height, installing amplification devices, or installing a text telephone (TTY); and

(4) Costs associated with relocating an inaccessible drinking fountain.

(iv) Duty to provide accessible features in the event of disproportionality.

(A) When the cost of alterations necessary to make the path of travel to the altered area fully accessible is disproportionate to the cost of the overall alteration, the path of travel shall be made accessible to the extent that it can be made accessible without incurring disproportionate costs.

(B) In choosing which accessible elements to provide, priority should be given to those elements that will provide the greatest access, in the following order—

(1) An accessible entrance;

(2) An accessible route to the altered area;

(3) At least one accessible restroom for each sex or a single unisex restroom;

(4) Accessible telephones;

(5) Accessible drinking fountains; and

(6) When possible, additional accessible elements such as parking, storage, and alarms.

(v) Series of smaller alterations.

(A) The obligation to provide an accessible path of travel may not be evaded by performing a series of small alterations to the area served by a single path of travel if those alterations could have been performed as a single undertaking.

(B)

(1) If an area containing a primary function has been altered without providing an accessible path of travel to that area, and subsequent alterations of that area, or a different area on the same path of travel, are undertaken within three years of the original alteration, the total cost of alterations to the primary function areas on that path of travel during the preceding three-year period shall be considered in determining whether the cost of making that path of travel accessible is disproportionate.

(2) Only alterations undertaken on or after March 15, 2011, shall be considered in determining if the cost of providing an accessible path of travel is disproportionate to the overall cost of the alterations.

(c) Accessibility standards and compliance date.

(1) If physical construction or alterations commence after July 26, 1992, but prior to the September 15, 2010, then new construction and alterations subject to this section must comply with either the UFAS or the 1991 Standards except that the elevator exemption contained at section 4.1.3(5) and section 4.1.6(1)(k) of the 1991 Standards shall not apply. Departures from particular requirements of either standard by the use of other methods shall be permitted when it is clearly evident that equivalent access to the facility or part of the facility is thereby provided.

(2) If physical construction or alterations commence on or after September 15, 2010, and before March 15, 2012, then new construction and alterations subject to this section may comply with one of the following: the 2010 Standards, UFAS, or the 1991 Standards except that the elevator exemption contained at section 4.1.3(5) and section 4.1.6(1)(k) of the 1991 Standards shall not apply. Departures from particular requirements of either standard by the use of other methods shall be permitted when it is clearly evident that equivalent access to the facility or part of the facility is thereby provided.

(3) If physical construction or alterations commence on or after March 15, 2012, then new construction and alterations subject to this section shall comply with the 2010 Standards.

(4) For the purposes of this section, ceremonial groundbreaking or razing of structures prior to site preparation do not commence physical construction or alterations.

(5) Noncomplying new construction and alterations.

(i) Newly constructed or altered facilities or elements covered by §§ 35.151(a) or (b) that were constructed or altered before March 15, 2012, and that do not comply with the 1991 Standards or with UFAS shall before March 15, 2012, be made accessible in accordance with either the 1991 Standards, UFAS, or the 2010 Standards.

(ii) Newly constructed or altered facilities or elements covered by §§ 35.151(a) or (b) that were constructed or altered before March 15, 2012 and that do not comply with the 1991 Standards or with UFAS shall, on or after March 15, 2012, be made accessible in accordance with the 2010 Standards.

Appendix to 35.151(c)

Compliance Date for New Construction or Alterations	Applicable Standards
Before September 15, 2010	1991 Standards or UFAS
On or after September 15, 2010, and before March 15, 2012	1991 Standards, UFAS, or 2010 Standards
On or after March 15, 2012	2010 Standards

(d) Scope of coverage. The 1991 Standards and the 2010 Standards apply to fixed or built-in elements of buildings, structures, site improvements, and pedestrian routes or vehicular ways located on a site. Unless specifically stated otherwise, the advisory notes, appendix notes, and figures contained in the 1991 Standards and the 2010 Standards explain or illustrate the requirements of the rule; they do not establish enforceable requirements.

(e) Social service center establishments. Group homes, halfway houses, shelters, or similar social service center establishments that provide either temporary sleeping accommodations or residential dwelling units that are subject to this section shall comply with the provisions of the 2010 Standards applicable to residential facilities, including, but not limited to, the provisions in sections 233 and 809.

(d) Scope of coverage. The 1991 Standards and the 2010 Standards apply to fixed or built-in elements of buildings, structures, site improvements, and pedestrian routes or vehicular ways located on a site. Unless specifically stated otherwise, the advisory notes, appendix notes, and figures contained in the 1991 Standards and the 2010 Standards explain or illustrate the requirements of the rule; they do not establish enforceable requirements.

(e) Social service center establishments. Group homes, halfway houses, shelters, or similar social service center establishments that provide either temporary sleeping accommodations or residential dwelling units that are subject to this section shall comply with the provisions of the 2010 Standards applicable to residential facilities, including, but not limited to, the provisions in sections 233 and 809.

(1) In sleeping rooms with more than 25 beds covered by this section, a minimum of 5% of the beds shall have clear floor space complying with section 806.2.3 of the 2010 Standards.

(2) Facilities with more than 50 beds covered by this section that provide common use bathing facilities, shall provide at least one roll-in shower with a seat that complies with the relevant provisions of section 608 of the 2010 Standards. Transfer-type showers are not permitted in lieu of a roll-in shower with a seat, and the exceptions in sections 608.3 and 608.4 for residential dwelling units are not permitted. When separate shower facilities are provided for men and for women, at least one roll-in shower shall be provided for each group.

(f) Housing at a place of education. Housing at a place of education that is subject to this section shall comply with the provisions of the 2010 Standards applicable to transient lodging, including, but not limited to, the requirements for transient lodging guest rooms in sections 224 and 806 subject to the following exceptions. For the purposes of the application of this section, the term “sleeping room” is intended to be used interchangeably with the term “guest room” as it is used in the transient lodging standards.

(1) Kitchens within housing units containing accessible sleeping rooms with mobility features (including suites and clustered sleeping rooms) or on floors containing accessible sleeping rooms with mobility features shall provide turning spaces that comply with section 809.2.2 of the 2010 Standards and kitchen work surfaces that comply with section 804.3 of the 2010 Standards.

(2) Multi-bedroom housing units containing accessible sleeping rooms with mobility features shall have an accessible route throughout the unit in accordance with section 809.2 of the 2010 Standards.

(3) Apartments or townhouse facilities that are provided by or on behalf of a place of education, which are leased on a year-round basis exclusively to graduate students or faculty, and do not contain any public use or common use areas available for educational programming, are not subject to the transient lodging standards and shall comply with the requirements for residential facilities in sections 233 and 809 of the 2010 Standards.

(g) Assembly areas. Assembly areas subject to this section shall comply with the provisions of the 2010 Standards applicable to assembly areas, including, but not limited to, sections 221 and 802. In addition, assembly areas shall ensure that—

(1) In stadiums, arenas, and grandstands, wheelchair spaces and companion seats are dispersed to all levels that include seating served by an accessible route;

(2) Assembly areas that are required to horizontally disperse wheelchair spaces and companion seats by section 221.2.3.1 of the 2010 Standards and have seating encircling, in whole or in part, a field of play or performance area shall disperse wheelchair spaces and companion seats around that field of play or performance area;

(3) Wheelchair spaces and companion seats are not located on (or obstructed by) temporary platforms or other movable structures, except that when an entire seating section is placed on temporary platforms or other movable structures in an area where fixed seating is not provided, in order to increase seating for an event, wheelchair spaces and companion seats may be placed in that section. When wheelchair spaces and companion seats are not required to accommodate persons eligible for those spaces and seats, individual, removable seats may be placed in those spaces and seats;

(4) Stadium-style movie theaters shall locate wheelchair spaces and companion seats on a riser or cross-aisle in the stadium section that satisfies at least one of the following criteria—

(i) It is located within the rear 60% of the seats provided in an auditorium; or

(ii) It is located within the area of an auditorium in which the vertical viewing angles (as measured to the top of the screen) are from the 40th to the 100th percentile of vertical viewing angles for all seats as ranked from the seats in the first row (1st percentile) to seats in the back row (100th percentile).

(h) Medical care facilities. Medical care facilities that are subject to this section shall comply with the provisions of the 2010 Standards applicable to medical care facilities, including, but not limited to, sections 223 and 805. In addition, medical care facilities that do not specialize in the treatment of conditions that affect mobility shall disperse the accessible patient bedrooms required by section 223.2.1 of the 2010 Standards in a manner that is proportionate by type of medical specialty.

(i) Curb ramps.

(1) Newly constructed or altered streets, roads, and highways must contain curb ramps or other sloped areas at any intersection having curbs or other barriers to entry from a street level pedestrian walkway.

(2) Newly constructed or altered street level pedestrian walkways must contain curb ramps or other sloped areas at intersections to streets, roads, or highways.

(j) Facilities with residential dwelling units for sale to individual owners.

(1) Residential dwelling units designed and constructed or altered by public entities that will be offered for sale to individuals shall comply with the requirements for residential facilities in the 2010 Standards including sections 233 and 809.

(2) The requirements of paragraph (1) also apply to housing programs that are operated by public entities where design and construction of particular residential dwelling units take place only after a specific buyer has been identified. In such programs, the covered entity must provide the units that comply with the requirements for accessible features to those pre-identified buyers with disabilities who have requested such a unit.

(k) Detention and correctional facilities.

(1) New construction of jails, prisons, and other detention and correctional facilities shall comply with the 2010 Standards except that public entities shall provide accessible mobility features complying with section 807.2 of the 2010 Standards for a minimum of 3%, but no fewer than one, of the total number of cells in a facility. Cells with mobility features shall be provided in each classification level.

(2) Alterations to detention and correctional facilities. Alterations to jails, prisons, and other detention and correctional facilities shall comply with the 2010 Standards except that public entities shall provide accessible mobility features complying with section 807.2 of the 2010 Standards for a minimum of 3%, but no fewer than one, of the total number of cells being altered until at least 3%, but no fewer than one, of the total number of cells in a facility shall provide mobility features complying with section 807.2. Altered cells with mobility features shall be provided in each classification level. However, when alterations are made to specific cells, detention and correctional facility operators may satisfy their obligation to provide the required number of cells with mobility features by providing the required mobility features in substitute cells (cells other than those where alterations are originally planned), provided that each substitute cell—

(i) Is located within the same prison site;

(ii) Is integrated with other cells to the maximum extent feasible;

(iii) Has, at a minimum, equal physical access as the altered cells to areas used by inmates or detainees for visitation, dining, recreation, educational programs, medical services, work programs, religious services, and participation in other programs that the facility offers to inmates or detainees; and, (iv) If it is technically infeasible to locate a substitute cell within the same prison site, a substitute cell must be provided at another prison site within the corrections system.

(3) With respect to medical and long-term care facilities in jails, prisons, and other detention and correctional facilities, public entities shall apply the 2010 Standards technical and scoping requirements for those facilities irrespective of whether those facilities are licensed.

The remaining text of the 2010 Standards for Title III – the 2004 ADAAG – can be found at 2010 Standards for Titles II and III: 2004 ADAAG

2010 STANDARDS FOR PUBLIC ACCOMMODATIONS AND COMMERCIAL FACILITIES: TITLE III

Public accommodations and commercial facilities must follow the requirements of the 2010 Standards, including both the Title III regulations at 28 CFR part 36, subpart D; and the 2004 ADAAG at 36 CFR part 1191, appendices B and D.

figure showing the 28 CFR Part 36 Subpart D plus the 2004 ADAAG equals the 2010 Standards for Accessible Design for title III

In the few places where requirements between the two differ, the requirements of 28 CFR part 36, subpart D prevail.

Compliance Date for Title III

The compliance date for the 2010 Standards for new construction and alterations is determined by:

the date the last application for a building permit or permit extension is certified to be complete by a State, county, or local government;

the date the last application for a building permit or permit extension is received by a State, county, or local government, where the government does not certify the completion of applications; or

the start of physical construction or alteration, if no permit is required.

If that date is on or after March 15, 2012, then new construction and alterations must comply with the 2010 Standards. If that date is on or after September 15, 2010, and before March 15, 2012, then new construction and alterations must comply with either the 1991 or the 2010 Standards.

28 CFR part 36, subpart D – New Construction and Alterations

§36.401 New construction

(a) General.

(1) Except as provided in paragraphs (b) and (c) of this section, discrimination for purposes of this part includes a failure to design and construct facilities for first occupancy after January 26, 1993, that are readily accessible to and usable by individuals with disabilities.

(2) For purposes of this section, a facility is designed and constructed for first occupancy after January 26, 1993, only –

(i) If the last application for a building permit or permit extension for the facility is certified to be complete, by a State, County, or local government after January 26, 1992 (or, in those jurisdictions where the government does not certify completion of applications, if the last application for a building permit or permit extension for the facility is received by the State, County, or local government after January 26, 1992); and

(ii) If the first certificate of occupancy for the facility is issued after January 26, 1993.

(b) Commercial facilities located in private residences.

(1) When a commercial facility is located in a private residence, the portion of the residence used exclusively as a residence is not covered by this subpart, but that portion used exclusively in the operation of the commercial facility or that portion used both for the commercial facility and for residential purposes is covered by the new construction and alterations requirements of this subpart.

(2) The portion of the residence covered under paragraph (b)(1) of this section extends to those elements used to enter the commercial facility, including the homeowner's front sidewalk, if any, the door or entryway, and hallways; and those portions of the residence, interior or exterior, available to or used by employees or visitors of the commercial facility, including restrooms.

(c) Exception for structural impracticability.

(1) Full compliance with the requirements of this section is not required where an entity can demonstrate that it is structurally impracticable to meet the requirements. Full compliance will be considered structurally impracticable only in those rare circumstances when the unique characteristics of terrain prevent the incorporation of accessibility features.

(2) If full compliance with this section would be structurally impracticable, compliance with this section is required to the extent that it is not structurally impracticable. In that case, any portion of the facility that can be made accessible shall be made accessible to the extent that it is not structurally impracticable.

(3) If providing accessibility in conformance with this section to individuals with certain disabilities (e.g., those who use wheelchairs) would be structurally impracticable, accessibility shall nonetheless be ensured to persons with other types of disabilities (e.g., those who use crutches or who have sight, hearing, or mental impairments) in accordance with this section.

(d) Elevator exemption.

(1) For purposes of this paragraph (d) –

(i) Professional office of a health care provider means a location where a person or entity regulated by a State to provide professional services related to the physical or mental health of an individual makes such services available to the public. The facility housing the “professional office of a health care provider” only includes floor levels housing at least one health care provider, or any floor level designed or intended for use by at least one health care provider.

(ii) Shopping center or shopping mall means –

(A) A building housing five or more sales or rental establishments; or

(B) A series of buildings on a common site, either under common ownership or common control or developed either as one project or as a series of related projects, housing five or more sales or rental establishments. For purposes of this section, places of public accommodation of the types listed in paragraph (5) of the definition of “place of public accommodation” in section § 36.104 are considered sales or rental establishments. The facility housing a “shopping center or shopping mall” only includes

floor levels housing at least one sales or rental establishment, or any floor level designed or intended for use by at least one sales or rental establishment.

(2) This section does not require the installation of an elevator in a facility that is less than three stories or has less than 3000 square feet per story, except with respect to any facility that houses one or more of the following:

(i) A shopping center or shopping mall, or a professional office of a health care provider.

(ii) A terminal, depot, or other station used for specified public transportation, or an airport passenger terminal. In such a facility, any area housing passenger services, including boarding and debarking, loading and unloading, baggage claim, dining facilities, and other common areas open to the public, must be on an accessible route from an accessible entrance.

(3) The elevator exemption set forth in this paragraph (d) does not obviate or limit, in any way the obligation to comply with the other accessibility requirements established in paragraph (a) of this section. For example, in a facility that houses a shopping center or shopping mall, or a professional office of a health care provider, the floors that are above or below an accessible ground floor and that do not house sales or rental establishments or a professional office of a health care provider, must meet the requirements of this section but for the elevator.

§36.402 Alterations

(a) General.

(1) Any alteration to a place of public accommodation or a commercial facility, after January 26, 1992, shall be made so as to ensure that, to the maximum extent feasible, the altered portions of the facility are readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs.

(2) An alteration is deemed to be undertaken after January 26, 1992, if the physical alteration of the property begins after that date.

(b) Alteration. For the purposes of this part, an alteration is a change to a place of public accommodation or a commercial facility that affects or could affect the usability of the building or facility or any part thereof.

(1) Alterations include, but are not limited to, remodeling, renovation, rehabilitation, reconstruction, historic restoration, changes or rearrangement in structural parts or elements, and changes or rearrangement in the plan configuration of walls and full-height partitions. Normal maintenance, reroofing, painting or wallpapering, asbestos removal, or changes to mechanical and electrical systems are not alterations unless they affect the usability of the building or facility.

(2) If existing elements, spaces, or common areas are altered, then each such altered element, space, or area shall comply with the applicable provisions of appendix A to this part.

(c) To the maximum extent feasible. The phrase “to the maximum extent feasible,” as used in this section, applies to the occasional case where the nature of an existing facility makes it virtually impossible to comply fully with applicable accessibility standards through a planned alteration. In these circumstances, the alteration shall provide the maximum physical accessibility feasible. Any altered

features of the facility that can be made accessible shall be made accessible. If providing accessibility in conformance with this section to individuals with certain disabilities (e.g., those who use wheelchairs) would not be feasible, the facility shall be made accessible to persons with other types of disabilities (e.g., those who use crutches, those who have impaired vision or hearing, or those who have other impairments).

§36.403 Alterations: Path of travel

(a) General.

(1) An alteration that affects or could affect the usability of or access to an area of a facility that contains a primary function shall be made so as to ensure that, to the maximum extent feasible, the path of travel to the altered area and the restrooms, telephones, and drinking fountains serving the altered area, are readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, unless the cost and scope of such alterations is disproportionate to the cost of the overall alteration.

(2) If a private entity has constructed or altered required elements of a path of travel at a place of public accommodation or commercial facility in accordance with the specifications in the 1991 Standards, the private entity is not required to retrofit such elements to reflect the incremental changes in the 2010 Standards solely because of an alteration to a primary function area served by that path of travel.

(b) Primary function. A “primary function” is a major activity for which the facility is intended. Areas that contain a primary function include, but are not limited to, the customer services lobby of a bank, the dining area of a cafeteria, the meeting rooms in a conference center, as well as offices and other work areas in which the activities of the public accommodation or other private entity using the facility are carried out. Mechanical rooms, boiler rooms, supply storage rooms, employee lounges or locker rooms, janitorial closets, entrances, corridors, and restrooms are not areas containing a primary function.

(c) Alterations to an area containing a primary function.

(1) Alterations that affect the usability of or access to an area containing a primary function include, but are not limited to –

- (i) Remodeling merchandise display areas or employee work areas in a department store;
- (ii) Replacing an inaccessible floor surface in the customer service or employee work areas of a bank;
- (iii) Redesigning the assembly line area of a factory; or
- (iv) Installing a computer center in an accounting firm.

(2) For the purposes of this section, alterations to windows, hardware, controls, electrical outlets, and signage shall not be deemed to be alterations that affect the usability of or access to an area containing a primary function.

(d) Landlord/tenant: If a tenant is making alterations as defined in § 36.402 that would trigger the requirements of this section, those alterations by the tenant in areas that only the tenant occupies do not

trigger a path of travel obligation upon the landlord with respect to areas of the facility under the landlord's authority, if those areas are not otherwise being altered.

(e) Path of travel.

(1) A "path of travel" includes a continuous, unobstructed way of pedestrian passage by means of which the altered area may be approached, entered, and exited, and which connects the altered area with an exterior approach (including sidewalks, streets, and parking areas), an entrance to the facility, and other parts of the facility.

(2) An accessible path of travel may consist of walks and sidewalks, curb ramps and other interior or exterior pedestrian ramps; clear floor paths through lobbies, corridors, rooms, and other improved areas; parking access aisles; elevators and lifts; or a combination of these elements.

(3) For the purposes of this part, the term "path of travel" also includes the restrooms, telephones, and drinking fountains serving the altered area.

(f) Disproportionality.

(1) Alterations made to provide an accessible path of travel to the altered area will be deemed disproportionate to the overall alteration when the cost exceeds 20% of the cost of the alteration to the primary function area.

(2) Costs that may be counted as expenditures required to provide an accessible path of travel may include:

(i) Costs associated with providing an accessible entrance and an accessible route to the altered area, for example, the cost of widening doorways or installing ramps;

(ii) Costs associated with making restrooms accessible, such as installing grab bars, enlarging toilet stalls, insulating pipes, or installing accessible faucet controls;

(iii) Costs associated with providing accessible telephones, such as relocating the telephone to an accessible height, installing amplification devices, or installing a text telephone (TTY);

(iv) Costs associated with relocating an inaccessible drinking fountain.

(g) Duty to provide accessible features in the event of disproportionality.

(1) When the cost of alterations necessary to make the path of travel to the altered area fully accessible is disproportionate to the cost of the overall alteration, the path of travel shall be made accessible to the extent that it can be made accessible without incurring disproportionate costs.

(2) In choosing which accessible elements to provide, priority should be given to those elements that will provide the greatest access, in the following order:

(i) An accessible entrance;

(ii) An accessible route to the altered area;

- (iii) At least one accessible restroom for each sex or a single unisex restroom;
- (iv) Accessible telephones;
- (v) Accessible drinking fountains; and
- (vi) When possible, additional accessible elements such as parking, storage, and alarms.
- (h) Series of smaller alterations.

(1) The obligation to provide an accessible path of travel may not be evaded by performing a series of small alterations to the area served by a single path of travel if those alterations could have been performed as a single undertaking.

(2)

(i) If an area containing a primary function has been altered without providing an accessible path of travel to that area, and subsequent alterations of that area, or a different area on the same path of travel, are undertaken within three years of the original alteration, the total cost of alterations to the primary function areas on that path of travel during the preceding three year period shall be considered in determining whether the cost of making that path of travel accessible is disproportionate.

(ii) Only alterations undertaken after January 26, 1992, shall be considered in determining if the cost of providing an accessible path of travel is disproportionate to the overall cost of the alterations.

§36.404 Alterations: Elevator exemption

(a) This section does not require the installation of an elevator in an altered facility that is less than three stories or has less than 3,000 square feet per story, except with respect to any facility that houses a shopping center, a shopping mall, the professional office of a health care provider, a terminal, depot, or other station used for specified public transportation, or an airport passenger terminal.

(1) For the purposes of this section, professional office of a health care provider means a location where a person or entity regulated by a State to provide professional services related to the physical or mental health of an individual makes such services available to the public. The facility that houses a professional office of a health care provider only includes floor levels housing by at least one health care provider, or any floor level designed or intended for use by at least one health care provider.

(2) For the purposes of this section, shopping center or shopping mall means –

(i) A building housing five or more sales or rental establishments; or

(ii) A series of buildings on a common site, connected by a common pedestrian access route above or below the ground floor, that is either under common ownership or common control or developed either as one project or as a series of related projects, housing five or more sales or rental establishments. For purposes of this section, places of public accommodation of the types listed in paragraph (5) of the definition of place of public accommodation in § 36.104 are considered sales or rental establishments. The facility housing a “shopping center or shopping mall” only includes floor levels housing at least

one sales or rental establishment, or any floor level designed or intended for use by at least one sales or rental establishment.

(b) The exemption provided in paragraph (a) of this section does not obviate or limit in any way the obligation to comply with the other accessibility requirements established in this subpart. For example, alterations to floors above or below the accessible ground floor must be accessible regardless of whether the altered facility has an elevator.

§36.405 Alterations: Historic preservation

(a) Alterations to buildings or facilities that are eligible for listing in the National Register of Historic Places under the National Historic Preservation Act (16 U.S.C. 470 et seq.) or are designated as historic under State or local law, shall comply to the maximum extent feasible with this part.

(b) If it is determined that it is not feasible to provide physical access to an historic property that is a place of public accommodation in a manner that will not threaten or destroy the historic significance of the building or the facility, alternative methods of access shall be provided pursuant to the requirements of subpart C of this part.

§36.406 Standards for new construction and alterations

(a) Accessibility standards and compliance date.

(1) New construction and alterations subject to §§ 36.401 or 36.402 shall comply with the 1991 Standards if the date when the last application for a building permit or permit extension is certified to be complete by a State, county, or local government (or, in those jurisdictions where the government does not certify completion of applications, if the date when the last application for a building permit or permit extension is received by the State, county, or local government) is before September 15, 2010, or if no permit is required, if the start of physical construction or alterations occurs before September 15, 2010.

(2) New construction and alterations subject to §§ 36.401 or 36.402 shall comply either with the 1991 Standards or with the 2010 Standards if the date when the last application for a building permit or permit extension is certified to be complete by a State, county, or local government (or, in those jurisdictions where the government does not certify completion of applications, if the date when the last application for a building permit or permit extension is received by the State, county, or local government) is on or after September 15, 2010, and before March 15, 2012, or if no permit is required, if the start of physical construction or alterations occurs on or after September 15, 2010, and before March 15, 2012.

(3) New construction and alterations subject to §§ 36.401 or 36.402 shall comply with the 2010 Standards if the date when the last application for a building permit or permit extension is certified to be complete by a State, county, or local government (or, in those jurisdictions where the government does not certify completion of applications, if the date when the last application for a building permit or permit extension is received by the State, county, or local government) is on or after March 15, 2012, or if no permit is required, if the start of physical construction or alterations occurs on or after March 15, 2012.

(4) For the purposes of this section, “start of physical construction or alterations” does not mean ceremonial groundbreaking or razing of structures prior to site preparation.

(5) Noncomplying new construction and alterations.

(i) Newly constructed or altered facilities or elements covered by §§ 36.401 or 36.402 that were constructed or altered before March 15, 2012 and that do not comply with the 1991 Standards shall, before March 15, 2012, be made accessible in accordance with either the 1991 Standards or the 2010 Standards.

(ii) Newly constructed or altered facilities or elements covered by §§ 36.401 or 36.402 that were constructed or altered before March 15, 2012 and that do not comply with the 1991 Standards shall, on or after March 15, 2012, be made accessible in accordance with the 2010 Standards.

Appendix to 36.406(a)

Compliance Date for New Construction or Alterations	Applicable Standards
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Before September 15, 2010	1991 Standards
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On or after September 15, 2010, and before March 15, 2012	1991 Standards or 2010 Standards
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On or after March 15, 2012	2010 Standards
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(b) Scope of coverage. The 1991 Standards and the 2010 Standards apply to fixed or built-in elements of buildings, structures, site improvements, and pedestrian routes or vehicular ways located on a site. Unless specifically stated otherwise, advisory notes, appendix notes, and figures contained in the 1991 Standards and 2010 Standards explain or illustrate the requirements of the rule; they do not establish enforceable requirements.

(c) Places of lodging. Places of lodging subject to this part shall comply with the provisions of the 2010 Standards applicable to transient lodging, including, but not limited to, the requirements for transient lodging guest rooms in sections 224 and 806 of the 2010 Standards.

(1) Guest rooms. Guest rooms with mobility features in places of lodging subject to the transient lodging requirements of 2010 Standards shall be provided as follows –

(i) Facilities that are subject to the same permit application on a common site that each have 50 or fewer guest rooms may be combined for the purposes of determining the required number of accessible rooms and type of accessible bathing facility in accordance with table 224.2 to section 224.2 of the 2010 Standards.

(ii) Facilities with more than 50 guest rooms shall be treated separately for the purposes of determining the required number of accessible rooms and type of accessible bathing facility in accordance with table 224.2 to section 224.2 of the 2010 Standards.

(2) Exception. Alterations to guest rooms in places of lodging where the guest rooms are not owned or substantially controlled by the entity that owns, leases, or operates the overall facility and the physical features of the guest room interiors are controlled by their individual owners are not required to comply with § 36.402 or the alterations requirements in section 224.1.1 of the 2010 Standards.

(3) Facilities with residential units and transient lodging units. Residential dwelling units that are designed and constructed for residential use exclusively are not subject to the transient lodging standards.

(d) Social service center establishments. Group homes, halfway houses, shelters, or similar social service center establishments that provide either temporary sleeping accommodations or residential

dwelling units that are subject to this part shall comply with the provisions of the 2010 Standards applicable to residential facilities, including, but not limited to, the provisions in sections 233 and 809.

(1) In sleeping rooms with more than 25 beds covered by this part, a minimum of 5% of the beds shall have clear floor space complying with section 806.2.3 of the 2010 Standards.

(2) Facilities with more than 50 beds covered by this part that provide common use bathing facilities shall provide at least one roll-in shower with a seat that complies with the relevant provisions of section 608 of the 2010 Standards. Transfer-type showers are not permitted in lieu of a roll-in shower with a seat, and the exceptions in sections 608.3 and 608.4 for residential dwelling units are not permitted. When separate shower facilities are provided for men and for women, at least one roll-in shower shall be provided for each group.

(e) Housing at a place of education. Housing at a place of education that is subject to this part shall comply with the provisions of the 2010 Standards applicable to transient lodging, including, but not limited to, the requirements for transient lodging guest rooms in sections 224 and 806, subject to the following exceptions.

For the purposes of the application of this section, the term “sleeping room” is intended to be used interchangeably with the term “guest room” as it is used in the transient lodging standards.

(1) Kitchens within housing units containing accessible sleeping rooms with mobility features (including suites and clustered sleeping rooms) or on floors containing accessible sleeping rooms with mobility features shall provide turning spaces that comply with section 809.2.2 of the 2010 Standards and kitchen work surfaces that comply with section 804.3 of the 2010 Standards.

(2) Multi-bedroom housing units containing accessible sleeping rooms with mobility features shall have an accessible route throughout the unit in accordance with section 809.2 of the 2010 Standards.

(3) Apartments or townhouse facilities that are provided by or on behalf of a place of education, which are leased on a year-round basis exclusively to graduate students or faculty and do not contain any public use or common use areas available for educational programming, are not subject to the transient lodging standards and shall comply with the requirements for residential facilities in sections 233 and 809 of the 2010 Standards.

(f) Assembly areas. Assembly areas that are subject to this part shall comply with the provisions of the 2010 Standards applicable to assembly areas, including, but not limited to, sections 221 and 802. In addition, assembly areas shall ensure that –

(1) In stadiums, arenas, and grandstands, wheelchair spaces and companion seats are dispersed to all levels that include seating served by an accessible route;

(2) In assembly areas that are required to horizontally disperse wheelchair spaces and companion seats by section 221.2.3.1 of the 2010 Standards and that have seating encircling, in whole or in part, a field of play or performance, wheelchair spaces and companion seats are dispersed around that field of play or performance area;

(3) Wheelchair spaces and companion seats are not located on (or obstructed by) temporary platforms or other movable structures, except that when an entire seating section is placed on temporary

platforms or other movable structures in an area where fixed seating is not provided, in order to increase seating for an event, wheelchair spaces and companion seats may be placed in that section. When wheelchair spaces and companion seats are not required to accommodate persons eligible for those spaces and seats, individual, removable seats may be placed in those spaces and seats;

(4) In stadium-style movie theaters, wheelchair spaces and companion seats are located on a riser or cross-aisle in the stadium section that satisfies at least one of the following criteria –

(i) It is located within the rear 60% of the seats provided in an auditorium; or

(ii) It is located within the area of an auditorium in which the vertical viewing angles (as measured to the top of the screen) are from the 40th to the 100th percentile of vertical viewing angles for all seats as ranked from the seats in the first row (1st percentile) to seats in the back row (100th percentile).

(g) Medical care facilities. Medical care facilities that are subject to this part shall comply with the provisions of the 2010 Standards applicable to medical care facilities, including, but not limited to, sections 223 and 805. In addition, medical care facilities that do not specialize in the treatment of conditions that affect mobility shall disperse the accessible patient bedrooms required by section 223.2.1 of the 2010 Standards in a manner that is proportionate by type of medical specialty.

§36.407 – 36.499 [Reserved]

The remaining text of the 2010 Standards for Title II – the 2004 ADAAG – can be found at 2010 Standards for Titles II and III: 2004 ADAAG.

2010 STANDARDS FOR TITLES II AND III FACILITIES: 2004 ADAAG

The following section applies to both State and local government facilities (Title II) and public accommodations and commercial facilities (Title III). The section consists of (ADA) Chapters 1 and 2 and Chapters 3 through 10, of the 2004 ADAAG (36 CFR part 1191, appendices B and D, adopted as part of both the Title II and Title III 2010 Standards).

State and local government facilities must follow the requirements of the 2010 Standards, including both the Title II regulations at 28 CFR 35.151; and the 2004 ADAAG at 36 CFR part 1191, appendices B and D.

Public accommodations and commercial facilities must follow the requirements of the 2010 Standards, including both the Title III regulations at 28 CFR part 36, subpart D; and the 2004 ADAAG at 36 CFR part 1191, appendices B and D.

In the few places where requirements between the regulation and the 2004 ADAAG differ, the requirements of 28 CFR 35.151 or 28 CFR part 36, subpart D, prevail.

CHAPTER 1: APPLICATION AND ADMINISTRATION

101 Purpose

101.1 General. This document contains scoping and technical requirements for accessibility to sites, facilities, buildings, and elements by individuals with disabilities. The requirements are to be applied during the design, construction, additions to, and alteration of sites, facilities, buildings, and elements to the extent required by regulations issued by Federal agencies under the Americans with Disabilities Act of 1990 (ADA).

Advisory 101.1 General.

101.2 Effect on Removal of Barriers in Existing Facilities. This document does not address existing facilities unless altered at the discretion of a covered entity. The Department of Justice has authority over existing facilities that are subject to the requirement for removal of barriers under Title III of the ADA. Any determination that this document applies to existing facilities subject to the barrier removal requirement is solely within the discretion of the Department of Justice and is effective only to the extent required by regulations issued by the Department of Justice.

102 Dimensions for Adults and Children**

The technical requirements are based on adult dimensions and anthropometrics. In addition, this document includes technical requirements based on children's dimensions and anthropometrics for drinking fountains, water closets, toilet compartments, lavatories and sinks, dining surfaces, and work surfaces.

103 Equivalent Facilitation

Nothing in these requirements prevents the use of designs, products, or technologies as alternatives to those prescribed, provided they result in substantially equivalent or greater accessibility and usability.

Advisory 103 Equivalent Facilitation.

104 Conventions

104.1 Dimensions. Dimensions that are not stated as "maximum" or "minimum" are absolute.

104.1.1 Construction and Manufacturing Tolerances. All dimensions are subject to conventional industry tolerances except where the requirement is stated as a range with specific minimum and maximum end points.

Advisory 104.1.1 Construction and Manufacturing Tolerances.

104.2 Calculation of Percentages. Where the required number of elements or facilities to be provided is determined by calculations of ratios or percentages and remainders or fractions result, the next greater whole number of such elements or facilities shall be provided. Where the determination of the required size or dimension of an element or facility involves ratios or percentages, rounding down for values less than one half shall be permitted.

104.3 Figures. Unless specifically stated otherwise, figures are provided for informational purposes only.

Figure 104

Dimension lines show English units above the line (in inches unless otherwise noted) and the SI units (in millimeters unless otherwise noted). Small measurements show the dimension with an arrow pointing to the dimension line. Dimension ranges are shown above the line in inches and below the line in millimeters. Min refers to minimum, and max refers to the maximum. Mathematical symbols indicate greater than, greater than or equal to, less than, and less than or equal to. A dashed line identifies the boundary of clear floor space or maneuvering space. A line with alternating short and long dashes with a c and l at the end indicate the centerline. A dashed line with longer spaces indicates a permitted element or its extension. An arrow is to identify the direction of travel or approach. A thick black line is used to represent a wall, floor, ceiling or other element cut in section or plan. Gray shading is used to show an element in elevation or plan. Hatching is used to show the location zone of elements, controls, or features. Terms defined by this document are shown in italics.

Graphic Convention for Figures

105 Referenced Standards

105.1 General. The standards listed in 105.2 are incorporated by reference in this document and are part of the requirements to the prescribed extent of each such reference. The Director of the Federal Register has approved these standards for incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the referenced standards may be inspected at the Architectural and Transportation Barriers Compliance Board, 1331 F Street, NW, Suite 1000, Washington, DC 20004; at the Department of Justice, Civil Rights Division, Disability Rights Section, 1425 New York Avenue, NW, Washington, DC; at the Department of Transportation, 400 Seventh Street, SW, Room 10424, Washington DC; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

105.2 Referenced Standards. The specific edition of the standards listed below are referenced in this document. Where differences occur between this document and the referenced standards, this document applies.

105.2.1 ANSI/BHMA. Copies of the referenced standards may be obtained from the Builders Hardware Manufacturers Association, 355 Lexington Avenue, 17th floor, New York, NY 10017 (<http://www.buildershardware.com>).

ANSI/BHMA A156.10-1999 American National Standard for Power Operated Pedestrian Doors (see 404.3). ANSI/BHMA A156.19-1997 American National Standard for Power Assist and Low Energy Power Operated Doors (see 404.3, 408.3.2.1, and 409.3.1). ANSI/BHMA A156.19-2002 American National Standard for Power Assist and Low Energy Power Operated Doors (see 404.3, 408.3.2.1, and 409.3.1).

Advisory 105.2.1 ANSI/BHMA.

105.2.2 ASME. Copies of the referenced standards may be obtained from the American Society of Mechanical Engineers, Three Park Avenue, New York, New York 10016 (<http://www.asme.org>).

ASME A17.1- 2000 Safety Code for Elevators and Escalators, including ASME A17.1a-2002 Addenda and ASME A17.1b-2003 Addenda (see 407.1, 408.1, 409.1, and 810.9). ASME A18.1-1999 Safety Standard for Platform Lifts and Stairway Chairlifts, including ASME A18.1a-2001 Addenda and ASME A18.1b-2001 Addenda (see 410.1). ASME A18.1-2003 Safety Standard for Platform Lifts and Stairway Chairlifts, (see 410.1).

Advisory 105.2.2 ASME.

105.2.3 ASTM. Copies of the referenced standards may be obtained from the American Society for Testing and Materials, 100 Bar Harbor Drive, West Conshohocken, Pennsylvania 19428 (<http://www.astm.org>).

ASTM F 1292-99 Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment (see 1008.2.6.2). ASTM F 1292-04 Standard Specification for Impact Attenuation of Surfacing Materials Within the Use Zone of Playground Equipment (see 1008.2.6.2). ASTM F 1487-01 Standard Consumer Safety Performance Specification for Playground Equipment for Public Use (see 106.5). ASTM F 1951-99 Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment (see 1008.2.6.1).

Advisory 105.2.3 ASTM.

105.2.4 ICC/IBC. Copies of the referenced standard may be obtained from the International Code Council, 5203 Leesburg Pike, Suite 600, Falls Church, Virginia 22041 (www.iccsafe.org).

International Building Code, 2000 Edition (see 207.1, 207.2, 216.4.2, 216.4.3, and 1005.2.1).
International Building Code, 2001 Supplement (see 207.1 and 207.2). International Building Code, 2003 Edition (see 207.1, 207.2, 216.4.2, 216.4.3, and 1005.2.1).

Advisory 105.2.4 ICC/IBC.

105.2.5 NFPA. Copies of the referenced standards may be obtained from the National Fire Protection Association, 1 Batterymarch Park, Quincy, Massachusetts 02169-7471, (<http://www.nfpa.org>).

NFPA 72 National Fire Alarm Code, 1999 Edition (see 702.1 and 809.5.2). NFPA 72 National Fire Alarm Code, 2002 Edition (see 702.1 and 809.5.2).

Advisory 105.2.5 NFPA.

106 Definitions

106.1 General. For the purpose of this document, the terms defined in 106.5 have the indicated meaning.

Advisory 106.1 General.

106.2 Terms Defined in Referenced Standards. Terms not defined in 106.5 or in regulations issued by the Department of Justice and the Department of Transportation to implement the Americans with Disabilities Act, but specifically defined in a referenced standard, shall have the specified meaning from the referenced standard unless otherwise stated.

106.3 Undefined Terms. The meaning of terms not specifically defined in 106.5 or in regulations issued by the Department of Justice and the Department of Transportation to implement the Americans with Disabilities Act or in referenced standards shall be as defined by collegiate dictionaries in the sense that the context implies.

106.4 Interchangeability. Words, terms and phrases used in the singular include the plural and those used in the plural include the singular.

106.5 Defined Terms.

Accessible. A site, building, facility, or portion thereof that complies with this part.

Accessible Means of Egress. A continuous and unobstructed way of egress travel from any point in a building or facility that provides an accessible route to an area of refuge, a horizontal exit, or a public way.

Addition. An expansion, extension, or increase in the gross floor area or height of a building or facility.

Administrative Authority. A governmental agency that adopts or enforces regulations and guidelines for the design, construction, or alteration of buildings and facilities.

Alteration. A change to a building or facility that affects or could affect the usability of the building or facility or portion thereof. Alterations include, but are not limited to, remodeling, renovation, rehabilitation, reconstruction, historic restoration, resurfacing of circulation paths or vehicular ways,

changes or rearrangement of the structural parts or elements, and changes or rearrangement in the plan configuration of walls and full-height partitions. Normal maintenance, reroofing, painting or wallpapering, or changes to mechanical and electrical systems are not alterations unless they affect the usability of the building or facility.

Amusement Attraction. Any facility, or portion of a facility, located within an amusement park or theme park which provides amusement without the use of an amusement device. Amusement attractions include, but are not limited to, fun houses, barrels, and other attractions without seats.

Amusement Ride. A system that moves persons through a fixed course within a defined area for the purpose of amusement.

Amusement Ride Seat. A seat that is built-in or mechanically fastened to an amusement ride intended to be occupied by one or more passengers.

Area of Sport Activity. That portion of a room or space where the play or practice of a sport occurs.

Assembly Area. A building or facility, or portion thereof, used for the purpose of entertainment, educational or civic gatherings, or similar purposes. For the purposes of these requirements, assembly areas include, but are not limited to, classrooms, lecture halls, courtrooms, public meeting rooms, public hearing rooms, legislative chambers, motion picture houses, auditoria, theaters, playhouses, dinner theaters, concert halls, centers for the performing arts, amphitheaters, arenas, stadiums, grandstands, or convention centers.

Assistive Listening System (ALS). An amplification system utilizing transmitters, receivers, and coupling devices to bypass the acoustical space between a sound source and a listener by means of induction loop, radio frequency, infrared, or direct-wired equipment.

Boarding Pier. A portion of a pier where a boat is temporarily secured for the purpose of embarking or disembarking.

Boat Launch Ramp. A sloped surface designed for launching and retrieving trailered boats and other water craft to and from a body of water.

Boat Slip. That portion of a pier, main pier, finger pier, or float where a boat is moored for the purpose of berthing, embarking, or disembarking.

