



2015

MINNESOTA ACCESSIBILITY CODE



MINNESOTA DEPARTMENT OF
LABOR & INDUSTRY

2015 Minnesota Accessibility Code

First Printing



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MINNESOTA DEPARTMENT OF **LABOR & INDUSTRY**

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There you can find reference guides, maps, charts, fact sheets, archived references, Statute and Rule excerpts and other helpful information to assist you in using the Minnesota State Building Code.

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- ➔ = Indicates where a paragraph or item has been deleted from the requirements of the 2009 *International Building Code* or the ICC/ANSI A117.1-2009.
- > = Indicates model code language deleted by the State of Minnesota.
- █ = Indicates a technical change from the requirements of the 2009 *International Building Code*.
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N = Indicates a State of Minnesota amendment has been made to the 2012 *International Building Code* or the ICC/A117.1-2009.

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2015 MINNESOTA BUILDING CODE ADMINISTRATION

1300.0010 ADMINISTRATION

Subpart 1. Scope. This chapter provides administrative provisions for all *Minnesota State Building Code* rule chapters identified in part 1300.0050. If specific administrative provisions are provided in a statute or rule chapter, the specific administrative provisions apply.

Subp. 2. Minnesota Electrical Act. Chapter 1315 shall be administered according to Chapter 3801 and the Minnesota Electrical Act, Minnesota Statutes, Sections 326B.31 to 326B.399. Provisions of this chapter that do not conflict with the Minnesota Electrical Act also apply.

Subp. 3. Minnesota Plumbing Code. Chapter 4715, the *Minnesota Plumbing Code*, and applicable provisions of this chapter shall be administered and enforced statewide by the commissioner under Minnesota Statutes, Section 326B.106, subdivision 3, unless an agreement exists between the commissioner and a municipality to enforce the *Minnesota Plumbing Code* under Minnesota Statutes, Section 326B.43, subdivision 2.

1300.0020 TITLE

The chapters listed in part 1300.0050, including the standards they adopt by reference, are the *Minnesota State Building Code* and may be cited as or referred to as the “code.”

1300.0030 PURPOSE AND APPLICATION

Subpart 1. Purpose. The purpose of this code is to establish minimum requirements to safeguard the public health, safety, and general welfare through structural strength, means of egress facilities, stability, sanitation, adequate light and ventilation, energy conservation, and safety to life and property from fire and other hazards attributed to the built environment and to provide safety to firefighters and emergency responders during emergency operations.

The purpose of the code is not to create, establish, or designate a particular class or group of persons who will or should be especially protected or benefited by the terms of the code.

Subp. 2. Application.

A. The *State Building Code* is the standard that applies statewide for the construction, reconstruction, alteration, and repair of buildings and other structures of the type governed by the code, except as provided in Minnesota Statutes, Section 326B.121.

The *State Building Code* supersedes the building code of any municipality. The *State Building Code* does not apply to agricultural buildings except with respect to state inspections required or rulemaking authorized by

Minnesota Statutes, Sections 103F.141, 326B.36, and 326B.121, subdivision 1, paragraph (c), clause (2).

B. The codes and standards referenced in a rule chapter are considered part of the requirements of the code to the prescribed extent of each reference. If differences occur between provisions of the code and referenced codes and standards, the provisions of the code apply.

C. In the event that a new edition of the code is adopted after a permit has been issued, the edition of the code current at the time of permit application shall remain in effect throughout the work authorized by the permit.

1300.0040 SCOPE

Subpart 1. Applicability. The code applies to the design, construction, addition, alteration, moving, replacement, demolition, repair, equipment, installation, use and occupancy, location, maintenance, and inspection of any building, structure, or building service equipment in a municipality, except work located primarily in a public way, public utility towers and poles, mechanical equipment not specifically regulated in the code, and hydraulic flood control structures.

Exception: When approved by the building official, buildings, structures, or portions thereof, used exclusively by military personnel, police, fire, or first responders for training purposes may be designed to reflect actual conditions that may be encountered in field operations, maneuvers, or tactics, however, structural provisions must apply.

Subp. 2. Compliance. Structures classified under part 1300.0070, subpart 12b, as IRC-1, IRC-2, IRC-3, and IRC-4 occupancies not more than three stories above grade plane in height with a separate means of egress shall comply with Chapter 1309 and other applicable rules. Other buildings and structures and appurtenances connected or attached to them shall comply with Chapter 1305 and other applicable rules.