Building. Any structure used or intended for supporting or sheltering any use or occupancy.

Catch Pool. A pool or designated section of a pool used as a terminus for water slide flumes.

Characters. Letters, numbers, punctuation marks and typographic symbols.

Children's Use. Describes spaces and elements specifically designed for use primarily by people 12 years old and younger.

Circulation Path. An exterior or interior way of passage provided for pedestrian travel, including but not limited to, walks, hallways, courtyards, elevators, platform lifts, ramps, stairways, and landings.

Closed-Circuit Telephone. A telephone with a dedicated line such as a house phone, courtesy phone or phone that must be used to gain entry to a facility.

Common Use. Interior or exterior circulation paths, rooms, spaces, or elements that are not for public use and are made available for the shared use of two or more people.

Cross Slope. The slope that is perpendicular to the direction of travel (see running slope).

Curb Ramp. A short ramp cutting through a curb or built up to it.

Detectable Warning. A standardized surface feature built in or applied to walking surfaces or other elements to warn of hazards on a circulation path.

Element. An architectural or mechanical component of a building, facility, space, or site.

Elevated Play Component. A play component that is approached above or below grade and that is part of a composite play structure consisting of two or more play components attached or functionally linked to create an integrated unit providing more than one play activity.

Employee Work Area. All or any portion of a space used only by employees and used only for work. Corridors, toilet rooms, kitchenettes and break rooms are not employee work areas.

Entrance. Any access point to a building or portion of a building or facility used for the purpose of entering. An entrance includes the approach walk, the vertical access leading to the entrance platform, the entrance platform itself, vestibule if provided, the entry door or gate, and the hardware of the entry door or gate.

Facility. All or any portion of buildings, structures, site improvements, elements, and pedestrian routes or vehicular ways located on a site.

Gangway. A variable-sloped pedestrian walkway that links a fixed structure or land with a floating structure. Gangways that connect to vessels are not addressed by this document.

Golf Car Passage. A continuous passage on which a motorized golf car can operate.

Ground Level Play Component. A play component that is approached and exited at the ground level.

Key Station. Rapid and light rail stations, and commuter rail stations, as defined under criteria established by the Department of Transportation in 49 CFR 37.47 and 49 CFR 37.51, respectively.

Mail Boxes. Receptacles for the receipt of documents, packages, or other deliverable matter. Mail boxes include, but are not limited to, post office boxes and receptacles provided by commercial mail-receiving agencies, apartment facilities, or schools.

Marked Crossing. A crosswalk or other identified path intended for pedestrian use in crossing a vehicular way.

Mezzanine. An intermediate level or levels between the floor and ceiling of any story with an aggregate floor area of not more than one-third of the area of the room or space in which the level or levels are

located. Mezzanines have sufficient elevation that space for human occupancy can be provided on the floor below.

Occupant Load. The number of persons for which the means of egress of a building or portion of a building is designed.

Operable Part. A component of an element used to insert or withdraw objects, or to activate, deactivate, or adjust the element.

Pictogram. A pictorial symbol that represents activities, facilities, or concepts.

Play Area. A portion of a site containing play components designed and constructed for children.

Play Component. An element intended to generate specific opportunities for play, socialization, or learning. Play components are manufactured or natural; and are stand-alone or part of a composite play structure.

Private Building or Facility. A place of public accommodation or a commercial building or facility subject to Title III of the ADA and 28 CFR part 36 or a transportation building or facility subject to Title III of the ADA and 49 CFR 37.45.

Public Building or Facility. A building or facility or portion of a building or facility designed, constructed, or altered by, on behalf of, or for the use of a public entity subject to Title II of the ADA and 28 CFR part 35 or to Title II of the ADA and 49 CFR 37.41 or 37.43.

Public Entrance. An entrance that is not a service entrance or a restricted entrance.

Public Use. Interior or exterior rooms, spaces, or elements that are made available to the public. Public use may be provided at a building or facility that is privately or publicly owned.

Public Way. Any street, alley or other parcel of land open to the outside air leading to a public street, which has been deeded, dedicated or otherwise permanently appropriated to the public for public use and which has a clear width and height of not less than 10 feet (3050 mm).

Qualified Historic Building or Facility. A building or facility that is listed in or eligible for listing in the National Register of Historic Places, or designated as historic under an appropriate State or local law.

Ramp. A walking surface that has a running slope steeper than 1:20.

Residential Dwelling Unit. A unit intended to be used as a residence, that is primarily long-term in nature. Residential dwelling units do not include transient lodging, inpatient medical care, licensed long-term care, and detention or correctional facilities.

Restricted Entrance. An entrance that is made available for common use on a controlled basis but not public use and that is not a service entrance.

Running Slope. The slope that is parallel to the direction of travel (see cross slope).

Self-Service Storage. Building or facility designed and used for the purpose of renting or leasing individual storage spaces to customers for the purpose of storing and removing personal property on a self-service basis.

Service Entrance. An entrance intended primarily for delivery of goods or services.

Site. A parcel of land bounded by a property line or a designated portion of a public right-of-way.

Soft Contained Play Structure. A play structure made up of one or more play components where the user enters a fully enclosed play environment that utilizes pliable materials, such as plastic, netting, or fabric.

Space. A definable area, such as a room, toilet room, hall, assembly area, entrance, storage room, alcove, courtyard, or lobby.

Story. That portion of a building or facility designed for human occupancy included between the upper surface of a floor and upper surface of the floor or roof next above. A story containing one or more mezzanines has more than one floor level.

Structural Frame. The columns and the girders, beams, and trusses having direct connections to the columns and all other members that are essential to the stability of the building or facility as a whole.

Tactile. An object that can be perceived using the sense of touch.

Technically Infeasible. With respect to an alteration of a building or a facility, something that has little likelihood of being accomplished because existing structural conditions would require removing or altering a load-bearing member that is an essential part of the structural frame; or because other existing physical or site constraints prohibit modification or addition of elements, spaces, or features that are in full and strict compliance with the minimum requirements.

Teeing Ground. In golf, the starting place for the hole to be played.

Transfer Device. Equipment designed to facilitate the transfer of a person from a wheelchair or other mobility aid to and from an amusement ride seat.

Transient Lodging. A building or facility containing one or more guest room(s) for sleeping that provides accommodations that are primarily short-term in nature. Transient lodging does not include residential dwelling units intended to be used as a residence, inpatient medical care facilities, licensed long-term care facilities, detention or correctional facilities, or private buildings or facilities that contain not more than five rooms for rent or hire and that are actually occupied by the proprietor as the residence of such proprietor.

Transition Plate. A sloping pedestrian walking surface located at the end(s) of a gangway.

TTY. An abbreviation for teletypewriter. Machinery that employs interactive text-based communication through the transmission of coded signals across the telephone network. TTYS may include, for example, devices known as TDDs (telecommunication display devices or telecommunication devices for deaf persons) or computers with special modems. TTYS are also called text telephones.

Use Zone. The ground level area beneath and immediately adjacent to a play structure or play equipment that is designated by ASTM F 1487 (incorporated by reference, see “Referenced Standards” in Chapter 1) for unrestricted circulation around the play equipment and where it is predicted that a user would land when falling from or exiting the play equipment.

Vehicular Way. A route provided for vehicular traffic, such as in a street, driveway, or parking facility.

Walk. An exterior prepared surface for pedestrian use, including pedestrian areas such as plazas and courts.

Wheelchair Space. Space for a single wheelchair and its occupant.

Work Area Equipment. Any machine, instrument, engine, motor, pump, conveyor, or other apparatus used to perform work. As used in this document, this term shall apply only to equipment that is permanently installed or built-in in employee work areas. Work area equipment does not include passenger elevators and other accessible means of vertical transportation.

CHAPTER 2: SCOPING REQUIREMENTS

201 Application

201.1 Scope. All areas of newly designed and newly constructed buildings and facilities and altered portions of existing buildings and facilities shall comply with these requirements.

Advisory 201.1 Scope.

201.2 Application Based on Building or Facility Use. Where a site, building, facility, room, or space contains more than one use, each portion shall comply with the applicable requirements for that use.

201.3 Temporary and Permanent Structures. These requirements shall apply to temporary and permanent buildings and facilities.

Advisory 201.3 Temporary and Permanent Structures.

202 Existing Buildings and Facilities

202.1 General. Additions and alterations to existing buildings or facilities shall comply with 202.

202.2 Additions. Each addition to an existing building or facility shall comply with the requirements for new construction. Each addition that affects or could affect the usability of or access to an area containing a primary function shall comply with 202.4.

202.3 Alterations. Where existing elements or spaces are altered, each altered element or space shall comply with the applicable requirements of Chapter 2.

EXCEPTIONS:

Unless required by 202.4, where elements or spaces are altered and the circulation path to the altered element or space is not altered, an accessible route shall not be required.

In alterations, where compliance with applicable requirements is technically infeasible, the alteration shall comply with the requirements to the maximum extent feasible.

Residential dwelling units not required to be accessible in compliance with a standard issued pursuant to the Americans with Disabilities Act or Section 504 of the Rehabilitation Act of 1973, as amended, shall not be required to comply with 202.3.

Advisory 202.3 Alterations

202.3.1 Prohibited Reduction in Access. An alteration that decreases or has the effect of decreasing the accessibility of a building or facility below the requirements for new construction at the time of the alteration is prohibited.

202.3.2 Extent of Application. An alteration of an existing element, space, or area of a building or facility shall not impose a requirement for accessibility greater than required for new construction.

202.4 Alterations Affecting Primary Function Areas. In addition to the requirements of 202.3, an alteration that affects or could affect the usability of or access to an area containing a primary function shall be made so as to ensure that, to the maximum extent feasible, the path of travel to the altered area, including the rest rooms, telephones, and drinking fountains serving the altered area, are readily accessible to and usable by individuals with disabilities, unless such alterations are disproportionate to the overall alterations in terms of cost and scope as determined under criteria established by the Attorney General. In existing transportation facilities, an area of primary function shall be as defined under regulations published by the Secretary of the Department of Transportation or the Attorney General.

EXCEPTION: Residential dwelling units shall not be required to comply with 202.4.

Advisory 202.4 Alterations Affecting Primary Function Areas.

202.5 Alterations to Qualified Historic Buildings and Facilities. Alterations to a qualified historic building or facility shall comply with 202.3 and 202.4.

EXCEPTION: Where the State Historic Preservation Officer or Advisory Council on Historic Preservation determines that compliance with the requirements for accessible routes, entrances, or toilet facilities would threaten or destroy the historic significance of the building or facility, the exceptions for alterations to qualified historic buildings or facilities for that element shall be permitted to apply.

Advisory 202.5 Alterations to Qualified Historic Buildings and Facilities Exception.

203 General Exceptions

203.1 General. Sites, buildings, facilities, and elements are exempt from these requirements to the extent specified by 203.

203.2 Construction Sites. Structures and sites directly associated with the actual processes of construction, including but not limited to, scaffolding, bridging, materials hoists, materials storage, and construction trailers shall not be required to comply with these requirements or to be on an accessible route. Portable toilet units provided for use exclusively by construction personnel on a construction site shall not be required to comply with 213 or to be on an accessible route.

203.3 Raised Areas. Areas raised primarily for purposes of security, life safety, or fire safety, including but not limited to, observation or lookout galleries, prison guard towers, fire towers, or life guard stands shall not be required to comply with these requirements or to be on an accessible route.

203.4 Limited Access Spaces. Spaces accessed only by ladders, catwalks, crawl spaces, or very narrow passageways shall not be required to comply with these requirements or to be on an accessible route.

203.5 Machinery Spaces. Spaces frequented only by service personnel for maintenance, repair, or occasional monitoring of equipment shall not be required to comply with these requirements or to be on

an accessible route. Machinery spaces include, but are not limited to, elevator pits or elevator penthouses; mechanical, electrical or communications equipment rooms; piping or equipment catwalks; water or sewage treatment pump rooms and stations; electric substations and transformer vaults; and highway and tunnel utility facilities.

203.6 Single Occupant Structures. Single occupant structures accessed only by passageways below grade or elevated above standard curb height, including but not limited to, toll booths that are accessed only by underground tunnels, shall not be required to comply with these requirements or to be on an accessible route.

203.7 Detention and Correctional Facilities. In detention and correctional facilities, common use areas that are used only by inmates or detainees and security personnel and that do not serve holding cells or housing cells required to comply with 232, shall not be required to comply with these requirements or to be on an accessible route.

203.8 Residential Facilities. In residential facilities, common use areas that do not serve residential dwelling units required to provide mobility features complying with 809.2 through 809.4 shall not be required to comply with these requirements or to be on an accessible route.

203.9 Employee Work Areas. Spaces and elements within employee work areas shall only be required to comply with 206.2.8, 207.1, and 215.3 and shall be designed and constructed so that individuals with disabilities can approach, enter, and exit the employee work area. Employee work areas, or portions of employee work areas, other than raised courtroom stations, that are less than 300 square feet (28 m²) and elevated 7 inches (180 mm) or more above the finish floor or ground where the elevation is essential to the function of the space shall not be required to comply with these requirements or to be on an accessible route.

Advisory 203.9 Employee Work Areas.

203.10 Raised Refereeing, Judging, and Scoring Areas. Raised structures used solely for refereeing, judging, or scoring a sport shall not be required to comply with these requirements or to be on an accessible route.

203.11 Water Slides. Water slides shall not be required to comply with these requirements or to be on an accessible route.

203.12 Animal Containment Areas. Animal containment areas that are not for public use shall not be required to comply with these requirements or to be on an accessible route.

Advisory 203.12 Animal Containment Areas.

203.13 Raised Boxing or Wrestling Rings. Raised boxing or wrestling rings shall not be required to comply with these requirements or to be on an accessible route.

203.14 Raised Diving Boards and Diving Platforms. Raised diving boards and diving platforms shall not be required to comply with these requirements or to be on an accessible route.

204 Protruding Objects

204.1 General. Protruding objects on circulation paths shall comply with 307.

EXCEPTIONS:

Within areas of sport activity, protruding objects on circulation paths shall not be required to comply with 307.

Within play areas, protruding objects on circulation paths shall not be required to comply with 307 provided that ground level accessible routes provide vertical clearance in compliance with 1008.2.

205 Operable Parts

205.1 General. Operable parts on accessible elements, accessible routes, and in accessible rooms and spaces shall comply with 309.

EXCEPTIONS:

Operable parts that are intended for use only by service or maintenance personnel shall not be required to comply with 309.

Electrical or communication receptacles serving a dedicated use shall not be required to comply with 309.

Where two or more outlets are provided in a kitchen above a length of counter top that is uninterrupted by a sink or appliance, one outlet shall not be required to comply with 309.

Floor electrical receptacles shall not be required to comply with 309.

HVAC diffusers shall not be required to comply with 309.

Except for light switches, where redundant controls are provided for a single element, one control in each space shall not be required to comply with 309.

Cleats and other boat securement devices shall not be required to comply with 309.3.

Exercise machines and exercise equipment shall not be required to comply with 309.

Advisory 205.1 General.

206 Accessible Routes

206.1 General. Accessible routes shall be provided in accordance with 206 and shall comply with Chapter 4.

206.2 Where Required. Accessible routes shall be provided where required by 206.2.

206.2.1 Site Arrival Points. At least one accessible route shall be provided within the site from accessible parking spaces and accessible passenger loading zones; public streets and sidewalks; and public transportation stops to the accessible building or facility entrance they serve.

EXCEPTIONS:

Where exceptions for alterations to qualified historic buildings or facilities are permitted by 202.5, no more than one accessible route from a site arrival point to an accessible entrance shall be required.

An accessible route shall not be required between site arrival points and the building or facility entrance if the only means of access between them is a vehicular way not providing pedestrian access.

Advisory 206.2.1 Site Arrival Points.

Advisory 206.2.1 Site Arrival Points Exception 2.

206.2.2 Within a Site. At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

EXCEPTION: An accessible route shall not be required between accessible buildings, accessible facilities, accessible elements, and accessible spaces if the only means of access between them is a vehicular way not providing pedestrian access.

Advisory 206.2.2 Within a Site.

206.2.3 Multi-Story Buildings and Facilities. At least one accessible route shall connect each story and mezzanine in multi-story buildings and facilities.

EXCEPTIONS:

In private buildings or facilities that are less than three stories or that have less than 3000 square feet (279 m²) per story, an accessible route shall not be required to connect stories provided that the building or facility is not a shopping center, a shopping mall, the professional office of a health care provider, a terminal, depot or other station used for specified public transportation, an airport passenger terminal, or another type of facility as determined by the Attorney General.

Where a two story public building or facility has one story with an occupant load of five or fewer persons that does not contain public use space, that story shall not be required to be connected to the story above or below.

In detention and correctional facilities, an accessible route shall not be required to connect stories where cells with mobility features required to comply with 807.2, all common use areas serving cells with mobility features required to comply with 807.2, and all public use areas are on an accessible route.

In residential facilities, an accessible route shall not be required to connect stories where residential dwelling units with mobility features required to comply with 809.2 through 809.4, all common use areas serving residential dwelling units with mobility features required to comply with 809.2 through 809.4, and public use areas serving residential dwelling units are on an accessible route.

Within multi-story transient lodging guest rooms with mobility features required to comply with 806.2, an accessible route shall not be required to connect stories provided that spaces complying with 806.2 are on an accessible route and sleeping accommodations for two persons minimum are provided on a story served by an accessible route.

In air traffic control towers, an accessible route shall not be required to serve the cab and the floor immediately below the cab.

Where exceptions for alterations to qualified historic buildings or facilities are permitted by 202.5, an accessible route shall not be required to stories located above or below the accessible story.

Advisory 206.2.3 Multi-Story Buildings and Facilities.

Advisory 206.2.3 Multi-Story Buildings and Facilities Exception 4.

206.2.3.1 Stairs and Escalators in Existing Buildings. In alterations and additions, where an escalator or stair is provided where none existed previously and major structural modifications are necessary for the installation, an accessible route shall be provided between the levels served by the escalator or stair unless exempted by 206.2.3 Exceptions 1 through 7.

206.2.4 Spaces and Elements. At least one accessible route shall connect accessible building or facility entrances with all accessible spaces and elements within the building or facility which are otherwise connected by a circulation path unless exempted by 206.2.3 Exceptions 1 through 7.

EXCEPTIONS:

Raised courtroom stations, including judges' benches, clerks' stations, bailiffs' stations, deputy clerks' stations, and court reporters' stations shall not be required to provide vertical access provided that the required clear floor space, maneuvering space, and, if appropriate, electrical service are installed at the time of initial construction to allow future installation of a means of vertical access complying with 405, 407, 408, or 410 without requiring substantial reconstruction of the space.

In assembly areas with fixed seating required to comply with 221, an accessible route shall not be required to serve fixed seating where wheelchair spaces required to be on an accessible route are not provided.

Accessible routes shall not be required to connect mezzanines where buildings or facilities have no more than one story. In addition, accessible routes shall not be required to connect stories or mezzanines where multi-story buildings or facilities are exempted by 206.2.3 Exceptions 1 through 7. Advisory 206.2.4 Spaces and Elements.

Advisory 206.2.4 Spaces and Elements Exception 1.

206.2.5 Restaurants and Cafeterias. In restaurants and cafeterias, an accessible route shall be provided to all dining areas, including raised or sunken dining areas, and outdoor dining areas.

EXCEPTIONS:

In buildings or facilities not required to provide an accessible route between stories, an accessible route shall not be required to a mezzanine dining area where the mezzanine contains less than 25 percent of the total combined area for seating and dining and where the same decor and services are provided in the accessible area.

In alterations, an accessible route shall not be required to existing raised or sunken dining areas, or to all parts of existing outdoor dining areas where the same services and decor are provided in an accessible space usable by the public and not restricted to use by people with disabilities.

In sports facilities, tiered dining areas providing seating required to comply with 221 shall be required to have accessible routes serving at least 25 percent of the dining area provided that accessible routes serve seating complying with 221 and each tier is provided with the same services.

Advisory 206.2.5 Restaurants and Cafeterias Exception 2.

206.2.6 Performance Areas. Where a circulation path directly connects a performance area to an assembly seating area, an accessible route shall directly connect the assembly seating area with the performance area. An accessible route shall be provided from performance areas to ancillary areas or facilities used by performers unless exempted by 206.2.3 Exceptions 1 through 7.

206.2.7 Press Boxes. Press boxes in assembly areas shall be on an accessible route.

EXCEPTIONS:

An accessible route shall not be required to press boxes in bleachers that have points of entry at only one level provided that the aggregate area of all press boxes is 500 square feet (46 m²) maximum.

An accessible route shall not be required to free-standing press boxes that are elevated above grade 12 feet (3660 mm) minimum provided that the aggregate area of all press boxes is 500 square feet (46 m²) maximum.

Advisory 206.2.7 Press Boxes Exception 2.

206.2.8 Employee Work Areas. Common use circulation paths within employee work areas shall comply with 402.

EXCEPTIONS:

Common use circulation paths located within employee work areas that are less than 1000 square feet (93 m²) and defined by permanently installed partitions, counters, casework, or furnishings shall not be required to comply with 402.

Common use circulation paths located within employee work areas that are an integral component of work area equipment shall not be required to comply with 402.

Common use circulation paths located within exterior employee work areas that are fully exposed to the weather shall not be required to comply with 402.

Advisory 206.2.8 Employee Work Areas Exception 1.

Advisory 206.2.8 Employee Work Areas Exception 2.

206.2.9 Amusement Rides. Amusement rides required to comply with 234 shall provide accessible routes in accordance with 206.2.9. Accessible routes serving amusement rides shall comply with Chapter 4 except as modified by 1002.2.

206.2.9.1 Load and Unload Areas. Load and unload areas shall be on an accessible route. Where load and unload areas have more than one loading or unloading position, at least one loading and unloading position shall be on an accessible route.

206.2.9.2 Wheelchair Spaces, Ride Seats Designed for Transfer, and Transfer Devices. When amusement rides are in the load and unload position, wheelchair spaces complying with 1002.4, amusement ride seats designed for transfer complying with 1002.5, and transfer devices complying with 1002.6 shall be on an accessible route.

206.2.10 Recreational Boating Facilities. Boat slips required to comply with 235.2 and boarding piers at boat launch ramps required to comply with 235.3 shall be on an accessible route. Accessible routes serving recreational boating facilities shall comply with Chapter 4, except as modified by 1003.2.

206.2.11 Bowling Lanes. Where bowling lanes are provided, at least 5 percent, but no fewer than one of each type of bowling lane, shall be on an accessible route.

206.2.12 Court Sports. In court sports, at least one accessible route shall directly connect both sides of the court.

206.2.13 Exercise Machines and Equipment. Exercise machines and equipment required to comply with 236 shall be on an accessible route.

206.2.14 Fishing Piers and Platforms. Fishing piers and platforms shall be on an accessible route. Accessible routes serving fishing piers and platforms shall comply with Chapter 4 except as modified by 1005.1.

206.2.15 Golf Facilities. At least one accessible route shall connect accessible elements and spaces within the boundary of the golf course. In addition, accessible routes serving golf car rental areas; bag drop areas; course weather shelters complying with 238.2.3; course toilet rooms; and practice putting greens, practice teeing grounds, and teeing stations at driving ranges complying with 238.3 shall comply with Chapter 4 except as modified by 1006.2.

EXCEPTION: Golf car passages complying with 1006.3 shall be permitted to be used for all or part of accessible routes required by 206.2.15.

206.2.16 Miniature Golf Facilities. Holes required to comply with 239.2, including the start of play, shall be on an accessible route. Accessible routes serving miniature golf facilities shall comply with Chapter 4 except as modified by 1007.2.

206.2.17 Play Areas. Play areas shall provide accessible routes in accordance with 206.2.17. Accessible routes serving play areas shall comply with Chapter 4 except as modified by 1008.2.

206.2.17.1 Ground Level and Elevated Play Components. At least one accessible route shall be provided within the play area. The accessible route shall connect ground level play components required to comply with 240.2.1 and elevated play components required to comply with 240.2.2, including entry and exit points of the play components.

206.2.17.2 Soft Contained Play Structures. Where three or fewer entry points are provided for soft contained play structures, at least one entry point shall be on an accessible route. Where four or more entry points are provided for soft contained play structures, at least two entry points shall be on an accessible route.

206.3 Location. Accessible routes shall coincide with or be located in the same area as general circulation paths. Where circulation paths are interior, required accessible routes shall also be interior.

Advisory 206.3 Location.

206.4 Entrances. Entrances shall be provided in accordance with 206.4. Entrance doors, doorways, and gates shall comply with 404 and shall be on an accessible route complying with 402.

EXCEPTIONS:

Where an alteration includes alterations to an entrance, and the building or facility has another entrance complying with 404 that is on an accessible route, the altered entrance shall not be required to comply with 206.4 unless required by 202.4.

Where exceptions for alterations to qualified historic buildings or facilities are permitted by 202.5, no more than one public entrance shall be required to comply with 206.4. Where no public entrance can comply with 206.4 under criteria established in 202.5 Exception, then either an unlocked entrance not used by the public shall comply with 206.4; or a locked entrance complying with 206.4 with a notification system or remote monitoring shall be provided.

206.4.1 Public Entrances. In addition to entrances required by 206.4.2 through 206.4.9, at least 60 percent of all public entrances shall comply with 404.

206.4.2 Parking Structure Entrances. Where direct access is provided for pedestrians from a parking structure to a building or facility entrance, each direct access to the building or facility entrance shall comply with 404.

206.4.3 Entrances from Tunnels or Elevated Walkways. Where direct access is provided for pedestrians from a pedestrian tunnel or elevated walkway to a building or facility, at least one direct entrance to the building or facility from each tunnel or walkway shall comply with 404.

206.4.4 Transportation Facilities. In addition to the requirements of 206.4.2, 206.4.3, and 206.4.5 through 206.4.9, transportation facilities shall provide entrances in accordance with 206.4.4.

206.4.4.1 Location. In transportation facilities, where different entrances serve different transportation fixed routes or groups of fixed routes, at least one public entrance serving each fixed route or group of fixed routes shall comply with 404.

EXCEPTION: Entrances to key stations and existing intercity rail stations retrofitted in accordance with 49 CFR 37.49 or 49 CFR 37.51 shall not be required to comply with 206.4.4.1.

206.4.4.2 Direct Connections. Direct connections to other facilities shall provide an accessible route complying with 404 from the point of connection to boarding platforms and all transportation system elements required to be accessible. Any elements provided to facilitate future direct connections shall be on an accessible route connecting boarding platforms and all transportation system elements required to be accessible.

EXCEPTION: In key stations and existing intercity rail stations, existing direct connections shall not be required to comply with 404.

206.4.4.3 Key Stations and Intercity Rail Stations. Key stations and existing intercity rail stations required by Subpart C of 49 CFR part 37 to be altered, shall have at least one entrance complying with 404.

206.4.5 Tenant Spaces. At least one accessible entrance to each tenancy in a facility shall comply with 404.

EXCEPTION: Self-service storage facilities not required to comply with 225.3 shall not be required to be on an accessible route.

206.4.6 Residential Dwelling Unit Primary Entrance. In residential dwelling units, at least one primary entrance shall comply with 404. The primary entrance to a residential dwelling unit shall not be to a bedroom.

206.4.7 Restricted Entrances. Where restricted entrances are provided to a building or facility, at least one restricted entrance to the building or facility shall comply with 404.

206.4.8 Service Entrances. If a service entrance is the only entrance to a building or to a tenancy in a facility, that entrance shall comply with 404.

206.4.9 Entrances for Inmates or Detainees. Where entrances used only by inmates or detainees and security personnel are provided at judicial facilities, detention facilities, or correctional facilities, at least one such entrance shall comply with 404.

206.5 Doors, Doorways, and Gates. Doors, doorways, and gates providing user passage shall be provided in accordance with 206.5.

206.5.1 Entrances. Each entrance to a building or facility required to comply with 206.4 shall have at least one door, doorway, or gate complying with 404.

206.5.2 Rooms and Spaces. Within a building or facility, at least one door, doorway, or gate serving each room or space complying with these requirements shall comply with 404.

206.5.3 Transient Lodging Facilities. In transient lodging facilities, entrances, doors, and doorways providing user passage into and within guest rooms that are not required to provide mobility features complying with 806.2 shall comply with 404.2.3.

EXCEPTION: Shower and sauna doors in guest rooms that are not required to provide mobility features complying with 806.2 shall not be required to comply with 404.2.3.

206.5.4 Residential Dwelling Units. In residential dwelling units required to provide mobility features complying with 809.2 through 809.4, all doors and doorways providing user passage shall comply with 404.

206.6 Elevators. Elevators provided for passengers shall comply with 407. Where multiple elevators are provided, each elevator shall comply with 407.

EXCEPTIONS:

In a building or facility permitted to use the exceptions to 206.2.3 or permitted by 206.7 to use a platform lift, elevators complying with 408 shall be permitted.

Elevators complying with 408 or 409 shall be permitted in multi-story residential dwelling units.

206.6.1 Existing Elevators. Where elements of existing elevators are altered, the same element shall also be altered in all elevators that are programmed to respond to the same hall call control as the altered elevator and shall comply with the requirements of 407 for the altered element.

206.7 Platform Lifts. Platform lifts shall comply with 410. Platform lifts shall be permitted as a component of an accessible route in new construction in accordance with 206.7. Platform lifts shall be permitted as a component of an accessible route in an existing building or facility.

206.7.1 Performance Areas and Speakers' Platforms. Platform lifts shall be permitted to provide accessible routes to performance areas and speakers' platforms.

206.7.2 Wheelchair Spaces. Platform lifts shall be permitted to provide an accessible route to comply with the wheelchair space dispersion and line-of-sight requirements of 221 and 802.

206.7.3 Incidental Spaces. Platform lifts shall be permitted to provide an accessible route to incidental spaces which are not public use spaces and which are occupied by five persons maximum.

206.7.4 Judicial Spaces. Platform lifts shall be permitted to provide an accessible route to: jury boxes and witness stands; raised courtroom stations including, judges' benches, clerks' stations, bailiffs' stations, deputy clerks' stations, and court reporters' stations; and to depressed areas such as the well of a court.

206.7.5 Existing Site Constraints. Platform lifts shall be permitted where existing exterior site constraints make use of a ramp or elevator infeasible.

Advisory 206.7.5 Existing Site Constraints.

206.7.6 Guest Rooms and Residential Dwelling Units. Platform lifts shall be permitted to connect levels within transient lodging guest rooms required to provide mobility features complying with 806.2 or residential dwelling units required to provide mobility features complying with 809.2 through 809.4.

206.7.7 Amusement Rides. Platform lifts shall be permitted to provide accessible routes to load and unload areas serving amusement rides.

206.7.8 Play Areas. Platform lifts shall be permitted to provide accessible routes to play components or soft contained play structures.

206.7.9 Team or Player Seating. Platform lifts shall be permitted to provide accessible routes to team or player seating areas serving areas of sport activity.

Advisory 206.7.9 Team or Player Seating.

206.7.10 Recreational Boating Facilities and Fishing Piers and Platforms. Platform lifts shall be permitted to be used instead of gangways that are part of accessible routes serving recreational boating facilities and fishing piers and platforms.

206.8 Security Barriers. Security barriers, including but not limited to, security bollards and security check points, shall not obstruct a required accessible route or accessible means of egress.

EXCEPTION: Where security barriers incorporate elements that cannot comply with these requirements such as certain metal detectors, fluoroscopes, or other similar devices, the accessible route shall be permitted to be located adjacent to security screening devices. The accessible route shall permit persons with disabilities passing around security barriers to maintain visual contact with their personal items to the same extent provided others passing through the security barrier.

207 Accessible Means of Egress

207.1 General. Means of egress shall comply with section 1003.2.13 of the International Building Code (2000 edition and 2001 Supplement) or section 1007 of the International Building Code (2003 edition) (incorporated by reference, see “Referenced Standards” in Chapter 1).

EXCEPTIONS:

Where means of egress are permitted by local building or life safety codes to share a common path of egress travel, accessible means of egress shall be permitted to share a common path of egress travel. Areas of refuge shall not be required in detention and correctional facilities.

207.2 Platform Lifts. Standby power shall be provided for platform lifts permitted by section 1003.2.13.4 of the International Building Code (2000 edition and 2001 Supplement) or section 1007.5 of the International Building Code (2003 edition) (incorporated by reference, see “Referenced Standards” in Chapter 1) to serve as a part of an accessible means of egress.

208 Parking Spaces

208.1 General. Where parking spaces are provided, parking spaces shall be provided in accordance with 208.

EXCEPTION: Parking spaces used exclusively for buses, trucks, other delivery vehicles, law enforcement vehicles, or vehicular impound shall not be required to comply with 208 provided that lots accessed by the public are provided with a passenger loading zone complying with 503.

208.2 Minimum Number. Parking spaces complying with 502 shall be provided in accordance with Table 208.2 except as required by 208.2.1, 208.2.2, and 208.2.3. Where more than one parking facility is provided on a site, the number of accessible spaces provided on the site shall be calculated according to the number of spaces required for each parking facility.

Table 208.2 Parking Spaces

Total Number of Parking Spaces Provided in Parking Facility	Minimum Number of Required Accessible Parking Spaces
1 to 25	1

26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1000	2 percent of total
1001 and over	20, plus 1 for each 100, or fraction thereof, over 1000

Advisory 208.2 Minimum Number.

208.2.1 Hospital Outpatient Facilities. Ten percent of patient and visitor parking spaces provided to serve hospital outpatient facilities shall comply with 502.

Advisory 208.2.1

208.2.2 Rehabilitation Facilities and Outpatient Physical Therapy Facilities. Twenty percent of patient and visitor parking spaces provided to serve rehabilitation facilities specializing in treating conditions that affect mobility and outpatient physical therapy facilities shall comply with 502.

Advisory 208.2.2 Rehabilitation Facilities and Outpatient Physical Therapy Facilities.

208.2.3 Residential Facilities. Parking spaces provided to serve residential facilities shall comply with 208.2.3.

208.2.3.1 Parking for Residents. Where at least one parking space is provided for each residential dwelling unit, at least one parking space complying with 502 shall be provided for each residential dwelling unit required to provide mobility features complying with 809.2 through 809.4.

208.2.3.2 Additional Parking Spaces for Residents. Where the total number of parking spaces provided for each residential dwelling unit exceeds one parking space per residential dwelling unit, 2 percent, but no fewer than one space, of all the parking spaces not covered by 208.2.3.1 shall comply with 502.

208.2.3.3 Parking for Guests, Employees, and Other Non-Residents. Where parking spaces are provided for persons other than residents, parking shall be provided in accordance with Table 208.2.

208.2.4 Van Parking Spaces. For every six or fraction of six parking spaces required by 208.2 to comply with 502, at least one shall be a van parking space complying with 502.

208.3 Location. Parking facilities shall comply with 208.3

208.3.1 General. Parking spaces complying with 502 that serve a particular building or facility shall be located on the shortest accessible route from parking to an entrance complying with 206.4. Where parking serves more than one accessible entrance, parking spaces complying with 502 shall be dispersed and located on the shortest accessible route to the accessible entrances. In parking facilities that do not serve a particular building or facility, parking spaces complying with 502 shall be located on the shortest accessible route to an accessible pedestrian entrance of the parking facility.

EXCEPTIONS:

All van parking spaces shall be permitted to be grouped on one level within a multi-story parking facility.

Parking spaces shall be permitted to be located in different parking facilities if substantially equivalent or greater accessibility is provided in terms of distance from an accessible entrance or entrances, parking fee, and user convenience.

Advisory 208.3.1 General Exception 2.

208.3.2 Residential Facilities. In residential facilities containing residential dwelling units required to provide mobility features complying with 809.2 through 809.4, parking spaces provided in accordance with 208.2.3.1 shall be located on the shortest accessible route to the residential dwelling unit entrance they serve. Spaces provided in accordance with 208.2.3.2 shall be dispersed throughout all types of parking provided for the residential dwelling units.

EXCEPTION: Parking spaces provided in accordance with 208.2.3.2 shall not be required to be dispersed throughout all types of parking if substantially equivalent or greater accessibility is provided in terms of distance from an accessible entrance, parking fee, and user convenience.

Advisory 208.3.2 Residential Facilities Exception.

209 Passenger Loading Zones and Bus Stops

209.1 General. Passenger loading zones shall be provided in accordance with 209.

209.2 Type. Where provided, passenger loading zones shall comply with 209.2.

209.2.1 Passenger Loading Zones. Passenger loading zones, except those required to comply with 209.2.2 and 209.2.3, shall provide at least one passenger loading zone complying with 503 in every continuous 100 linear feet (30 m) of loading zone space, or fraction thereof.

209.2.2 Bus Loading Zones. In bus loading zones restricted to use by designated or specified public transportation vehicles, each bus bay, bus stop, or other area designated for lift or ramp deployment shall comply with 810.2.

Advisory 209.2.2 Bus Loading Zones.

209.2.3 On-Street Bus Stops. On-street bus stops shall comply with 810.2 to the maximum extent practicable.

209.3 Medical Care and Long-Term Care Facilities. At least one passenger loading zone complying with 503 shall be provided at an accessible entrance to licensed medical care and licensed long-term care facilities where the period of stay exceeds twenty-four hours.

209.4 Valet Parking. Parking facilities that provide valet parking services shall provide at least one passenger loading zone complying with 503.

209.5 Mechanical Access Parking Garages. Mechanical access parking garages shall provide at least one passenger loading zone complying with 503 at vehicle drop-off and vehicle pick-up areas.

210 Stairways

210.1 General. Interior and exterior stairs that are part of a means of egress shall comply with 504.

EXCEPTIONS:

In detention and correctional facilities, stairs that are not located in public use areas shall not be required to comply with 504.

In alterations, stairs between levels that are connected by an accessible route shall not be required to comply with 504, except that handrails complying with 505 shall be provided when the stairs are altered.

In assembly areas, aisle stairs shall not be required to comply with 504.

Stairs that connect play components shall not be required to comply with 504.

Advisory 210.1 General.

211 Drinking Fountains

211.1 General. Where drinking fountains are provided on an exterior site, on a floor, or within a secured area they shall be provided in accordance with 211.

EXCEPTION: In detention or correctional facilities, drinking fountains only serving holding or housing cells not required to comply with 232 shall not be required to comply with 211.

211.2 Minimum Number. No fewer than two drinking fountains shall be provided. One drinking fountain shall comply with 602.1 through 602.6 and one drinking fountain shall comply with 602.7.

EXCEPTION: Where a single drinking fountain complies with 602.1 through 602.6 and 602.7, it shall be permitted to be substituted for two separate drinking fountains.

211.3 More Than Minimum Number. Where more than the minimum number of drinking fountains specified in 211.2 are provided, 50 percent of the total number of drinking fountains provided shall comply with 602.1 through 602.6, and 50 percent of the total number of drinking fountains provided shall comply with 602.7.

EXCEPTION: Where 50 percent of the drinking fountains yields a fraction, 50 percent shall be permitted to be rounded up or down provided that the total number of drinking fountains complying with 211 equals 100 percent of drinking fountains.

212 Kitchens, Kitchenettes, and Sinks

212.1 General. Where provided, kitchens, kitchenettes, and sinks shall comply with 212.

212.2 Kitchens and Kitchenettes. Kitchens and kitchenettes shall comply with 804.

212.3 Sinks. Where sinks are provided, at least 5 percent, but no fewer than one, of each type provided in each accessible room or space shall comply with 606.

EXCEPTION: Mop or service sinks shall not be required to comply with 212.3.

213 Toilet Facilities and Bathing Facilities

213.1 General. Where toilet facilities and bathing facilities are provided, they shall comply with 213. Where toilet facilities and bathing facilities are provided in facilities permitted by 206.2.3 Exceptions 1 and 2 not to connect stories by an accessible route, toilet facilities and bathing facilities shall be provided on a story connected by an accessible route to an accessible entrance.

213.2 Toilet Rooms and Bathing Rooms. Where toilet rooms are provided, each toilet room shall comply with 603. Where bathing rooms are provided, each bathing room shall comply with 603.

EXCEPTIONS:

In alterations where it is technically infeasible to comply with 603, altering existing toilet or bathing rooms shall not be required where a single unisex toilet room or bathing room complying with 213.2.1 is provided and located in the same area and on the same floor as existing inaccessible toilet or bathing rooms.

Where exceptions for alterations to qualified historic buildings or facilities are permitted by 202.5, no fewer than one toilet room for each sex complying with 603 or one unisex toilet room complying with 213.2.1 shall be provided.

Where multiple single user portable toilet or bathing units are clustered at a single location, no more than 5 percent of the toilet units and bathing units at each cluster shall be required to comply with 603. Portable toilet units and bathing units complying with 603 shall be identified by the International Symbol of Accessibility complying with 703.7.2.1.

Where multiple single user toilet rooms are clustered at a single location, no more than 50 percent of the single user toilet rooms for each use at each cluster shall be required to comply with 603.

Advisory 213.2 Toilet Rooms and Bathing Rooms.

Advisory 213.2 Toilet Rooms and Bathing Rooms Exceptions 3 and 4.

213.2.1 Unisex (Single-Use or Family) Toilet and Unisex Bathing Rooms. Unisex toilet rooms shall contain not more than one lavatory, and two water closets without urinals or one water closet and one urinal. Unisex bathing rooms shall contain one shower or one shower and one bathtub, one lavatory, and one water closet. Doors to unisex toilet rooms and unisex bathing rooms shall have privacy latches.

213.3 Plumbing Fixtures and Accessories. Plumbing fixtures and accessories provided in a toilet room or bathing room required to comply with 213.2 shall comply with 213.3.

213.3.1 Toilet Compartments. Where toilet compartments are provided, at least one toilet compartment shall comply with 604.8.1. In addition to the compartment required to comply with 604.8.1, at least one compartment shall comply with 604.8.2 where six or more toilet compartments are provided, or where the combination of urinals and water closets totals six or more fixtures.

Advisory 213.3.1 Toilet Compartments.

213.3.2 Water Closets. Where water closets are provided, at least one shall comply with 604.

213.3.3 Urinals. Where more than one urinal is provided, at least one shall comply with 605.

213.3.4 Lavatories. Where lavatories are provided, at least one shall comply with 606 and shall not be located in a toilet compartment.

213.3.5 Mirrors. Where mirrors are provided, at least one shall comply with 603.3.

213.3.6 Bathing Facilities. Where bathtubs or showers are provided, at least one bathtub complying with 607 or at least one shower complying with 608 shall be provided.

213.3.7 Coat Hooks and Shelves. Where coat hooks or shelves are provided in toilet rooms without toilet compartments, at least one of each type shall comply with 603.4. Where coat hooks or shelves are provided in toilet compartments, at least one of each type complying with 604.8.3 shall be provided in toilet compartments required to comply with 213.3.1. Where coat hooks or shelves are provided in bathing facilities, at least one of each type complying with 603.4 shall serve fixtures required to comply with 213.3.6.

214 Washing Machines and Clothes Dryers

214.1 General. Where provided, washing machines and clothes dryers shall comply with 214.

214.2 Washing Machines. Where three or fewer washing machines are provided, at least one shall comply with 611. Where more than three washing machines are provided, at least two shall comply with 611.

214.3 Clothes Dryers. Where three or fewer clothes dryers are provided, at least one shall comply with 611. Where more than three clothes dryers are provided, at least two shall comply with 611.

215 Fire Alarm Systems

215.1 General. Where fire alarm systems provide audible alarm coverage, alarms shall comply with 215.

EXCEPTION: In existing facilities, visible alarms shall not be required except where an existing fire alarm system is upgraded or replaced, or a new fire alarm system is installed.

Advisory 215.1 General.

215.2 Public and Common Use Areas. Alarms in public use areas and common use areas shall comply with 702.

215.3 Employee Work Areas. Where employee work areas have audible alarm coverage, the wiring system shall be designed so that visible alarms complying with 702 can be integrated into the alarm system.

215.4 Transient Lodging. Guest rooms required to comply with 224.4 shall provide alarms complying with 702.

215.5 Residential Facilities. Where provided in residential dwelling units required to comply with 809.5, alarms shall comply with 702.

216 Signs

216.1 General. Signs shall be provided in accordance with 216 and shall comply with 703.

EXCEPTIONS:

Building directories, menus, seat and row designations in assembly areas, occupant names, building addresses, and company names and logos shall not be required to comply with 216.

In parking facilities, signs shall not be required to comply with 216.2, 216.3, and 216.6 through 216.12. Temporary, 7 days or less, signs shall not be required to comply with 216.

In detention and correctional facilities, signs not located in public use areas shall not be required to comply with 216.

216.2 Designations. Interior and exterior signs identifying permanent rooms and spaces shall comply with 703.1, 703.2, and 703.5. Where pictograms are provided as designations of permanent interior rooms and spaces, the pictograms shall comply with 703.6 and shall have text descriptors complying with 703.2 and 703.5.

EXCEPTION: Exterior signs that are not located at the door to the space they serve shall not be required to comply with 703.2.

Advisory 216.2 Designations.

216.3 Directional and Informational Signs. Signs that provide direction to or information about interior spaces and facilities of the site shall comply with 703.5.

Advisory 216.3 Directional and Informational Signs.

216.4 Means of Egress. Signs for means of egress shall comply with 216.4.

216.4.1 Exit Doors. Doors at exit passageways, exit discharge, and exit stairways shall be identified by tactile signs complying with 703.1, 703.2, and 703.5.

Advisory 216.4.1 Exit Doors.

216.4.2 Areas of Refuge. Signs required by section 1003.2.13.5.4 of the International Building Code (2000 edition) or section 1007.6.4 of the International Building Code (2003 edition) (incorporated by reference, see “Referenced Standards” in Chapter 1) to provide instructions in areas of refuge shall comply with 703.5.

216.4.3 Directional Signs. Signs required by section 1003.2.13.6 of the International Building Code (2000 edition) or section 1007.7 of the International Building Code (2003 edition) (incorporated by reference, see “Referenced Standards” in Chapter 1) to provide directions to accessible means of egress shall comply with 703.5.

216.5 Parking. Parking spaces complying with 502 shall be identified by signs complying with 502.6.

EXCEPTIONS:

Where a total of four or fewer parking spaces, including accessible parking spaces, are provided on a site, identification of accessible parking spaces shall not be required.

In residential facilities, where parking spaces are assigned to specific residential dwelling units, identification of accessible parking spaces shall not be required.

216.6 Entrances. Where not all entrances comply with 404, entrances complying with 404 shall be identified by the International Symbol of Accessibility complying with 703.7.2.1. Directional signs complying with 703.5 that indicate the location of the nearest entrance complying with 404 shall be provided at entrances that do not comply with 404.

Advisory 216.6 Entrances.

216.7 Elevators. Where existing elevators do not comply with 407, elevators complying with 407 shall be clearly identified with the International Symbol of Accessibility complying with 703.7.2.1.

216.8 Toilet Rooms and Bathing Rooms. Where existing toilet rooms or bathing rooms do not comply with 603, directional signs indicating the location of the nearest toilet room or bathing room complying with 603 within the facility shall be provided. Signs shall comply with 703.5 and shall include the International Symbol of Accessibility complying with 703.7.2.1. Where existing toilet rooms or bathing rooms do not comply with 603, the toilet rooms or bathing rooms complying with 603 shall be identified by the International Symbol of Accessibility complying with 703.7.2.1. Where clustered single user toilet rooms or bathing facilities are permitted to use exceptions to 213.2, toilet rooms or

bathing facilities complying with 603 shall be identified by the International Symbol of Accessibility complying with 703.7.2.1 unless all toilet rooms and bathing facilities comply with 603.

216.9 TTYs. Identification and directional signs for public TTYs shall be provided in accordance with 216.9.

216.9.1 Identification Signs. Public TTYs shall be identified by the International Symbol of TTY complying with 703.7.2.2.

216.9.2 Directional Signs. Directional signs indicating the location of the nearest public TTY shall be provided at all banks of public pay telephones not containing a public TTY. In addition, where signs provide direction to public pay telephones, they shall also provide direction to public TTYs. Directional signs shall comply with 703.5 and shall include the International Symbol of TTY complying with 703.7.2.2.

216.10 Assistive Listening Systems. Each assembly area required by 219 to provide assistive listening systems shall provide signs informing patrons of the availability of the assistive listening system. Assistive listening signs shall comply with 703.5 and shall include the International Symbol of Access for Hearing Loss complying with 703.7.2.4.

EXCEPTION: Where ticket offices or windows are provided, signs shall not be required at each assembly area provided that signs are displayed at each ticket office or window informing patrons of the availability of assistive listening systems.

216.11 Check-Out Aisles. Where more than one check-out aisle is provided, check-out aisles complying with 904.3 shall be identified by the International Symbol of Accessibility complying with 703.7.2.1. Where check-out aisles are identified by numbers, letters, or functions, signs identifying check-out aisles complying with 904.3 shall be located in the same location as the check-out aisle identification.

EXCEPTION: Where all check-out aisles serving a single function comply with 904.3, signs complying with 703.7.2.1 shall not be required.

216.12 Amusement Rides. Signs identifying the type of access provided on amusement rides shall be provided at entries to queues and waiting lines. In addition, where accessible unload areas also serve as accessible load areas, signs indicating the location of the accessible load and unload areas shall be provided at entries to queues and waiting lines.

Advisory 216.12 Amusement Rides.

217 Telephones

217.1 General. Where coin-operated public pay telephones, coinless public pay telephones, public closed-circuit telephones, public courtesy phones, or other types of public telephones are provided, public telephones shall be provided in accordance with 217 for each type of public telephone provided. For purposes of this section, a bank of telephones shall be considered to be two or more adjacent telephones.

Advisory 217.1 General.

217.2 Wheelchair Accessible Telephones. Where public telephones are provided, wheelchair accessible telephones complying with 704.2 shall be provided in accordance with Table 217.2.

Table 217.2 Wheelchair Accessible Telephones

Number of Telephones Provided on a Floor, Level, or Exterior Site	Minimum Number of Required Wheelchair Accessible Telephones
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1 or more single units	1 per floor, level, and exterior site
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1 bank	1 per floor, level, and exterior site
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2 or more banks	1 per bank
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EXCEPTION: Drive-up only public telephones shall not be required to comply with 217.2.

217.3 Volume Controls. All public telephones shall have volume controls complying with 704.3.

217.4 TTYs. TTYs complying with 704.4 shall be provided in accordance with 217.4.

Advisory 217.4 TTYs.

217.4.1 Bank Requirement. Where four or more public pay telephones are provided at a bank of telephones, at least one public TTY complying with 704.4 shall be provided at that bank.

EXCEPTION: TTYs shall not be required at banks of telephones located within 200 feet (61 m) of, and on the same floor as, a bank containing a public TTY.

217.4.2 Floor Requirement. TTYs in public buildings shall be provided in accordance with 217.4.2.1. TTYs in private buildings shall be provided in accordance with 217.4.2.2.

217.4.2.1 Public Buildings. Where at least one public pay telephone is provided on a floor of a public building, at least one public TTY shall be provided on that floor.

217.4.2.2 Private Buildings. Where four or more public pay telephones are provided on a floor of a private building, at least one public TTY shall be provided on that floor.

217.4.3 Building Requirement. TTYs in public buildings shall be provided in accordance with 217.4.3.1. TTYs in private buildings shall be provided in accordance with 217.4.3.2.

217.4.3.1 Public Buildings. Where at least one public pay telephone is provided in a public building, at least one public TTY shall be provided in the building. Where at least one public pay telephone is provided in a public use area of a public building, at least one public TTY shall be provided in the public building in a public use area.

217.4.3.2 Private Buildings. Where four or more public pay telephones are provided in a private building, at least one public TTY shall be provided in the building.

217.4.4 Exterior Site Requirement. Where four or more public pay telephones are provided on an exterior site, at least one public TTY shall be provided on the site.

217.4.5 Rest Stops, Emergency Roadside Stops, and Service Plazas. Where at least one public pay telephone is provided at a public rest stop, emergency roadside stop, or service plaza, at least one public TTY shall be provided.

217.4.6 Hospitals. Where at least one public pay telephone is provided serving a hospital emergency room, hospital recovery room, or hospital waiting room, at least one public TTY shall be provided at each location.

217.4.7 Transportation Facilities. In transportation facilities, in addition to the requirements of 217.4.1 through 217.4.4, where at least one public pay telephone serves a particular entrance to a bus or rail facility, at least one public TTY shall be provided to serve that entrance. In airports, in addition to the requirements of 217.4.1 through 217.4.4, where four or more public pay telephones are located in a terminal outside the security areas, a concourse within the security areas, or a baggage claim area in a terminal, at least one public TTY shall be provided in each location.

217.4.8 Detention and Correctional Facilities. In detention and correctional facilities, where at least one pay telephone is provided in a secured area used only by detainees or inmates and security personnel, at least one TTY shall be provided in at least one secured area.

217.5 Shelves for Portable TTYs. Where a bank of telephones in the interior of a building consists of three or more public pay telephones, at least one public pay telephone at the bank shall be provided with a shelf and an electrical outlet in accordance with 704.5.

EXCEPTIONS:

Secured areas of detention and correctional facilities where shelves and outlets are prohibited for purposes of security or safety shall not be required to comply with 217.5.

The shelf and electrical outlet shall not be required at a bank of telephones with a TTY.

218 Transportation Facilities

218.1 General. Transportation facilities shall comply with 218.

218.2 New and Altered Fixed Guideway Stations. New and altered stations in rapid rail, light rail, commuter rail, intercity rail, high speed rail, and other fixed guideway systems shall comply with 810.5 through 810.10.

218.3 Key Stations and Existing Intercity Rail Stations. Key stations and existing intercity rail stations shall comply with 810.5 through 810.10.

218.4 Bus Shelters. Where provided, bus shelters shall comply with 810.3.

218.5 Other Transportation Facilities. In other transportation facilities, public address systems shall comply with 810.7 and clocks shall comply with 810.8.

219 Assistive Listening Systems

219.1 General. Assistive listening systems shall be provided in accordance with 219 and shall comply with 706.

219.2 Required Systems. In each assembly area where audible communication is integral to the use of the space, an assistive listening system shall be provided.

EXCEPTION: Other than in courtrooms, assistive listening systems shall not be required where audio amplification is not provided.

219.3 Receivers. Receivers complying with 706.2 shall be provided for assistive listening systems in each assembly area in accordance with Table 219.3. Twenty-five percent minimum of receivers provided, but no fewer than two, shall be hearing-aid compatible in accordance with 706.3.

Table 219.3 Receivers for Assistive Listening Systems

Capacity of Seating in Assembly Area	Minimum Number of Required Receivers	Minimum Number of Required Receivers Required to be Hearing-aid Compatible
50 or less	2	2
51 to 200	2, plus 1 per 25 seats over 50 seats (or fraction thereof)	2
201 to 500	2, plus 1 per 25 seats over 50 seats (or fraction thereof)	1 per 4 receivers (or fraction thereof)
501 to 1000	20, plus 1 per 33 seats over 500 seats (or fraction thereof)	1 per 4 receivers (or fraction thereof)
1001 to 2000	35, plus 1 per 50 seats over 1000 seats (or fraction thereof)	1 per 4 receivers (or fraction thereof)
2001 and over	55 plus 1 per 100 seats over 2000 seats (or fraction thereof)	1 per 4 receivers (or fraction thereof)

EXCEPTIONS:

Where a building contains more than one assembly area and the assembly areas required to provide assistive listening systems are under one management, the total number of required receivers shall be permitted to be calculated according to the total number of seats in the assembly areas in the building provided that all receivers are usable with all systems.

Where all seats in an assembly area are served by an induction loop assistive listening system, the minimum number of receivers required by Table 219.3 to be hearing-aid compatible shall not be required to be provided.

220 Automatic Teller Machines and Fare Machines

220.1 General. Where automatic teller machines or self-service fare vending, collection, or adjustment machines are provided, at least one of each type provided at each location shall comply with 707.

Where bins are provided for envelopes, waste paper, or other purposes, at least one of each type shall comply with 811.

Advisory 220.1 General.

221 Assembly Areas

221.1 General. Assembly areas shall provide wheelchair spaces, companion seats, and designated aisle seats complying with 221 and 802. In addition, lawn seating shall comply with 221.5. See additional requirements at 28 CFR 35.151(g) and 28 CFR 36.406(f).

221.2 Wheelchair Spaces. Wheelchair spaces complying with 221.2 shall be provided in assembly areas with fixed seating.

221.2.1 Number and Location. Wheelchair spaces shall be provided complying with 221.2.1.

221.2.1.1 General Seating. Wheelchair spaces complying with 802.1 shall be provided in accordance with Table 221.2.1.1.

Table 221.2.1. Number of Wheelchair Spaces in Assembly Areas

Number of Seats	Minimum Number of Required Wheelchair Spaces
4 to 25	1

26 to 50	2
51 to 150	4
151 to 300	5
301 to 500	6
501 to 5000	6, plus 1 for each 150, or fraction thereof, between 501 through 5000
5001 and over	36, plus 1 for each 200, or fraction thereof, over 5000

221.2.1.2 Luxury Boxes, Club Boxes, and Suites in Arenas, Stadiums, and Grandstands. In each luxury box, club box, and suite within arenas, stadiums, and grandstands, wheelchair spaces complying with 802.1 shall be provided in accordance with Table 221.2.1.1.

Advisory 221.2.1.2 Luxury Boxes, Club Boxes, and Suites in Arenas, Stadiums, and Grandstands.

221.2.1.3 Other Boxes. In boxes other than those required to comply with 221.2.1.2, the total number of wheelchair spaces required shall be determined in accordance with Table 221.2.1.1. Wheelchair spaces shall be located in not less than 20 percent of all boxes provided. Wheelchair spaces shall comply with 802.1.

Advisory 221.2.1.3 Other Boxes.

221.2.1.4 Team or Player Seating. At least one wheelchair space complying with 802.1 shall be provided in team or player seating areas serving areas of sport activity.

EXCEPTION: Wheelchair spaces shall not be required in team or player seating areas serving bowling lanes not required to comply with 206.2.11.

221.2.2 Integration. Wheelchair spaces shall be an integral part of the seating plan.

Advisory 221.2.2 Integration.

221.2.3 Lines of Sight and Dispersion. Wheelchair spaces shall provide lines of sight complying with 802.2 and shall comply with 221.2.3. In providing lines of sight, wheelchair spaces shall be dispersed. Wheelchair spaces shall provide spectators with choices of seating locations and viewing angles that are substantially equivalent to, or better than, the choices of seating locations and viewing angles available to all other spectators. When the number of wheelchair spaces required by 221.2.1 has been met, further dispersion shall not be required.

EXCEPTION: Wheelchair spaces in team or player seating areas serving areas of sport activity shall not be required to comply with 221.2.3.

Advisory 221.2.3 Lines of Sight and Dispersion.

221.2.3.1 Horizontal Dispersion. Wheelchair spaces shall be dispersed horizontally.

EXCEPTIONS:

Horizontal dispersion shall not be required in assembly areas with 300 or fewer seats if the companion seats required by 221.3 and wheelchair spaces are located within the 2nd or 3rd quartile of the total row length. Intermediate aisles shall be included in determining the total row length. If the row length in the 2nd and 3rd quartile of a row is insufficient to accommodate the required number of companion seats and wheelchair spaces, the additional companion seats and wheelchair spaces shall be permitted to be located in the 1st and 4th quartile of the row.

In row seating, two wheelchair spaces shall be permitted to be located side-by-side.

Advisory 221.2.3.1 Horizontal Dispersion.

221.2.3.2 Vertical Dispersion. Wheelchair spaces shall be dispersed vertically at varying distances from the screen, performance area, or playing field. In addition, wheelchair spaces shall be located in each balcony or mezzanine that is located on an accessible route.

EXCEPTIONS:

Vertical dispersion shall not be required in assembly areas with 300 or fewer seats if the wheelchair spaces provide viewing angles that are equivalent to, or better than, the average viewing angle provided in the facility.

In bleachers, wheelchair spaces shall not be required to be provided in rows other than rows at points of entry to bleacher seating.

Advisory 221.2.3.2 Vertical Dispersion.

Advisory 221.2.3.2 Vertical Dispersion Exception 2.

221.3 Companion Seats. At least one companion seat complying with 802.3 shall be provided for each wheelchair space required by 221.2.1.

221.4 Designated Aisle Seats. At least 5 percent of the total number of aisle seats provided shall comply with 802.4 and shall be the aisle seats located closest to accessible routes.

EXCEPTION: Team or player seating areas serving areas of sport activity shall not be required to comply with 221.4.

Advisory 221.4 Designated Aisle Seats.

221.5 Lawn Seating. Lawn seating areas and exterior overflow seating areas, where fixed seats are not provided, shall connect to an accessible route.

222 Dressing, Fitting, and Locker Rooms

222.1 General. Where dressing rooms, fitting rooms, or locker rooms are provided, at least 5 percent, but no fewer than one, of each type of use in each cluster provided shall comply with 803.

EXCEPTION: In alterations, where it is technically infeasible to provide rooms in accordance with 222.1, one room for each sex on each level shall comply with 803. Where only unisex rooms are provided, unisex rooms shall be permitted.

Advisory 222.1 General.

222.2 Coat Hooks and Shelves. Where coat hooks or shelves are provided in dressing, fitting or locker rooms without individual compartments, at least one of each type shall comply with 803.5. Where coat hooks or shelves are provided in individual compartments at least one of each type complying with 803.5 shall be provided in individual compartments in dressing, fitting, or locker rooms required to comply with 222.1.

223 Medical Care and Long-Term Care Facilities

223.1 General. In licensed medical care facilities and licensed long-term care facilities where the period of stay exceeds twenty-four hours, patient or resident sleeping rooms shall be provided in accordance with 223. See additional requirements at 28 CFR 35.151(h) and 28 CFR 36.406(g).

EXCEPTION: Toilet rooms that are part of critical or intensive care patient sleeping rooms shall not be required to comply with 603.

Advisory 223.1 General.

223.1.1 Alterations. Where sleeping rooms are altered or added, the requirements of 223 shall apply only to the sleeping rooms being altered or added until the number of sleeping rooms complies with the minimum number required for new construction.

Advisory 223.1.1 Alterations.

223.2 Hospitals, Rehabilitation Facilities, Psychiatric Facilities and Detoxification Facilities. Hospitals, rehabilitation facilities, psychiatric facilities and detoxification facilities shall comply with 223.2.

223.2.1 Facilities Not Specializing in Treating Conditions That Affect Mobility. In facilities not specializing in treating conditions that affect mobility, at least 10 percent, but no fewer than one, of the patient sleeping rooms shall provide mobility features complying with 805.

223.2.2 Facilities Specializing in Treating Conditions That Affect Mobility. In facilities specializing in treating conditions that affect mobility, 100 percent of the patient sleeping rooms shall provide mobility features complying with 805.

Advisory 223.2.2 Facilities Specializing in Treating Conditions That Affect Mobility.

223.3 Long-Term Care Facilities. In licensed long-term care facilities, at least 50 percent, but no fewer than one, of each type of resident sleeping room shall provide mobility features complying with 805.

224 Transient Lodging Guest Rooms

224.1 General. Transient lodging facilities shall provide guest rooms in accordance with 224. See additional requirements for places of lodging at 28 CFR 36.406(c) and for housing at a place of education at 28 CFR 35.151(f) and 28 CFR 36.406(e).

Advisory 224.1 General.

224.1.1 Alterations. Where guest rooms are altered or added, the requirements of 224 shall apply only to the guest rooms being altered or added until the number of guest rooms complies with the minimum number required for new construction.

Advisory 224.1.1 Alterations.

224.1.2 Guest Room Doors and Doorways. Entrances, doors, and doorways providing user passage into and within guest rooms that are not required to provide mobility features complying with 806.2 shall comply with 404.2.3.

EXCEPTION: Shower and sauna doors in guest rooms that are not required to provide mobility features complying with 806.2 shall not be required to comply with 404.2.3.

Advisory 224.1.2 Guest Room Doors and Doorways.

224.2 Guest Rooms with Mobility Features.

In transient lodging facilities, guest rooms with mobility features complying with 806.2 shall be provided in accordance with Table 224.2.

Table 224.2 Guest Rooms with Mobility Features

Total Number of Guest Rooms Provided	Minimum Number of Required Rooms Without Roll-in Showers	Minimum Number of Required Rooms With Roll-in Showers	Total Number of Required Rooms
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1 to 25	1	0	1
26 to 50	2	0	2
51 to 75	3	1	4
76 to 100	4	1	5
101 to 150	5	2	7
151 to 200	6	2	8
201 to 300	7	3	10
301 to 400	8	4	12
401 to 500	9	4	13

501 to 1000 2 percent of total 1 percent of total 3 percent of total

1001 and over 20, plus 1 for each 100, or fraction thereof, over 1000 10, plus 1 for each 100, or fraction thereof, over 1000 30, plus 2 for each 100, or fraction thereof, over 1000

224.3 Beds. In guest rooms having more than 25 beds, 5 percent minimum of the beds shall have clear floor space complying with 806.2.3.

224.4 Guest Rooms with Communication Features. In transient lodging facilities, guest rooms with communication features complying with 806.3 shall be provided in accordance with Table 224.4.

Table 224.4 Guest Rooms with Communication Features

Total Number of Guest Rooms Provided Minimum Number of Required Guest Rooms With Communication Features

2 to 25 2

26 to 50 4

51 to 75 7

76 to 100 9

101 to 150 12

151 to 200 14

201 to 300 17

301 to 400 20

401 to 500 22

501 to 1000 5 percent of total

1001 and over 50, plus 3 for each 100 over 1000

224.5 Dispersion. Guest rooms required to provide mobility features complying with 806.2 and guest rooms required to provide communication features complying with 806.3 shall be dispersed among the various classes of guest rooms, and shall provide choices of types of guest rooms, number of beds, and other amenities comparable to the choices provided to other guests. Where the minimum number of guest rooms required to comply with 806 is not sufficient to allow for complete dispersion, guest rooms shall be dispersed in the following priority: guest room type, number of beds, and amenities. At least one guest room required to provide mobility features complying with 806.2 shall also provide communication features complying with 806.3. Not more than 10 percent of guest rooms required to provide mobility features complying with 806.2 shall be used to satisfy the minimum number of guest rooms required to provide communication features complying with 806.3.

Advisory 224.5 Dispersion.

225 Storage

225.1 General. Storage facilities shall comply with 225.

225.2 Storage. Where storage is provided in accessible spaces, at least one of each type shall comply with 811.

Advisory 225.2 Storage.

225.2.1 Lockers. Where lockers are provided, at least 5 percent, but no fewer than one of each type, shall comply with 811.

Advisory 225.2.1 Lockers.

225.2.2 Self-Service Shelving. Self-service shelves shall be located on an accessible route complying with 402. Self-service shelving shall not be required to comply with 308.

Advisory 225.2.2 Self-Service Shelving.

225.3 Self-Service Storage Facilities. Self-service storage facilities shall provide individual self-service storage spaces complying with these requirements in accordance with Table 225.3.

Table 225.3 Self-Service Storage Facilities

Total Spaces in Facility	Minimum Number of Spaces Required to be Accessible
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1 to 200	5 percent, but no fewer than 1
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201 and over	10, plus 2 percent of total number of units over 200
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Advisory 225.3 Self-Service Storage Facilities.

225.3.1 Dispersion. Individual self-service storage spaces shall be dispersed throughout the various classes of spaces provided. Where more classes of spaces are provided than the number required to be accessible, the number of spaces shall not be required to exceed that required by Table 225.3. Self-service storage spaces complying with Table 225.3 shall not be required to be dispersed among buildings in a multi-building facility.

226 Dining Surfaces and Work Surfaces

226.1 General. Where dining surfaces are provided for the consumption of food or drink, at least 5 percent of the seating spaces and standing spaces at the dining surfaces shall comply with 902. In addition, where work surfaces are provided for use by other than employees, at least 5 percent shall comply with 902.

EXCEPTIONS:

Sales counters and service counters shall not be required to comply with 902.

Check writing surfaces provided at check-out aisles not required to comply with 904.3 shall not be required to comply with 902.

Advisory 226.1 General.

226.2 Dispersion. Dining surfaces and work surfaces required to comply with 902 shall be dispersed throughout the space or facility containing dining surfaces and work surfaces.

227 Sales and Service

227.1 General. Where provided, check-out aisles, sales counters, service counters, food service lines, queues, and waiting lines shall comply with 227 and 904.

227.2 Check-Out Aisles. Where check-out aisles are provided, check-out aisles complying with 904.3 shall be provided in accordance with Table 227.2. Where check-out aisles serve different functions, check-out aisles complying with 904.3 shall be provided in accordance with Table 227.2 for each function. Where check-out aisles are dispersed throughout the building or facility, check-out aisles complying with 904.3 shall be dispersed.

Table 227.2 Check-Out Aisles

Number of Check-Out Aisles of Each Function Function Required to Comply with 904.3	Minimum Number of Check-Out Aisles of Each Function Required to Comply with 904.3
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1 to 4	1
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5 to 8	2
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9 to 15	3
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16 and over	3, plus 20 percent of additional aisles
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EXCEPTION: Where the selling space is under 5000 square feet (465 m²) no more than one check-out aisle complying with 904.3 shall be required.

227.2.1 Altered Check-Out Aisles. Where check-out aisles are altered, at least one of each check-out aisle serving each function shall comply with 904.3 until the number of check-out aisles complies with 227.2.

227.3 Counters. Where provided, at least one of each type of sales counter and service counter shall comply with 904.4. Where counters are dispersed throughout the building or facility, counters complying with 904.4 also shall be dispersed.

Advisory 227.3 Counters.

227.4 Food Service Lines. Food service lines shall comply with 904.5. Where self-service shelves are provided, at least 50 percent, but no fewer than one, of each type provided shall comply with 308.

227.5 Queues and Waiting Lines. Queues and waiting lines servicing counters or check-out aisles required to comply with 904.3 or 904.4 shall comply with 403.

228 Depositories, Vending Machines, Change Machines, Mail Boxes, and Fuel Dispensers

228.1 General. Where provided, at least one of each type of depository, vending machine, change machine, and fuel dispenser shall comply with 309.

EXCEPTION: Drive-up only depositories shall not be required to comply with 309.

Advisory 228.1 General.

228.2 Mail Boxes. Where mail boxes are provided in an interior location, at least 5 percent, but no fewer than one, of each type shall comply with 309. In residential facilities, where mail boxes are provided for each residential dwelling unit, mail boxes complying with 309 shall be provided for each residential dwelling unit required to provide mobility features complying with 809.2 through 809.4.

229 Windows

229.1 General. Where glazed openings are provided in accessible rooms or spaces for operation by occupants, at least one opening shall comply with 309. Each glazed opening required by an administrative authority to be operable shall comply with 309.

EXCEPTION:

Glazed openings in residential dwelling units required to comply with 809 shall not be required to comply with 229.

Glazed openings in guest rooms required to provide communication features and in guest rooms required to comply with 206.5.3 shall not be required to comply with 229.

230 Two-Way Communication Systems

230.1 General. Where a two-way communication system is provided to gain admittance to a building or facility or to restricted areas within a building or facility, the system shall comply with 708.

Advisory 230.1 General.

231 Judicial Facilities

231.1 General. Judicial facilities shall comply with 231.

231.2 Courtrooms. Each courtroom shall comply with 808.

231.3 Holding Cells. Where provided, central holding cells and court-floor holding cells shall comply with 231.3.

231.3.1 Central Holding Cells. Where separate central holding cells are provided for adult male, juvenile male, adult female, or juvenile female, one of each type shall comply with 807.2. Where central holding cells are provided and are not separated by age or sex, at least one cell complying with 807.2 shall be provided.

231.3.2 Court-Floor Holding Cells. Where separate court-floor holding cells are provided for adult male, juvenile male, adult female, or juvenile female, each courtroom shall be served by one cell of each type complying with 807.2. Where court-floor holding cells are provided and are not separated by age or sex, courtrooms shall be served by at least one cell complying with 807.2. Cells may serve more than one courtroom.

231.4 Visiting Areas. Visiting areas shall comply with 231.4.

231.4.1 Cubicles and Counters. At least 5 percent, but no fewer than one, of cubicles shall comply with 902 on both the visitor and detainee sides. Where counters are provided, at least one shall comply with 904.4.2 on both the visitor and detainee sides.

EXCEPTION: The detainee side of cubicles or counters at non-contact visiting areas not serving holding cells required to comply with 231 shall not be required to comply with 902 or 904.4.2.

231.4.2 Partitions. Where solid partitions or security glazing separate visitors from detainees at least one of each type of cubicle or counter partition shall comply with 904.6.

232 Detention Facilities and Correctional Facilities

232.1 General. Buildings, facilities, or portions thereof, in which people are detained for penal or correction purposes, or in which the liberty of the inmates is restricted for security reasons shall comply with 232. See additional requirements at 28 CFR 35.151(k).

Advisory 232.1 General.

232.2 General Holding Cells and General Housing Cells. General holding cells and general housing cells shall be provided in accordance with 232.2.

EXCEPTION: Alterations to cells shall not be required to comply except to the extent determined by the Attorney General.

Advisory 232.2 General Holding Cells and General Housing Cells.

Advisory 232.2 General Holding Cells and General Housing Cells Exception.

232.2.1 Cells with Mobility Features. At least 2 percent, but no fewer than one, of the total number of cells in a facility shall provide mobility features complying with 807.2.

232.2.1.1 Beds. In cells having more than 25 beds, at least 5 percent of the beds shall have clear floor space complying with 807.2.3.

232.2.2 Cells with Communication Features. At least 2 percent, but no fewer than one, of the total number of general holding cells and general housing cells equipped with audible emergency alarm systems and permanently installed telephones within the cell shall provide communication features complying with 807.3.

232.3 Special Holding Cells and Special Housing Cells. Where special holding cells or special housing cells are provided, at least one cell serving each purpose shall provide mobility features complying with 807.2. Cells subject to this requirement include, but are not limited to, those used for purposes of orientation, protective custody, administrative or disciplinary detention or segregation, detoxification, and medical isolation.

EXCEPTION: Alterations to cells shall not be required to comply except to the extent determined by the Attorney General.

232.4 Medical Care Facilities. Patient bedrooms or cells required to comply with 223 shall be provided in addition to any medical isolation cells required to comply with 232.3.

232.5 Visiting Areas. Visiting areas shall comply with 232.5.

232.5.1 Cubicles and Counters. At least 5 percent, but no fewer than one, of cubicles shall comply with 902 on both the visitor and detainee sides. Where counters are provided, at least one shall comply with 904.4.2 on both the visitor and detainee or inmate sides.

EXCEPTION: The inmate or detainee side of cubicles or counters at non-contact visiting areas not serving holding cells or housing cells required to comply with 232 shall not be required to comply with 902 or 904.4.2.

232.5.2 Partitions. Where solid partitions or security glazing separate visitors from detainees or inmates at least one of each type of cubicle or counter partition shall comply with 904.6.

233 Residential Facilities

233.1 General. Facilities with residential dwelling units shall comply with 233. See additional requirements at 28 CFR 35.151(e) and 28 CFR 35.151(f) and 28 CFR 36.406(d) and 28 CFR 36.406(e).

Advisory 233.1 General.

233.2 Residential Dwelling Units Provided by Entities Subject to HUD Section 504 Regulations. Where facilities with residential dwelling units are provided by entities subject to regulations issued by the Department of Housing and Urban Development (HUD) under Section 504 of the Rehabilitation Act of 1973, as amended, such entities shall provide residential dwelling units with mobility features complying with 809.2 through 809.4 in a number required by the applicable HUD regulations. Residential dwelling units required to provide mobility features complying with 809.2 through 809.4 shall be on an accessible route as required by 206. In addition, such entities shall provide residential

dwelling units with communication features complying with 809.5 in a number required by the applicable HUD regulations. Entities subject to 233.2 shall not be required to comply with 233.3.

Advisory 233.2 Residential Dwelling Units Provided by Entities Subject to HUD Section 504 Regulations.

233.3 Residential Dwelling Units Provided by Entities Not Subject to HUD Section 504 Regulations. Facilities with residential dwelling units provided by entities not subject to regulations issued by the Department of Housing and Urban Development (HUD) under Section 504 of the Rehabilitation Act of 1973, as amended, shall comply with 233.3.

233.3.1 Minimum Number: New Construction. Newly constructed facilities with residential dwelling units shall comply with 233.3.1.

EXCEPTION: Where facilities contain 15 or fewer residential dwelling units, the requirements of 233.3.1.1 and 233.3.1.2 shall apply to the total number of residential dwelling units that are constructed under a single contract, or are developed as a whole, whether or not located on a common site.

233.3.1.1 Residential Dwelling Units with Mobility Features. In facilities with residential dwelling units, at least 5 percent, but no fewer than one unit, of the total number of residential dwelling units shall provide mobility features complying with 809.2 through 809.4 and shall be on an accessible route as required by 206.

233.3.1.2 Residential Dwelling Units with Communication Features. In facilities with residential dwelling units, at least 2 percent, but no fewer than one unit, of the total number of residential dwelling units shall provide communication features complying with 809.5.

233.3.2 Residential Dwelling Units for Sale. Residential dwelling units offered for sale shall provide accessible features to the extent required by regulations issued by Federal agencies under the Americans with Disabilities Act or Section 504 of the Rehabilitation Act of 1973, as amended. [See additional requirements at 28 CFR 35.151(j).]

Advisory 233.3.2 Residential Dwelling Units for Sale.

233.3.3 Additions. Where an addition to an existing building results in an increase in the number of residential dwelling units, the requirements of 233.3.1 shall apply only to the residential dwelling units that are added until the total number of residential dwelling units complies with the minimum number required by 233.3.1. Residential dwelling units required to comply with 233.3.1.1 shall be on an accessible route as required by 206.

233.3.4 Alterations. Alterations shall comply with 233.3.4.

EXCEPTION: Where compliance with 809.2, 809.3, or 809.4 is technically infeasible, or where it is technically infeasible to provide an accessible route to a residential dwelling unit, the entity shall be permitted to alter or construct a comparable residential dwelling unit to comply with 809.2 through 809.4 provided that the minimum number of residential dwelling units required by 233.3.1.1 and 233.3.1.2, as applicable, is satisfied.

Advisory 233.3.4 Alterations Exception.

233.3.4.1 Alterations to Vacated Buildings. Where a building is vacated for the purposes of alteration, and the altered building contains more than 15 residential dwelling units, at least 5 percent of the

residential dwelling units shall comply with 809.2 through 809.4 and shall be on an accessible route as required by 206. In addition, at least 2 percent of the residential dwelling units shall comply with 809.5.

Advisory 233.3.4.1 Alterations to Vacated Buildings.

233.3.4.2 Alterations to Individual Residential Dwelling Units. In individual residential dwelling units, where a bathroom or a kitchen is substantially altered, and at least one other room is altered, the requirements of 233.3.1 shall apply to the altered residential dwelling units until the total number of residential dwelling units complies with the minimum number required by 233.3.1.1 and 233.3.1.2. Residential dwelling units required to comply with 233.3.1.1 shall be on an accessible route as required by 206.

EXCEPTION: Where facilities contain 15 or fewer residential dwelling units, the requirements of 233.3.1.1 and 233.3.1.2 shall apply to the total number of residential dwelling units that are altered under a single contract, or are developed as a whole, whether or not located on a common site.

Advisory 233.3.4.2 Alterations to Individual Residential Dwelling Units.

233.3.5 Dispersion. Residential dwelling units required to provide mobility features complying with 809.2 through 809.4 and residential dwelling units required to provide communication features complying with 809.5 shall be dispersed among the various types of residential dwelling units in the facility and shall provide choices of residential dwelling units comparable to, and integrated with, those available to other residents.

EXCEPTION: Where multi-story residential dwelling units are one of the types of residential dwelling units provided, one-story residential dwelling units shall be permitted as a substitute for multi-story residential dwelling units where equivalent spaces and amenities are provided in the one-story residential dwelling unit.

234 Amusement Rides

234.1 General. Amusement rides shall comply with 234.

EXCEPTION: Mobile or portable amusement rides shall not be required to comply with 234.

Advisory 234.1 General.

Advisory 234.1 General Exception.

234.2 Load and Unload Areas. Load and unload areas serving amusement rides shall comply with 1002.3.

234.3 Minimum Number. Amusement rides shall provide at least one wheelchair space complying with 1002.4, or at least one amusement ride seat designed for transfer complying with 1002.5, or at least one transfer device complying with 1002.6.

EXCEPTIONS:

Amusement rides that are controlled or operated by the rider shall not be required to comply with 234.3.

Amusement rides designed primarily for children, where children are assisted on and off the ride by an adult, shall not be required to comply with 234.3.

Amusement rides that do not provide amusement ride seats shall not be required to comply with 234.3.

Advisory 234.3 Minimum Number Exceptions 1 through 3.

Advisory 234.3 Minimum Number Exception 2.

234.4 Existing Amusement Rides. Where existing amusement rides are altered, the alteration shall comply with 234.4.

Advisory 234.4 Existing Amusement Rides.

234.4.1 Load and Unload Areas. Where load and unload areas serving existing amusement rides are newly designed and constructed, the load and unload areas shall comply with 1002.3.

234.4.2 Minimum Number. Where the structural or operational characteristics of an amusement ride are altered to the extent that the amusement ride's performance differs from that specified by the manufacturer or the original design, the amusement ride shall comply with 234.3.

235 Recreational Boating Facilities

235.1 General. Recreational boating facilities shall comply with 235.

235.2 Boat Slips. Boat slips complying with 1003.3.1 shall be provided in accordance with Table 235.2. Where the number of boat slips is not identified, each 40 feet (12 m) of boat slip edge provided along the perimeter of the pier shall be counted as one boat slip for the purpose of this section.

Table 235.2 Boat Slips

Total Number of Boat Slips Provided in Facility	Minimum Number of Required Accessible Boat Slips
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1 to 25	1
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26 to 50	2
----------	---

51 to 100	3
-----------	---

101 to 150	4
------------	---

151 to 300	5
------------	---

301 to 400	6
------------	---

401 to 500	7
------------	---

501 to 600	8
------------	---

601 to 700	9
------------	---

701 to 800	10
------------	----

801 to 900	11
------------	----

901 to 1000	12
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1001 and over	12, plus 1 for every 100, or fraction thereof, over 1000
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Advisory 235.2 Boat Slips.

235.2.1 Dispersion. Boat slips complying with 1003.3.1 shall be dispersed throughout the various types of boat slips provided. Where the minimum number of boat slips required to comply with 1003.3.1 has been met, no further dispersion shall be required.

Advisory 235.2.1 Dispersion.

235.3 Boarding Piers at Boat Launch Ramps. Where boarding piers are provided at boat launch ramps, at least 5 percent, but no fewer than one, of the boarding piers shall comply with 1003.3.2.

236 Exercise Machines and Equipment

236.1 General. At least one of each type of exercise machine and equipment shall comply with 1004.

Advisory 236.1 General.

237 Fishing Piers and Platforms

237.1 General. Fishing piers and platforms shall comply with 1005.

238 Golf Facilities

238.1 General. Golf facilities shall comply with 238.

238.2 Golf Courses. Golf courses shall comply with 238.2.

238.2.1 Teeing Grounds. Where one teeing ground is provided for a hole, the teeing ground shall be designed and constructed so that a golf car can enter and exit the teeing ground. Where two teeing grounds are provided for a hole, the forward teeing ground shall be designed and constructed so that a golf car can enter and exit the teeing ground. Where three or more teeing grounds are provided for a hole, at least two teeing grounds, including the forward teeing ground, shall be designed and constructed so that a golf car can enter and exit each teeing ground.

EXCEPTION: In existing golf courses, the forward teeing ground shall not be required to be one of the teeing grounds on a hole designed and constructed so that a golf car can enter and exit the teeing ground where compliance is not feasible due to terrain.

238.2.2 Putting Greens. Putting greens shall be designed and constructed so that a golf car can enter and exit the putting green.

238.2.3 Weather Shelters. Where provided, weather shelters shall be designed and constructed so that a golf car can enter and exit the weather shelter and shall comply with 1006.4.

238.3 Practice Putting Greens, Practice Teeing Grounds, and Teeing Stations at Driving Ranges. At least 5 percent, but no fewer than one, of practice putting greens, practice teeing grounds, and teeing stations at driving ranges shall be designed and constructed so that a golf car can enter and exit the practice putting greens, practice teeing grounds, and teeing stations at driving ranges.

239 Miniature Golf Facilities

239.1 General. Miniature golf facilities shall comply with 239.

239.2 Minimum Number. At least 50 percent of holes on miniature golf courses shall comply with 1007.3.

Advisory 239.2 Minimum Number.

239.3 Miniature Golf Course Configuration. Miniature golf courses shall be configured so that the holes complying with 1007.3 are consecutive. Miniature golf courses shall provide an accessible route from the last hole complying with 1007.3 to the course entrance or exit without requiring travel through any other holes on the course.

EXCEPTION: One break in the sequence of consecutive holes shall be permitted provided that the last hole on the miniature golf course is the last hole in the sequence.

Advisory 239.3 Miniature Golf Course Configuration.

240 Play Areas

240.1 General. Play areas for children ages 2 and over shall comply with 240. Where separate play areas are provided within a site for specific age groups, each play area shall comply with 240.

EXCEPTIONS:

Play areas located in family child care facilities where the proprietor actually resides shall not be required to comply with 240.

In existing play areas, where play components are relocated for the purposes of creating safe use zones and the ground surface is not altered or extended for more than one use zone, the play area shall not be required to comply with 240.