Exception: The following structures that meet the scope of Chapter 1305 shall be permitted to be designed to comply with Minnesota Rules, Chapter 1311:

- (1) existing buildings undergoing repair, alteration, change of occupancy, addition, or being moved; and
- (2) historic buildings.

If different provisions of the code specify different materials, methods of construction, or other requirements, the most restrictive provision governs. If there is a conflict between a general requirement and a specific requirement, the specific requirement applies.

If reference is made in the code to an appendix, the provisions in the appendix do not apply unless specifically adopted by the code. Optional appendix chapters of the code identified in part 1300.0060 do not apply unless a municipality has specifically adopted them.

**1300.0050
CHAPTERS OF MINNESOTA
STATE BUILDING CODE**

The *Minnesota State Building Code* adopted under Minnesota Statutes, Section 326B.106, subdivision 1, includes the following chapters:

- A. 1300, Minnesota Building Code Administration;
- B. 1301, Building Official Certification;
- C. 1302, State Building Code Construction Approvals;
- D. 1303, Special Provisions;
- E. 1305, Minnesota Building Code;
- F. 1306, Special Fire Protection Systems;
- G. 1307, Elevators and Related Devices;
- H. 1309, Minnesota Residential Code;
- I. 1311, Minnesota Conservation Code for Existing Buildings;
- J. 1315, Minnesota Electrical Code;
- K. 1325, Solar Energy Systems;
- L. 1335, Floodproofing Regulations;
- M. 1341, Minnesota Accessibility Code;
- N. 1346, Minnesota Mechanical Code;
- O. 1350, Manufactured Homes;
- P. 1360, Prefabricated Structures;
- Q. 1361, Industrialized/Modular Buildings;
- R. 1370, Storm Shelters (Manufactured Home Parks);
- S. 4715, Minnesota Plumbing Code;
- T. 1322 and 1323, Minnesota Energy Codes; and
- U. 5230, Minnesota High Pressure Piping Systems.

**1300.0060
OPTIONAL ADMINISTRATION**

The following chapters of the code are not mandatory but may be adopted without change by a municipality which has adopted the code:

- A. Chapter 1306, Special Fire Protection Systems; and
- B. grading, IBC Appendix Chapter J.

**1300.0070
DEFINITIONS**

Subpart 1. Scope; incorporation by reference. The definitions in this part apply to parts 1300.0010 to 1300.0250. For terms that are not defined through the methods authorized by this chapter, the Merriam-Webster Collegiate Dictionary, available at www.m-w.com, shall be considered as providing ordinarily accepted meanings. The dictionary is incorporated by reference, is subject to frequent change, and is available through the Minitex interlibrary loan system.

Subp. 2. Administrative authority. “Administrative authority” means a municipality’s governing body or its assigned administrative authority.

Subp. 3. (Repealed).

Subp. 4. Agricultural building. “Agricultural building” means a building that meets the requirements of Minnesota Statutes, Section 326B.103, subdivision 3.

Subp. 4a. Approved. “Approved” means approval by the building official, pursuant to the *Minnesota State Building Code*, by reason of:

- A. inspection, investigation, or testing;
- B. accepted principles;
- C. computer simulations;
- D. research reports; or
- E. testing performed by either a licensed engineer or by a locally or nationally recognized testing laboratory.

Subp. 5. Building official. “Building official” means the municipal building code official certified under Minnesota Statutes, Section 326B.133, subdivisions 2 and 3.

Subp. 6. Building service equipment. “Building service equipment” refers to the plumbing, mechanical, electrical, and elevator equipment, including piping, wiring, fixtures, and other accessories, that provides sanitation, lighting, heating, ventilation, cooling, refrigeration, firefighting, and transportation facilities essential to the occupancy of the building or structure for its designated use and occupancy.

Subp. 7. City. “City” means a home rule charter or statutory city.

Subp. 8. Code. For the purposes of Chapter 1300, “Code” means the *Minnesota State Building Code* adopted under Minnesota Statutes, Section 326B.106, subdivision 1, and includes the chapters identified in part 1300.0020.

Subp. 9. Commissioner. “Commissioner” means the commissioner of labor and industry.

Subp. 10. Designate. “Designate” means the formal designation by a municipality’s administrative authority of a certified building official accepting responsibility for code administration.

Subp. 11. (Repealed).