Amusement attractions shall not be required to comply with 240.

Where play components are altered and the ground surface is not altered, the ground surface shall not be required to comply with 1008.2.6 unless required by 202.4.

Advisory 240.1 General.

240.1.1 Additions. Where play areas are designed and constructed in phases, the requirements of 240 shall apply to each successive addition so that when the addition is completed, the entire play area complies with all the applicable requirements of 240.

Advisory 240.1.1 Additions.

240.2 Play Components. Where provided, play components shall comply with 240.2.

240.2.1 Ground Level Play Components. Ground level play components shall be provided in the number and types required by 240.2.1. Ground level play components that are provided to comply with 240.2.1.1 shall be permitted to satisfy the additional number required by 240.2.1.2 if the minimum required types of play components are satisfied. Where two or more required ground level play components are provided, they shall be dispersed throughout the play area and integrated with other play components.

Advisory 240.2.1 Ground Level Play Components.

240.2.1.1 Minimum Number and Types. Where ground level play components are provided, at least one of each type shall be on an accessible route and shall comply with 1008.4.

240.2.1.2 Additional Number and Types. Where elevated play components are provided, ground level play components shall be provided in accordance with Table 240.2.1.2 and shall comply with 1008.4.

EXCEPTION: If at least 50 percent of the elevated play components are connected by a ramp and at least 3 of the elevated play components connected by the ramp are different types of play components, the play area shall not be required to comply with 240.2.1.2.

Table 240.2.1.2 Number and Types of Ground Level Play

Number of Elevated Play Components Provided		Minimum Number of Ground Level Play Components Required to be on an Accessible Route	
		Minimum Number of Different Types of Ground Level Play Components Required to be on an Accessible Route	
1	Not applicable	Not applicable	Not applicable
2 to 4	1	1	
5 to 7	2	2	
8 to 10	3	3	
11 to 13	4	3	
14 to 16	5	3	
17 to 19	6	3	
20 to 22	7	4	
23 to 25	8	4	

26 and over 8, plus 1 for each additional 3, or fraction thereof, over 25 5

Advisory 240.2.1.2 Additional Number and Types.

240.2.2 Elevated Play Components. Where elevated play components are provided, at least 50 percent shall be on an accessible route and shall comply with 1008.4.

Advisory 240.2.2 Elevated Play Components.

241 Saunas and Steam Rooms

241 General. Where provided, saunas and steam rooms shall comply with 612.

EXCEPTION: Where saunas or steam rooms are clustered at a single location, no more than 5 percent of the saunas and steam rooms, but no fewer than one, of each type in each cluster shall be required to comply with 612.

242 Swimming Pools, Wading Pools, and Spas

242.1 General. Swimming pools, wading pools, and spas shall comply with 242.

242.2 Swimming Pools. At least two accessible means of entry shall be provided for swimming pools. Accessible means of entry shall be swimming pool lifts complying with 1009.2; sloped entries complying with 1009.3; transfer walls complying with 1009.4; transfer systems complying with 1009.5; and pool stairs complying with 1009.6. At least one accessible means of entry provided shall comply with 1009.2 or 1009.3.

EXCEPTIONS:

Where a swimming pool has less than 300 linear feet (91 m) of swimming pool wall, no more than one accessible means of entry shall be required provided that the accessible means of entry is a swimming pool lift complying with 1009.2 or sloped entry complying with 1009.3.

Wave action pools, leisure rivers, sand bottom pools, and other pools where user access is limited to one area shall not be required to provide more than one accessible means of entry provided that the accessible means of entry is a swimming pool lift complying with 1009.2, a sloped entry complying with 1009.3, or a transfer system complying with 1009.5.

Catch pools shall not be required to provide an accessible means of entry provided that the catch pool edge is on an accessible route.

Advisory 242.2 Swimming Pools.

Advisory 242.2 Swimming Pools Exception 1.

242.3 Wading Pools. At least one accessible means of entry shall be provided for wading pools.

Accessible means of entry shall comply with sloped entries complying with 1009.3.

242.4 Spas. At least one accessible means of entry shall be provided for spas. Accessible means of entry shall comply with swimming pool lifts complying with 1009.2; transfer walls complying with 1009.4; or transfer systems complying with 1009.5.

EXCEPTION: Where spas are provided in a cluster, no more than 5 percent, but no fewer than one, spa in each cluster shall be required to comply with 242.4.

243 Shooting Facilities with Firing Positions

243.1 General. Where shooting facilities with firing positions are designed and constructed at a site, at least 5 percent, but no fewer than one, of each type of firing position shall comply with 1010.

CHAPTER 3: BUILDING BLOCKS

301 General

301.1 Scope. The provisions of Chapter 3 shall apply where required by Chapter 2 or where referenced by a requirement in this document.

302 Floor or Ground Surfaces

302.1 General. Floor and ground surfaces shall be stable, firm, and slip resistant and shall comply with 302.

EXCEPTIONS:

Within animal containment areas, floor and ground surfaces shall not be required to be stable, firm, and slip resistant.

Areas of sport activity shall not be required to comply with 302.

Advisory 302.1 General.

302.2 Carpet. Carpet or carpet tile shall be securely attached and shall have a firm cushion, pad, or backing or no cushion or pad. Carpet or carpet tile shall have a level loop, textured loop, level cut pile, or level cut/uncut pile texture. Pile height shall be 1/2 inch (13 mm) maximum. Exposed edges of carpet shall be fastened to floor surfaces and shall have trim on the entire length of the exposed edge. Carpet edge trim shall comply with 303.

Advisory 302.2 Carpet.

Figure 302.2

Carpet is shown in cross section with a pile height of 1/2 inch (13 mm) maximum, measured from the backing.

Carpet Pile Height

302.3 Openings. Openings in floor or ground surfaces shall not allow passage of a sphere more than 1/2 inch (13 mm) diameter except as allowed in 407.4.3, 409.4.3, 410.4, 810.5.3 and 810.10. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

Figure 302.3

Elongated openings, such as in a grating, are shown in plan view with openings 1/2 inch (13 mm) maximum in one dimension. The other dimension is longer (unspecified) and is perpendicular to the dominant direction of travel.

Elongated Openings in Floor or Ground Surfaces

303 Changes in Level

303.1 General. Where changes in level are permitted in floor or ground surfaces, they shall comply with 303.

EXCEPTIONS:

Animal containment areas shall not be required to comply with 303.

Areas of sport activity shall not be required to comply with 303.

303.2 Vertical. Changes in level of 1/4 inch (6.4 mm) high maximum shall be permitted to be vertical.

Figure 303.2

Elevation drawing of a change in level between the surfaces of two parallel planes with a vertical edge that is 1/4 inch (6.4 mm) high maximum.

Vertical Change in Level

303.3 Beveled. Changes in level between 1/4 inch (6.4 mm) high minimum and 1/2 inch (13 mm) high maximum shall be beveled with a slope not steeper than 1:2.

Advisory 303.3 Beveled.

Figure 303.3

Elevation drawing of a change in level 1/4 to 2 inches (6.4 - 13 mm) high that is beveled with a slope of 1:2.

Beveled Change in Level

303.4 Ramps. Changes in level greater than 1/2 inch (13 mm) high shall be ramped, and shall comply with 405 or 406.

304 Turning Space

304.1 General. Turning space shall comply with 304.

304.2 Floor or Ground Surfaces. Floor or ground surfaces of a turning space shall comply with 302. Changes in level are not permitted.

EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

Advisory 304.2 Floor or Ground Surface Exception.

304.3 Size. Turning space shall comply with 304.3.1 or 304.3.2.

304.3.1 Circular Space. The turning space shall be a space of 60 inches (1525 mm) diameter minimum. The space shall be permitted to include knee and toe clearance complying with 306.

304.3.2 T-Shaped Space. The turning space shall be a T-shaped space within a 60 inch (1525 mm) square minimum with arms and base 36 inches (915 mm) wide minimum. Each arm of the T shall be clear of obstructions 12 inches (305 mm) minimum in each direction and the base shall be clear of obstructions 24 inches (610 mm) minimum. The space shall be permitted to include knee and toe clearance complying with 306 only at the end of either the base or one arm.

Figure 304.3.2

The T shape space is 36 inches (915 mm) wide at the top and stem within a 60 inch by 60 inch (1525 mm by 1525 mm) square.

T-Shaped Turning Space

304.4 Door Swing. Doors shall be permitted to swing into turning spaces.

305 Clear Floor or Ground Space

305.1 General. Clear floor or ground space shall comply with 305.

305.2 Floor or Ground Surfaces. Floor or ground surfaces of a clear floor or ground space shall comply with 302. Changes in level are not permitted.

EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

305.3 Size. The clear floor or ground space shall be 30 inches (760 mm) minimum by 48 inches (1220 mm) minimum.

Figure 305.3

Clear floor or ground space is 30 inches by 48 inches (760 mm by 1220 mm) minimum.

Clear Floor or Ground Space

305.4 Knee and Toe Clearance. Unless otherwise specified, clear floor or ground space shall be permitted to include knee and toe clearance complying with 306.

305.5 Position. Unless otherwise specified, clear floor or ground space shall be positioned for either forward or parallel approach to an element.

Figure 305.5

For a forward approach to an element, a clear floor or ground space, 30 inches by 48 inches (760 mm by 1220 mm) minimum, is shown with the shorter dimension parallel to the wall or element. For a parallel approach to an element, a clear floor or ground space, 30 inches by 48 inches (760 mm by 1220 mm) minimum, is shown with the longer dimension parallel to the wall or element.

Position of Clear Floor or Ground Space

305.6 Approach. One full unobstructed side of the clear floor or ground space shall adjoin an accessible route or adjoin another clear floor or ground space.

305.7 Maneuvering Clearance. Where a clear floor or ground space is located in an alcove or otherwise confined on all or part of three sides, additional maneuvering clearance shall be provided in accordance with 305.7.1 and 305.7.2.

305.7.1 Forward Approach. Alcoves shall be 36 inches (915 mm) wide minimum where the depth exceeds 24 inches (610 mm).

Figure 305.7.1

For a forward approach, if the depth of the alcove is greater than 24 inches (610 mm), the clear floor or ground space within the alcove must be 36 inches (915 mm) wide minimum.

Maneuvering Clearance in an Alcove, Forward Approach

305.7.2 Parallel Approach. Alcoves shall be 60 inches (1525 mm) wide minimum where the depth exceeds 15 inches (380 mm).

Figure 305.7.2

For a parallel approach, if the depth of the alcove is greater than 15 inches (380 mm), then the length of the clear floor or ground space within the alcove must be 60 inches (1525 mm) minimum.

Maneuvering Clearance in an Alcove, Parallel Approach

306 Knee and Toe Clearance

306.1 General. Where space beneath an element is included as part of clear floor or ground space or turning space, the space shall comply with 306. Additional space shall not be prohibited beneath an element but shall not be considered as part of the clear floor or ground space or turning space.

Advisory 306.1 General.

306.2 Toe Clearance.

306.2.1 General. Space under an element between the finish floor or ground and 9 inches (230 mm) above the finish floor or ground shall be considered toe clearance and shall comply with 306.2.

306.2.2 Maximum Depth. Toe clearance shall extend 25 inches (635 mm) maximum under an element.

306.2.3 Minimum Required Depth. Where toe clearance is required at an element as part of a clear floor space, the toe clearance shall extend 17 inches (430 mm) minimum under the element.

306.2.4 Additional Clearance. Space extending greater than 6 inches (150 mm) beyond the available knee clearance at 9 inches (230 mm) above the finish floor or ground shall not be considered toe clearance.

306.2.5 Width. Toe clearance shall be 30 inches (760 mm) wide minimum.

Figure 306.2

Toe Clearance: Elevation. Toes of a person in a wheelchair are shown extending for a maximum depth of 6 inches (150 mm) under an object that is 9 inches (230 mm) high minimum. Figure 306.2(b) Toe Clearance: Plan. Toe clearance at an element, as part of clear floor space, shall extend 17 to 25 inches (430 to 635 mm) under the element. The clear floor space is 30 inches (760 mm) wide minimum.

Toe Clearance

306.3 Knee Clearance.

306.3.1 General. Space under an element between 9 inches (230 mm) and 27 inches (685 mm) above the finish floor or ground shall be considered knee clearance and shall comply with 306.3.

306.3.2 Maximum Depth. Knee clearance shall extend 25 inches (635 mm) maximum under an element at 9 inches (230 mm) above the finish floor or ground.

306.3.3 Minimum Required Depth. Where knee clearance is required under an element as part of a clear floor space, the knee clearance shall be 11 inches (280 mm) deep minimum at 9 inches (230 mm) above the finish floor or ground, and 8 inches (205 mm) deep minimum at 27 inches (685 mm) above the finish floor or ground.

306.3.4 Clearance Reduction. Between 9 inches (230 mm) and 27 inches (685 mm) above the finish floor or ground, the knee clearance shall be permitted to reduce at a rate of 1 inch (25 mm) in depth for each 6 inches (150 mm) in height.

306.3.5 Width. Knee clearance shall be 30 inches (760 mm) wide minimum.

Figure 306.3

Knee Clearance: Elevation. Knee clearance is 27 inches (685 mm) high minimum above the floor or ground for a minimum depth of 8 inches (205 mm), measured from the leading edge of the element. The vertical clearance decreases beyond this depth to a height of 9 inches (230 mm) minimum at depth of 11 inches (280 mm) minimum measured from the leading edge of the element. Figure 306.3(b)

Knee Clearance: Plan. Combined knee and toe clearance can extend 25 inches (635 mm) maximum under an element.

Knee Clearance

307 Protruding Objects

307.1 General. Protruding objects shall comply with 307.

307.2 Protrusion Limits. Objects with leading edges more than 27 inches (685 mm) and not more than 80 inches (2030 mm) above the finish floor or ground shall protrude 4 inches (100 mm) maximum horizontally into the circulation path.

EXCEPTION: Handrails shall be permitted to protrude 4 1/2 inches (115 mm) maximum.

Advisory 307.2 Protrusion Limits.

Figure 307.2

A frontal view shows a person using a cane walking along a wall. A wall-mounted object more than 27 inches (685 mm) from the floor protrudes no more than 4 inches (100 mm) from the wall surface. An object overhead provides vertical clearance that is greater than 80 inches (2030 mm).

Limits of Protruding Objects

307.3 Post-Mounted Objects. Free-standing objects mounted on posts or pylons shall overhang circulation paths 12 inches (305 mm) maximum when located 27 inches (685 mm) minimum and 80 inches (2030 mm) maximum above the finish floor or ground. Where a sign or other obstruction is mounted between posts or pylons and the clear distance between the posts or pylons is greater than 12 inches (305 mm), the lowest edge of such sign or obstruction shall be 27 inches (685 mm) maximum or 80 inches (2030 mm) minimum above the finish floor or ground.

EXCEPTION: The sloping portions of handrails serving stairs and ramps shall not be required to comply with 307.3.

Figure 307.3

Elevation drawing (a) shows an object mounted more than 27 inches (685 mm) high on a post. The object protrudes 12 inches (305 mm) maximum from the post on both sides. Elevation (b) shows signs or other obstructions mounted between posts or pylons. One object has its lowest edge mounted 27 inches (685 mm) high maximum between posts that are more than 12 inches apart. Another object is mounted with its lowest edge 80 inches (2030 mm) high minimum between posts that are more than 12 inches apart.

Post-Mounted Protruding Objects

307.4 Vertical Clearance. Vertical clearance shall be 80 inches (2030 mm) high minimum. Guardrails or other barriers shall be provided where the vertical clearance is less than 80 inches (2030 mm) high. The leading edge of such guardrail or barrier shall be located 27 inches (685 mm) maximum above the finish floor or ground.

EXCEPTION: Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the finish floor or ground.

Figure 307.4

A person using a long cane is shown approaching the sloped underside of a staircase. A portion of the area below the stairs in front of the person has a vertical clearance less than 80 inches (2030 mm). A railing 27 inches (685 mm) high maximum separates this space from the areas where a vertical clearance at or above 80 inches (2030 mm) is maintained.

Vertical Clearance

307.5 Required Clear Width. Protruding objects shall not reduce the clear width required for accessible routes.

308 Reach Ranges

308.1 General. Reach ranges shall comply with 308.

Advisory 308.1 General.

308.2 Forward Reach

308.2.1 Unobstructed. Where a forward reach is unobstructed, the high forward reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be 15 inches (380 mm) minimum above the finish floor or ground.

Figure 308.2.1

A side view is shown of a person using a wheelchair reaching toward a wall. The lowest vertical reach point is 15 inches (380 mm) minimum and the highest is 48 inches (1220 mm) maximum.

Unobstructed Forward Reach

308.2.2 Obstructed High Reach. Where a high forward reach is over an obstruction, the clear floor space shall extend beneath the element for a distance not less than the required reach depth over the obstruction. The high forward reach shall be 48 inches (1220 mm) maximum where the reach depth is 20 inches (510 mm) maximum. Where the reach depth exceeds 20 inches (510 mm), the high forward reach shall be 44 inches (1120 mm) maximum and the reach depth shall be 25 inches (635 mm) maximum.

Figure 308.2.2

Figure (a) shows a person seated in a wheelchair reaching a point on a wall above a protrusion, such as a wall-mounted counter, which is 20 inches (510 mm) deep maximum. The maximum reach height is 48 inches (1220 mm). In figure (b), the obstruction is more than 20 inches (510 mm) deep, with 25 inches (635 mm) the maximum depth. The maximum reach height is 44 inches (1120 mm).

Obstructed High Forward Reach

308.3 Side Reach

308.3.1 Unobstructed. Where a clear floor or ground space allows a parallel approach to an element and the side reach is unobstructed, the high side reach shall be 48 inches (1220 mm) maximum and the low side reach shall be 15 inches (380 mm) minimum above the finish floor or ground.

EXCEPTIONS:

An obstruction shall be permitted between the clear floor or ground space and the element where the depth of the obstruction is 10 inches (255 mm) maximum.

Operable parts of fuel dispensers shall be permitted to be 54 inches (1370 mm) maximum measured from the surface of the vehicular way where fuel dispensers are installed on existing curbs.

Figure 308.3.1

The drawing shows a frontal view of a person using a wheelchair making a side reach to a wall. The depth of reach is 10 inches (255 mm) maximum. The vertical reach range is 15 inches (380 mm) minimum to 48 inches (1220 mm) maximum.

Unobstructed Side Reach

308.3.2 Obstructed High Reach. Where a clear floor or ground space allows a parallel approach to an element and the high side reach is over an obstruction, the height of the obstruction shall be 34 inches (865 mm) maximum and the depth of the obstruction shall be 24 inches (610 mm) maximum. The high side reach shall be 48 inches (1220 mm) maximum for a reach depth of 10 inches (255 mm) maximum. Where the reach depth exceeds 10 inches (255 mm), the high side reach shall be 46 inches (1170 mm) maximum for a reach depth of 24 inches (610 mm) maximum.

EXCEPTIONS:

The top of washing machines and clothes dryers shall be permitted to be 36 inches (915 mm) maximum above the finish floor.

Operable parts of fuel dispensers shall be permitted to be 54 inches (1370 mm) maximum measured from the surface of the vehicular way where fuel dispensers are installed on existing curbs.

Figure 308.3.2

Unobstructed Side Reach. The drawing shows a frontal view of a person using a wheelchair making a side reach to a wall. The depth of reach is 10 inches (255 mm) maximum. The vertical reach range is 15 inches (380 mm) minimum to 54 inches (1370 mm) maximum.

Obstructed High Side Reach

309 Operable Parts

309.1 General. Operable parts shall comply with 309.

309.2 Clear Floor Space. A clear floor or ground space complying with 305 shall be provided.

309.3 Height. Operable parts shall be placed within one or more of the reach ranges specified in 308.

309.4 Operation. Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5 pounds (22.2 N) maximum.

EXCEPTION: Gas pump nozzles shall not be required to provide operable parts that have an activating force of 5 pounds (22.2 N) maximum.

CHAPTER 4: ACCESSIBLE ROUTES

401 General

401.1 Scope. The provisions of Chapter 4 shall apply where required by Chapter 2 or where referenced by a requirement in this document.

402 Accessible Routes

402.1 General. Accessible routes shall comply with 402.

402.2 Components. Accessible routes shall consist of one or more of the following components: walking surfaces with a running slope not steeper than 1:20, doorways, ramps, curb ramps excluding the flared sides, elevators, and platform lifts. All components of an accessible route shall comply with the applicable requirements of Chapter 4.

Advisory 402.2 Components.

403 Walking Surfaces

403.1 General. Walking surfaces that are a part of an accessible route shall comply with 403.

403.2 Floor or Ground Surface. Floor or ground surfaces shall comply with 302.

403.3 Slope. The running slope of walking surfaces shall not be steeper than 1:20. The cross slope of walking surfaces shall not be steeper than 1:48.

403.4 Changes in Level. Changes in level shall comply with 303.

403.5 Clearances. Walking surfaces shall provide clearances complying with 403.5.

EXCEPTION: Within employee work areas, clearances on common use circulation paths shall be permitted to be decreased by work area equipment provided that the decrease is essential to the function of the work being performed.

403.5.1 Clear Width. Except as provided in 403.5.2 and 403.5.3, the clear width of walking surfaces shall be 36 inches (915 mm) minimum.

EXCEPTION: The clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided that reduced width segments are separated by segments that are 48 inches (1220 mm) long minimum and 36 inches (915 mm) wide minimum.

Figure 403.5.1

Shown in plan view, the minimum clear width of walking surfaces is 36 inches (915 mm) minimum, but can be reduced to 32 inches (815 mm) for a length of 24 inches (610 mm) maximum, provided that the reduced width segments are at least 48 inches (1220 mm) apart.

Clear Width of an Accessible Route

403.5.2 Clear Width at Turn. Where the accessible route makes a 180 degree turn around an element which is less than 48 inches (1220 mm) wide, clear width shall be 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum at the turn and 42 inches (1065 mm) minimum leaving the turn.

EXCEPTION: Where the clear width at the turn is 60 inches (1525 mm) minimum compliance with 403.5.2 shall not be required.

Figure 403.5.2

Two alternative plan views are shown of an accessible route that has a 180 degree turn about an object less than 48 inches (1220 mm) wide. In figure (a), the clear width is 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum at the turn, and 42 inches (1065 mm) minimum leaving the turn. In figure (b), the clear width is 36 inches (915 mm) minimum approaching the turn, 60 inches (1525 mm) minimum at the turn, and 36 inches (915 mm) minimum leaving the turn.

Clear Width at Turn

403.5.3 Passing Spaces. An accessible route with a clear width less than 60 inches (1525 mm) shall provide passing spaces at intervals of 200 feet (61 m) maximum. Passing spaces shall be either: a space 60 inches (1525 mm) minimum by 60 inches (1525 mm) minimum; or, an intersection of two walking surfaces providing a T-shaped space complying with 304.3.2 where the base and arms of the T-shaped space extend 48 inches (1220 mm) minimum beyond the intersection.

403.6 Handrails. Where handrails are provided along walking surfaces with running slopes not steeper than 1:20 they shall comply with 505.

Advisory 403.6 Handrails.

404 Doors, Doorways, and Gates

404.1 General. Doors, doorways, and gates that are part of an accessible route shall comply with 404.

EXCEPTION: Doors, doorways, and gates designed to be operated only by security personnel shall not be required to comply with 404.2.7, 404.2.8, 404.2.9, 404.3.2 and 404.3.4 through 404.3.7.

Advisory 404.1 General Exception.

404.2 Manual Doors, Doorways, and Manual Gates. Manual doors and doorways and manual gates intended for user passage shall comply with 404.2.

404.2.1 Revolving Doors, Gates, and Turnstiles. Revolving doors, revolving gates, and turnstiles shall not be part of an accessible route.

404.2.2 Double-Leaf Doors and Gates. At least one of the active leaves of doorways with two leaves shall comply with 404.2.3 and 404.2.4.

404.2.3 Clear Width. Door openings shall provide a clear width of 32 inches (815 mm) minimum. Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees. Openings more than 24 inches (610 mm) deep shall provide a clear opening of 36 inches (915 mm) minimum. There shall be no projections into the required clear opening width lower than 34 inches (865 mm) above the finish floor or ground. Projections into the clear opening width between 34 inches (865 mm) and 80 inches (2030 mm) above the finish floor or ground shall not exceed 4 inches (100 mm).

EXCEPTIONS:

In alterations, a projection of 5/8 inch (16 mm) maximum into the required clear width shall be permitted for the latch side stop.

Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the finish floor or ground.

Figure 404.2.3

Figure (a) shows in plan view a hinged door open 90 degrees with a clear opening width 32 inches (815 mm) minimum, measured from the face of the door to the opposite stop. Figure (b) shows an open sliding door with a clear opening width 32 inches (815 mm) minimum. Figure (c) shows an open folding door with a clear opening width 32 inches (815 mm) minimum.

Clear Width of Doorways

404.2.4 Maneuvering Clearances. Minimum maneuvering clearances at doors and gates shall comply with 404.2.4. Maneuvering clearances shall extend the full width of the doorway and the required latch side or hinge side clearance.

EXCEPTION: Entry doors to hospital patient rooms shall not be required to provide the clearance beyond the latch side of the door.

404.2.4.1 Swinging Doors and Gates. Swinging doors and gates shall have maneuvering clearances complying with Table 404.2.4.1.

Table 404.2.4.1 Maneuvering Clearances at Manual Swinging Doors and Gates (text version)			
Type of Use: Approach Direction		Type of Use: Door or Gate Side	Minimum Maneuvering Clearance
Clearance: Perpendicular to Doorway		Minimum Maneuvering Clearance: Parallel to Doorway (beyond latch side unless noted)	
From Front	Pull	60 inches (1525 mm)	18 inches (455 mm)
From Front	Push	48 inches (1220 mm)	0 inches (0 mm) (Add 12 inches (305 mm) if closer and latch are provided.)
From hinge side	Pull	60 inches (1525 mm)	36 inches (915 mm)
From hinge side	Pull	54 inches (1370 mm)	42 inches (1065 mm)

From hinge side	Push	42 inches (1065 mm) (Add 6 inches (150 mm) if closer and latch are provided.)
		22 inches (560 mm) (Beyond hinge side.)
From latch side	Pull	48 inches (1220 mm) (Add 6 inches (150 mm) if closer are provided.)
		24 inches (610 mm)
From latch side	Push	42 inches (1065 mm) (Add 6 inches (150 mm) if closer is provided.)
		24 inches (610 mm)

Figure 404.2.4.1

Figure 404.2.4.1 Maneuvering Clearance at Manual Swinging Doors and Gates. Figures (a) - (c) Front Approaches. Maneuvering space on the pull side extends 18 inches (455 mm) minimum beyond the latch side of the door and 60 inches (1525 mm) minimum perpendicular to the doorway. On the push side of doors not equipped with a closer or latch, the maneuvering space is the same width as the door opening and extends 48 inches (1220 mm) minimum perpendicular to the doorway. At doors equipped with both a closer and a latch, the maneuvering space extends 12 inches (305 mm) minimum beyond the latch side of the door and 48 inches (1220 mm) minimum perpendicular to the doorway. Figures (d) - (f) Hinge Approaches. Maneuvering space on the pull side extends 36 inches (915 mm) minimum beyond the latch side of the door and 60 inches (1525 mm) minimum perpendicular to the doorway; if this space extends 42 inches (1065 mm) minimum beyond the latch side of the door, it can extend 54 inches (1370 mm) minimum perpendicular to the doorway. On the push side, maneuvering space extends 22 inches (560 mm) from the hinge side of the doorway and 48 inches (1220 mm) minimum perpendicular to the doorway at doors with both a closer and a latch or 42 inches (1065 mm) at doors that do not have both a closer and a latch.

Maneuvering Clearances at Manual Swinging Doors and Gates

Figure 404.2.4.2

Figures (h) - (k) Latch Approaches. Maneuvering space on the pull side extends 24 inches (915 mm) minimum beyond the latch side of the door and 54 inches (1525 mm) minimum perpendicular to the doorway; if the door has both a closer and a latch; if the door does not, the space can be 48 inches (1220 mm) minimum measured perpendicular to the doorway. On the push side, maneuvering space extends 24 inches (560 mm) from the latch side of the doorway and 48 inches (1220 mm) minimum perpendicular to the doorway if the door has both a closer and a latch; if it does not, the space can extend 42 inches (1065 mm) minimum measured perpendicular to the doorway.

Doorways without Doors or Gates, Sliding Doors, and Folding Doors. Doorways less than 36 inches (915 mm) wide without doors or gates, sliding doors, or folding doors shall have maneuvering clearances complying with Table 404.2.4.2.

404.2.4.2 Doorways without Doors or Gates, Sliding Doors, and Folding Doors. Doorways less than 36 inches (915 mm) wide without doors or gates, sliding doors, or folding doors shall have maneuvering clearances complying with Table 404.2.4.2.

Table 404.2.4.2 Maneuvering Clearances at Doorways without Doors or Gates, Manual Sliding Doors, and Manual Folding Doors

Approach Direction	Minimum Maneuvering Clearance: Perpendicular to Doorway	Minimum Maneuvering Clearance: Parallel to Doorway (beyond stop/latch side unless noted)
From Front	48 inches (1220 mm)	0 inches (0 mm)
From side (Doorway with no door only.)	42 inches (1065 mm)	0 inches (0 mm)
From pocket/hinge side	42 inches (1065 mm)	22 inches (560 mm) (Beyond pocket/hinge side.)
From stop/latch side	42 inches (1065 mm)	24 inches (610 mm)

Figure 404.2.4.3

Figure 404.2.4.2 Maneuvering Clearances at Doorways without Doors, Manual Sliding Doors, and Manual Folding Doors. Figure (a) shows a front approach to a sliding or folding (accordion) door. Maneuvering clearance is as wide as the door opening and 48 inches (1220 mm) minimum

perpendicular to the opening. Figure (b) shows a doorway without a door. For a side approach, maneuvering clearance is as wide as the doorway and 42 inches (1065 mm) minimum perpendicular to the doorway. Figure (c) shows a pocket or hinge approach. Maneuvering clearance extends 22 inches (560 mm) from the pocket or hinge side and is 42 inches (1065 mm) minimum perpendicular to the doorway. Figure (d) shows a stop or latch approach. Maneuvering clearance extends 24 inches (610 mm) from the stop or latch side and is 42 inches (1065 mm) minimum perpendicular to the doorway.

Maneuvering Clearances at Doorways without Doors, Sliding Doors, Gates, and Folding Doors

404.2.4.3 Recessed Doors and Gates. Maneuvering clearances for forward approach shall be provided when any obstruction within 18 inches (455 mm) of the latch side of a doorway projects more than 8 inches (205 mm) beyond the face of the door, measured perpendicular to the face of the door or gate.

Advisory 404.2.4.3 Recessed Doors and Gates.

Figure 404.2.4.4

Figure 404.2.4.3 Maneuvering Clearance at Recessed Doors and Gates. Figures (a) - (c) show front approaches at doors recessed more than 8 inches (455 mm). Maneuvering space on the pull side extends 18 inches (455 mm) minimum beyond the latch side of the door and 60 inches (1525 mm) minimum perpendicular to the plane of the doorway. On the push side of doors not equipped with a closer or latch, the maneuvering space is the same width as the door opening and extends 48 inches (1220 mm) minimum perpendicular to the plane of the doorway. At doors equipped with both a closer and a latch, the maneuvering space extends 12 inches (305 mm) minimum beyond the latch side of the door and 48 inches (1220 mm) minimum measured perpendicular to the plane of the doorway.

Maneuvering Clearances at Recessed Doors and Gates

404.2.4.4 Floor or Ground Surface. Floor or ground surface within required maneuvering clearances shall comply with 302. Changes in level are not permitted.

EXCEPTIONS:

Slopes not steeper than 1:48 shall be permitted.

Changes in level at thresholds complying with 404.2.5 shall be permitted.

404.2.5 Thresholds. Thresholds, if provided at doorways, shall be 1/2 inch (13 mm) high maximum. Raised thresholds and changes in level at doorways shall comply with 302 and 303.

EXCEPTION: Existing or altered thresholds 3/4 inch (19 mm) high maximum that have a beveled edge on each side with a slope not steeper than 1:2 shall not be required to comply with 404.2.5.

404.2.6 Doors in Series and Gates in Series. The distance between two hinged or pivoted doors in series and gates in series shall be 48 inches (1220 mm) minimum plus the width of doors or gates swinging into the space.

Figure 404.2.6

Figure (a) shows two doors in series which swing in the same direction. Space between the doors must be at least 48 inches (1220 mm) minimum plus the width of the in-swinging door. Figure (b) shows two doors in series which swing away from the space between the doors. The space separating the doors must be at least 48 inches (1220 mm) long.

Doors in Series and Gates in Series

404.2.7 Door and Gate Hardware. Handles, pulls, latches, locks, and other operable parts on doors and gates shall comply with 309.4. Operable parts of such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the finish floor or ground. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.

EXCEPTIONS:

Existing locks shall be permitted in any location at existing glazed doors without stiles, existing overhead rolling doors or grilles, and similar existing doors or grilles that are designed with locks that are activated only at the top or bottom rail.

Access gates in barrier walls and fences protecting pools, spas, and hot tubs shall be permitted to have operable parts of the release of latch on self-latching devices at 54 inches (1370 mm) maximum above the finish floor or ground provided the self-latching devices are not also self-locking devices and operated by means of a key, electronic opener, or integral combination lock.

Advisory 404.2.7 Door and Gate Hardware.

404.2.8 Closing Speed. Door and gate closing speed shall comply with 404.2.8.

404.2.8.1 Door Closers and Gate Closers. Door closers and gate closers shall be adjusted so that from an open position of 90 degrees, the time required to move the door to a position of 12 degrees from the latch is 5 seconds minimum.

404.2.8.2 Spring Hinges. Door and gate spring hinges shall be adjusted so that from the open position of 70 degrees, the door or gate shall move to the closed position in 1.5 seconds minimum.

404.2.9 Door and Gate Opening Force. Fire doors shall have a minimum opening force allowable by the appropriate administrative authority. The force for pushing or pulling open a door or gate other than fire doors shall be as follows:

Interior hinged doors and gates: 5 pounds (22.2 N) maximum.

Sliding or folding doors: 5 pounds (22.2 N) maximum.

These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door or gate in a closed position.

Advisory 404.2.9 Door and Gate Opening Force.

404.2.10 Door and Gate Surfaces. Swinging door and gate surfaces within 10 inches (255 mm) of the finish floor or ground measured vertically shall have a smooth surface on the push side extending the full width of the door or gate. Parts creating horizontal or vertical joints in these surfaces shall be within 1/16 inch (1.6 mm) of the same plane as the other. Cavities created by added kick plates shall be capped.

EXCEPTIONS:

Sliding doors shall not be required to comply with 404.2.10.

Tempered glass doors without stiles and having a bottom rail or shoe with the top leading edge tapered at 60 degrees minimum from the horizontal shall not be required to meet the 10 inch (255 mm) bottom smooth surface height requirement.

Doors and gates that do not extend to within 10 inches (255 mm) of the finish floor or ground shall not be required to comply with 404.2.10.

Existing doors and gates without smooth surfaces within 10 inches (255 mm) of the finish floor or ground shall not be required to provide smooth surfaces complying with 404.2.10 provided that if added kick plates are installed, cavities created by such kick plates are capped

404.2.11 Vision Lights. Doors, gates, and side lights adjacent to doors or gates, containing one or more glazing panels that permit viewing through the panels shall have the bottom of at least one glazed panel located 43 inches (1090 mm) maximum above the finish floor.

EXCEPTION: Vision lights with the lowest part more than 66 inches (1675 mm) from the finish floor or ground shall not be required to comply with 404.2.11.

404.3 Automatic and Power-Assisted Doors and Gates. Automatic doors and automatic gates shall comply with 404.3. Full-powered automatic doors shall comply with ANSI/BHMA A156.10 (incorporated by reference, see “Referenced Standards” in Chapter 1). Low-energy and power-assisted doors shall comply with ANSI/BHMA A156.19 (1997 or 2002 edition) (incorporated by reference, see “Referenced Standards” in Chapter 1).

404.3.1 Clear Width. Doorways shall provide a clear opening of 32 inches (815 mm) minimum in power-on and power-off mode. The minimum clear width for automatic door systems in a doorway shall be based on the clear opening provided by all leaves in the open position.

404.3.2 Maneuvering Clearance. Clearances at power-assisted doors and gates shall comply with 404.2.4. Clearances at automatic doors and gates without standby power and serving an accessible means of egress shall comply with 404.2.4.

EXCEPTION: Where automatic doors and gates remain open in the power-off condition, compliance with 404.2.4 shall not be required.

404.3.3 Thresholds. Thresholds and changes in level at doorways shall comply with 404.2.5.

404.3.4 Doors in Series and Gates in Series. Doors in series and gates in series shall comply with 404.2.6.

404.3.5 Controls. Manually operated controls shall comply with 309. The clear floor space adjacent to the control shall be located beyond the arc of the door swing.

404.3.6 Break Out Opening. Where doors and gates without standby power are a part of a means of egress, the clear break out opening at swinging or sliding doors and gates shall be 32 inches (815 mm) minimum when operated in emergency mode.

EXCEPTION: Where manual swinging doors and gates comply with 404.2 and serve the same means of egress compliance with 404.3.6 shall not be required.

404.3.7 Revolving Doors, Revolving Gates, and Turnstiles. Revolving doors, revolving gates, and turnstiles shall not be part of an accessible route.

405 Ramps

405.1 General. Ramps on accessible routes shall comply with 405.

EXCEPTION: In assembly areas, aisle ramps adjacent to seating and not serving elements required to be on an accessible route shall not be required to comply with 405.

405.2 Slope. Ramp runs shall have a running slope not steeper than 1:12.

EXCEPTION: In existing sites, buildings, and facilities, ramps shall be permitted to have running slopes steeper than 1:12 complying with Table 405.2 where such slopes are necessary due to space limitations.

Table 405.2 Maximum Ramp Slope and Rise for Existing Sites, Buildings, and Facilities

Slope (A slope steeper > than 1:8 is prohibited.) Maximum Rise

Steeper than 1:10 but not steeper than 1:8 3 inches (75 mm)

Steeper than 1:12 but not steeper than 1:10 6 inches (150 mm)

Advisory 405.2 Slope.

405.3 Cross Slope. Cross slope of ramp runs shall not be steeper than 1:48.

Advisory 405.3 Cross Slope.

405.4 Floor or Ground Surfaces. Floor or ground surfaces of ramp runs shall comply with 302.

Changes in level other than the running slope and cross slope are not permitted on ramp runs.

405.5 Clear Width. The clear width of a ramp run and, where handrails are provided, the clear width between handrails shall be 36 inches (915 mm) minimum.

EXCEPTION: Within employee work areas, the required clear width of ramps that are a part of common use circulation paths shall be permitted to be decreased by work area equipment provided that the decrease is essential to the function of the work being performed.

405.6 Rise. The rise for any ramp run shall be 30 inches (760 mm) maximum.

405.7 Landings. Ramps shall have landings at the top and the bottom of each ramp run. Landings shall comply with 405.7.

Advisory 405.7 Landings.

Figure 405.7

Figure (a) shows in plan view a ramp with two landings, each 60 inches (1525 mm) long in the direction of the ramp run and as wide as the connecting ramp run. Figure (b) shows a ramp that has two runs connected by a landing 60 by 60 inches (1525 by 1525 mm); each run is oriented at 90 degrees from the other run, which connect to an adjacent sides of the landing.

Ramp Landings

405.7.1 Slope. Landings shall comply with 302. Changes in level are not permitted.

EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

405.7.2 Width. The landing clear width shall be at least as wide as the widest ramp run leading to the landing.

405.7.3 Length. The landing clear length shall be 60 inches (1525 mm) long minimum.

405.7.4 Change in Direction. Ramps that change direction between runs at landings shall have a clear landing 60 inches (1525 mm) minimum by 60 inches (1525 mm) minimum.

405.7.5 Doorways. Where doorways are located adjacent to a ramp landing, maneuvering clearances required by 404.2.4 and 404.3.2 shall be permitted to overlap the required landing area.

405.8 Handrails. Ramp runs with a rise greater than 6 inches (150 mm) shall have handrails complying with 505.

EXCEPTION: Within employee work areas, handrails shall not be required where ramps that are part of common use circulation paths are designed to permit the installation of handrails complying with 505. Ramps not subject to the exception to 405.5 shall be designed to maintain a 36 inch (915 mm) minimum clear width when handrails are installed.

405.9 Edge Protection. Edge protection complying with 405.9.1 or 405.9.2 shall be provided on each side of ramp runs and at each side of ramp landings.

EXCEPTIONS:

Edge protection shall not be required on ramps that are not required to have handrails and have sides complying with 406.3.

Edge protection shall not be required on the sides of ramp landings serving an adjoining ramp run or stairway.

Edge protection shall not be required on the sides of ramp landings having a vertical drop-off of 1/2 inch (13 mm) maximum within 10 inches (255 mm) horizontally of the minimum landing area specified in 405.7.

405.9.1 Extended Floor or Ground Surface. The floor or ground surface of the ramp run or landing shall extend 12 inches (305 mm) minimum beyond the inside face of a handrail complying with 505.

Advisory 405.9.1 Extended Floor or Ground Surface.

Figure 405.9.1

The cross section of a ramp with handrails is shown where the ramp surface extends 12 inches (305 mm) minimum to the outside of the handrails.

Extended Floor or Ground Surface Edge Protection

405.9.2 Curb or Barrier. A curb or barrier shall be provided that prevents the passage of a 4 inch (100 mm) diameter sphere, where any portion of the sphere is within 4 inches (100 mm) of the finish floor or ground surface.

Figure 405.9.2

An elevation drawing shows a vertical clearance of less than 4 inches (100 mm) between the ramp surface and the bottom edge of a horizontal rail.

Curb or Barrier Edge Protection

405.10 Wet Conditions. Landings subject to wet conditions shall be designed to prevent the accumulation of water.

406 Curb Ramps

406.1 General. Curb ramps on accessible routes shall comply with 406, 405.2 through 405.5, and 405.10.

406.2 Counter Slope. Counter slopes of adjoining gutters and road surfaces immediately adjacent to the curb ramp shall not be steeper than 1:20. The adjacent surfaces at transitions at curb ramps to walks, gutters, and streets shall be at the same level.

Figure 406.2

In cross section, a curb ramp with a maximum slope of 1:12 adjoins a surface at the bottom that has a maximum counter slope of 1:20.

Counter Slope of Surfaces Adjacent to Curb Ramps

406.3 Sides of Curb Ramps. Where provided, curb ramp flares shall not be steeper than 1:10.

Figure 406.3

A curb ramp with triangular flared sides is shown. The flared sides have a maximum 1:10 slope, measured at the curb face.

Sides of Curb Ramps

406.4 Landings. Landings shall be provided at the tops of curb ramps. The landing clear length shall be 36 inches (915 mm) minimum. The landing clear width shall be at least as wide as the curb ramp, excluding flared sides, leading to the landing.

EXCEPTION: In alterations, where there is no landing at the top of curb ramps, curb ramp flares shall be provided and shall not be steeper than 1:12.

Figure 406.4

A plan view of a curb ramp shows the required top landing which has a length of 36 inches (915 mm) minimum in the direction of the ramp run and is at least as wide as the ramp.

Landings at the Top of Curb Ramps

406.5 Location. Curb ramps and the flared sides of curb ramps shall be located so that they do not project into vehicular traffic lanes, parking spaces, or parking access aisles. Curb ramps at marked crossings shall be wholly contained within the markings, excluding any flared sides.

406.6 Diagonal Curb Ramps. Diagonal or corner type curb ramps with returned curbs or other well-defined edges shall have the edges parallel to the direction of pedestrian flow. The bottom of diagonal curb ramps shall have a clear space 48 inches (1220 mm) minimum outside active traffic lanes of the roadway. Diagonal curb ramps provided at marked crossings shall provide the 48 inches (1220 mm) minimum clear space within the markings. Diagonal curb ramps with flared sides shall have a segment of curb 24 inches (610 mm) long minimum located on each side of the curb ramp and within the marked crossing.

Figure 406.6

A plan view of a diagonal curb ramp is shown at a marked crossing. A space 48 inches (1220 mm) minimum, measured in the direction of the ramp run, is provided at the bottom of the ramp outside active traffic lanes and within the boundary of the marked pedestrian crossing. Sections of curb 24 inches (610 mm) minimum in length are shown beyond the flared sides and within the marked crossing.

Diagonal or Corner Type Curb Ramps

406.7 Islands. Raised islands in crossings shall be cut through level with the street or have curb ramps at both sides. Each curb ramp shall have a level area 48 inches (1220 mm) long minimum by 36 inches (915 mm) wide minimum at the top of the curb ramp in the part of the island intersected by the crossings. Each 48 inch (1220 mm) minimum by 36 inch (915 mm) minimum area shall be oriented so that the 48 inch (1220 mm) minimum length is in the direction of the running slope of the curb ramp it serves. The 48 inch (1220 mm) minimum by 36 inch (915 mm) minimum areas and the accessible route shall be permitted to overlap.

Figure 406.7

Figure (a) is a plan view of a raised pedestrian island with a walkway cut through at the same level as the street crossing. Figure (b) is a plan view of a raised pedestrian island between two traffic lanes. Aligned curb ramps with side flares slope down on each side. The level space between the top of both ramps is 48 inches (1220 mm) long minimum. The width of both ramp runs is 36 inches (915 mm).

Islands in Crossings

407 Elevators

407.1 General. Elevators shall comply with 407 and with ASME A17.1 (incorporated by reference, see “Referenced Standards” in Chapter 1). They shall be passenger elevators as classified by ASME A17.1. Elevator operation shall be automatic.

Advisory 407.1 General.

407.2 Elevator Landing Requirements. Elevator landings shall comply with 407.2.

407.2.1 Call Controls. Where elevator call buttons or keypads are provided, they shall comply with 407.2.1 and 309.4. Call buttons shall be raised or flush.

EXCEPTION: Existing elevators shall be permitted to have recessed call buttons.

407.2.1.1 Height. Call buttons and keypads shall be located within one of the reach ranges specified in 308, measured to the centerline of the highest operable part.

EXCEPTION: Existing call buttons and existing keypads shall be permitted to be located at 54 inches (1370 mm) maximum above the finish floor, measured to the centerline of the highest operable part.

407.2.1.2 Size. Call buttons shall be 3/4 inch (19 mm) minimum in the smallest dimension.

EXCEPTION: Existing elevator call buttons shall not be required to comply with 407.2.1.2.

407.2.1.3 Clear Floor or Ground Space. A clear floor or ground space complying with 305 shall be provided at call controls.

Advisory 407.2.1.3 Clear Floor or Ground Space.

407.2.1.4 Location. The call button that designates the up direction shall be located above the call button that designates the down direction.

EXCEPTION: Destination-oriented elevators shall not be required to comply with 407.2.1.4.

Advisory 407.2.1.4 Location Exception.

407.2.1.5 Signals. Call buttons shall have visible signals to indicate when each call is registered and when each call is answered.

EXCEPTIONS:

Destination-oriented elevators shall not be required to comply with 407.2.1.5 provided that visible and audible signals complying with 407.2.2 indicating which elevator car to enter are provided.

Existing elevators shall not be required to comply with 407.2.1.5.

407.2.1.6 Keypads. Where keypads are provided, keypads shall be in a standard telephone keypad arrangement and shall comply with 407.4.7.2.

407.2.2 Hall Signals. Hall signals, including in-car signals, shall comply with 407.2.2.

407.2.2.1 Visible and Audible Signals. A visible and audible signal shall be provided at each hoistway entrance to indicate which car is answering a call and the car's direction of travel. Where in-car signals are provided, they shall be visible from the floor area adjacent to the hall call buttons.

EXCEPTIONS:

Visible and audible signals shall not be required at each destination-oriented elevator where a visible and audible signal complying with 407.2.2 is provided indicating the elevator car designation information.

In existing elevators, a signal indicating the direction of car travel shall not be required.

407.2.2.2 Visible Signals. Visible signal fixtures shall be centered at 72 inches (1830 mm) minimum above the finish floor or ground. The visible signal elements shall be 2 1/2 inches (64 mm) minimum measured along the vertical centerline of the element. Signals shall be visible from the floor area adjacent to the hall call button.

EXCEPTIONS:

Destination-oriented elevators shall be permitted to have signals visible from the floor area adjacent to the hoistway entrance.

Existing elevators shall not be required to comply with 407.2.2.2.

Figure 407.2.2.2

Visible signals are shown centered at 72 inches (1830 mm) minimum above the floor ground.

Visible Hall Signals

407.2.2.3 Audible Signals. Audible signals shall sound once for the up direction and twice for the down direction, or shall have verbal annunciators that indicate the direction of elevator car travel. Audible signals shall have a frequency of 1500 Hz maximum. Verbal annunciators shall have a frequency of 300 Hz minimum and 3000 Hz maximum. The audible signal and verbal annunciator shall be 10 dB minimum above ambient, but shall not exceed 80 dB, measured at the hall call button.

EXCEPTIONS:

Destination-oriented elevators shall not be required to comply with 407.2.2.3 provided that the audible tone and verbal announcement is the same as those given at the call button or call button keypad.

Existing elevators shall not be required to comply with the requirements for frequency and dB range of audible signals.

407.2.2.4 Differentiation. Each destination-oriented elevator in a bank of elevators shall have audible and visible means for differentiation.

407.2.3 Hoistway Signs. Signs at elevator hoistways shall comply with 407.2.3.

407.2.3.1 Floor Designation. Floor designations complying with 703.2 and 703.4.1 shall be provided on both jambs of elevator hoistway entrances. Floor designations shall be provided in both tactile characters and braille. Tactile characters shall be 2 inches (51 mm) high minimum. A tactile star shall be provided on both jambs at the main entry level.

Figure 407.2.3.1

An enlarged detail of a tactile floor designation is shown. The sign contains a star and the number A1 next to it which is 2 inches (51 mm) high; the braille equivalent is provided below each.

Floor Designations on Jambs of Elevator Hoistway Entrances

407.2.3.2 Car Designations. Destination-oriented elevators shall provide tactile car identification complying with 703.2 on both jambs of the hoistway immediately below the floor designation. Car designations shall be provided in both tactile characters and braille. Tactile characters shall be 2 inches (51 mm) high minimum.

Figure 407.2.3.2

An enlarged detail shows the car designation below the floor designation. The car designation is 2 inches (51 mm) minimum high with the braille equivalent below it.

Car Designations on Jambs of Destination-Oriented Elevator Hoistway Entrances

407.3 Elevator Door Requirements. Hoistway and car doors shall comply with 407.3.

407.3.1 Type. Elevator doors shall be the horizontal sliding type. Car gates shall be prohibited.

407.3.2 Operation. Elevator hoistway and car doors shall open and close automatically.

EXCEPTION: Existing manually operated hoistway swing doors shall be permitted provided that they comply with 404.2.3 and 404.2.9. Car door closing shall not be initiated until the hoistway door is closed.

407.3.3 Reopening Device. Elevator doors shall be provided with a reopening device complying with 407.3.3 that shall stop and reopen a car door and hoistway door automatically if the door becomes obstructed by an object or person.

EXCEPTION: Existing elevators with manually operated doors shall not be required to comply with 407.3.3.

407.3.3.1 Height. The device shall be activated by sensing an obstruction passing through the opening at 5 inches (125 mm) nominal and 29 inches (735 mm) nominal above the finish floor.

407.3.3.2 Contact. The device shall not require physical contact to be activated, although contact is permitted to occur before the door reverses.

407.3.3.3 Duration. Door reopening devices shall remain effective for 20 seconds minimum.

407.3.4 Door and Signal Timing. The minimum acceptable time from notification that a car is answering a call or notification of the car assigned at the means for the entry of destination information until the doors of that car start to close shall be calculated from the following equation:

$T = D/(1.5 \text{ ft/s})$ or $T = D/(455 \text{ mm/s}) = 5 \text{ seconds minimum}$ where T equals the total time in seconds and D equals the distance (in feet or millimeters) from the point in the lobby or corridor 60 inches (1525 mm) directly in front of the farthest call button controlling that car to the centerline of its hoistway door.

EXCEPTIONS:

For cars with in-car lanterns, T shall be permitted to begin when the signal is visible from the point 60 inches (1525 mm) directly in front of the farthest hall call button and the audible signal is sounded. Destination-oriented elevators shall not be required to comply with 407.3.4.

407.3.5 Door Delay. Elevator doors shall remain fully open in response to a car call for 3 seconds minimum.

407.3.6 Width. The width of elevator doors shall comply with Table 407.4.1.

EXCEPTION: In existing elevators, a power-operated car door complying with 404.2.3 shall be permitted.

407.4 Elevator Car Requirements. Elevator cars shall comply with 407.4.

407.4.1 Car Dimensions. Inside dimensions of elevator cars and clear width of elevator doors shall comply with Table 407.4.1.

EXCEPTION: Existing elevator car configurations that provide a clear floor area of 16 square feet (1.5 m²) minimum and also provide an inside clear depth 54 inches (1370 mm) minimum and a clear width 36 inches (915 mm) minimum shall be permitted.

Table 407.4.1 Elevator Car Dimensions

Door Location	Minimum Dimension: Door Clear Width	Minimum Dimension: Inside Car, Side to Side	Minimum Dimension: Inside Car, Back Wall to Front Return	Minimum Dimension: Inside Car, Back Wall to Inside Face of Door
Centered	42 inches (1065 mm)	80 inches (2030 mm)	51 inches (1295 mm)	54 inches (1370 mm)
Side (off-centered)	36 inches (915 mm) (A tolerance of minus 5/8 inch (16 mm) is permitted.)	68 inches (1725 mm)	51 inches (1295 mm)	54 inches (1370 mm)
Any	36 inches (915 mm) (A tolerance of minus 5/8 inch (16 mm) is permitted.)	80 inches (2030 mm)	80 inches (2030 mm)	54 inches (1370 mm)
Any	36 inches (915 mm) (A tolerance of minus 5/8 inch (16 mm) is permitted.)	60 inches (1525 mm) (Other car configurations that provide a turning space complying with 304 with the door closed shall be permitted.)	60 inches (1525 mm) (Other car configurations that provide a turning space complying with 304 with the door closed shall be permitted.)	60 inches (1525 mm) (Other car configurations that provide a turning space complying with 304 with the door closed shall be permitted.)

Figure 407.4.1

Figure (a) shows an elevator car with a centered door. The door clear width is 42 inches (1065 mm) minimum and the car width measured side to side is 80 inches (2030 mm) minimum. The car depth is 51 inches (1295 mm) minimum measured from the back wall to the front return, and 54 inches (1370 mm) minimum measured from the back wall to the inside face of the door. Figure (b) shows an elevator car with an off-centered door. The door clear width is 36 inches (915 mm) minimum and the car width measured side to side is 68 inches (1725 mm) minimum. The depth is 51 inches (1295 mm) minimum measured from the back wall to the front return, and 54 inches (1370 mm) minimum measured from the back wall to the inside face of the door. Figure (a) shows an elevator car with a centered door. The door clear width is 42 inches (1065 mm) minimum and the car width measured side to side is 80 inches (2030 mm) minimum. The car depth is 51 inches (1295 mm) minimum measured from the back wall to the front return, and 54 inches (1370 mm) minimum measured from the back wall to the inside face of the door. Figure (b) shows an elevator car with an off-centered door. The door clear width is 36 inches (915 mm) minimum and the car width measured side to side is 68 inches (1725 mm) minimum.

mm) minimum. The depth is 51 inches (1295 mm) minimum measured from the back wall to the front return, and 54 inches (1370 mm) minimum measured from the back wall to the inside face of the door.

Elevator Car Dimensions

407.4.2 Floor Surfaces. Floor surfaces in elevator cars shall comply with 302 and 303.

407.4.3 Platform to Hoistway Clearance. The clearance between the car platform sill and the edge of any hoistway landing shall be 1 1/4 inch (32 mm) maximum.

407.4.4 Leveling. Each car shall be equipped with a self-leveling feature that will automatically bring and maintain the car at floor landings within a tolerance of 1/2 inch (13 mm) under rated loading to zero loading conditions.

407.4.5 Illumination. The level of illumination at the car controls, platform, car threshold and car landing sill shall be 5 foot candles (54 lux) minimum.

407.4.6 Elevator Car Controls. Where provided, elevator car controls shall comply with 407.4.6 and 309.4.

EXCEPTION: In existing elevators, where a new car operating panel complying with 407.4.6 is provided, existing car operating panels shall not be required to comply with 407.4.6.

407.4.6.1 Location. Controls shall be located within one of the reach ranges specified in 308.

EXCEPTIONS:

Where the elevator panel serves more than 16 openings and a parallel approach is provided, buttons with floor designations shall be permitted to be 54 inches (1370 mm) maximum above the finish floor. In existing elevators, car control buttons with floor designations shall be permitted to be located 54 inches (1370 mm) maximum above the finish floor where a parallel approach is provided.

407.4.6.2 Buttons. Car control buttons with floor designations shall comply with 407.4.6.2 and shall be raised or flush.

EXCEPTION: In existing elevators, buttons shall be permitted to be recessed.

407.4.6.2.1 Size. Buttons shall be 3/4 inch (19 mm) minimum in their smallest dimension.

407.4.6.2.2 Arrangement. Buttons shall be arranged with numbers in ascending order. When two or more columns of buttons are provided they shall read from left to right.

407.4.6.3 Keypads. Car control keypads shall be in a standard telephone keypad arrangement and shall comply with 407.4.7.2.

407.4.6.4 Emergency Controls. Emergency controls shall comply with 407.4.6.4.

407.4.6.4.1 Height. Emergency control buttons shall have their centerlines 35 inches (890 mm) minimum above the finish floor.

407.4.6.4.2 Location. Emergency controls, including the emergency alarm, shall be grouped at the bottom of the panel.

407.4.7 Designations and Indicators of Car Controls. Designations and indicators of car controls shall comply with 407.4.7.

EXCEPTION: In existing elevators, where a new car operating panel complying with 407.4.7 is provided, existing car operating panels shall not be required to comply with 407.4.7.

407.4.7.1 Buttons. Car control buttons shall comply with 407.4.7.1.

407.4.7.1.1 Type. Control buttons shall be identified by tactile characters complying with 703.2.

407.4.7.1.2 Location. Raised character and braille designations shall be placed immediately to the left of the control button to which the designations apply.

EXCEPTION: Where space on an existing car operating panel precludes tactile markings to the left of the controls, markings shall be placed as near to the control as possible.

407.4.7.1.3 Symbols. The control button for the emergency stop, alarm, door open, door close, main entry floor, and phone, shall be identified with tactile symbols as shown in Table 407.4.7.1.3.

Table 407.4.7.1.3 Elevator Control Button Identification

Control Button	Tactile Symbol	Braille Message
Emergency Stop	x icon	elevator stop braille button
"ST"OP Three cells		
Alarm bell icon		elevator alarm braille button
AL"AR"M Four cells		
Door Open	open arrows	elevator open doors braille button
"OP"EN Three cells		
Door Close	close arrows	elevator close doors braille button
CLOSE Five cells		
Main Entry Floor	star icon	elevaor main floor braille button
MA"IN" Three cells		
Phone phone icon		elevator phone braille button
PH"ONE" Four cells		

407.4.7.1.4 Visible Indicators. Buttons with floor designations shall be provided with visible indicators to show that a call has been registered. The visible indication shall extinguish when the car arrives at the designated floor.

407.4.7.2 Keypads. Keypads shall be identified by characters complying with 703.5 and shall be centered on the corresponding keypad button. The number five key shall have a single raised dot. The dot shall be 0.118 inch (3 mm) to 0.120 inch (3.05 mm) base diameter and in other aspects comply with Table 703.3.1.

407.4.8 Car Position Indicators. Audible and visible car position indicators shall be provided in elevator cars.

407.4.8.1 Visible Indicators. Visible indicators shall comply with 407.4.8.1.

407.4.8.1.1 Size. Characters shall be 1/2 inch (13 mm) high minimum.

407.4.8.1.2 Location. Indicators shall be located above the car control panel or above the door.

407.4.8.1.3 Floor Arrival. As the car passes a floor and when a car stops at a floor served by the elevator, the corresponding character shall illuminate.

EXCEPTION: Destination-oriented elevators shall not be required to comply with 407.4.8.1.3 provided that the visible indicators extinguish when the call has been answered.

407.4.8.1.4 Destination Indicator. In destination-oriented elevators, a display shall be provided in the car with visible indicators to show car destinations.

407.4.8.2 Audible Indicators. Audible indicators shall comply with 407.4.8.2.

407.4.8.2.1 Signal Type. The signal shall be an automatic verbal annunciator which announces the floor at which the car is about to stop.

EXCEPTION: For elevators other than destination-oriented elevators that have a rated speed of 200 feet per minute (1 m/s) or less, a non-verbal audible signal with a frequency of 1500 Hz maximum which sounds as the car passes or is about to stop at a floor served by the elevator shall be permitted.

407.4.8.2.2 Signal Level. The verbal annunciator shall be 10 dB minimum above ambient, but shall not exceed 80 dB, measured at the annunciator.

407.4.8.2.3 Frequency. The verbal annunciator shall have a frequency of 300 Hz minimum to 3000 Hz maximum.

407.4.9 Emergency Communication. Emergency two-way communication systems shall comply with 308. Tactile symbols and characters shall be provided adjacent to the device and shall comply with 703.2.

408 Limited-Use/Limited-Application Elevators

408.1 General. Limited-use/limited-application elevators shall comply with 408 and with ASME A17.1 (incorporated by reference, see “Referenced Standards” in Chapter 1). They shall be passenger elevators as classified by ASME A17.1. Elevator operation shall be automatic.

408.2 Elevator Landings. Landings serving limited-use/limited-application elevators shall comply with 408.2.

408.2.1 Call Buttons. Elevator call buttons and keypads shall comply with 407.2.1.

408.2.2 Hall Signals. Hall signals shall comply with 407.2.2.

408.2.3 Hoistway Signs. Signs at elevator hoistways shall comply with 407.2.3.1.

408.3 Elevator Doors. Elevator hoistway doors shall comply with 408.3.

408.3.1 Sliding Doors. Sliding hoistway and car doors shall comply with 407.3.1 through 407.3.3 and 408.4.1.

408.3.2 Swinging Doors. Swinging hoistway doors shall open and close automatically and shall comply with 404, 407.3.2 and 408.3.2.

408.3.2.1 Power Operation. Swinging doors shall be power-operated and shall comply with ANSI/BHMA A156.19 (1997 or 2002 edition) (incorporated by reference, see “Referenced Standards” in Chapter 1).

408.3.2.2 Duration. Power-operated swinging doors shall remain open for 20 seconds minimum when activated.

408.4 Elevator Cars. Elevator cars shall comply with 408.4.

408.4.1 Car Dimensions and Doors. Elevator cars shall provide a clear width 42 inches (1065 mm) minimum and a clear depth 54 inches (1370 mm) minimum. Car doors shall be positioned at the narrow ends of cars and shall provide 32 inches (815 mm) minimum clear width.

EXCEPTIONS:

Cars that provide a clear width 51 inches (1295 mm) minimum shall be permitted to provide a clear depth 51 inches (1295 mm) minimum provided that car doors provide a clear opening 36 inches (915 mm) wide minimum.

Existing elevator cars shall be permitted to provide a clear width 36 inches (915 mm) minimum, clear depth 54 inches (1370 mm) minimum, and a net clear platform area 15 square feet (1.4 m²) minimum. Figure 408.4.1

Figure (a) shows the configuration for new construction. The door clear width is 32 inches (815 mm) minimum and the car width measured side to side is 42 inches (1065 mm) minimum. The car depth is 54 inches (1370 mm) minimum. Figure (b) illustrates Exception 1. The door width is 36 inches (815 mm) minimum and the car has a clear interior space 51 by 51 inches (1295 by 1295 mm) minimum. Figure (c) illustrates Exception 2. The car width is 36 inches (915 mm) minimum, the depth is 54 inches (1370 mm) minimum, and the net clear car area is 15 square feet (1.4 square m) minimum.

Limited-Use/Limited-Application (LULA) Elevator Car Dimensions

408.4.2 Floor Surfaces. Floor surfaces in elevator cars shall comply with 302 and 303.

408.4.3 Platform to Hoistway Clearance. The platform to hoistway clearance shall comply with 407.4.3.

408.4.4 Leveling. Elevator car leveling shall comply with 407.4.4.

408.4.5 Illumination. Elevator car illumination shall comply with 407.4.5.

408.4.6 Car Controls. Elevator car controls shall comply with 407.4.6. Control panels shall be centered on a side wall.

408.4.7 Designations and Indicators of Car Controls. Designations and indicators of car controls shall comply with 407.4.7.

408.4.8 Emergency Communications. Car emergency signaling devices complying with 407.4.9 shall be provided.

409 Private Residence Elevators

409.1 General. Private residence elevators that are provided within a residential dwelling unit required to provide mobility features complying with 809.2 through 809.4 shall comply with 409 and with ASME A17.1 (incorporated by reference, see “Referenced Standards” in Chapter 1). They shall be passenger elevators as classified by ASME A17.1. Elevator operation shall be automatic.

409.2 Call Buttons. Call buttons shall be 3/4 inch (19 mm) minimum in the smallest dimension and shall comply with 309.

409.3 Elevator Doors. Hoistway doors, car doors, and car gates shall comply with 409.3 and 404.

EXCEPTION: Doors shall not be required to comply with the maneuvering clearance requirements in 404.2.4.1 for approaches to the push side of swinging doors.

409.3.1 Power Operation. Elevator car and hoistway doors and gates shall be power operated and shall comply with ANSI/BHMA A156.19 (1997 or 2002 edition) (incorporated by reference, see “Referenced Standards” in Chapter 1). Power operated doors and gates shall remain open for 20 seconds minimum when activated.

EXCEPTION: In elevator cars with more than one opening, hoistway doors and gates shall be permitted to be of the manual-open, self-close type.

409.3.2 Location. Elevator car doors or gates shall be positioned at the narrow end of the clear floor spaces required by 409.4.1.

409.4 Elevator Cars. Private residence elevator cars shall comply with 409.4.

409.4.1 Inside Dimensions of Elevator Cars. Elevator cars shall provide a clear floor space of 36 inches (915 mm) minimum by 48 inches (1220 mm) minimum and shall comply with 305.

409.4.2 Floor Surfaces. Floor surfaces in elevator cars shall comply with 302 and 303.

409.4.3 Platform to Hoistway Clearance. The clearance between the car platform and the edge of any landing sill shall be 1 1/2 inch (38 mm) maximum.

409.4.4 Leveling. Each car shall automatically stop at a floor landing within a tolerance of 1/2 inch (13 mm) under rated loading to zero loading conditions.

409.4.5 Illumination Levels. Elevator car illumination shall comply with 407.4.5.

409.4.6 Car Controls. Elevator car control buttons shall comply with 409.4.6, 309.3, 309.4, and shall be raised or flush.

409.4.6.1 Size. Control buttons shall be 3/4 inch (19 mm) minimum in their smallest dimension.

409.4.6.2 Location. Control panels shall be on a side wall, 12 inches (305 mm) minimum from any adjacent wall.

Figure 409.4.6.2

A plan view shows an elevator with an out-swinging hoistway door. The control panel is shown on the car side wall 12 inches (305 mm) minimum from the front.

Location of Private Residence Elevator Control Panel

409.4.7 Emergency Communications. Emergency two-way communication systems shall comply with 409.4.7.

409.4.7.1 Type. A telephone and emergency signal device shall be provided in the car.

409.4.7.2 Operable Parts. The telephone and emergency signaling device shall comply with 309.3 and 309.4.

409.4.7.3 Compartment. If the telephone or device is in a closed compartment, the compartment door hardware shall comply with 309.

409.4.7.4 Cord. The telephone cord shall be 29 inches (735 mm) long minimum.

410 Platform Lifts

410.1 General. Platform lifts shall comply with ASME A18.1 (1999 edition or 2003 edition) (incorporated by reference, see “Referenced Standards” in Chapter 1). Platform lifts shall not be attendant-operated and shall provide unassisted entry and exit from the lift.

Advisory 410.1 General.

410.2 Floor Surfaces. Floor surfaces in platform lifts shall comply with 302 and 303.

410.3 Clear Floor Space. Clear floor space in platform lifts shall comply with 305.

410.4 Platform to Runway Clearance. The clearance between the platform sill and the edge of any runway landing shall be 1 inch (32 mm) maximum.

410.5 Operable Parts. Controls for platform lifts shall comply with 309.

410.6 Doors and Gates. Platform lifts shall have low-energy power-operated doors or gates complying with 404.3. Doors shall remain open for 20 seconds minimum. End doors and gates shall provide a clear width 32 inches (815 mm) minimum. Side doors and gates shall provide a clear width 42 inches (1065 mm) minimum.

EXCEPTION: Platform lifts serving two landings maximum and having doors or gates on opposite sides shall be permitted to have self-closing manual doors or gates.

Figure 410.6

A rectangular lift platform is shown in plan view with an end door 32 inches (815 mm) minimum, and a side door 42 inches (1065 mm) minimum.

Platform Lift Doors and Gates

CHAPTER 5: GENERAL SITE AND BUILDING ELEMENTS

501 General

501.1 Scope. The provisions of Chapter 5 shall apply where required by Chapter 2 or where referenced by a requirement in this document.

502 Parking Spaces

502.1 General. Car and van parking spaces shall comply with 502. Where parking spaces are marked with lines, width measurements of parking spaces and access aisles shall be made from the centerline of the markings.

EXCEPTION: Where parking spaces or access aisles are not adjacent to another parking space or access aisle, measurements shall be permitted to include the full width of the line defining the parking space or access aisle.

502.2 Vehicle Spaces. Car parking spaces shall be 96 inches (2440 mm) wide minimum and van parking spaces shall be 132 inches (3350 mm) wide minimum, shall be marked to define the width, and shall have an adjacent access aisle complying with 502.3.

EXCEPTION: Van parking spaces shall be permitted to be 96 inches (2440 mm) wide minimum where the access aisle is 96 inches (2440 mm) wide minimum.

Figure 502.2

Two marked parking spaces are shown in plan view. The car space is 96 inches (2440 mm) wide minimum and the van space is 132 inches (3350 mm) wide minimum, with an access aisle between them.

Vehicle Parking Spaces

502.3 Access Aisle. Access aisles serving parking spaces shall comply with 502.3. Access aisles shall adjoin an accessible route. Two parking spaces shall be permitted to share a common access aisle.

Advisory 502.3 Access Aisle.

Figure 502.3

A van and a car parking space are shown in plan view sharing an access aisle. The access aisle is shown to be 60 inches (1525 mm) wide minimum and as long as the parking space. The entire length of the aisle area is to be marked.

Parking Space Access Aisle

502.3.1 Width. Access aisles serving car and van parking spaces shall be 60 inches (1525 mm) wide minimum.

502.3.2 Length. Access aisles shall extend the full length of the parking spaces they serve.

502.3.3 Marking. Access aisles shall be marked so as to discourage parking in them.

Advisory 502.3.3 Marking.

502.3.4 Location. Access aisles shall not overlap the vehicular way. Access aisles shall be permitted to be placed on either side of the parking space except for angled van parking spaces which shall have access aisles located on the passenger side of the parking spaces.

Advisory 502.3.4 Location.

502.4 Floor or Ground Surfaces. Parking spaces and access aisles serving them shall comply with 302. Access aisles shall be at the same level as the parking spaces they serve. Changes in level are not permitted.

EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

Advisory 502.4 Floor or Ground Surfaces.

502.5 Vertical Clearance. Parking spaces for vans and access aisles and vehicular routes serving them shall provide a vertical clearance of 98 inches (2490 mm) minimum.

Advisory 502.5 Vertical Clearance.

502.6 Identification. Parking space identification signs shall include the International Symbol of Accessibility complying with 703.7.2.1. Signs identifying van parking spaces shall contain the designation "van accessible." Signs shall be 60 inches (1525 mm) minimum above the finish floor or ground surface measured to the bottom of the sign.

Advisory 502.6 Identification.

502.7 Relationship to Accessible Routes. Parking spaces and access aisles shall be designed so that cars and vans, when parked, cannot obstruct the required clear width of adjacent accessible routes.

Advisory 502.7 Relationship to Accessible Routes.

503 Passenger Loading Zones

503.1 General. Passenger loading zones shall comply with 503.

503.2 Vehicle Pull-Up Space. Passenger loading zones shall provide a vehicular pull-up space 96 inches (2440 mm) wide minimum and 20 feet (6100 mm) long minimum.

503.3 Access Aisle. Passenger loading zones shall provide access aisles complying with 503 adjacent to the vehicle pull-up space. Access aisles shall adjoin an accessible route and shall not overlap the vehicular way.

503.3.1 Width. Access aisles serving vehicle pull-up spaces shall be 60 inches (1525 mm) wide minimum.

503.3.2 Length. Access aisles shall extend the full length of the vehicle pull-up spaces they serve.

503.3.3 Marking. Access aisles shall be marked so as to discourage parking in them.

Figure 503.3

An access aisle at a passenger loading zone is shown to be the full length of the vehicle pull-up space and 60 inches (1525 mm) wide minimum. The aisle area is to be marked.

Passenger Loading Zone Access Aisle

503.4 Floor and Ground Surfaces. Vehicle pull-up spaces and access aisles serving them shall comply with 302. Access aisles shall be at the same level as the vehicle pull-up space they serve. Changes in level are not permitted.

EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

503.5 Vertical Clearance. Vehicle pull-up spaces, access aisles serving them, and a vehicular route from an entrance to the passenger loading zone, and from the passenger loading zone to a vehicular exit shall provide a vertical clearance of 114 inches (2895 mm) minimum.

504 Stairways

504.1 General. Stairs shall comply with 504.

504.2 Treads and Risers. All steps on a flight of stairs shall have uniform riser heights and uniform tread depths. Risers shall be 4 inches (100 mm) high minimum and 7 inches (180 mm) high maximum. Treads shall be 11 inches (280 mm) deep minimum.

504.3 Open Risers. Open risers are not permitted.

504.4 Tread Surface. Stair treads shall comply with 302. Changes in level are not permitted.

EXCEPTION: Treads shall be permitted to have a slope not steeper than 1:48.

Advisory 504.4 Tread Surface.

504.5 Nosings. The radius of curvature at the leading edge of the tread shall be 1/2 inch (13 mm) maximum. Nosings that project beyond risers shall have the underside of the leading edge curved or beveled. Risers shall be permitted to slope under the tread at an angle of 30 degrees maximum from vertical. The permitted projection of the nosing shall extend 1 1/2 inches (38 mm) maximum over the tread below.

Figure 504.5

Figure (a) shows vertical risers where the radius of curvature of the leading edge of each tread is 2 inch (13 mm) maximum. Figure (b) shows angled risers. Risers can slope at an angle of 30 degrees maximum from the vertical. Figures (c) and (d) show curved and beveled nosings, respectively. The maximum projection of the nosing is 1 2 inches (38 mm) beyond the rear of the tread below.

Stair Nosings

504.6 Handrails. Stairs shall have handrails complying with 505.

504.7 Wet Conditions. Stair treads and landings subject to wet conditions shall be designed to prevent the accumulation of water.

505 Handrails

505.1 General. Handrails provided along walking surfaces complying with 403, required at ramps complying with 405, and required at stairs complying with 504 shall comply with 505.

Advisory 505.1 General.

505.2 Where Required. Handrails shall be provided on both sides of stairs and ramps.

EXCEPTION: In assembly areas, handrails shall not be required on both sides of aisle ramps where a handrail is provided at either side or within the aisle width.

505.3 Continuity. Handrails shall be continuous within the full length of each stair flight or ramp run. Inside handrails on switchback or dogleg stairs and ramps shall be continuous between flights or runs.

EXCEPTION: In assembly areas, handrails on ramps shall not be required to be continuous in aisles serving seating.

505.4 Height. Top of gripping surfaces of handrails shall be 34 inches (865 mm) minimum and 38 inches (965 mm) maximum vertically above walking surfaces, stair nosings, and ramp surfaces. Handrails shall be at a consistent height above walking surfaces, stair nosings, and ramp surfaces.

Advisory 505.4 Height.

Figure 505.4

Figure (a) shows stairs with the top gripping surface of a handrail 34 to 38 inches (865 to 965 mm) above stair nosings. Figures (b) and (c) show ramps and walking surfaces, respectively. The top gripping surface of a handrail is 34 to 38 inches (865 to 965 mm) above the surface.

Handrail Height

505.5 Clearance. Clearance between handrail gripping surfaces and adjacent surfaces shall be 1 1/2 inches (38 mm) minimum.

Figure 505.5

The clearance between the handrail and wall is shown to be 1 1/2 inches (38 mm) minimum.

Handrail Clearance

505.6 Gripping Surface. Handrail gripping surfaces shall be continuous along their length and shall not be obstructed along their tops or sides. The bottoms of handrail gripping surfaces shall not be obstructed for more than 20 percent of their length. Where provided, horizontal projections shall occur 1 1/2 inches (38 mm) minimum below the bottom of the handrail gripping surface.

EXCEPTIONS:

Where handrails are provided along walking surfaces with slopes not steeper than 1:20, the bottoms of handrail gripping surfaces shall be permitted to be obstructed along their entire length where they are integral to crash rails or bumper guards.

The distance between horizontal projections and the bottom of the gripping surface shall be permitted to be reduced by 1/8 inch (3.2 mm) for each 1/2 inch (13 mm) of additional handrail perimeter dimension that exceeds 4 inches (100 mm).

Advisory 505.6 Gripping Surface.

Figure 505.6

A handrail with brackets attached to the bottom surface is shown in cross section. The horizontal projection of the bracket from the wall is 1 1/2 inches (38 mm) below the bottom of the handrail.

Horizontal Projections Below Gripping Surface

505.7 Cross Section. Handrail gripping surfaces shall have a cross section complying with 505.7.1 or 505.7.2.

505.7.1 Circular Cross Section. Handrail gripping surfaces with a circular cross section shall have an outside diameter of 1 1/4 inches (32 mm) minimum and 2 inches (51 mm) maximum.

505.7.2 Non-Circular Cross Sections. Handrail gripping surfaces with a non-circular cross section shall have a perimeter dimension of 4 inches (100 mm) minimum and 6 1/4 inches (160 mm) maximum, and a cross-section dimension of 2 1/4 inches (57 mm) maximum.

Figure 505.7.2

Figure (a) shows a handrail with an approximately square cross section and figure (c) shows an elliptical cross section. The largest cross section dimension is 2 1/4 inches (57 mm) maximum. The perimeter dimension must be 4 to 6 1/4 inches (100 to 160 mm).

Handrail Non-Circular Cross Section

505.8 Surfaces. Handrail gripping surfaces and any surfaces adjacent to them shall be free of sharp or abrasive elements and shall have rounded edges.

505.9 Fittings. Handrails shall not rotate within their fittings.

505.10 Handrail Extensions. Handrail gripping surfaces shall extend beyond and in the same direction of stair flights and ramp runs in accordance with 505.10.

EXCEPTIONS:

Extensions shall not be required for continuous handrails at the inside turn of switchback or dogleg stairs and ramps.

In assembly areas, extensions shall not be required for ramp handrails in aisles serving seating where the handrails are discontinuous to provide access to seating and to permit crossovers within aisles.

In alterations, full extensions of handrails shall not be required where such extensions would be hazardous due to plan configuration.

505.10.1 Top and Bottom Extension at Ramps. Ramp handrails shall extend horizontally above the landing for 12 inches (305 mm) minimum beyond the top and bottom of ramp runs. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent ramp run.

Figure 505.10.1

Ramp handrails at the top and bottom are shown to extend horizontally above the landing 12 inches (305 mm) minimum from the ramp run. The extensions return to posts.

Top and Bottom Handrail Extension at Ramps

505.10.2 Top Extension at Stairs. At the top of a stair flight, handrails shall extend horizontally above the landing for 12 inches (305 mm) minimum beginning directly above the first riser nosing.

Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.

Figure 505.10.2

The handrail extends horizontally above the landing for 12 inches (305 mm) minimum beginning directly above the first riser nosing.

Top Handrail Extension at Stairs

505.10.3 Bottom Extension at Stairs. At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance at least equal to one tread depth beyond the last riser nosing. Extension shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.

Figure 505.10.3

A handrail is shown to extend at the slope of the stair flight for a horizontal distance equal to one tread depth beyond the last riser nosing.

Bottom Handrail Extension at Stairs

CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES

601 General

601.1 Scope. The provisions of Chapter 6 shall apply where required by Chapter 2 or where referenced by a requirement in this document.

602 Drinking Fountains

602.1 General. Drinking fountains shall comply with 307 and 602.

602.2 Clear Floor Space. Units shall have a clear floor or ground space complying with 305 positioned for a forward approach and centered on the unit. Knee and toe clearance complying with 306 shall be provided.

EXCEPTION: A parallel approach complying with 305 shall be permitted at units for children's use where the spout is 30 inches (760 mm) maximum above the finish floor or ground and is 3 1/2 inches (90 mm) maximum from the front edge of the unit, including bumpers.

602.3 Operable Parts. Operable parts shall comply with 309.

602.4 Spout Height. Spout outlets shall be 36 inches (915 mm) maximum above the finish floor or ground.

602.5 Spout Location. The spout shall be located 15 inches (380 mm) minimum from the vertical support and 5 inches (125 mm) maximum from the front edge of the unit, including bumpers.

Figure 602.5

In plan view, the spout is shown to be 15 inches (380 mm) minimum from the vertical support and 5 inches (125 mm) from the front edge of the unit.

Drinking Fountain Spout Location

602.6 Water Flow. The spout shall provide a flow of water 4 inches (100 mm) high minimum and shall be located 5 inches (125 mm) maximum from the front of the unit. The angle of the water stream shall be measured horizontally relative to the front face of the unit. Where spouts are located less than 3 inches (75 mm) of the front of the unit, the angle of the water stream shall be 30 degrees maximum. Where spouts are located between 3 inches (75 mm) and 5 inches (125 mm) maximum from the front of the unit, the angle of the water stream shall be 15 degrees maximum.

Advisory 602.6 Water Flow.

602.7 Drinking Fountains for Standing Persons. Spout outlets of drinking fountains for standing persons shall be 38 inches (965 mm) minimum and 43 inches (1090 mm) maximum above the finish floor or ground.

603 Toilet and Bathing Rooms

603.1 General. Toilet and bathing rooms shall comply with 603.

603.2 Clearances. Clearances shall comply with 603.2.

603.2.1 Turning Space. Turning space complying with 304 shall be provided within the room.

603.2.2 Overlap. Required clear floor spaces, clearance at fixtures, and turning space shall be permitted to overlap.

603.2.3 Door Swing. Doors shall not swing into the clear floor space or clearance required for any fixture. Doors shall be permitted to swing into the required turning space.

EXCEPTIONS:

Doors to a toilet room or bathing room for a single occupant accessed only through a private office and not for common use or public use shall be permitted to swing into the clear floor space or clearance provided the swing of the door can be reversed to comply with 603.2.3.

Where the toilet room or bathing room is for individual use and a clear floor space complying with 305.3 is provided within the room beyond the arc of the door swing, doors shall be permitted to swing into the clear floor space or clearance required for any fixture.

Advisory 603.2.3 Door Swing Exception 1.

603.3 Mirrors. Mirrors located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the finish floor or ground. Mirrors not located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 35 inches (890 mm) maximum above the finish floor or ground.

Advisory 603.3 Mirrors.

603.4 Coat Hooks and Shelves. Coat hooks shall be located within one of the reach ranges specified in 308. Shelves shall be located 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor.

604 Water Closets and Toilet Compartments

604.1 General. Water closets and toilet compartments shall comply with 604.2 through 604.8.

EXCEPTION: Water closets and toilet compartments for children's use shall be permitted to comply with 604.9.

604.2 Location. The water closet shall be positioned with a wall or partition to the rear and to one side. The centerline of the water closet shall be 16 inches (405 mm) minimum to 18 inches (455 mm) maximum from the side wall or partition, except that the water closet shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition in the ambulatory accessible toilet compartment specified in 604.8.2. Water closets shall be arranged for a left-hand or right-hand approach.

Figure 604.2

Figure (a) shows a wheelchair accessible water closet, with space on one side, and figure (b) shows an ambulatory accessible water closet, with stall walls and grab bars on both sides. The water closet centerline is shown to be 16 to 18 inches (405 to 455 mm) from the side wall.

Water Closet Location

604.3 Clearance. Clearances around water closets and in toilet compartments shall comply with 604.3.

604.3.1 Size. Clearance around a water closet shall be 60 inches (1525 mm) minimum measured perpendicular from the side wall and 56 inches (1420 mm) minimum measured perpendicular from the rear wall.

Figure 604.3.1

The clearance around a water closet is shown in plan view to be 60 inches (1525 mm) wide minimum and 56 inches (1420 mm) deep minimum.

Size of Clearance at Water Closets

604.3.2 Overlap. The required clearance around the water closet shall be permitted to overlap the water closet, associated grab bars, dispensers, sanitary napkin disposal units, coat hooks, shelves, accessible routes, clear floor space and clearances required at other fixtures, and the turning space. No other fixtures or obstructions shall be located within the required water closet clearance.