Subp. 12a. Historical building. “Historical building” means any building or structure that is listed in the National Register of Historic Places, designated as a historic property under local or state designation law; certified as a contributing resource within a National Register listed or locally designated historic district; or with an opinion or certification that the property is eligible to be listed on the National or State Register of Historic Places either individually or as a contributing building to a historic district by the State Historic Preservation Officer or the Keeper of the National Register of Historic Places.

Subp. 12b. International Residential Code occupancy classifications. *International Residential Code* (IRC) occupancy classifications are as follows:

- IRC-1 single-family dwellings;
- IRC-2 two-family dwellings;
- IRC-3 townhouses; and
- IRC-4 accessory structures;

- A. garages;
- B. storage sheds; and
- C. similar structures.

Subp. 13. Mandatory terms. “Mandatory terms” include “must” and “shall,” which have the same meaning.

Subp. 14. Manufactured home. “Manufactured home” has the meaning given in Minnesota Statutes, Section 327.31, subdivision 3, and for the purpose of determining occupancy separations, is considered a Group IRC-1 occupancy.

Subp. 15. Master plan. “Master plan” is a plan that has been reviewed for code compliance by the building official and stamped “Reviewed for Code Compliance.”

Subp. 16. Mayor and city council. “Mayor” and “city council” mean governing body whenever they appear in the code.

Subp. 17. Municipality. “Municipality” means a city, county, or town; the University of Minnesota; or the state of Minnesota for public buildings and state licensed facilities.

Subp. 18. (Repealed).

Subp. 19. Performance-based design. An engineering approach to design elements of a building based on agreed upon performance goals and objectives, engineering analysis, and quantitative assessment of alternatives against the design goals and objectives, using accepted engineering tools, methodologies, and performance criteria.

Subp. 20. Recyclable materials. “Recyclable materials” means materials that are separated from mixed municipal solid waste for the purpose of recycling, including paper, glass, plastic, metals, automobile oil, and batteries. Refuse-derived fuel or other material that is destroyed by incineration is not a recyclable material.

Subp. 21. Recycling. “Recycling” means the process of collecting and preparing recyclable materials and reusing the materials in their original form or using them in manufacturing processes that do not cause the destruction of recyclable materials in a manner that precludes further use.

Subp. 22. (Repealed).

Subp. 23. (Repealed).

Subp. 24. State building official. “State building official” means the person who, under the direction and supervision of the commissioner, administers the code.

Subp. 25. State licensed facilities. “State licensed facilities” means, pursuant to Minnesota Statutes, Section 326B.103, subdivision 13, a building and its grounds that are licensed by the state as a hospital, nursing home, supervised living facility, free-standing outpatient surgical center, correctional facility, boarding care home, or residential hospice.

Subp. 26. State-owned buildings. “State-owned buildings” means buildings and structures financed in whole or in part by state funds that are under the exclusive jurisdiction and custodial control of one or more state department or agency.

**1300.0080
CODE ADOPTION AND AMENDMENTS**

Under Minnesota Statutes, Section 326B.106, the code is adopted and periodically updated to include current editions of national model codes in general use and existing statewide specialty codes and their amendments.

Under Minnesota Statutes, Section 326B.13, subdivisions 5 and 6, amendments to the code may be proposed and initiated by any interested person. Proposed amendments must be submitted in writing on a form provided by the commissioner.

**1300.0090
DEPARTMENT OF BUILDING SAFETY**

Subpart 1. Creation of enforcement agency. There is hereby established in the municipality a code enforcement agency and the official in charge is the designated building official. The agency is referred to in the code as the “Department of Building Safety.”

Subp. 2. Appointment. The building official shall be designated by the municipality according to Minnesota Statutes, Section 326B.133.

**1300.0110
DUTIES AND POWERS OF BUILDING OFFICIAL**

Subpart 1. General. The building official is authorized and directed to enforce the provisions of this code. The building official has the authority to render interpretations of the code and adopt policies and procedures in order to clarify the application of the provisions. The interpretations, policies, and procedures shall comply with the intent and purpose of the code. The policies and procedures shall not have the effect of waiving requirements specifically provided for in the code.

Subp. 2. Deputies. According to the prescribed procedures of the municipality and with the concurrence of the appointing authority, the building official may designate a deputy building official and related technical officers, inspectors, plan examiners, and other employees. The employees have the powers delegated by the building official.

Subp. 3. Applications and permits. The building official shall receive applications, review construction documents, and issue permits for the erection, alteration, demolition, moving, and repair of buildings and structures, including all other equipment and systems regulated by the code. When requested by a permit applicant, the building official shall meet with the permit applicant prior to the application for a construction permit to discuss plans for the proposed work. The meeting shall be held at a mutually agreeable location. Municipalities may establish a fee for this service.