EXCEPTION: In residential dwelling units, a lavatory complying with 606 shall be permitted on the rear wall 18 inches (455 mm) minimum from the water closet centerline where the clearance at the water closet is 66 inches (1675 mm) minimum measured perpendicular from the rear wall.

Advisory 604.3.2 Overlap.

Figure 604.3.2

The clearance around a water closet is shown in plan view to be 60 inches (1525 mm) wide minimum and 66 inches (1675 mm) deep minimum with a lavatory permitted on the rear wall if the distance between the lavatory nearest edge and the water closet center line is 18 inches (455 mm) minimum.

(Exception) Overlap of Water Closet Clearance in Residential Dwelling Units

604.4 Seats. The seat height of a water closet above the finish floor shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

EXCEPTIONS:

A water closet in a toilet room for a single occupant accessed only through a private office and not for common use or public use shall not be required to comply with 604.4.

In residential dwelling units, the height of water closets shall be permitted to be 15 inches (380 mm) minimum and 19 inches (485 mm) maximum above the finish floor measured to the top of the seat.

604.5 Grab Bars. Grab bars for water closets shall comply with 609. Grab bars shall be provided on the side wall closest to the water closet and on the rear wall.

EXCEPTIONS:

Grab bars shall not be required to be installed in a toilet room for a single occupant accessed only through a private office and not for common use or public use provided that reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with 604.5.

In residential dwelling units, grab bars shall not be required to be installed in toilet or bathrooms provided that reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with 604.5.

In detention or correction facilities, grab bars shall not be required to be installed in housing or holding cells that are specially designed without protrusions for purposes of suicide prevention.

Advisory 604.5 Grab Bars Exception 2.

604.5.1 Side Wall. The side wall grab bar shall be 42 inches (1065 mm) long minimum, located 12 inches (305 mm) maximum from the rear wall and extending 54 inches (1370 mm) minimum from the rear wall.

Figure 604.5.1

Elevation drawing shows the side wall grab bar to be 42 inches (1065) long minimum, located 12 inches (305 mm) maximum from the rear wall and extending 54 inches (1370 mm) minimum from the rear wall.

Side Wall Grab Bar at Water Closets

604.5.2 Rear Wall. The rear wall grab bar shall be 36 inches (915 mm) long minimum and extend from the centerline of the water closet 12 inches (305 mm) minimum on one side and 24 inches (610 mm) minimum on the other side.

EXCEPTIONS:

The rear grab bar shall be permitted to be 24 inches (610 mm) long minimum, centered on the water closet, where wall space does not permit a length of 36 inches (915 mm) minimum due to the location of a recessed fixture adjacent to the water closet.

Where an administrative authority requires flush controls for flush valves to be located in a position that conflicts with the location of the rear grab bar, then the rear grab bar shall be permitted to be split or shifted to the open side of the toilet area.

Figure 604.5.2

Elevation drawing shows the rear grab bar 36 inches (915 mm) long minimum, positioned so that 24 inches (610 mm) minimum extends toward the open transfer side and 12 inches (305 mm) minimum extends toward the side wall.

Rear Wall Grab Bar at Water Closets

604.6 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309. Flush controls shall be located on the open side of the water closet except in ambulatory accessible compartments complying with 604.8.2.

Advisory 604.6 Flush Controls.

604.7 Dispensers. Toilet paper dispensers shall comply with 309.4 and shall be 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches (380 mm) minimum and 48 inches (1220 mm) maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow.

Advisory 604.7 Dispensers.

Figure 604.7

Elevation drawing shows the centerline of the toilet paper dispenser to be 7 to 9 inches (180 to 230 mm) in front of the water closet. The outlet of the dispenser is 15 inches (380 mm) minimum and 48 inches (1220 mm) maximum above the floor.

Dispenser Outlet Location

604.8 Toilet Compartments. Wheelchair accessible toilet compartments shall meet the requirements of 604.8.1 and 604.8.3. Compartments containing more than one plumbing fixture shall comply with 603. Ambulatory accessible compartments shall comply with 604.8.2 and 604.8.3.

604.8.1 Wheelchair Accessible Compartments. Wheelchair accessible compartments shall comply with 604.8.1.

604.8.1.1 Size. Wheelchair accessible compartments shall be 60 inches (1525 mm) wide minimum measured perpendicular to the side wall, and 56 inches (1420 mm) deep minimum for wall hung water closets and 59 inches (1500 mm) deep minimum for floor mounted water closets measured perpendicular to the rear wall. Wheelchair accessible compartments for children's use shall be 60 inches (1525 mm) wide minimum measured perpendicular to the side wall, and 59 inches (1500 mm) deep minimum for wall hung and floor mounted water closets measured perpendicular to the rear wall.

Advisory 604.8.1.1 Size.

Figure 604.8.1.1

Figure (a) is a plan view of an adult wall hung water closet. The compartment is shown to be 60 inches (1525 mm) wide minimum and 56 inches (1420 mm) deep minimum. Figure (b) is a plan view of an adult floor mounted and a children's water closet. The compartment is shown to be 60 inches (1525 mm) wide minimum and 59 inches (1500 mm) deep minimum.

Size of Wheelchair Accessible Toilet Compartment

604.8.1.2 Doors. Toilet compartment doors, including door hardware, shall comply with 404 except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum. Doors shall be located in the front partition or in the side wall or partition farthest from the water closet. Where located in the front partition, the door opening shall be 4 inches (100 mm) maximum from the side wall or partition farthest from the water closet. Where located in the side wall or partition, the door opening shall be 4 inches (100 mm) maximum from the front partition. The door shall be self-closing. A door pull complying with 404.2.7 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.

Figure 604.8.1.2

The compartment door is hinged 4 inches (100 mm) maximum from the side wall or partition farthest from the water closet so that the door opens on to the open transfer space. The minimum clearance between the door side of the stall and any obstruction is 42 inches (1065 mm).

Wheelchair Accessible Toilet Compartment Doors

604.8.1.3 Approach. Compartments shall be arranged for left-hand or right-hand approach to the water closet.

604.8.1.4 Toe Clearance. The front partition and at least one side partition shall provide a toe clearance of 9 inches (230 mm) minimum above the finish floor and 6 inches (150 mm) deep minimum beyond the compartment-side face of the partition, exclusive of partition support members. Compartments for children's use shall provide a toe clearance of 12 inches (305 mm) minimum above the finish floor.

EXCEPTION: Toe clearance at the front partition is not required in a compartment greater than 62 inches (1575 mm) deep with a wall-hung water closet or 65 inches (1650 mm) deep with a floor-mounted water closet. Toe clearance at the side partition is not required in a compartment greater than 66 inches (1675 mm) wide. Toe clearance at the front partition is not required in a compartment for children's use that is greater than 65 inches (1650 mm) deep.

Figure 604.8.1.4

Figure (a) is an elevation drawing showing toe clearance under a toilet compartment partition. Toe clearance is 9 inches (230 mm) high minimum and 6 inches (150 mm) deep minimum beyond the compartment-side face of the partition. Figure (b) is an elevation drawing for a children's toilet compartment. Toe clearance is 12 inches (305 mm) high minimum and 6 inches (150 mm) deep minimum beyond the compartment-side face of the partition. Figure (c) is a plan view showing toe clearance under the front partition and one side partition, 6 inches (150 mm) deep minimum.

Wheelchair Accessible Toilet Compartment Toe Clearance

604.8.1.5 Grab Bars. Grab bars shall comply with 609. A side-wall grab bar complying with 604.5.1 shall be provided and shall be located on the wall closest to the water closet. In addition, a rear-wall grab bar complying with 604.5.2 shall be provided.

604.8.2 Ambulatory Accessible Compartments. Ambulatory accessible compartments shall comply with 604.8.2.

604.8.2.1 Size. Ambulatory accessible compartments shall have a depth of 60 inches (1525 mm) minimum and a width of 35 inches (890 mm) minimum and 37 inches (940 mm) maximum.

604.8.2.2 Doors. Toilet compartment doors, including door hardware, shall comply with 404, except that if the approach is to the latch side of the compartment door, clearance between the door side of the

compartment and any obstruction shall be 42 inches (1065 mm) minimum. The door shall be self-closing. A door pull complying with 404.2.7 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.

604.8.2.3 Grab Bars. Grab bars shall comply with 609. A side-wall grab bar complying with 604.5.1 shall be provided on both sides of the compartment.

Figure 604.8.2

The compartment is 60 inches (1525 mm) deep minimum and 35 to 37 inches (890 to 940 mm) wide, with grab bars on both sides. The minimum clearance between the door side of the stall and any obstruction is 42 inches (1065 mm).

Ambulatory Accessible Toilet Compartment

604.8.3 Coat Hooks and Shelves. Coat hooks shall be located within one of the reach ranges specified in 308. Shelves shall be located 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor.

604.9 Water Closets and Toilet Compartments for Children's Use. Water closets and toilet compartments for children's use shall comply with 604.9.

Advisory 604.9 Water Closets and Toilet Compartments for Children's Use.

Advisory Specifications for Water Closets Serving Children Ages 3 through 12

Specification Ages 3 and 4 Ages 5 through 8 Ages 9 through 12

Water Closet Centerline	12 inches (305 mm)	12 to 15 inches (305 to 380 mm)	15 to 18 inches (380 to 455 mm)
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Toilet Seat height	11 to 12 inches (280 to 305 mm)	12 to 15 inches (305 to 380 mm)	15 to 17 inches (380 to 430 mm)
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Grab Bar Height	18 to 20 inches (455 to 510 mm)	20 to 25 inches (510 to 635 mm)	25 to 27 inches (635 to 685 mm)
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Dispenser Height	14 inches (355 mm)	14 to 17 inches (355 to 430 mm)	17 to 19 inches (430 to 485 mm)
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604.9.1 Location. The water closet shall be located with a wall or partition to the rear and to one side. The centerline of the water closet shall be 12 inches (305 mm) minimum and 18 inches (455 mm) maximum from the side wall or partition, except that the water closet shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition in the ambulatory accessible toilet compartment specified in 604.8.2. Compartments shall be arranged for left-hand or right-hand approach to the water closet.

604.9.2 Clearance. Clearance around a water closet shall comply with 604.3.

604.9.3 Height. The height of water closets shall be 11 inches (280 mm) minimum and 17 inches (430 mm) maximum measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

604.9.4 Grab Bars. Grab bars for water closets shall comply with 604.5.

604.9.5 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309.2 and 309.4 and shall be installed 36 inches (915 mm) maximum above the finish floor. Flush controls shall be located on the open side of the water closet except in ambulatory accessible compartments complying with 604.8.2.

604.9.6 Dispensers. Toilet paper dispensers shall comply with 309.4 and shall be 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 14 inches (355 mm) minimum and 19 inches (485 mm) maximum above the finish floor. There shall be a clearance of 1 1/2 inches (38 mm) minimum below the grab bar. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow.

604.9.7 Toilet Compartments. Toilet compartments shall comply with 604.8.

605 Urinals

605.1 General. Urinals shall comply with 605.

Advisory 605.1 General.

605.2 Height and Depth. Urinals shall be the stall-type or the wall-hung type with the rim 17 inches (430 mm) maximum above the finish floor or ground. Urinals shall be 13 1/2 inches (345 mm) deep minimum measured from the outer face of the urinal rim to the back of the fixture.

Figure 605.2

Figure (a) is an elevation drawing of a wall hung type having the urinal rim 17 inches (430 mm) maximum above the floor with a minimum depth of 13 1/2 inches (350 mm) measured from the outer face of the rim to the back of the fixture. Figure (b) is an elevation drawing of a stall (floor) type having a minimum depth of 13 1/2 inches (350 mm) measured from the outer face of the rim to the back of the fixture.

Height and Depth of Urinals

605.3 Clear Floor Space. A clear floor or ground space complying with 305 positioned for forward approach shall be provided.

605.4 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309.

606 Lavatories and Sinks

606.1 General. Lavatories and sinks shall comply with 606.

Advisory 606.1 General.

606.2 Clear Floor Space. A clear floor space complying with 305, positioned for a forward approach, and knee and toe clearance complying with 306 shall be provided.

EXCEPTIONS:

A parallel approach complying with 305 shall be permitted to a kitchen sink in a space where a cook top or conventional range is not provided and to wet bars.

A lavatory in a toilet room or bathing facility for a single occupant accessed only through a private office and not for common use or public use shall not be required to provide knee and toe clearance complying with 306.

In residential dwelling units, cabinetry shall be permitted under lavatories and kitchen sinks provided that all of the following conditions are met:

(a) the cabinetry can be removed without removal or replacement of the fixture; (b) the finish floor extends under the cabinetry; and

(c) the walls behind and surrounding the cabinetry are finished.

A knee clearance of 24 inches (610 mm) minimum above the finish floor or ground shall be permitted at lavatories and sinks used primarily by children 6 through 12 years where the rim or counter surface is 31 inches (785 mm) maximum above the finish floor or ground.

A parallel approach complying with 305 shall be permitted to lavatories and sinks used primarily by children 5 years and younger.

The dip of the overflow shall not be considered in determining knee and toe clearances.

No more than one bowl of a multi-bowl sink shall be required to provide knee and toe clearance complying with 306.

606.3 Height. Lavatories and sinks shall be installed with the front of the higher of the rim or counter surface 34 inches (865 mm) maximum above the finish floor or ground.

EXCEPTIONS:

A lavatory in a toilet or bathing facility for a single occupant accessed only through a private office and not for common use or public use shall not be required to comply with 606.3.

In residential dwelling unit kitchens, sinks that are adjustable to variable heights, 29 inches (735 mm) minimum and 36 inches (915 mm) maximum, shall be permitted where rough-in plumbing permits connections of supply and drain pipes for sinks mounted at the height of 29 inches (735 mm).

606.4 Faucets. Controls for faucets shall comply with 309. Hand-operated metering faucets shall remain open for 10 seconds minimum.

606.5 Exposed Pipes and Surfaces. Water supply and drain pipes under lavatories and sinks shall be insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under lavatories and sinks.

607 Bathtubs

607.1 General. Bathtubs shall comply with 607.

607.2 Clearance. Clearance in front of bathtubs shall extend the length of the bathtub and shall be 30 inches (760 mm) wide minimum. A lavatory complying with 606 shall be permitted at the control end of the clearance. Where a permanent seat is provided at the head end of the bathtub, the clearance shall extend 12 inches (305 mm) minimum beyond the wall at the head end of the bathtub.

Figure 607.2

Figure (a) shows a bathtub with a removable in-tub seat. The bathtub has clearance in front 30 inches (760 mm) wide minimum that extends the length of the tub. Figure (b) shows a bathtub with a permanent seat at the head end (the end opposite the controls). The tub has clearance in front 30 inches (760 mm) wide minimum that extends the length of the tub plus 12 inches (305 mm) minimum beyond the seat. Both figures show that a lavatory can be located at the foot end of the tub clearance.

Clearance for Bathtubs

607.3 Seat. A permanent seat at the head end of the bathtub or a removable in-tub seat shall be provided. Seats shall comply with 610.

607.4 Grab Bars. Grab bars for bathtubs shall comply with 609 and shall be provided in accordance with 607.4.1 or 607.4.2.

EXCEPTIONS:

Grab bars shall not be required to be installed in a bathtub located in a bathing facility for a single occupant accessed only through a private office and not for common use or public use provided that reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with 607.4.

In residential dwelling units, grab bars shall not be required to be installed in bathtubs located in bathing facilities provided that reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with 607.4.

607.4.1 Bathtubs With Permanent Seats. For bathtubs with permanent seats, grab bars shall be provided in accordance with 607.4.1.

607.4.1.1 Back Wall. Two grab bars shall be installed on the back wall, one located in accordance with 609.4 and the other located 8 inches (205 mm) minimum and 10 inches (255 mm) maximum above the rim of the bathtub. Each grab bar shall be installed 15 inches (380 mm) maximum from the head end wall and 12 inches (305 mm) maximum from the control end wall.

607.4.1.2 Control End Wall. A grab bar 24 inches (610 mm) long minimum shall be installed on the control end wall at the front edge of the bathtub.

Figure 607.4.1

Figure (a) shows an elevation drawing of a tub with a permanent seat and two parallel grab bars on the back wall. The upper grab bar is mounted 33 to 36 inches (840 to 915 mm) above the finish floor. The lower grab bar is mounted 8 to 10 inches (205 to 255 mm) above the tub rim. Figure (b) is a plan view. A grab bar on the foot end wall is 24 inches (610 mm) long minimum and is installed at the front edge of the tub. The rear grab bars are mounted 12 inches (305 mm) maximum from the foot end wall and 15 inches (380 mm) maximum from the head end wall.

Grab Bars for Bathtubs with Permanent Seats

607.4.2 Bathtubs Without Permanent Seats. For bathtubs without permanent seats, grab bars shall comply with 607.4.2.

607.4.2.1 Back Wall. Two grab bars shall be installed on the back wall, one located in accordance with 609.4 and other located 8 inches (205 mm) minimum and 10 inches (255 mm) maximum above the rim of the bathtub. Each grab bar shall be 24 inches (610 mm) long minimum and shall be installed 24 inches (610 mm) maximum from the head end wall and 12 inches (305 mm) maximum from the control end wall.

607.4.2.2 Control End Wall. A grab bar 24 inches (610 mm) long minimum shall be installed on the control end wall at the front edge of the bathtub.

607.4.2.3 Head End Wall. A grab bar 12 inches (305 mm) long minimum shall be installed on the head end wall at the front edge of the bathtub.

Figure 607.4.2

Figure (a) is an elevation drawing showing rear grab bars, one mounted 33 to 36 inches (840 to 915 mm) above the finish floor, and one mounted 8 to 10 inches (205 to 255 mm) above the tub rim. Figure (b) is a plan view showing a grab bar on the foot (control) end wall 24 inches (610 mm) long minimum installed at the front edge of the tub. Rear grab bars are 24 inches (610 mm) long minimum and are mounted 12 inches (305 mm) maximum from the foot (control) end wall and 24 inches (610 mm)

maximum from the head end wall. A grab bar 12 inches (305 mm) long minimum is installed on the head end wall at the front edge of the tub.

Grab Bars for Bathtubs with Removable In-Tub Seats

607.5 Controls. Controls, other than drain stoppers, shall be located on an end wall. Controls shall be between the bathtub rim and grab bar, and between the open side of the bathtub and the centerline of the width of the bathtub. Controls shall comply with 309.4.

Figure 607.5

Elevation drawing shows the location of controls above the tub rim and below the grab bar and between the front edge of the tub and the tub centerline.

Bathtub Control Location

607.6 Shower Spray Unit and Water. A shower spray unit with a hose 59 inches (1500 mm) long minimum that can be used both as a fixed-position shower head and as a hand-held shower shall be provided. The shower spray unit shall have an on/off control with a non-positive shut-off. If an adjustable-height shower head on a vertical bar is used, the bar shall be installed so as not to obstruct the use of grab bars. Bathtub shower spray units shall deliver water that is 120°F (49°C) maximum.

Advisory 607.6 Shower Spray Unit and Water.

607.7 Bathtub Enclosures. Enclosures for bathtubs shall not obstruct controls, faucets, shower and spray units or obstruct transfer from wheelchairs onto bathtub seats or into bathtubs. Enclosures on bathtubs shall not have tracks installed on the rim of the open face of the bathtub.

608 Shower Compartments

608.1 General. Shower compartments shall comply with 608.

Advisory 608.1 General.

608.2 Size and Clearances for Shower Compartments. Shower compartments shall have sizes and clearances complying with 608.2.

608.2.1 Transfer Type Shower Compartments. Transfer type shower compartments shall be 36 inches (915 mm) by 36 inches (915 mm) clear inside dimensions measured at the center points of opposing sides and shall have a 36 inch (915 mm) wide minimum entry on the face of the shower compartment. Clearance of 36 inches (915 mm) wide minimum by 48 inches (1220 mm) long minimum measured from the control wall shall be provided.

Figure 608.2.1

A transfer stall is shown in plan view to be 36 by 36 inches (915 by 915 mm). Clear floor space in front is 36 inches (915 mm) wide minimum and 48 inches (1220 mm) long minimum measured from the control wall.

Transfer Type Shower Compartment Size and Clearance

608.2.2 Standard Roll-In Type Shower Compartments. Standard roll-in type shower compartments shall be 30 inches (760 mm) wide minimum by 60 inches (1525 mm) deep minimum clear inside dimensions measured at center points of opposing sides and shall have a 60 inches (1525 mm) wide minimum entry on the face of the shower compartment.

608.2.2.1 Clearance. A 30 inch (760 mm) wide minimum by 60 inch (1525 mm) long minimum clearance shall be provided adjacent to the open face of the shower compartment.

EXCEPTION: A lavatory complying with 606 shall be permitted on one 30 inch (760 mm) wide minimum side of the clearance provided that it is not on the side of the clearance adjacent to the controls or, where provided, not on the side of the clearance adjacent to the shower seat.

Figure 608.2.2

A plan view shows the shower compartment is 30 inches (760 mm) minimum by 60 inches (1525 mm) minimum with a 60 inch (1525 mm) wide entry on the face of the compartment. A clear floor space 30 inches (760 mm) side is provided adjacent to the open face of the compartment. A seat is shown on one end. A lavatory is permitted within the clear floor space on the end opposite the seat.

Standard Roll-In Type Shower Compartment Size and Clearance

608.2.3 Alternate Roll-In Type Shower Compartments. Alternate roll-in type shower compartments shall be 36 inches (915 mm) wide and 60 inches (1525 mm) deep minimum clear inside dimensions measured at center points of opposing sides. A 36 inch (915 mm) wide minimum entry shall be provided at one end of the long side of the compartment.

Figure 608.2.3

A plan view shows the shower compartment is 36 inches (915 mm) wide absolute and 60 inches (1525 mm) deep minimum. A 36 inch (915 mm) wide minimum entry is provided on one long wall. A seat is provided adjacent to the entry on the same wall.

Alternate Roll-In Type Shower Compartment Size and Clearance

608.3 Grab Bars. Grab bars shall comply with 609 and shall be provided in accordance with 608.3.

Where multiple grab bars are used, required horizontal grab bars shall be installed at the same height above the finish floor.

EXCEPTIONS:

Grab bars shall not be required to be installed in a shower located in a bathing facility for a single occupant accessed only through a private office, and not for common use or public use provided that reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with 608.3.

In residential dwelling units, grab bars shall not be required to be installed in showers located in bathing facilities provided that reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with 608.3.

608.3.1 Transfer Type Shower Compartments. In transfer type compartments, grab bars shall be provided across the control wall and back wall to a point 18 inches (455 mm) from the control wall.

Figure 608.3.1

Plan view shows a grab bar that extends across the control wall and the back wall to a point 18 inches (455 mm) from the control wall.

Grab Bars for Transfer Type Showers

608.3.2 Standard Roll-In Type Shower Compartments. Where a seat is provided in standard roll-in type shower compartments, grab bars shall be provided on the back wall and the side wall opposite the seat. Grab bars shall not be provided above the seat. Where a seat is not provided in standard roll-in type shower compartments, grab bars shall be provided on three walls. Grab bars shall be installed 6 inches (150 mm) maximum from adjacent walls.

Figure 608.3.2

Figure (a) is a plan view of a shower without a seat. Grab bars are provided on three walls that are 6 inches (150 mm) maximum from the adjacent wall. Figure (b) is a plan view of a shower with a seat on

one side wall. Grab bars are provided on the opposite side wall and the back wall. The back wall grab bar does not extend over the seat. The grab bars are 6 inches (150 mm) maximum from the adjacent wall.

Grab Bars for Standard Roll-In Type Showers

608.3.3 Alternate Roll-In Type Shower Compartments. In alternate roll-in type shower compartments, grab bars shall be provided on the back wall and the side wall farthest from the compartment entry. Grab bars shall not be provided above the seat. Grab bars shall be installed 6 inches (150 mm) maximum from adjacent walls.

Figure 608.3.3

This figure shows an alternate roll-in shower with a seat. A grab bar extends on the wall opposite the seat and is 6 inches (150 mm) maximum from adjacent walls. Another grab bar is mounted on the side wall adjacent to the seat; this grab bar does not extend over the seat and is 6 inches (150 mm) maximum from the back wall.

Grab Bars for Alternate Roll-In Type Showers

608.4 Seats. A folding or non-folding seat shall be provided in transfer type shower compartments. A folding seat shall be provided in roll-in type showers required in transient lodging guest rooms with mobility features complying with 806.2. Seats shall comply with 610.

EXCEPTION: In residential dwelling units, seats shall not be required in transfer type shower compartments provided that reinforcement has been installed in walls so as to permit the installation of seats complying with 608.4.

608.5 Controls. Controls, faucets, and shower spray units shall comply with 309.4.

608.5.1 Transfer Type Shower Compartments. In transfer type shower compartments, the controls, faucets, and shower spray unit shall be installed on the side wall opposite the seat 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor and shall be located on the control wall 15 inches (380 mm) maximum from the centerline of the seat toward the shower opening.

Figure 608.5.1

The area for controls, faucets and shower spray units is located 38 inches (965 mm) minimum to 48 inches (1220 mm) maximum above the shower floor on the control wall 15 inches (380 mm) maximum from the centerline of the seat, toward the shower opening.

Transfer Type Shower Compartment Control Location

608.5.2 Standard Roll-In Type Shower Compartments. In standard roll-in type shower compartments, the controls, faucets, and shower spray unit shall be located above the grab bar, but no higher than 48 inches (1220 mm) above the shower floor. Where a seat is provided, the controls, faucets, and shower spray unit shall be installed on the back wall adjacent to the seat wall and shall be located 27 inches (685 mm) maximum from the seat wall.

Advisory 608.5.2 Standard Roll-in Type Shower Compartments.

Figure 608.5.2

Figure (a) is an elevation drawing of a compartment without a seat. The area for controls, faucets and shower spray units is located on any wall of the shower above the grab bar but no higher than 48 inches (1220 mm) above the shower floor. Figure (b) is an elevation drawing of a compartment with a seat. The area for controls, faucets and shower spray units is located on the back wall 27 inches (685 mm) from the seat wall and above the grab bar, but no higher than 48 inches (1220 mm) above the shower floor.

Standard Roll-In Type Shower Compartment Control Location

608.5.3 Alternate Roll-In Type Shower Compartments. In alternate roll-in type shower compartments, the controls, faucets, and shower spray unit shall be located above the grab bar, but no higher than 48 inches (1220 mm) above the shower floor. Where a seat is provided, the controls, faucets, and shower spray unit shall be located on the side wall adjacent to the seat 27 inches (685 mm) maximum from the side wall behind the seat or shall be located on the back wall opposite the seat 15 inches (380 mm) maximum, left or right, of the centerline of the seat. Where a seat is not provided, the controls, faucets, and shower spray unit shall be installed on the side wall farthest from the compartment entry.

Figure 608.5.3

Figure (a) is an elevation drawing of a side wall adjacent to a seat. The area for controls, faucets and shower spray units is located on the side wall adjacent to the seat, above the grab bar but no higher than 48 inches (1220 mm) above the shower floor, and extending 27 inches (685 mm) maximum from the seat wall. Figure (b) shows an alternate location on the back wall, above the grab bar but no higher than 48 inches (1220 mm) above the shower floor, and extending from the side wall to 15 inches (380 mm) maximum from the center line of the seat. Figures (c) and (d) are plan views of compartments without and with a seat, respectively.

Alternate Roll-In Type Shower Compartment Control Location

608.6 Shower Spray Unit and Water. A shower spray unit with a hose 59 inches (1500 mm) long minimum that can be used both as a fixed-position shower head and as a hand-held shower shall be provided. The shower spray unit shall have an on/off control with a non-positive shut-off. If an adjustable-height shower head on a vertical bar is used, the bar shall be installed so as not to obstruct the use of grab bars. Shower spray units shall deliver water that is 120°F (49°C) maximum.

EXCEPTION: A fixed shower head located at 48 inches (1220 mm) maximum above the shower finish floor shall be permitted instead of a hand-held spray unit in facilities that are not medical care facilities, long-term care facilities, transient lodging guest rooms, or residential dwelling units.

Advisory 608.6 Shower Spray Unit and Water.

608.7 Thresholds. Thresholds in roll-in type shower compartments shall be 1/2 inch (13 mm) high maximum in accordance with 303. In transfer type shower compartments, thresholds 1/2 inch (13 mm) high maximum shall be beveled, rounded, or vertical.

EXCEPTION: A threshold 2 inches (51 mm) high maximum shall be permitted in transfer type shower compartments in existing facilities where provision of a 1/2 inch (13 mm) high threshold would disturb the structural reinforcement of the floor slab. 608.8 Shower Enclosures. Enclosures for shower compartments shall not obstruct controls, faucets, and shower spray units or obstruct transfer from wheelchairs onto shower seats.

609 Grab Bars

609.1 General. Grab bars in toilet facilities and bathing facilities shall comply with 609.

609.2 Cross Section. Grab bars shall have a cross section complying with 609.2.1 or 609.2.2.

609.2.1 Circular Cross Section. Grab bars with circular cross sections shall have an outside diameter of 1 1/4 inches (32 mm) minimum and 2 inches (51 mm) maximum.

609.2.2 Non-Circular Cross Section. Grab bars with non-circular cross sections shall have a cross-section dimension of 2 inches (51 mm) maximum and a perimeter dimension of 4 inches (100 mm) minimum and 4.8 inches (120 mm) maximum.

Figure 609.2.2

Figure (a) shows a handrail with an approximately square cross section and figure (c) shows an elliptical cross section. The largest cross section dimension is 2 inches (51 mm) maximum. The perimeter dimension must be 4 to 4.8 inches (100 to 120 mm).

Grab Bar Non-Circular Cross Section

609.3 Spacing. The space between the wall and the grab bar shall be 1 1/2 inches (38 mm). The space between the grab bar and projecting objects below and at the ends shall be 1 1/2 inches (38 mm) minimum. The space between the grab bar and projecting objects above shall be 12 inches (305 mm) minimum.

EXCEPTION: The space between the grab bars and shower controls, shower fittings, and other grab bars above shall be permitted to be 1 1/2 inches (38 mm) minimum.

Figure 609.3

A grab bar is shown with a projecting object mounted above and below it. Projecting objects must be spaced 1 1/2 inch (38 mm) minimum below and 12 inches (305 mm) minimum above the grab bar. Recessed objects can be spaced immediately above and below.

Spacing of Grab Bars

609.4 Position of Grab Bars. Grab bars shall be installed in a horizontal position, 33 inches (840 mm) minimum and 36 inches (915 mm) maximum above the finish floor measured to the top of the gripping surface, except that at water closets for children's use complying with 604.9, grab bars shall be installed in a horizontal position 18 inches (455 mm) minimum and 27 inches (685 mm) maximum above the finish floor measured to the top of the gripping surface. The height of the lower grab bar on the back wall of a bathtub shall comply with 607.4.1.1 or 607.4.2.1.

609.5 Surface Hazards. Grab bars and any wall or other surfaces adjacent to grab bars shall be free of sharp or abrasive elements and shall have rounded edges.

609.6 Fittings. Grab bars shall not rotate within their fittings.

609.7 Installation. Grab bars shall be installed in any manner that provides a gripping surface at the specified locations and that does not obstruct the required clear floor space.

609.8 Structural Strength. Allowable stresses shall not be exceeded for materials used when a vertical or horizontal force of 250 pounds (1112 N) is applied at any point on the grab bar, fastener, mounting device, or supporting structure.

610 Seats

610.1 General. Seats in bathtubs and shower compartments shall comply with 610.

610.2 Bathtub Seats. The top of bathtub seats shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the bathroom finish floor. The depth of a removable in-tub seat shall be 15 inches (380 mm) minimum and 16 inches (405 mm) maximum. The seat shall be capable of secure placement. Permanent seats at the head end of the bathtub shall be 15 inches (380 mm) deep minimum and shall extend from the back wall to or beyond the outer edge of the bathtub.

Figure 610.2

Figure (a) shows a removable in-tub seat in elevation and plan views that is 15 to 16 inches (380 to 405 mm) deep and 17 to 19 inches (430 to 485 mm) above the floor measured to the top of the seat. Figure (b) shows permanent tub seat in elevation and plan views that is 15 inches (380 mm) minimum deep and 17 to 19 inches (430 to 485 mm) above the floor measured to the top of the seat.

Bathtub Seats

610.3 Shower Compartment Seats. Where a seat is provided in a standard roll-in shower compartment, it shall be a folding type, shall be installed on the side wall adjacent to the controls, and shall extend from the back wall to a point within 3 inches (75 mm) of the compartment entry. Where a seat is provided in an alternate roll-in type shower compartment, it shall be a folding type, shall be installed on the front wall opposite the back wall, and shall extend from the adjacent side wall to a point within 3 inches (75 mm) of the compartment entry. In transfer-type showers, the seat shall extend from the back wall to a point within 3 inches (75 mm) of the compartment entry. The top of the seat shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the bathroom finish floor. Seats shall comply with 610.3.1 or 610.3.2.

Figure 610.3

Figure (a) is a plan view of a rectangular seat and figure (b) is a plan view of an L-shaped seat. The front edge of each is 3 inches (75 mm) maximum from the compartment entry.

Extent of Seat

610.3.1 Rectangular Seats. The rear edge of a rectangular seat shall be 2 1/2 inches (64 mm) maximum and the front edge 15 inches (380 mm) minimum and 16 inches (405 mm) maximum from the seat wall. The side edge of the seat shall be 1 1/2 inches (38 mm) maximum from the adjacent wall.

Figure 610.3.1

The rear edge is 2 1/2 inches (64 mm) maximum and the front edge 15 to 16 inches (380 to 405 mm) from the seat wall. The side edge is 1 1/2 inches (38 mm) maximum from the back wall.

Rectangular Shower Seat

610.3.2 L-Shaped Seats. The rear edge of an L-shaped seat shall be 2 1/2 inches (64 mm) maximum and the front edge 15 inches (380 mm) minimum and 16 inches (405 mm) maximum from the seat wall. The rear edge of the "L" portion of the seat shall be 1 1/2 inches (38 mm) maximum from the wall and the front edge shall be 14 inches (355 mm) minimum and 15 inches (380 mm) maximum from the wall. The end of the "L" shall be 22 inches (560 mm) minimum and 23 inches maximum (585 mm) from the main seat wall.

Figure 610.3.2

Figures (a) shows the L is oriented with the narrower portion toward the compartment opening and the base toward the back. The front edge of the narrow portion of the L is 15 to 16 inches (380 to 405 mm) from the seat wall and the base end is 22 to 23 inches (560 to 585 mm) from the seat wall. The base of the L is 14 to 15 inches (355 to 380 mm) from the adjacent wall. Figure (b) shows that the seat is 2 1/2 inches (64 mm) maximum from the seat wall and the rear edge of the L portion is 1 1/2 inches (38 mm) maximum from the adjacent wall.

L-Shaped Shower Seat

610.4 Structural Strength. Allowable stresses shall not be exceeded for materials used when a vertical or horizontal force of 250 pounds (1112 N) is applied at any point on the seat, fastener, mounting device, or supporting structure.

611 Washing Machines and Clothes Dryers

611.1 General. Washing machines and clothes dryers shall comply with 611.

611.2 Clear Floor Space. A clear floor or ground space complying with 305 positioned for parallel approach shall be provided. The clear floor or ground space shall be centered on the appliance.

611.3 Operable Parts. Operable parts, including doors, lint screens, and detergent and bleach compartments shall comply with 309.

611.4 Height. Top loading machines shall have the door to the laundry compartment located 36 inches (915 mm) maximum above the finish floor. Front loading machines shall have the bottom of the opening to the laundry compartment located 15 inches (380 mm) minimum and 36 inches (915 mm) maximum above the finish floor.

Figure 611.4

Figure (a) shows a top loading machine with the door to the laundry compartment 36 inches (915 mm) maximum above the floor. Figure (b) shows a front loading machine with the bottom of the opening to the laundry compartment 15 to 36 inches (380 to 915 mm) above the floor.

Height of Laundry Compartment Opening

612 Saunas and Steam Rooms

612.1 General. Saunas and steam rooms shall comply with 612.

612.2 Bench. Where seating is provided in saunas and steam rooms, at least one bench shall comply with 903. Doors shall not swing into the clear floor space required by 903.2.

EXCEPTION: A readily removable bench shall be permitted to obstruct the turning space required by 612.3 and the clear floor or ground space required by 903.2.

612.3 Turning Space. A turning space complying with 304 shall be provided within saunas and steam rooms.

CHAPTER 7: COMMUNICATION ELEMENTS AND FEATURES

701 General

701.1 Scope. The provisions of Chapter 7 shall apply where required by Chapter 2 or where referenced by a requirement in this document.

702 Fire Alarm Systems

702.1 General. Fire alarm systems shall have permanently installed audible and visible alarms complying with NFPA 72 (1999 or 2002 edition) (incorporated by reference, see “Referenced Standards” in Chapter 1), except that the maximum allowable sound level of audible notification appliances complying with section 4-3.2.1 of NFPA 72 (1999 edition) shall have a sound level no more than 110 dB at the minimum hearing distance from the audible appliance. In addition, alarms in guest rooms required to provide communication features shall comply with sections 4-3 and 4-4 of NFPA 72 (1999 edition) or sections 7.4 and 7.5 of NFPA 72 (2002 edition).

EXCEPTION: Fire alarm systems in medical care facilities shall be permitted to be provided in accordance with industry practice.

703 Signs

703.1 General. Signs shall comply with 703. Where both visual and tactile characters are required, either one sign with both visual and tactile characters, or two separate signs, one with visual, and one with tactile characters, shall be provided.

703.2 Raised Characters. Raised characters shall comply with 703.2 and shall be duplicated in braille complying with 703.3. Raised characters shall be installed in accordance with 703.4.

Advisory 703.2 Raised Characters.

703.2.1 Depth. Raised characters shall be 1/32 inch (0.8 mm) minimum above their background.

703.2.2 Case. Characters shall be uppercase.

703.2.3 Style. Characters shall be sans serif. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.2.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter “O” is 55 percent minimum and 110 percent maximum of the height of the uppercase letter “I”.

703.2.5 Character Height. Character height measured vertically from the baseline of the character shall be 5/8 inch (16 mm) minimum and 2 inches (51 mm) maximum based on the height of the uppercase letter “I”.

EXCEPTION: Where separate raised and visual characters with the same information are provided, raised character height shall be permitted to be 1/2 inch (13 mm) minimum.

Figure 703.2.5

An Enlarged detail shows the character height measured from the baseline of the character is 5/8 to 2 inches (16 to 51 mm) based on the uppercase letter I.

Height of Raised Characters

703.2.6 Stroke Thickness. Stroke thickness of the uppercase letter “I” shall be 15 percent maximum of the height of the character.

703.2.7 Character Spacing. Character spacing shall be measured between the two closest points of adjacent raised characters within a message, excluding word spaces. Where characters have rectangular cross sections, spacing between individual raised characters shall be 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum. Where characters have other cross sections, spacing between individual raised characters shall be 1/16 inch (1.6 mm) minimum and 4 times the raised character stroke width maximum at the base of the cross sections, and 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum at the top of the cross sections. Characters shall be separated from raised borders and decorative elements 3/8 inch (9.5 mm) minimum.

703.2.8 Line Spacing. Spacing between the baselines of separate lines of raised characters within a message shall be 135 percent minimum and 170 percent maximum of the raised character height.

703.3 Braille. Braille shall be contracted (Grade 2) and shall comply with 703.3 and 703.4.

703.3.1 Dimensions and Capitalization. Braille dots shall have a domed or rounded shape and shall comply with Table 703.3.1. The indication of an uppercase letter or letters shall only be used before the

first word of sentences, proper nouns and names, individual letters of the alphabet, initials, and acronyms.

Table 703.3.1: Braille Dimensions

Measurement Range Minimum in Inches to Maximum in Inches

Dot base diameter 0.059 (1.5 mm) to 0.063 (1.6 mm)

Distance between two dots in the same cell (measured center to center) 0.090 (2.3 mm) to 0.100 (2.5 mm)

Distance between corresponding dots in the adjacent cell (measured center to center) 0.241 (6.1 mm) to 0.300 (7.6 mm)

Dot height 0.025 (0.6 mm) to 0.037 (0.9 mm)

Distance between corresponding dots from one cell directly below (measured center to center) 0.395 (10 mm) to 0.400 (10.2 mm)

Figure 703.3.1

Six Braille cells are shown indicating what is meant by dot diameter, distance between dots in the same cell, adjacent cells, corresponding from one cell directly below

Braille Measurement

703.3.2 Position. Braille shall be positioned below the corresponding text. If text is multi-lined, braille shall be placed below the entire text. Braille shall be separated 3/8 inch (9.5 mm) minimum from any other tactile characters and 3/8 inch (9.5 mm) minimum from raised borders and decorative elements.

EXCEPTION: Braille provided on elevator car controls shall be separated 3/16 inch (4.8 mm) minimum and shall be located either directly below or adjacent to the corresponding raised characters or symbols.

Figure 703.3.2

An enlarged detail shows Braille dots positioned 3/8 inch (9.5 mm) minimum below tactile letters and 3/8 inch (9.5 mm) minimum separation from the sign border.

Position of Braille

703.4 Installation Height and Location. Signs with tactile characters shall comply with 703.4.

703.4.1 Height Above Finish Floor or Ground. Tactile characters on signs shall be located 48 inches (1220 mm) minimum above the finish floor or ground surface, measured from the baseline of the lowest tactile character and 60 inches (1525 mm) maximum above the finish floor or ground surface, measured from the baseline of the highest tactile character.

EXCEPTION: Tactile characters for elevator car controls shall not be required to comply with 703.4.1.

Figure 703.4.1

A tactile sign is shown mounted with the baseline of the lowest characters 48 inches (1220 mm) minimum and the baseline of the highest characters 60 inches (1525 mm) maximum above the finish floor.

Height of Tactile Characters Above Finish Floor or Ground

703.4.2 Location. Where a tactile sign is provided at a door, the sign shall be located alongside the door at the latch side. Where a tactile sign is provided at double doors with one active leaf, the sign shall be located on the inactive leaf. Where a tactile sign is provided at double doors with two active leaves, the sign shall be located to the right of the right hand door. Where there is no wall space at the latch side of a single door or at the right side of double doors, signs shall be located on the nearest adjacent wall. Signs containing tactile characters shall be located so that a clear floor space of 18 inches (455 mm)

minimum by 18 inches (455 mm) minimum, centered on the tactile characters, is provided beyond the arc of any door swing between the closed position and 45 degree open position.

EXCEPTION: Signs with tactile characters shall be permitted on the push side of doors with closers and without hold-open devices.

Figure 703.4.2

A sign with tactile characters is mounted so that clear floor space 18 by 18 inches (455 by 455 mm) minimum, centered on the tactile characters, is provided beyond the arc of any door swing between the closed position and 45 degree open position.

Location of Tactile Signs at Doors

703.5 Visual Characters. Visual characters shall comply with 703.5.

EXCEPTION: Where visual characters comply with 703.2 and are accompanied by braille complying with 703.3, they shall not be required to comply with 703.5.2 through 703.5.9.

703.5.1 Finish and Contrast. Characters and their background shall have a non-glare finish. Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

Advisory 703.5.1 Finish and Contrast.

703.5.2 Case. Characters shall be uppercase or lowercase or a combination of both.

703.5.3 Style. Characters shall be conventional in form. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.5.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter “O” is 55 percent minimum and 110 percent maximum of the height of the uppercase letter “I”.

703.5.5 Character Height. Minimum character height shall comply with Table 703.5.5. Viewing distance shall be measured as the horizontal distance between the character and an obstruction preventing further approach towards the sign. Character height shall be based on the uppercase letter “I”.

Table 703.5.5 Visual Character Height

Height to Finish Floor or Ground From Baseline of Character	Horizontal Viewing Distance
Minimum Character Height	
40 inches (1015 mm) to less than or equal to 70 inches (1780 mm)	less than 72 inches (1830 mm)
5/8 inch (16 mm)	
40 inches (1015 mm) to less than or equal to 70 inches (1780 mm)	72 inches (1830 mm) and greater
5/8 inch (16 mm), plus 1/8 inch (3.2 mm) per foot (305 mm) of viewing distance above 72 inches (1830 mm)	
Greater than 70 inches (1780 mm) to less than or equal to 120 inches (3050 mm)	less than 180 inches (4570 mm)
2 inches (51 mm)	
Greater than 70 inches (1780 mm) to less than or equal to 120 inches (3050 mm)	180 inches (4570 mm) and greater
2 inches (51 mm), plus 1/8 inch (3.2 mm) per foot (305 mm) of viewing distance above 180 inches (4570 mm)	
greater than 120 inches (3050 mm)	less than 21 feet (6400 mm)
	3 inches (75 mm)

greater than 120 inches (3050 mm) 21 feet (6400 mm) and greater 3 inches (75 mm), plus 1/8 inch (3.2 mm) per foot (305 mm) of viewing distance above 21 feet (6400 mm)
703.5.6 Height From Finish Floor or Ground. Visual characters shall be 40 inches (1015 mm) minimum above the finish floor or ground.

EXCEPTION: Visual characters indicating elevator car controls shall not be required to comply with 703.5.6.

703.5.7 Stroke Thickness. Stroke thickness of the uppercase letter “I” shall be 10 percent minimum and 30 percent maximum of the height of the character.

703.5.8 Character Spacing. Character spacing shall be measured between the two closest points of adjacent characters, excluding word spaces. Spacing between individual characters shall be 10 percent minimum and 35 percent maximum of character height.

703.5.9 Line Spacing. Spacing between the baselines of separate lines of characters within a message shall be 135 percent minimum and 170 percent maximum of the character height.

703.6 Pictograms. Pictograms shall comply with 703.6.

703.6.1 Pictogram Field. Pictograms shall have a field height of 6 inches (150 mm) minimum. Characters and braille shall not be located in the pictogram field.

Figure 703.6.1

The field height for a men's room pictogram is shown to be 6 inches (150 mm) minimum. Tactile and Braille characters are located below, outside the pictogram field.

Pictogram Field

703.6.2 Finish and Contrast. Pictograms and their field shall have a non-glare finish. Pictograms shall contrast with their field with either a light pictogram on a dark field or a dark pictogram on a light field.

Advisory 703.6.2 Finish and Contrast.

703.6.3 Text Descriptors. Pictograms shall have text descriptors located directly below the pictogram field. Text descriptors shall comply with 703.2, 703.3 and 703.4.

703.7 Symbols of Accessibility. Symbols of accessibility shall comply with 703.7.

703.7.1 Finish and Contrast. Symbols of accessibility and their background shall have a non-glare finish. Symbols of accessibility shall contrast with their background with either a light symbol on a dark background or a dark symbol on a light background.

Advisory 703.7.1 Finish and Contrast.

703.7.2 Symbols.

703.7.2.1 International Symbol of Accessibility. The International Symbol of Accessibility shall comply with Figure 703.7.2.1.

Figure 703.7.2.1

Pictogram that shows the simplified profile of a person seated in a wheelchair.

International Symbol of Accessibility

703.7.2.2 International Symbol of TTY. The International Symbol of TTY shall comply with Figure 703.7.2.2.

Figure 703.7.2.2

Pictogram of a TTY showing the keyboard and space bar typical of most devices and the shape of a telephone handset at the top.

International Symbol of TTY

703.7.2.3 Volume Control Telephones. Telephones with a volume control shall be identified by a pictogram of a telephone handset with radiating sound waves on a square field such as shown in Figure 703.7.2.3.

Figure 703.7.2.3

Pictogram of a telephone handset in profile with radiating sound waves.

Volume Control Telephone

703.7.2.4 Assistive Listening Systems. Assistive listening systems shall be identified by the International Symbol of Access for Hearing Loss complying with Figure 703.7.2.4.

Figure 703.7.2.4

Pictogram with the shape of an ear and a bar diagonally across the shape.

International Symbol of Access for Hearing Loss

704 Telephones

704.1 General. Public telephones shall comply with 704.

704.2 Wheelchair Accessible Telephones. Wheelchair accessible telephones shall comply with 704.2.

704.2.1 Clear Floor or Ground Space. A clear floor or ground space complying with 305 shall be provided. The clear floor or ground space shall not be obstructed by bases, enclosures, or seats.

Advisory 704.2.1 Clear Floor or Ground Space.

704.2.1.1 Parallel Approach. Where a parallel approach is provided, the distance from the edge of the telephone enclosure to the face of the telephone unit shall be 10 inches (255 mm) maximum.

Figure 704.2.1.1

The maximum distance from the face of the telephone to the edge of the telephone enclosure is 10 inches (255 mm). Clear floor space for a parallel approach is located in front of the enclosure.

Parallel Approach to Telephone

704.2.1.2 Forward Approach. Where a forward approach is provided, the distance from the front edge of a counter within the telephone enclosure to the face of the telephone unit shall be 20 inches (510 mm) maximum.

Figure 704.2.1.2

The maximum distance from the front edge of a counter within the telephone enclosure to the face of the telephone is 20 inches (510 mm). The telephone enclosure overlaps the clear floor space for a forward approach.

Forward Approach to Telephone

704.2.2 Operable Parts. Operable parts shall comply with 309. Telephones shall have push-button controls where such service is available.

704.2.3 Telephone Directories. Telephone directories, where provided, shall be located in accordance with 309.

704.2.4 Cord Length. The cord from the telephone to the handset shall be 29 inches (735 mm) long minimum.

704.3 Volume Control Telephones. Public telephones required to have volume controls shall be equipped with a receive volume control that provides a gain adjustable up to 20 dB minimum. For incremental volume control, provide at least one intermediate step of 12 dB of gain minimum. An automatic reset shall be provided.

Advisory 704.3 Volume Control Telephones.

704.4 TTYs. TTYs required at a public pay telephone shall be permanently affixed within, or adjacent to, the telephone enclosure. Where an acoustic coupler is used, the telephone cord shall be sufficiently long to allow connection of the TTY and the telephone receiver.

Advisory 704.4 TTYs.

704.4.1 Height. When in use, the touch surface of TTY keypads shall be 34 inches (865 mm) minimum above the finish floor.

EXCEPTION: Where seats are provided, TTYs shall not be required to comply with 704.4.1.

Advisory 704.4.1 Height.

Advisory 704.4.1 Height Exception.

704.5 TTY Shelf. Public pay telephones required to accommodate portable TTYs shall be equipped with a shelf and an electrical outlet within or adjacent to the telephone enclosure. The telephone handset shall be capable of being placed flush on the surface of the shelf. The shelf shall be capable of accommodating a TTY and shall have 6 inches (150 mm) minimum vertical clearance above the area where the TTY is to be placed.

705 Detectable Warnings

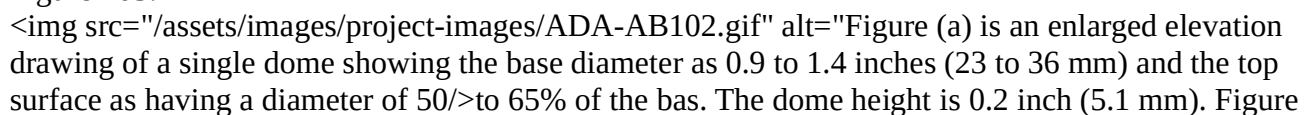
705.1 General. Detectable warnings shall consist of a surface of truncated domes and shall comply with 705.

705.1.1 Dome Size. Truncated domes in a detectable warning surface shall have a base diameter of 0.9 inch (23 mm) minimum and 1.4 inches (36 mm) maximum, a top diameter of 50 percent of the base diameter minimum to 65 percent of the base diameter maximum, and a height of 0.2 inch (5.1 mm).

705.1.2 Dome Spacing. Truncated domes in a detectable warning surface shall have a center-to-center spacing of 1.6 inches (41 mm) minimum and 2.4 inches (61 mm) maximum, and a base-to-base spacing of 0.65 inch (17 mm) minimum, measured between the most adjacent domes on a square grid.

705.1.3 Contrast. Detectable warning surfaces shall contrast visually with adjacent walking surfaces either light-on-dark, or dark-on-light.

Figure 705.1

Figure (a) is an enlarged elevation drawing of a single dome showing the base diameter as 0.9 to 1.4 inches (23 to 36 mm) and the top surface as having a diameter of 50% to 65% of the base. The dome height is 0.2 inch (5.1 mm). Figure

(b) is a plan view of a detectable warning surface showing the center-to-center dome spacing of 1.6 to 2.4 inches (41 to 61 mm) with a base-to-base separation of 0.65 inch (17 mm) minimum." %}

Size and Spacing of Truncated Domes

705.2 Platform Edges. Detectable warning surfaces at platform boarding edges shall be 24 inches (610 mm) wide and shall extend the full length of the public use areas of the platform.

706 Assistive Listening Systems

706.1 General. Assistive listening systems required in assembly areas shall comply with 706.

Advisory 706.1 General.

706.2 Receiver Jacks. Receivers required for use with an assistive listening system shall include a 1/8 inch (3.2 mm) standard mono jack.

706.3 Receiver Hearing-Aid Compatibility. Receivers required to be hearing-aid compatible shall interface with telecoils in hearing aids through the provision of neckloops.

Advisory 706.3 Receiver Hearing-Aid Compatibility.

706.4 Sound Pressure Level. Assistive listening systems shall be capable of providing a sound pressure level of 110 dB minimum and 118 dB maximum with a dynamic range on the volume control of 50 dB.

706.5 Signal-to-Noise Ratio. The signal-to-noise ratio for internally generated noise in assistive listening systems shall be 18 dB minimum.

706.6 Peak Clipping Level. Peak clipping shall not exceed 18 dB of clipping relative to the peaks of speech.

707 Automatic Teller Machines and Fare Machines

Advisory 707 Automatic Teller Machines and Fare Machines.

707.1 General. Automatic teller machines and fare machines shall comply with 707.

Advisory 707.1 General.

707.2 Clear Floor or Ground Space. A clear floor or ground space complying with 305 shall be provided.

EXCEPTION: Clear floor or ground space shall not be required at drive-up only automatic teller machines and fare machines.

707.3 Operable Parts. Operable parts shall comply with 309. Unless a clear or correct key is provided, each operable part shall be able to be differentiated by sound or touch, without activation.

EXCEPTION: Drive-up only automatic teller machines and fare machines shall not be required to comply with 309.2 and 309.3.

707.4 Privacy. Automatic teller machines shall provide the opportunity for the same degree of privacy of input and output available to all individuals.

Advisory 707.4 Privacy.

707.5 Speech Output. Machines shall be speech enabled. Operating instructions and orientation, visible transaction prompts, user input verification, error messages, and all displayed information for full use

shall be accessible to and independently usable by individuals with vision impairments. Speech shall be delivered through a mechanism that is readily available to all users, including but not limited to, an industry standard connector or a telephone handset. Speech shall be recorded or digitized human, or synthesized.

EXCEPTIONS:

Audible tones shall be permitted instead of speech for visible output that is not displayed for security purposes, including but not limited to, asterisks representing personal identification numbers.

Advertisements and other similar information shall not be required to be audible unless they convey information that can be used in the transaction being conducted.

Where speech synthesis cannot be supported, dynamic alphabetic output shall not be required to be audible.

Advisory 707.5 Speech Output.

707.5.1 User Control. Speech shall be capable of being repeated or interrupted. Volume control shall be provided for the speech function.

EXCEPTION: Speech output for any single function shall be permitted to be automatically interrupted when a transaction is selected.

707.5.2 Receipts. Where receipts are provided, speech output devices shall provide audible balance inquiry information, error messages, and all other information on the printed receipt necessary to complete or verify the transaction.

EXCEPTIONS:

Machine location, date and time of transaction, customer account number, and the machine identifier shall not be required to be audible.

Information on printed receipts that duplicates information available on-screen shall not be required to be presented in the form of an audible receipt.

Printed copies of bank statements and checks shall not be required to be audible.

707.6 Input. Input devices shall comply with 707.6.

707.6.1 Input Controls. At least one tactilely discernible input control shall be provided for each function. Where provided, key surfaces not on active areas of display screens, shall be raised above surrounding surfaces. Where membrane keys are the only method of input, each shall be tactilely discernable from surrounding surfaces and adjacent keys.

707.6.2 Numeric Keys. Numeric keys shall be arranged in a 12-key ascending or descending telephone keypad layout. The number five key shall be tactilely distinct from the other keys.

Advisory 707.6.2 Numeric Keys.

Figure 707.6.2

Figure(a) shows a 12-key number pad ascending layout. Figure (b) shows a 12-key descending number pad layout

Numeric Key Layout

707.6.3 Function Keys. Function keys shall comply with 707.6.3.

707.6.3.1 Contrast. Function keys shall contrast visually from background surfaces. Characters and symbols on key surfaces shall contrast visually from key surfaces. Visual contrast shall be either light-on-dark or dark-on-light.

EXCEPTION: Tactile symbols required by 707.6.3.2 shall not be required to comply with 707.6.3.1.

707.6.3.2 Tactile Symbols. Function key surfaces shall have tactile symbols as follows: Enter or Proceed key: raised circle; Clear or Correct key: raised left arrow; Cancel key: raised letter ex; Add Value key: raised plus sign; Decrease Value key: raised minus sign.

707.7 Display Screen. The display screen shall comply with 707.7.

EXCEPTION: Drive-up only automatic teller machines and fare machines shall not be required to comply with 707.7.1.

707.7.1 Visibility. The display screen shall be visible from a point located 40 inches (1015 mm) above the center of the clear floor space in front of the machine.

707.7.2 Characters. Characters displayed on the screen shall be in a sans serif font. Characters shall be 3/16 inch (4.8 mm) high minimum based on the uppercase letter "I". Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

707.8 Braille Instructions. Braille instructions for initiating the speech mode shall be provided. Braille shall comply with 703.3.

708 Two-Way Communication Systems

708.1 General. Two-way communication systems shall comply with 708.

Advisory 708.1 General.

708.2 Audible and Visual Indicators. The system shall provide both audible and visual signals.

Advisory 708.2 Audible and Visual Indicators.

708.3 Handsets. Handset cords, if provided, shall be 29 inches (735 mm) long minimum.

708.4 Residential Dwelling Unit Communication Systems. Communications systems between a residential dwelling unit and a site, building, or floor entrance shall comply with 708.4.

708.4.1 Common Use or Public Use System Interface. The common use or public use system interface shall include the capability of supporting voice and TTY communication with the residential dwelling unit interface.

708.4.2 Residential Dwelling Unit Interface. The residential dwelling unit system interface shall include a telephone jack capable of supporting voice and TTY communication with the common use or public use system interface.

CHAPTER 8: SPECIAL ROOMS, SPACES AND ELEMENTS

801 General

801.1 Scope. The provisions of Chapter 8 shall apply where required by Chapter 2 or where referenced by a requirement in this document.

Advisory 801.1 Scope.

802 Wheelchair Spaces, Companion Seats, and Designated Aisle Seats

802.1 Wheelchair Spaces. Wheelchair spaces shall comply with 802.1.

802.1.1 Floor or Ground Surface. The floor or ground surface of wheelchair spaces shall comply with 302. Changes in level are not permitted.

EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

802.1.2 Width. A single wheelchair space shall be 36 inches (915 mm) wide minimum. Where two adjacent wheelchair spaces are provided, each wheelchair space shall be 33 inches (840 mm) wide minimum.

Figure 802.1.2

Figure (a) is a plan view of a single wheelchair space 36 inches (915 mm) wide minimum. Figure (b) is a plan view of two wheelchair spaces side by side. Each space is 33 inches (840 mm) wide minimum.

Width of Wheelchair Spaces in Assembly Areas

802.1.3 Depth. Where a wheelchair space can be entered from the front or rear, the wheelchair space shall be 48 inches (1220 mm) deep minimum. Where a wheelchair space can be entered only from the side, the wheelchair space shall be 60 inches (1525 mm) deep minimum.

Figure 802.1.3

Figure (a) shows a wheelchair space that can be entered from the front or rear that is 48 inches (1220 mm) deep minimum. Figure (b) shows a wheelchair space entered from the side that is 60 inches (1525 mm) deep minimum.

Depth of Wheelchair Spaces in Assembly Areas

802.1.4 Approach. Wheelchair spaces shall adjoin accessible routes. Accessible routes shall not overlap wheelchair spaces.

Advisory 802.1.4 Approach.

802.1.5 Overlap. Wheelchair spaces shall not overlap circulation paths.

Advisory 802.1.5 Overlap.

802.2 Lines of Sight. Lines of sight to the screen, performance area, or playing field for spectators in wheelchair spaces shall comply with 802.2.

802.2.1 Lines of Sight Over Seated Spectators. Where spectators are expected to remain seated during events, spectators in wheelchair spaces shall be afforded lines of sight complying with 802.2.1.

802.2.1.1 Lines of Sight Over Heads. Where spectators are provided lines of sight over the heads of spectators seated in the first row in front of their seats, spectators seated in wheelchair spaces shall be afforded lines of sight over the heads of seated spectators in the first row in front of wheelchair spaces.

Figure 802.2.1.1

Elevation drawing shows a person using a wheelchair on an upper level of tiered seating having a line of sight over the heads of spectators seated in front.

Lines of Sight Over the Heads of Seated Spectators

802.2.1.2 Lines of Sight Between Heads. Where spectators are provided lines of sight over the shoulders and between the heads of spectators seated in the first row in front of their seats, spectators seated in wheelchair spaces shall be afforded lines of sight over the shoulders and between the heads of seated spectators in the first row in front of wheelchair spaces.

Figure 802.2.1.2

Elevation drawing shows a person using a wheelchair on an upper level of tiered seating having a line of sight between the heads of spectators seated in front.

Lines of Sight Between the Heads of Seated Spectators

802.2.2 Lines of Sight Over Standing Spectators. Where spectators are expected to stand during events, spectators in wheelchair spaces shall be afforded lines of sight complying with 802.2.2.

802.2.2.1 Lines of Sight Over Heads. Where standing spectators are provided lines of sight over the heads of spectators standing in the first row in front of their seats, spectators seated in wheelchair spaces shall be afforded lines of sight over the heads of standing spectators in the first row in front of wheelchair spaces.

Figure 802.2.2.1

Elevation drawing shows a person using a wheelchair on an upper level of tiered seating elevated sufficiently to have a line of sight over the heads of spectators standing in front.

Lines of Sight Over the Heads of Standing Spectators

802.2.2.2 Lines of Sight Between Heads. Where standing spectators are provided lines of sight over the shoulders and between the heads of spectators standing in the first row in front of their seats, spectators seated in wheelchair spaces shall be afforded lines of sight over the shoulders and between the heads of standing spectators in the first row in front of wheelchair spaces.

Figure 802.2.2.2

Elevation drawing shows a person using a wheelchair on an upper level of tiered seating elevated sufficiently to have a line of sight between the heads of spectators standing in front.

Lines of Sight Between the Heads of Standing Spectators

802.3 Companion Seats. Companion seats shall comply with 802.3.

802.3.1 Alignment. In row seating, companion seats shall be located to provide shoulder alignment with adjacent wheelchair spaces. The shoulder alignment point of the wheelchair space shall be measured 36 inches (915 mm) from the front of the wheelchair space. The floor surface of the companion seat shall be at the same elevation as the floor surface of the wheelchair space.

802.3.2 Type. Companion seats shall be equivalent in size, quality, comfort, and amenities to the seating in the immediate area. Companion seats shall be permitted to be movable.

802.4 Designated Aisle Seats. Designated aisle seats shall comply with 802.4.

802.4.1 Armrests. Where armrests are provided on the seating in the immediate area, folding or retractable armrests shall be provided on the aisle side of the seat.

802.4.2 Identification. Each designated aisle seat shall be identified by a sign or marker.

Advisory 802.4.2 Identification.

803 Dressing, Fitting, and Locker Rooms

803.1 General. Dressing, fitting, and locker rooms shall comply with 803.

Advisory 803.1 General.

803.2 Turning Space. Turning space complying with 304 shall be provided within the room.

803.3 Door Swing. Doors shall not swing into the room unless a clear floor or ground space complying with 305.3 is provided beyond the arc of the door swing.

803.4 Benches. A bench complying with 903 shall be provided within the room.

803.5 Coat Hooks and Shelves. Coat hooks provided within the room shall be located within one of the reach ranges specified in 308. Shelves shall be 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor or ground.

804 Kitchens and Kitchenettes

804.1 General. Kitchens and kitchenettes shall comply with 804.

804.2 Clearance. Where a pass through kitchen is provided, clearances shall comply with 804.2.1. Where a U-shaped kitchen is provided, clearances shall comply with 804.2.2.

EXCEPTION: Spaces that do not provide a cooktop or conventional range shall not be required to comply with 804.2.

Advisory 804.2 Clearance.

804.2.1 Pass Through Kitchen. In pass through kitchens where counters, appliances or cabinets are on two opposing sides, or where counters, appliances or cabinets are opposite a parallel wall, clearance between all opposing base cabinets, counter tops, appliances, or walls within kitchen work areas shall be 40 inches (1015 mm) minimum. Pass through kitchens shall have two entries.

Figure 804.2.1

A plan view of a kitchen with appliances and cabinets on both sides of an aisle open on both ends shows the width of the central aisle as 40 inches (1015 mm) minimum.

Pass Through Kitchens

804.2.2 U-Shaped. In U-shaped kitchens enclosed on three contiguous sides, clearance between all opposing base cabinets, counter tops, appliances, or walls within kitchen work areas shall be 60 inches (1525 mm) minimum.

Figure 804.2.2

Figure (a) is a plan view of a kitchen with appliances and cabinets on three sides. Figure (b) is a plan view of a kitchen with appliances and cabinets on two opposites with a wall at the rear. The width of the kitchen entry opening is 60 inches (1525 mm) minimum.

U-Shaped Kitchens

804.3 Kitchen Work Surface. In residential dwelling units required to comply with 809, at least one 30 inches (760 mm) wide minimum section of counter shall provide a kitchen work surface that complies with 804.3.

804.3.1 Clear Floor or Ground Space. A clear floor space complying with 305 positioned for a forward approach shall be provided. The clear floor or ground space shall be centered on the kitchen work surface and shall provide knee and toe clearance complying with 306.

EXCEPTION: Cabinetry shall be permitted under the kitchen work surface provided that all of the following conditions are met:

(a) the cabinetry can be removed without removal or replacement of the kitchen work surface; (b) the finish floor extends under the cabinetry; and (c) the walls behind and surrounding the cabinetry are finished.

804.3.2 Height. The kitchen work surface shall be 34 inches (865 mm) maximum above the finish floor or ground.

EXCEPTION: A counter that is adjustable to provide a kitchen work surface at variable heights, 29 inches (735 mm) minimum and 36 inches (915 mm) maximum, shall be permitted.

804.3.3 Exposed Surfaces. There shall be no sharp or abrasive surfaces under the work surface counters.

804.4 Sinks. Sinks shall comply with 606.

804.5 Storage. At least 50 percent of shelf space in storage facilities shall comply with 811.

804.6 Appliances. Where provided, kitchen appliances shall comply with 804.6.

804.6.1 Clear Floor or Ground Space. A clear floor or ground space complying with 305 shall be provided at each kitchen appliance. Clear floor or ground spaces shall be permitted to overlap.

804.6.2 Operable Parts. All appliance controls shall comply with 309.

EXCEPTIONS:

Appliance doors and door latching devices shall not be required to comply with 309.4.

Bottom-hinged appliance doors, when in the open position, shall not be required to comply with 309.3.

804.6.3 Dishwasher. Clear floor or ground space shall be positioned adjacent to the dishwasher door. The dishwasher door, in the open position, shall not obstruct the clear floor or ground space for the dishwasher or the sink.

804.6.4 Range or Cooktop. Where a forward approach is provided, the clear floor or ground space shall provide knee and toe clearance complying with 306. Where knee and toe space is provided, the underside of the range or cooktop shall be insulated or otherwise configured to prevent burns, abrasions, or electrical shock. The location of controls shall not require reaching across burners.

804.6.5 Oven. Ovens shall comply with 804.6.5.

804.6.5.1 Side-Hinged Door Ovens. Side-hinged door ovens shall have the work surface required by 804.3 positioned adjacent to the latch side of the oven door.

804.6.5.2 Bottom-Hinged Door Ovens. Bottom-hinged door ovens shall have the work surface required by 804.3 positioned adjacent to one side of the door.

804.6.5.3 Controls. Ovens shall have controls on front panels.

804.6.6 Refrigerator/Freezer. Combination refrigerators and freezers shall have at least 50 percent of the freezer space 54 inches (1370 mm) maximum above the finish floor or ground. The clear floor or ground space shall be positioned for a parallel approach to the space dedicated to a refrigerator/freezer with the centerline of the clear floor or ground space offset 24 inches (610 mm) maximum from the centerline of the dedicated space.

805 Medical Care and Long-Term Care Facilities

805.1 General. Medical care facility and long-term care facility patient or resident sleeping rooms required to provide mobility features shall comply with 805.

805.2 Turning Space. Turning space complying with 304 shall be provided within the room.

805.3 Clear Floor or Ground Space. A clear floor space complying with 305 shall be provided on each side of the bed. The clear floor space shall be positioned for parallel approach to the side of the bed.

805.4 Toilet and Bathing Rooms. Toilet and bathing rooms that are provided as part of a patient or resident sleeping room shall comply with 603. Where provided, no fewer than one water closet, one lavatory, and one bathtub or shower shall comply with the applicable requirements of 603 through 610.

806 Transient Lodging Guest Rooms

806.1 General. Transient lodging guest rooms shall comply with 806. Guest rooms required to provide mobility features shall comply with 806.2. Guest rooms required to provide communication features shall comply with 806.3.

806.2 Guest Rooms with Mobility Features. Guest rooms required to provide mobility features shall comply with 806.2.

Advisory 806.2 Guest Rooms.

806.2.1 Living and Dining Areas. Living and dining areas shall be accessible.

806.2.2 Exterior Spaces. Exterior spaces, including patios, terraces and balconies, that serve the guest room shall be accessible.

806.2.3 Sleeping Areas. At least one sleeping area shall provide a clear floor space complying with 305 on both sides of a bed. The clear floor space shall be positioned for parallel approach to the side of the bed.

EXCEPTION: Where a single clear floor space complying with 305 positioned for parallel approach is provided between two beds, a clear floor or ground space shall not be required on both sides of a bed.

806.2.4 Toilet and Bathing Facilities. At least one bathroom that is provided as part of a guest room shall comply with 603. No fewer than one water closet, one lavatory, and one bathtub or shower shall comply with applicable requirements of 603 through 610. In addition, required roll-in shower compartments shall comply with 608.2.2 or 608.2.3. Toilet and bathing fixtures required to comply

with 603 through 610 shall be permitted to be located in more than one toilet or bathing area, provided that travel between fixtures does not require travel between other parts of the guest room.

806.2.4.1 Vanity Counter Top Space. If vanity counter top space is provided in non-accessible guest toilet or bathing rooms, comparable vanity counter top space, in terms of size and proximity to the lavatory, shall also be provided in accessible guest toilet or bathing rooms.

Advisory 806.2.4.1 Vanity Counter Top Space.

806.2.5 Kitchens and Kitchenettes. Kitchens and kitchenettes shall comply with 804.

806.2.6 Turning Space. Turning space complying with 304 shall be provided within the guest room.

806.3 Guest Rooms with Communication Features. Guest rooms required to provide communication features shall comply with 806.3.

Advisory 806.3 Guest Rooms with Communication Features.

806.3.1 Alarms. Where emergency warning systems are provided, alarms complying with 702 shall be provided.

806.3.2 Notification Devices. Visible notification devices shall be provided to alert room occupants of incoming telephone calls and a door knock or bell. Notification devices shall not be connected to visible alarm signal appliances. Telephones shall have volume controls compatible with the telephone system and shall comply with 704.3. Telephones shall be served by an electrical outlet complying with 309 located within 48 inches (1220 mm) of the telephone to facilitate the use of a TTY.

807 Holding Cells and Housing Cells

807.1 General. Holding cells and housing cells shall comply with 807.

807.2 Cells with Mobility Features. Cells required to provide mobility features shall comply with 807.2.

807.2.1 Turning Space. Turning space complying with 304 shall be provided within the cell.

807.2.2 Benches. Where benches are provided, at least one bench shall comply with 903.

807.2.3 Beds. Where beds are provided, clear floor space complying with 305 shall be provided on at least one side of the bed. The clear floor space shall be positioned for parallel approach to the side of the bed.

807.2.4 Toilet and Bathing Facilities. Toilet facilities or bathing facilities that are provided as part of a cell shall comply with 603. Where provided, no fewer than one water closet, one lavatory, and one bathtub or shower shall comply with the applicable requirements of 603 through 610.

Advisory 807.2.4 Toilet and Bathing Facilities.

807.3 Cells with Communication Features. Cells required to provide communication features shall comply with 807.3.

807.3.1 Alarms. Where audible emergency alarm systems are provided to serve the occupants of cells, visible alarms complying with 702 shall be provided.

EXCEPTION: Visible alarms shall not be required where inmates or detainees are not allowed independent means of egress.

807.3.2 Telephones. Telephones, where provided within cells, shall have volume controls complying with 704.3.

808 Courtrooms

808.1 General. Courtrooms shall comply with 808.

808.2 Turning Space. Where provided, areas that are raised or depressed and accessed by ramps or platform lifts with entry ramps shall provide unobstructed turning space complying with 304.

808.3 Clear Floor Space. Each jury box and witness stand shall have, within its defined area, clear floor space complying with 305.

EXCEPTION: In alterations, wheelchair spaces are not required to be located within the defined area of raised jury boxes or witness stands and shall be permitted to be located outside these spaces where ramp or platform lift access poses a hazard by restricting or projecting into a means of egress required by the appropriate administrative authority.

808.4 Judges' Benches and Courtroom Stations. Judges' benches, clerks' stations, bailiffs' stations, deputy clerks' stations, court reporters' stations and litigants' and counsel stations shall comply with 902.

809 Residential Dwelling Units

809.1 General. Residential dwelling units shall comply with 809. Residential dwelling units required to provide mobility features shall comply with 809.2 through 809.4. Residential dwelling units required to provide communication features shall comply with 809.5.

809.2 Accessible Routes. Accessible routes complying with Chapter 4 shall be provided within residential dwelling units in accordance with 809.2.

EXCEPTION: Accessible routes shall not be required to or within unfinished attics or unfinished basements.

809.2.1 Location. At least one accessible route shall connect all spaces and elements which are a part of the residential dwelling unit. Where only one accessible route is provided, it shall not pass through bathrooms, closets, or similar spaces.

809.2.2 Turning Space. All rooms served by an accessible route shall provide a turning space complying with 304.

EXCEPTION: Turning space shall not be required in exterior spaces 30 inches (760 mm) maximum in depth or width.

Advisory 809.2.2 Turning Space.

809.3 Kitchen. Where a kitchen is provided, it shall comply with 804.

809.4 Toilet Facilities and Bathing Facilities. At least one bathroom shall comply with 603. No fewer than one of each type of fixture provided shall comply with applicable requirements of 603 through 610. Toilet and bathing fixtures required to comply with 603 through 610 shall be located in the same toilet and bathing area, such that travel between fixtures does not require travel between other parts of the residential dwelling unit.

Advisory 809.4 Toilet Facilities and Bathing Facilities.

809.5 Residential Dwelling Units with Communication Features. Residential dwelling units required to provide communication features shall comply with 809.5.

809.5.1 Building Fire Alarm System. Where a building fire alarm system is provided, the system wiring shall be extended to a point within the residential dwelling unit in the vicinity of the residential dwelling unit smoke detection system.

809.5.1.1 Alarm Appliances. Where alarm appliances are provided within a residential dwelling unit as part of the building fire alarm system, they shall comply with 702.

809.5.1.2 Activation. All visible alarm appliances provided within the residential dwelling unit for building fire alarm notification shall be activated upon activation of the building fire alarm in the portion of the building containing the residential dwelling unit.

809.5.2 Residential Dwelling Unit Smoke Detection System. Residential dwelling unit smoke detection systems shall comply with NFPA 72 (1999 or 2002 edition) (incorporated by reference, see “Referenced Standards” in Chapter 1).

809.5.2.1 Activation. All visible alarm appliances provided within the residential dwelling unit for smoke detection notification shall be activated upon smoke detection.

809.5.3 Interconnection. The same visible alarm appliances shall be permitted to provide notification of residential dwelling unit smoke detection and building fire alarm activation.

809.5.4 Prohibited Use. Visible alarm appliances used to indicate residential dwelling unit smoke detection or building fire alarm activation shall not be used for any other purpose within the residential dwelling unit.

809.5.5 Residential Dwelling Unit Primary Entrance. Communication features shall be provided at the residential dwelling unit primary entrance complying with 809.5.5.

809.5.5.1 Notification. A hard-wired electric doorbell shall be provided. A button or switch shall be provided outside the residential dwelling unit primary entrance. Activation of the button or switch shall initiate an audible tone and visible signal within the residential dwelling unit. Where visible doorbell signals are located in sleeping areas, they shall have controls to deactivate the signal.

809.5.5.2 Identification. A means for visually identifying a visitor without opening the residential dwelling unit entry door shall be provided and shall allow for a minimum 180 degree range of view.

Advisory 809.5.5.2 Identification.

809.5.6 Site, Building, or Floor Entrance. Where a system, including a closed-circuit system, permitting voice communication between a visitor and the occupant of the residential dwelling unit is provided, the system shall comply with 708.4.

810 Transportation Facilities

810.1 General. Transportation facilities shall comply with 810.

810.2 Bus Boarding and Alighting Areas. Bus boarding and alighting areas shall comply with 810.2.

Advisory 810.2 Bus Boarding and Alighting Areas.

810.2.1 Surface. Bus stop boarding and alighting areas shall have a firm, stable surface.

810.2.2 Dimensions. Bus stop boarding and alighting areas shall provide a clear length of 96 inches (2440 mm) minimum, measured perpendicular to the curb or vehicle roadway edge, and a clear width of 60 inches (1525 mm) minimum, measured parallel to the vehicle roadway.

Figure 810.2.2

A plan view shows a bus pulled up to an area for passengers to board or alight. A clear area immediately outside the bus door is shown 60 inches (1525 mm) minimum, measured parallel to the roadway and 96 inches (1220 mm) minimum, measured perpendicular to the curb or roadway edge.

Dimensions of Bus Boarding and Alighting Areas

810.2.3 Connection. Bus stop boarding and alighting areas shall be connected to streets, sidewalks, or pedestrian paths by an accessible route complying with 402.

810.2.4 Slope. Parallel to the roadway, the slope of the bus stop boarding and alighting area shall be the same as the roadway, to the maximum extent practicable. Perpendicular to the roadway, the slope of the bus stop boarding and alighting area shall not be steeper than 1:48.

810.3 Bus Shelters. Bus shelters shall provide a minimum clear floor or ground space complying with 305 entirely within the shelter. Bus shelters shall be connected by an accessible route complying with 402 to a boarding and alighting area complying with 810.2.

Figure 810.3

A plan view shows a bus shelter with a person using a wheelchair seated fully within. An accessible route connects the wheelchair seating area within the shelter to the bus boarding and alighting area which, in this case, is outside of the shelter.

Bus Shelters

810.4 Bus Signs. Bus route identification signs shall comply with 703.5.1 through 703.5.4, and 703.5.7 and 703.5.8. In addition, to the maximum extent practicable, bus route identification signs shall comply with 703.5.5.

EXCEPTION: Bus schedules, timetables and maps that are posted at the bus stop or bus bay shall not be required to comply.

810.5 Rail Platforms. Rail platforms shall comply with 810.5.

810.5.1 Slope. Rail platforms shall not exceed a slope of 1:48 in all directions.

EXCEPTION: Where platforms serve vehicles operating on existing track or track laid in existing roadway, the slope of the platform parallel to the track shall be permitted to be equal to the slope (grade) of the roadway or existing track.

810.5.2 Detectable Warnings. Platform boarding edges not protected by platform screens or guards shall have detectable warnings complying with 705 along the full length of the public use area of the platform.

810.5.3 Platform and Vehicle Floor Coordination. Station platforms shall be positioned to coordinate with vehicles in accordance with the applicable requirements of 36 CFR Part 1192. Low-level platforms shall be 8 inches (205 mm) minimum above top of rail.

EXCEPTION: Where vehicles are boarded from sidewalks or street-level, low-level platforms shall be permitted to be less than 8 inches (205 mm).

Advisory 810.5.3 Platform and Vehicle Floor Coordination.

810.6 Rail Station Signs. Rail station signs shall comply with 810.6.

EXCEPTION. Signs shall not be required to comply with 810.6.1 and 810.6.2 where audible signs are remotely transmitted to hand-held receivers, or are user- or proximity-actuated.

Advisory 810.6 Rail Station Signs Exception.

810.6.1 Entrances. Where signs identify a station or its entrance, at least one sign at each entrance shall comply with 703.2 and shall be placed in uniform locations to the maximum extent practicable. Where signs identify a station that has no defined entrance, at least one sign shall comply with 703.2 and shall be placed in a central location.

810.6.2 Routes and Destinations. Lists of stations, routes and destinations served by the station which are located on boarding areas, platforms, or mezzanines shall comply with 703.5. At least one tactile sign identifying the specific station and complying with 703.2 shall be provided on each platform or boarding area. Signs covered by this requirement shall, to the maximum extent practicable, be placed in uniform locations within the system.

EXCEPTION: Where sign space is limited, characters shall not be required to exceed 3 inches (75 mm).

Advisory 810.6.2 Routes and Destinations.

810.6.3 Station Names. Stations covered by this section shall have identification signs complying with 703.5. Signs shall be clearly visible and within the sight lines of standing and sitting passengers from within the vehicle on both sides when not obstructed by another vehicle.

Advisory 810.6.3 Station Names.

810.7 Public Address Systems. Where public address systems convey audible information to the public, the same or equivalent information shall be provided in a visual format.

810.8 Clocks. Where clocks are provided for use by the public, the clock face shall be uncluttered so that its elements are clearly visible. Hands, numerals and digits shall contrast with the background either light-on-dark or dark-on-light. Where clocks are installed overhead, numerals and digits shall comply with 703.5.

810.9 Escalators. Where provided, escalators shall comply with the sections 6.1.3.5.6 and 6.1.3.6.5 of ASME A17.1 (incorporated by reference, see “Referenced Standards” in Chapter 1) and shall have a clear width of 32 inches (815 mm) minimum.

EXCEPTION: Existing escalators in key stations shall not be required to comply with 810.9.

810.10 Track Crossings. Where a circulation path serving boarding platforms crosses tracks, it shall comply with 402.

EXCEPTION: Openings for wheel flanges shall be permitted to be 2 1/2 inches (64 mm) maximum.

Figure 810.10

A cross section of a pair of train rails is shown with walkway surfaces abutting the rails on the outside of the pair. The surface between the rails is at the same level as the outside surfaces, but a horizontal gap 2 1/2 inches (64 mm) maximum is shown on the inner edge of each rail to accommodate a train wheel flange.

(Exception) Track Crossings

811 Storage

811.1 General. Storage shall comply with 811.

811.2 Clear Floor or Ground Space. A clear floor or ground space complying with 305 shall be provided.

811.3 Height. Storage elements shall comply with at least one of the reach ranges specified in 308.

811.4 Operable Parts. Operable parts shall comply with 309.

CHAPTER 9: BUILT-IN ELEMENTS

901 General

901.1 Scope. The provisions of Chapter 9 shall apply where required by Chapter 2 or where referenced by a requirement in this document.

902 Dining Surfaces and Work Surfaces

902.1 General. Dining surfaces and work surfaces shall comply with 902.2 and 902.3.

EXCEPTION: Dining surfaces and work surfaces for children’s use shall be permitted to comply with 902.4.

Advisory 902.1 General.

902.2 Clear Floor or Ground Space. A clear floor space complying with 305 positioned for a forward approach shall be provided. Knee and toe clearance complying with 306 shall be provided.

902.3 Height. The tops of dining surfaces and work surfaces shall be 28 inches (710 mm) minimum and 34 inches (865 mm) maximum above the finish floor or ground.

902.4 Dining Surfaces and Work Surfaces for Children’s Use. Accessible dining surfaces and work surfaces for children’s use shall comply with 902.4.

EXCEPTION: Dining surfaces and work surfaces that are used primarily by children 5 years and younger shall not be required to comply with 902.4 where a clear floor or ground space complying with 305 positioned for a parallel approach is provided.

902.4.1 Clear Floor or Ground Space. A clear floor space complying with 305 positioned for forward approach shall be provided. Knee and toe clearance complying with 306 shall be provided, except that knee clearance 24 inches (610 mm) minimum above the finish floor or ground shall be permitted.

902.4.2 Height. The tops of tables and counters shall be 26 inches (660 mm) minimum and 30 inches (760 mm) maximum above the finish floor or ground.

903 Benches

903.1 General. Benches shall comply with 903.

903.2 Clear Floor or Ground Space. Clear floor or ground space complying with 305 shall be provided and shall be positioned at the end of the bench seat and parallel to the short axis of the bench.

903.3 Size. Benches shall have seats that are 42 inches (1065 mm) long minimum and 20 inches (510 mm) deep minimum and 24 inches (610 mm) deep maximum.

903.4 Back Support. The bench shall provide for back support or shall be affixed to a wall. Back support shall be 42 inches (1065 mm) long minimum and shall extend from a point 2 inches (51 mm) maximum above the seat surface to a point 18 inches (455 mm) minimum above the seat surface. Back support shall be 2 1/2 inches (64 mm) maximum from the rear edge of the seat measured horizontally.

Advisory 903.4 Back Support.

Figure 903.4

Figure (a) is an elevation drawing of a bench with a back. The bottom edge of the back is 2 inches (51 mm) maximum above the seat surface and the top edge of the back is 18 inches (455 mm) above the seat surface. Figure (b) shows the distance between the rear edge of the seat and the front face of the back support as 2 1/2 inches (64 mm) maximum.

Bench Back Support

903.5 Height. The top of the bench seat surface shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the finish floor or ground.

903.6 Structural Strength. Allowable stresses shall not be exceeded for materials used when a vertical or horizontal force of 250 pounds (1112 N) is applied at any point on the seat, fastener, mounting device, or supporting structure.

903.7 Wet Locations. Where installed in wet locations, the surface of the seat shall be slip resistant and shall not accumulate water.

904 Check-Out Aisles and Sales and Service Counters

904.1 General. Check-out aisles and sales and service counters shall comply with the applicable requirements of 904.

904.2 Approach. All portions of counters required to comply with 904 shall be located adjacent to a walking surface complying with 403.

Advisory 904.2 Approach.

904.3 Check-Out Aisles. Check-out aisles shall comply with 904.3.

904.3.1 Aisle. Aisles shall comply with 403.

904.3.2 Counter. The counter surface height shall be 38 inches (965 mm) maximum above the finish floor or ground. The top of the counter edge protection shall be 2 inches (51 mm) maximum above the top of the counter surface on the aisle side of the check-out counter.

Figure 904.3.2

A counter surface is shown in elevation with a maximum height of 38 inches (965 mm) above the floor or ground and with edge protection above the surface that is 2 inches (51 mm) high maximum.

Check-Out Aisle Counters

904.3.3 Check Writing Surfaces. Where provided, check writing surfaces shall comply with 902.3.

904.4 Sales and Service Counters. Sales counters and service counters shall comply with 904.4.1 or 904.4.2. The accessible portion of the counter top shall extend the same depth as the sales or service counter top.

EXCEPTION: In alterations, when the provision of a counter complying with 904.4 would result in a reduction of the number of existing counters at work stations or a reduction of the number of existing mail boxes, the counter shall be permitted to have a portion which is 24 inches (610 mm) long minimum complying with 904.4.1 provided that the required clear floor or ground space is centered on the accessible length of the counter.

Figure 904.4

A plan view shows a portion of a counter 24 inches (610 mm) long minimum at which is centered the long dimension of clear floor or ground space.

(Exception) Alteration of Sales and Service Counters

904.4.1 Parallel Approach. A portion of the counter surface that is 36 inches (915 mm) long minimum and 36 inches (915 mm) high maximum above the finish floor shall be provided. A clear floor or ground space complying with 305 shall be positioned for a parallel approach adjacent to the 36 inch (915 mm) minimum length of counter.

EXCEPTION: Where the provided counter surface is less than 36 inches (915 mm) long, the entire counter surface shall be 36 inches (915 mm) high maximum above the finish floor.

904.4.2 Forward Approach. A portion of the counter surface that is 30 inches (760 mm) long minimum and 36 inches (915 mm) high maximum shall be provided. Knee and toe space complying with 306 shall be provided under the counter. A clear floor or ground space complying with 305 shall be positioned for a forward approach to the counter.

904.5 Food Service Lines. Counters in food service lines shall comply with 904.5.

904.5.1 Self-Service Shelves and Dispensing Devices. Self-service shelves and dispensing devices for tableware, dishware, condiments, food and beverages shall comply with 308.

904.5.2 Tray Slides. The tops of tray slides shall be 28 inches (710 mm) minimum and 34 inches (865 mm) maximum above the finish floor or ground.

904.6 Security Glazing. Where counters or teller windows have security glazing to separate personnel from the public, a method to facilitate voice communication shall be provided. Telephone handset devices, if provided, shall comply with 704.3.

Advisory 904.6 Security Glazing.

CHAPTER 10: RECREATION FACILITIES

1001 General

1001.1 Scope. The provisions of Chapter 10 shall apply where required by Chapter 2 or where referenced by a requirement in this document.

Advisory 1001.1 Scope.

1002 Amusement Rides

1002.1 General. Amusement rides shall comply with 1002.

1002.2 Accessible Routes. Accessible routes serving amusement rides shall comply with Chapter 4.

EXCEPTIONS:

In load or unload areas and on amusement rides, where compliance with 405.2 is not structurally or operationally feasible, ramp slope shall be permitted to be 1:8 maximum.

In load or unload areas and on amusement rides, handrails provided along walking surfaces complying with 403 and required on ramps complying with 405 shall not be required to comply with 505 where compliance is not structurally or operationally feasible.

Advisory 1002.2 Accessible Routes Exception 1.

1002.3 Load and Unload Areas. A turning space complying with 304.2 and 304.3 shall be provided in load and unload areas.

1002.4 Wheelchair Spaces in Amusement Rides. Wheelchair spaces in amusement rides shall comply with 1002.4.

1002.4.1 Floor or Ground Surface. The floor or ground surface of wheelchair spaces shall be stable and firm.

1002.4.2 Slope. The floor or ground surface of wheelchair spaces shall have a slope not steeper than 1:48 when in the load and unload position.

1002.4.3 Gaps. Floors of amusement rides with wheelchair spaces and floors of load and unload areas shall be coordinated so that, when amusement rides are at rest in the load and unload position, the vertical difference between the floors shall be within plus or minus 5/8 inches (16 mm) and the horizontal gap shall be 3 inches (75 mm) maximum under normal passenger load conditions.

EXCEPTION: Where compliance is not operationally or structurally feasible, ramps, bridge plates, or similar devices complying with the applicable requirements of 36 CFR 1192.83(c) shall be provided.

Advisory 1002.4.3 Gaps Exception.

1002.4.4 Clearances. Clearances for wheelchair spaces shall comply with 1002.4.4.

EXCEPTIONS:

Where provided, securement devices shall be permitted to overlap required clearances.

Wheelchair spaces shall be permitted to be mechanically or manually repositioned.

Wheelchair spaces shall not be required to comply with 307.4.

Advisory 1002.4.4 Clearances Exception 3.

1002.4.4.1 Width and Length. Wheelchair spaces shall provide a clear width of 30 inches (760 mm) minimum and a clear length of 48 inches (1220 mm) minimum measured to 9 inches (230 mm) minimum above the floor surface.

1002.4.4.2 Side Entry. Where wheelchair spaces are entered only from the side, amusement rides shall be designed to permit sufficient maneuvering clearance for individuals using a wheelchair or mobility aid to enter and exit the ride.

Advisory 1002.4.4.2 Side Entry.

1002.4.4.3 Permitted Protrusions in Wheelchair Spaces. Objects are permitted to protrude a distance of 6 inches (150 mm) maximum along the front of the wheelchair space, where located 9 inches (230 mm) minimum and 27 inches (685 mm) maximum above the floor or ground surface of the wheelchair space. Objects are permitted to protrude a distance of 25 inches (635 mm) maximum along the front of the wheelchair space, where located more than 27 inches (685 mm) above the floor or ground surface of the wheelchair space.

Figure 1002.4.4.3

An elevation drawing of a person seated in a wheelchair on an amusement ride shows that objects may protrude 6 inches (150 mm) maximum along the front of the wheelchair space where located 9 inches (230 mm) minimum and 27 inches (685 mm) maximum above the floor or ground surface of the wheelchair space. Objects may protrude a distance of 25 inches maximum along the front of the wheelchair space, where located more than 27 inches above the floor or ground surface.

Protrusions in Wheelchair Spaces in Amusement Rides

1002.4.5 Ride Entry. Openings providing entry to wheelchair spaces on amusement rides shall be 32 inches (815 mm) minimum clear.

1002.4.6 Approach. One side of the wheelchair space shall adjoin an accessible route when in the load and unload position.

1002.4.7 Companion Seats. Where the interior width of the amusement ride is greater than 53 inches (1345 mm), seating is provided for more than one rider, and the wheelchair is not required to be centered within the amusement ride, a companion seat shall be provided for each wheelchair space.

1002.4.7.1 Shoulder-to-Shoulder Seating. Where an amusement ride provides shoulder-to-shoulder seating, companion seats shall be shoulder-to-shoulder with the adjacent wheelchair space.

EXCEPTION: Where shoulder-to-shoulder companion seating is not operationally or structurally feasible, compliance with this requirement shall be required to the maximum extent practicable.

1002.5 Amusement Ride Seats Designed for Transfer. Amusement ride seats designed for transfer shall comply with 1002.5 when positioned for loading and unloading.

Advisory 1002.5 Amusement Ride Seats Designed for Transfer.

1002.5.1 Clear Floor or Ground Space. A clear floor or ground space complying with 305 shall be provided in the load and unload area adjacent to the amusement ride seats designed for transfer.

1002.5.2 Transfer Height. The height of amusement ride seats designed for transfer shall be 14 inches (355 mm) minimum and 24 inches (610 mm) maximum measured from the surface of the load and unload area.

1002.5.3 Transfer Entry. Where openings are provided for transfer to amusement ride seats, the openings shall provide clearance for transfer from a wheelchair or mobility aid to the amusement ride seat.

1002.5.4 Wheelchair Storage Space. Wheelchair storage spaces complying with 305 shall be provided in or adjacent to unload areas for each required amusement ride seat designed for transfer and shall not overlap any required means of egress or accessible route.

1002.6 Transfer Devices for Use with Amusement Rides. Transfer devices for use with amusement rides shall comply with 1002.6 when positioned for loading and unloading.

Advisory 1002.6 Transfer Devices for Use with Amusement Rides.

1002.6.1 Clear Floor or Ground Space. A clear floor or ground space complying with 305 shall be provided in the load and unload area adjacent to the transfer device.

1002.6.2 Transfer Height. The height of transfer device seats shall be 14 inches (355 mm) minimum and 24 inches (610 mm) maximum measured from the load and unload surface.

1002.6.3 Wheelchair Storage Space. Wheelchair storage spaces complying with 305 shall be provided in or adjacent to unload areas for each required transfer device and shall not overlap any required means of egress or accessible route.

1003 Recreational Boating Facilities

1003.1 General. Recreational boating facilities shall comply with 1003.

1003.2 Accessible Routes. Accessible routes serving recreational boating facilities, including gangways and floating piers, shall comply with Chapter 4 except as modified by the exceptions in 1003.2.

1003.2.1 Boat Slips. Accessible routes serving boat slips shall be permitted to use the exceptions in 1003.2.1.

EXCEPTIONS:

Where an existing gangway or series of gangways is replaced or altered, an increase in the length of the gangway shall not be required to comply with 1003.2 unless required by 202.4.

Gangways shall not be required to comply with the maximum rise specified in 405.6.

Where the total length of a gangway or series of gangways serving as part of a required accessible route is 80 feet (24 m) minimum, gangways shall not be required to comply with 405.2.

Where facilities contain fewer than 25 boat slips and the total length of the gangway or series of gangways serving as part of a required accessible route is 30 feet (9145 mm) minimum, gangways shall not be required to comply with 405.2.

Where gangways connect to transition plates, landings specified by 405.7 shall not be required.

Where gangways and transition plates connect and are required to have handrails, handrail extensions shall not be required. Where handrail extensions are provided on gangways or transition plates, the handrail extensions shall not be required to be parallel with the ground or floor surface.

The cross slope specified in 403.3 and 405.3 for gangways, transition plates, and floating piers that are part of accessible routes shall be measured in the static position.

Changes in level complying with 303.3 and 303.4 shall be permitted on the surfaces of gangways and boat launch ramps.

Advisory 1003.2.1 Boat Slips Exception 3.

1003.2.2 Boarding Piers at Boat Launch Ramps. Accessible routes serving boarding piers at boat launch ramps shall be permitted to use the exceptions in 1003.2.2.

EXCEPTIONS:

Accessible routes serving floating boarding piers shall be permitted to use Exceptions 1, 2, 5, 6, 7 and 8 in 1003.2.1.

Where the total length of the gangway or series of gangways serving as part of a required accessible route is 30 feet (9145 mm) minimum, gangways shall not be required to comply with 405.2.

Where the accessible route serving a floating boarding pier or skid pier is located within a boat launch ramp, the portion of the accessible route located within the boat launch ramp shall not be required to comply with 405.

1003.3 Clearances. Clearances at boat slips and on boarding piers at boat launch ramps shall comply with 1003.3.

Advisory 1003.3 Clearances.

1003.3.1 Boat Slip Clearance. Boat slips shall provide clear pier space 60 inches (1525 mm) wide minimum and at least as long as the boat slips. Each 10 feet (3050 mm) maximum of linear pier edge serving boat slips shall contain at least one continuous clear opening 60 inches (1525 mm) wide minimum.

EXCEPTIONS:

Clear pier space shall be permitted to be 36 inches (915 mm) wide minimum for a length of 24 inches (610 mm) maximum, provided that multiple 36 inch (915 mm) wide segments are separated by segments that are 60 inches (1525 mm) wide minimum and 60 inches (1525 mm) long minimum. Edge protection shall be permitted at the continuous clear openings, provided that it is 4 inches (100 mm) high maximum and 2 inches (51 mm) wide maximum.

In existing piers, clear pier space shall be permitted to be located perpendicular to the boat slip and shall extend the width of the boat slip, where the facility has at least one boat slip complying with 1003.3, and further compliance with 1003.3 would result in a reduction in the number of boat slips available or result in a reduction of the widths of existing slips.

Advisory 1003.3.1 Boat Slip Clearance Exception 3.

Figure 1003.3.1

Pier clearances are shown in plan view. Accessible boat slips are served by clear pier space 60 inches (1525 mm) long minimum and at least as long as the accessible boat slips. Every 10 feet (3050 mm) maximum of linear pier edge serving the accessible boat slips contains at least one continuous clear opening 60 inches (1525 mm) minimum long.

Boat Slip Clearance

Figure 1003.3.1

A plan view shows that the width of the clear pier space can be 36 inches (915 mm) wide minimum for a length of 24 inches (610 mm) maximum where multiple 36 inch (915 mm) wide segments are separated by clear segments 60 by 60 inches (1525 by 1525 mm) minimum.

(Exception 1) Clear Pier Space Reduction at Boat Slips

Figure 1003.3.1

An elevation drawing shows pier edge protection that is 4 inches (100 mm) high maximum and 2 inches (51 mm) thick maximum.

(Exception 2) Edge Protection at Boat Slips

1003.3.2 Boarding Pier Clearances. Boarding piers at boat launch ramps shall provide clear pier space 60 inches (1525 mm) wide minimum and shall extend the full length of the boarding pier. Every 10 feet (3050 mm) maximum of linear pier edge shall contain at least one continuous clear opening 60 inches (1525 mm) wide minimum.

EXCEPTIONS:

The clear pier space shall be permitted to be 36 inches (915 mm) wide minimum for a length of 24 inches (610 mm) maximum provided that multiple 36 inch (915 mm) wide segments are separated by segments that are 60 inches (1525 mm) wide minimum and 60 inches (1525 mm) long minimum. Edge protection shall be permitted at the continuous clear openings provided that it is 4 inches (100 mm) high maximum and 2 inches (51 mm) wide maximum.

Advisory 1003.3.2 Boarding Pier Clearances.

Figure 1003.3.2

Pier clearances are shown in plan view. Accessible boarding pier at a boat launch ramp has clear pier space 60 inches (1525 mm) long minimum, the full length of the boarding pier. Every 10 feet (3050 mm) maximum of linear pier edge contains at least one continuous clear opening 60 inches (1525 mm) long minimum.

Boarding Pier Clearance

Figure 1003.3.2

A plan view shows that the width of the clear pier space can be 36 inches (915 mm) wide minimum for a length of 24 inches (610 mm) maximum where multiple 36 inch (915 mm) wide segments are separated by clear segments 60 by 60 inches (1525 by 1525 mm) minimum.

(Exception 1) Clear Pier Space Reduction at Boarding Piers

Figure 1003.3.2

An elevation drawing shows pier edge protection that is 4 inches (100 mm) high maximum and 2 inches (51 mm) thick maximum.

(Exception 2) Edge Protection at Boarding Piers

1004 Exercise Machines and Equipment

1004.1 Clear Floor Space. Exercise machines and equipment shall have a clear floor space complying with 305 positioned for transfer or for use by an individual seated in a wheelchair. Clear floor or ground spaces required at exercise machines and equipment shall be permitted to overlap.

Advisory 1004.1 Clear Floor Space.

1005 Fishing Piers and Platforms

1005.1 Accessible Routes. Accessible routes serving fishing piers and platforms, including gangways and floating piers, shall comply with Chapter 4.

EXCEPTIONS:

Accessible routes serving floating fishing piers and platforms shall be permitted to use Exceptions 1, 2, 5, 6, 7 and 8 in 1003.2.1.

Where the total length of the gangway or series of gangways serving as part of a required accessible route is 30 feet (9145 mm) minimum, gangways shall not be required to comply with 405.2.

1005.2 Railings. Where provided, railings, guards, or handrails shall comply with 1005.2.

1005.2.1 Height. At least 25 percent of the railings, guards, or handrails shall be 34 inches (865 mm) maximum above the ground or deck surface.

EXCEPTION: Where a guard complying with sections 1003.2.12.1 and 1003.2.12.2 of the International Building Code (2000 edition) or sections 1012.2 and 1012.3 of the International Building Code (2003 edition) (incorporated by reference, see “Referenced Standards” in Chapter 1) is provided, the guard shall not be required to comply with 1005.2.1.

1005.2.1.1 Dispersion. Railings, guards, or handrails required to comply with 1005.2.1 shall be dispersed throughout the fishing pier or platform.

Advisory 1005.2.1.1 Dispersion.

1005.3 Edge Protection. Where railings, guards, or handrails complying with 1005.2 are provided, edge protection complying with 1005.3.1 or 1005.3.2 shall be provided.

Advisory 1005.3 Edge Protection.

1005.3.1 Curb or Barrier. Curbs or barriers shall extend 2 inches (51 mm) minimum above the surface of the fishing pier or platform.

1005.3.2 Extended Ground or Deck Surface. The ground or deck surface shall extend 12 inches (305 mm) minimum beyond the inside face of the railing. Toe clearance shall be provided and shall be 30 inches (760 mm) wide minimum and 9 inches (230 mm) minimum above the ground or deck surface beyond the railing.

Figure 1003.3.2

Figure (a) is a side elevation drawing and figure (b) is a front elevation drawing of edge protection at fishing piers. Where a railing or guard is 34 inches (865 mm) high maximum, edge protection is not required if the deck surface extends 12 inches (305 mm) minimum beyond the inside face of the railing. Toe clearance must be at least 9 inches (230 mm) high beyond the railing and at least 30 inches (760 mm) wide.

Extended Ground or Deck Surface at Fishing Piers and Platforms

1005.4 Clear Floor or Ground Space. At each location where there are railings, guards, or handrails complying with 1005.2.1, a clear floor or ground space complying with 305 shall be provided. Where there are no railings, guards, or handrails, at least one clear floor or ground space complying with 305 shall be provided on the fishing pier or platform.

1005.5 Turning Space. At least one turning space complying with 304.3 shall be provided on fishing piers and platforms.

1006 Golf Facilities

1006.1 General. Golf facilities shall comply with 1006.

1006.2 Accessible Routes. Accessible routes serving teeing grounds, practice teeing grounds, putting greens, practice putting greens, teeing stations at driving ranges, course weather shelters, golf car rental areas, bag drop areas, and course toilet rooms shall comply with Chapter 4 and shall be 48 inches (1220 mm) wide minimum. Where handrails are provided, accessible routes shall be 60 inches (1525 mm) wide minimum.

EXCEPTION: Handrails shall not be required on golf courses. Where handrails are provided on golf courses, the handrails shall not be required to comply with 505.

Advisory 1006.2 Accessible Routes.

1006.3 Golf Car Passages. Golf car passages shall comply with 1006.3.

1006.3.1 Clear Width. The clear width of golf car passages shall be 48 inches (1220 mm) minimum.

1006.3.2 Barriers. Where curbs or other constructed barriers prevent golf cars from entering a fairway, openings 60 inches (1525 mm) wide minimum shall be provided at intervals not to exceed 75 yards (69 m).

1006.4 Weather Shelters. A clear floor or ground space 60 inches (1525 mm) minimum by 96 inches (2440 mm) minimum shall be provided within weather shelters.

1007 Miniature Golf Facilities

1007.1 General. Miniature golf facilities shall comply with 1007.

1007.2 Accessible Routes. Accessible routes serving holes on miniature golf courses shall comply with Chapter 4. Accessible routes located on playing surfaces of miniature golf holes shall be permitted to use the exceptions in 1007.2.

EXCEPTIONS:

Playing surfaces shall not be required to comply with 302.2.

Where accessible routes intersect playing surfaces of holes, a 1 inch (25 mm) maximum curb shall be permitted for a width of 32 inches (815 mm) minimum.

A slope not steeper than 1:4 for a 4 inch (100 mm) maximum rise shall be permitted.

Ramp landing slopes specified by 405.7.1 shall be permitted to be 1:20 maximum.

Ramp landing length specified by 405.7.3 shall be permitted to be 48 inches (1220 mm) long minimum.

Ramp landing size specified by 405.7.4 shall be permitted to be 48 inches (1220 mm) minimum by 60 inches (1525 mm) minimum.

Handrails shall not be required on holes. Where handrails are provided on holes, the handrails shall not be required to comply with 505. 1007.3 Miniature Golf Holes. Miniature golf holes shall comply with 1007.3.

1007.3.1 Start of Play. A clear floor or ground space 48 inches (1220 mm) minimum by 60 inches (1525 mm) minimum with slopes not steeper than 1:48 shall be provided at the start of play.

1007.3.2 Golf Club Reach Range Area. All areas within holes where golf balls rest shall be within 36 inches (915 mm) maximum of a clear floor or ground space 36 inches (915 mm) wide minimum and 48 inches (1220 mm) long minimum having a running slope not steeper than 1:20. The clear floor or ground space shall be served by an accessible route.

Advisory 1007.3.2 Golf Club Reach Range Area.

Figure 1007.3.2

A plan view shows a person using a wheelchair reaching a golf ball. The wheelchair space is 48 inches (1220 mm) long minimum and 36 inches (915 mm) wide minimum, having a running slope not steeper than 1:20. The golf ball are is 36 inches (915 mm) maximum from the wheelchair clear space.

Golf Club Reach Range Area

1008 Play Areas

1008.1 General. Play areas shall comply with 1008.

1008.2 Accessible Routes. Accessible routes serving play areas shall comply with Chapter 4 and 1008.2 and shall be permitted to use the exceptions in 1008.2.1 through 1008.2.3. Where accessible routes serve ground level play components, the vertical clearance shall be 80 inches high (2030 mm) minimum.

1008.2.1 Ground Level and Elevated Play Components. Accessible routes serving ground level play components and elevated play components shall be permitted to use the exceptions in 1008.2.1.

EXCEPTIONS:

Transfer systems complying with 1008.3 shall be permitted to connect elevated play components except where 20 or more elevated play components are provided no more than 25 percent of the elevated play components shall be permitted to be connected by transfer systems.

Where transfer systems are provided, an elevated play component shall be permitted to connect to another elevated play component as part of an accessible route.

1008.2.2 Soft Contained Play Structures. Accessible routes serving soft contained play structures shall be permitted to use the exception in 1008.2.2.

EXCEPTION: Transfer systems complying with 1008.3 shall be permitted to be used as part of an accessible route.

1008.2.3 Water Play Components. Accessible routes serving water play components shall be permitted to use the exceptions in 1008.2.3.

EXCEPTIONS:

Where the surface of the accessible route, clear floor or ground spaces, or turning spaces serving water play components is submerged, compliance with 302, 403.3, 405.2, 405.3, and 1008.2.6 shall not be required.

Transfer systems complying with 1008.3 shall be permitted to connect elevated play components in water.

Advisory 1008.2.3 Water Play Components.

1008.2.4 Clear Width. Accessible routes connecting play components shall provide a clear width complying with 1008.2.4.

1008.2.4.1 Ground Level. At ground level, the clear width of accessible routes shall be 60 inches (1525 mm) minimum.

EXCEPTIONS:

In play areas less than 1000 square feet (93 m²), the clear width of accessible routes shall be permitted to be 44 inches (1120 mm) minimum, if at least one turning space complying with 304.3 is provided where the restricted accessible route exceeds 30 feet (9145 mm) in length.

The clear width of accessible routes shall be permitted to be 36 inches (915 mm) minimum for a distance of 60 inches (1525 mm) maximum provided that multiple reduced width segments are separated by segments that are 60 inches (1525 mm) wide minimum and 60 inches (1525 mm) long minimum.

1008.2.4.2 Elevated. The clear width of accessible routes connecting elevated play components shall be 36 inches (915 mm) minimum.

EXCEPTIONS:

The clear width of accessible routes connecting elevated play components shall be permitted to be reduced to 32 inches (815 mm) minimum for a distance of 24 inches (610 mm) maximum provided that reduced width segments are separated by segments that are 48 inches (1220 mm) long minimum and 36 inches (915 mm) wide minimum.

The clear width of transfer systems connecting elevated play components shall be permitted to be 24 inches (610 mm) minimum.

1008.2.5 Ramps. Within play areas, ramps connecting ground level play components and ramps connecting elevated play components shall comply with 1008.2.5.

1008.2.5.1 Ground Level. Ramp runs connecting ground level play components shall have a running slope not steeper than 1:16.

1008.2.5.2 Elevated. The rise for any ramp run connecting elevated play components shall be 12 inches (305 mm) maximum.

1008.2.5.3 Handrails. Where required on ramps serving play components, the handrails shall comply with 505 except as modified by 1008.2.5.3.

EXCEPTIONS:

Handrails shall not be required on ramps located within ground level use zones.

Handrail extensions shall not be required.

1008.2.5.3.1 Handrail Gripping Surfaces. Handrail gripping surfaces with a circular cross section shall have an outside diameter of 0.95 inch (24 mm) minimum and 1.55 inches (39 mm) maximum. Where the shape of the gripping surface is non-circular, the handrail shall provide an equivalent gripping surface.

1008.2.5.3.2 Handrail Height. The top of handrail gripping surfaces shall be 20 inches (510 mm) minimum and 28 inches (710 mm) maximum above the ramp surface.

1008.2.6 Ground Surfaces. Ground surfaces on accessible routes, clear floor or ground spaces, and turning spaces shall comply with 1008.2.6.

Advisory 1008.2.6 Ground Surfaces.

1008.2.6.1 Accessibility. Ground surfaces shall comply with ASTM F 1951 (incorporated by reference, see “Referenced Standards” in Chapter 1). Ground surfaces shall be inspected and maintained regularly and frequently to ensure continued compliance with ASTM F 1951.

1008.2.6.2 Use Zones. Ground surfaces located within use zones shall comply with ASTM F 1292 (1999 edition or 2004 edition) (incorporated by reference, see “Referenced Standards” in Chapter 1).

1008.3 Transfer Systems. Where transfer systems are provided to connect to elevated play components, transfer systems shall comply with 1008.3.

Advisory 1008.3 Transfer Systems.

1008.3.1 Transfer Platforms. Transfer platforms shall be provided where transfer is intended from wheelchairs or other mobility aids. Transfer platforms shall comply with 1008.3.1.

1008.3.1.1 Size. Transfer platforms shall have level surfaces 14 inches (355 mm) deep minimum and 24 inches (610 mm) wide minimum.

1008.3.1.2 Height. The height of transfer platforms shall be 11 inches (280 mm) minimum and 18 inches (455 mm) maximum measured to the top of the surface from the ground or floor surface.

1008.3.1.3 Transfer Space. A transfer space complying with 305.2 and 305.3 shall be provided adjacent to the transfer platform. The 48 inch (1220 mm) long minimum dimension of the transfer space shall be centered on and parallel to the 24 inch (610 mm) long minimum side of the transfer platform. The side of the transfer platform serving the transfer space shall be unobstructed.

1008.3.1.4 Transfer Supports. At least one means of support for transferring shall be provided.

Figure 1008.3.1

Figure (a) is an elevation drawing showing a transfer platform with a surface height 11 to 18 inches (280 to 455 mm) above the ground. Figure (b) is a plan view of the platform having a depth of 14 inches (355 mm) minimum and a width of 24 inches (610 mm) minimum. A clear ground space that is 48 inches (1220 mm) long minimum is centered on this dimension parallel to the 24 in (610 mm) minimum long unobstructed side of the transfer platform.

Transfer Platforms

1008.3.2 Transfer Steps. Transfer steps shall be provided where movement is intended from transfer platforms to levels with elevated play components required to be on accessible routes. Transfer steps shall comply with 1008.3.2.

1008.3.2.1 Size. Transfer steps shall have level surfaces 14 inches (355 mm) deep minimum and 24 inches (610 mm) wide minimum.

1008.3.2.2 Height. Each transfer step shall be 8 inches (205 mm) high maximum.

1008.3.2.3 Transfer Supports. At least one means of support for transferring shall be provided.

Advisory 1008.3.2.3 Transfer Supports.

Figure 1008.3.2

Figure (a) is an elevation drawing of a transfer step 8 inches (205 mm) high maximum. Figure (b) is a plan view of a transfer step that is 14 inches (355 mm) deep minimum and 24 inches (610 mm) long minimum.

Transfer Steps

1008.4 Play Components. Ground level play components on accessible routes and elevated play components connected by ramps shall comply with 1008.4.

1008.4.1 Turning Space. At least one turning space complying with 304 shall be provided on the same level as play components. Where swings are provided, the turning space shall be located immediately adjacent to the swing.

1008.4.2 Clear Floor or Ground Space. Clear floor or ground space complying with 305.2 and 305.3 shall be provided at play components.

Advisory 1008.4.2 Clear Floor or Ground Space.

Children's Reach Ranges

Forward or Side Reach	Ages 3 and 4	Ages 5 through 8	Ages 9 through 12
High (maximum)	36 in (915 mm)	40 in (1015 mm)	44 in (1120 mm)
Low (minimum)	20 in (510 mm)	18 in (455 mm)	16 in (405 mm)

1008.4.3 Play Tables. Where play tables are provided, knee clearance 24 inches (610 mm) high minimum, 17 inches deep (430 mm) minimum, and 30 inches (760 mm) wide minimum shall be provided. The tops of rims, curbs, or other obstructions shall be 31 inches (785 mm) high maximum.

EXCEPTION: Play tables designed and constructed primarily for children 5 years and younger shall not be required to provide knee clearance where the clear floor or ground space required by 1008.4.2 is arranged for a parallel approach.

1008.4.4 Entry Points and Seats. Where play components require transfer to entry points or seats, the entry points or seats shall be 11 inches (280 mm) minimum and 24 inches (610 mm) maximum from the clear floor or ground space.

EXCEPTION: Entry points of slides shall not be required to comply with 1008.4.4.

1008.4.5 Transfer Supports. Where play components require transfer to entry points or seats, at least one means of support for transferring shall be provided.

1009 Swimming Pools, Wading Pools, and Spas

1009.1 General. Where provided, pool lifts, sloped entries, transfer walls, transfer systems, and pool stairs shall comply with 1009.

1009.2 Pool Lifts. Pool lifts shall comply with 1009.2.

Advisory 1009.2 Pool Lifts.

1009.2.1 Pool Lift Location. Pool lifts shall be located where the water level does not exceed 48 inches (1220 mm).

EXCEPTIONS:

Where the entire pool depth is greater than 48 inches (1220 mm), compliance with 1009.2.1 shall not be required.

Where multiple pool lift locations are provided, no more than one pool lift shall be required to be located in an area where the water level is 48 inches (1220 mm) maximum.

1009.2.2 Seat Location. In the raised position, the centerline of the seat shall be located over the deck and 16 inches (405 mm) minimum from the edge of the pool. The deck surface between the centerline of the seat and the pool edge shall have a slope not steeper than 1:48.

Figure 1009.2.2

A plan view shows pool lift seat located over the deck 16 inches minimum from the edge of the pool, measured to the seat centerline.

Pool Lift Seat Location

1009.2.3 Clear Deck Space. On the side of the seat opposite the water, a clear deck space shall be provided parallel with the seat. The space shall be 36 inches (915 mm) wide minimum and shall extend forward 48 inches (1220 mm) minimum from a line located 12 inches (305 mm) behind the rear edge of the seat. The clear deck space shall have a slope not steeper than 1:48.

Figure 1009.2.3

A plan view of clear deck space at pool lifts shows a clear deck space 36 inches (915 mm) wide minimum and 48 inches (1220 mm) long minimum is shown parallel to the seat, on the side of the seat opposite the water. The 48-inch length extends from a line located 12 inches behind the rear edge of the seat.

Clear Deck Space at Pool Lifts

1009.2.4 Seat Height. The height of the lift seat shall be designed to allow a stop at 16 inches (405 mm) minimum to 19 inches (485 mm) maximum measured from the deck to the top of the seat surface when in the raised (load) position.

Figure 1009.2.4

An elevation drawing shows pool lift seat height to be 16 to 19 inches (405 to 485 mm) measured from the deck to the top of the seat surface when in the raised (load) position.

Pool Lift Seat Height

1009.2.5 Seat Width. The seat shall be 16 inches (405 mm) wide minimum.

1009.2.6 Footrests and Armrests. Footrests shall be provided and shall move with the seat. If provided, the armrest positioned opposite the water shall be removable or shall fold clear of the seat when the seat is in the raised (load) position.

EXCEPTION: Footrests shall not be required on pool lifts provided in spas.

1009.2.7 Operation. The lift shall be capable of unassisted operation from both the deck and water levels. Controls and operating mechanisms shall be unobstructed when the lift is in use and shall comply with 309.4.

Advisory 1009.2.7 Operation.

1009.2.8 Submerged Depth. The lift shall be designed so that the seat will submerge to a water depth of 18 inches (455 mm) minimum below the stationary water level.

Figure 1009.2.8

An elevation drawing shows a pool lift with the surface of the seat submerged to a water depth of 18 inches (455 mm) minimum below the stationary water level.

Pool Lift Submerged Depth

1009.2.9 Lifting Capacity. Single person pool lifts shall have a weight capacity of 300 pounds. (136 kg) minimum and be capable of sustaining a static load of at least one and a half times the rated load.

Advisory 1009.2.9 Lifting Capacity.

1009.3 Sloped Entries. Sloped entries shall comply with 1009.3.

Advisory 1009.3 Sloped Entries.

1009.3.1 Sloped Entries. Sloped entries shall comply with Chapter 4 except as modified in 1009.3.1 through 1009.3.3.

EXCEPTION: Where sloped entries are provided, the surfaces shall not be required to be slip resistant.

1009.3.2 Submerged Depth. Sloped entries shall extend to a depth of 24 inches (610 mm) minimum and 30 inches (760 mm) maximum below the stationary water level. Where landings are required by 405.7, at least one landing shall be located 24 inches (610 mm) minimum and 30 inches (760 mm) maximum below the stationary water level.

EXCEPTION: In wading pools, the sloped entry and landings, if provided, shall extend to the deepest part of the wading pool.

Figure 1009.3.2

An elevation drawing shows a sloped entry with a submerged depth of 24 to 30 inches (610 to 760 mm) below the stationary water level at the landing.

Sloped Entry Submerged Depth

1009.3.3 Handrails. At least two handrails complying with 505 shall be provided on the sloped entry. The clear width between required handrails shall be 33 inches (840 mm) minimum and 38 inches (965 mm) maximum.

EXCEPTIONS:

Handrail extensions specified by 505.10.1 shall not be required at the bottom landing serving a sloped entry.

Where a sloped entry is provided for wave action pools, leisure rivers, sand bottom pools, and other pools where user access is limited to one area, the handrails shall not be required to comply with the clear width requirements of 1009.3.3.

Sloped entries in wading pools shall not be required to provide handrails complying with 1009.3.3. If provided, handrails on sloped entries in wading pools shall not be required to comply with 505.

Figure 1009.3.3

An elevation drawing of a sloped entry shows handrails on both sides that provide a clear width of 33 to 38 inches (840 to 965 mm).

Handrails for Sloped Entry

1009.4 Transfer Walls. Transfer walls shall comply with 1009.4.

1009.4.1 Clear Deck Space. A clear deck space of 60 inches (1525 mm) minimum by 60 inches (1525 mm) minimum with a slope not steeper than 1:48 shall be provided at the base of the transfer wall.

Where one grab bar is provided, the clear deck space shall be centered on the grab bar. Where two grab bars are provided, the clear deck space shall be centered on the clearance between the grab bars.

Figure 1009.4.1

A plan view shows clear deck space of 60 by 60 inches (1525 by 1525 mm) minimum adjacent to a transfer wall. Figure (a) shows this space centered at one grab bar. Figure (b) shows this space centered on the clearance between two grab bars.

Clear Deck Space at Transfer Walls

1009.4.2 Height. The height of the transfer wall shall be 16 inches (405 mm) minimum and 19 inches (485 mm) maximum measured from the deck.

Figure 1009.4.2

An elevation drawing shows the height of a transfer wall as 16 to 19 inches (405 to 485 mm) measured from the deck.

Transfer Wall Height

1009.4.3 Wall Depth and Length. The depth of the transfer wall shall be 12 inches (305 mm) minimum and 16 inches (405 mm) maximum. The length of the transfer wall shall be 60 inches (1525 mm) minimum and shall be centered on the clear deck space.

Figure 1009.4.3

A plan view shows a transfer wall with a depth of 12 to 16 inches (305 to 405 mm) and a length of 60 inches (1525 mm) minimum.

Depth and Length of Transfer Walls

1009.4.4 Surface. Surfaces of transfer walls shall not be sharp and shall have rounded edges.

1009.4.5 Grab Bars. At least one grab bar complying with 609 shall be provided on the transfer wall. Grab bars shall be perpendicular to the pool wall and shall extend the full depth of the transfer wall. The top of the gripping surface shall be 4 inches (100 mm) minimum and 6 inches (150 mm) maximum above transfer walls. Where one grab bar is provided, clearance shall be 24 inches (610 mm) minimum on both sides of the grab bar. Where two grab bars are provided, clearance between grab bars shall be 24 inches (610 mm) minimum.

EXCEPTION: Grab bars on transfer walls shall not be required to comply with 609.4.

Figure 1009.4.5

Grab bars at transfer walls are shown perpendicular to the pool wall and extending the full depth of the transfer wall. Figure (a) shows in plan view two grab bars with a clearance between them of 24 inches (610 mm) minimum. Figure (b) shows in plan view one grab bar with a clearance of 24 inches (610 mm) minimum on both sides. Figure (c) shows in side elevation a height of the grab bar gripping surface 4 to 6 inches (100 to 150 mm) above the wall, measured to the top of the gripping surface.

Grab Bars for Transfer Walls

1009.5 Transfer Systems. Transfer systems shall comply with 1009.5.

1009.5.1 Transfer Platform. A transfer platform shall be provided at the head of each transfer system. Transfer platforms shall provide 19 inches (485 mm) minimum clear depth and 24 inches (610 mm) minimum clear width.

Figure 1009.5.1

A plan view shows a transfer platform at the top of a series of transfer steps leading down into the water. The platform at the top has a clear depth of 19 inches (485 mm) minimum and a clear width of 24 inches (610 mm) minimum.

Size of Transfer Platform

1009.5.2 Transfer Space. A transfer space of 60 inches (1525 mm) minimum by 60 inches (1525 mm) minimum with a slope not steeper than 1:48 shall be provided at the base of the transfer platform surface and shall be centered along a 24 inch (610 mm) minimum side of the transfer platform. The side of the transfer platform serving the transfer space shall be unobstructed.

Figure 1009.5.2

A plan view shows clear deck space 60 by 60 inches (1525 by 1525 mm) minimum at the base of the transfer platform surface that is centered along a 24 inch minimum unobstructed side of the transfer platform.

Clear Deck Space at Transfer Platform

1009.5.3 Height. The height of the transfer platform shall comply with 1009.4.2.

1009.5.4 Transfer Steps. Transfer step height shall be 8 inches (205 mm) maximum. The surface of the bottom tread shall extend to a water depth of 18 inches (455 mm) minimum below the stationary water level.

Advisory 1009.5.4 Transfer Steps.

Figure 1009.5.4

An elevation drawing shows transfer system steps that are 8 inches (205 mm) high maximum which extend to a water depth of 18 inches (455 mm) minimum below the stationary water level.

Transfer Steps

1009.5.5 Surface. The surface of the transfer system shall not be sharp and shall have rounded edges.

1009.5.6 Size. Each transfer step shall have a tread clear depth of 14 inches (355 mm) minimum and 17 inches (430 mm) maximum and shall have a tread clear width of 24 inches (610 mm) minimum.

Figure 1009.5.6

A plan view shows a transfer system with each step having a tread clear depth of 14 to 17 inches (355 to 430 mm) and a tread clear width of 24 inches (610 mm) minimum.

Size of Transfer Steps

1009.5.7 Grab Bars. At least one grab bar on each transfer step and the transfer platform or a continuous grab bar serving each transfer step and the transfer platform shall be provided. Where a grab bar is provided on each step, the tops of gripping surfaces shall be 4 inches (100 mm) minimum and 6 inches (150 mm) maximum above each step and transfer platform. Where a continuous grab bar is provided, the top of the gripping surface shall be 4 inches (100 mm) minimum and 6 inches (150 mm) maximum above the step nosing and transfer platform. Grab bars shall comply with 609 and be located on at least one side of the transfer system. The grab bar located at the transfer platform shall not obstruct transfer.

EXCEPTION: Grab bars on transfer systems shall not be required to comply with 609.4.

Figure 1009.5.7

Two elevation drawings show grab bars at transfer systems. Figure (a) shows individual grab bars on the platform and each step with the top of the gripping surface 4 to 6 inches (100 to 150 mm) above

each step and transfer platform. Figure (b) shows a continuous grab bar with the top of the gripping surface 4 to 6 inches (100 to 150) above the step nosing and transfer platform.

Grab Bars

1009.6 Pool Stairs. Pool stairs shall comply with 1009.6.

1009.6.1 Pool Stairs. Pool stairs shall comply with 504.

EXCEPTION: Pool step riser heights shall not be required to be 4 inches (100 mm) high minimum and 7 inches (180 mm) high maximum provided that riser heights are uniform.

1009.6.2 Handrails. The width between handrails shall be 20 inches (510 mm) minimum and 24 inches (610 mm) maximum. Handrail extensions required by 505.10.3 shall not be required on pool stairs.

1010 Shooting Facilities with Firing Positions

1010.1 Turning Space. A circular turning space 60 inches (1525 mm) diameter minimum with slopes not steeper than 1:48 shall be provided at shooting facilities with firing positions.

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