Subp. 4. Notices and orders. The building official shall issue all necessary notices and orders to ensure compliance

with the code. Notices and orders shall be in writing unless waived by the permit applicant, contractor, owner, or owner's agent. Notices and orders shall be based on the edition of the code under which the permit has been issued.

Subp. 5. Inspections. The building official shall make all of the required inspections or accept reports of inspection by approved agencies or individuals. Results of inspections shall be documented on the job site inspection card and in the official records of the municipality, including type of inspection, date of inspection, identification of the responsible individual making the inspection, and comments regarding approval or disapproval of the inspection. The building official is authorized to engage an expert opinion as deemed necessary to report on any unusual technical issues that arise.

Subp. 6. Identification. The building official and deputies shall carry proper identification when inspecting structures or premises in the performance of duties under the code.

Subp. 7. Right of entry. If it is necessary to make an inspection to enforce the code or if the building official has reasonable cause to believe that there exists in a structure or upon a premises a condition contrary to or in violation of the code that makes the structure or premises unsafe, dangerous, or hazardous, the building official or designee may enter the structure or premises at reasonable times to inspect or to perform the duties imposed by the code, provided that if the structure or premises is occupied, credentials must be presented to the occupant and entry requested. If the structure or premises is unoccupied, the building official shall first make a reasonable effort to locate the owner or other person having charge or control of the structure or premises and request entry. If entry is refused, the building official shall have recourse to the remedies provided by law to secure entry.

Subp. 8. Department records. The building official shall be responsible for official records of the local Department of Building Safety for permit applications received, plans, specifications, surveys, plot plans, plan reviews, permits and certificates issued, reports of inspections, and notices and orders issued by the department. The records shall be kept according to the records management schedule of the municipality required by Minnesota Statutes, Section 138.17.

Subp. 9. Liability. The building official, member of the Board of Appeals, or employee charged with the enforcement of the code, while acting for the jurisdiction in good faith and without malice in the discharge of the duties required by the code or other pertinent laws or ordinances, is not rendered personally liable and is relieved from personal liability for any damage accruing to persons or property as a result of any act or by reason of an act or omission in the discharge of official duties. Any suit instituted against an officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the code shall be defended by the legal representative of the jurisdiction until the final termination of the proceedings. The building official, member of the Board of Appeals, or an employee charged with the enforcement of the code, is not liable for costs in any action, suit, or proceeding that is instituted in pursuance of the provisions of this code.

Subp. 10. Approved materials and equipment. Materials, equipment, and devices approved by the building official shall be constructed and installed in the approved manner.

Subp. 11. Used material and equipment. The use of used materials that meet the requirements of the code for new materials is permitted. Used equipment and devices shall not be reused unless approved by the building official.

Subp. 12. Modifications. If there are practical difficulties involved in carrying out the provisions of the code, the building official may grant modifications for individual cases, upon application by the owner or owner's representative, provided the building official finds that special individual reason makes the strict letter of the code impractical, the modification is in compliance with the intent and purpose of the code, and the modification does not lessen health, life, and fire safety or structural requirements. The details of action granting modifications shall be recorded and entered in the files of the Department of Building Safety.

Subp. 13. Alternative materials, design, and methods of construction and equipment. The code is not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by the code, provided that any alternative has been approved. An alternative material, design, or method of construction shall be approved where the building official finds that the proposed design is satisfactory and complies with the intent of the code, and that the material, method, or work offered is, for the purpose intended, at least the equivalent of that prescribed in the code in quality, strength, effectiveness, fire resistance, durability, and safety. The details of any action granting approval of an alternate shall be recorded and entered in the files of the Department of Building Safety.

Subp. 14. Performance-based fire and life safety design. The code official may approve performance-based fire and life safety designs if the code official finds that the proposed design has been conducted by an approved method. Approved performance-based designs are evidence of compliance with the intent of the code. Approvals under this subpart are subject to the approval of the building code official whenever the design involves matters regulated by the building code.

- A. Design goals, objectives, and performance criteria shall be approved by the code official before submission of a performance-based design report, calculations, or analysis results. As a minimum, an approved performance-based design shall address the following objectives:
 - (1) life safety of occupants;
 - (2) firefighter safety;
 - (3) property protection;
 - (4) continuity of operations; and
 - (5) safeguarding of the environment.
- B. To determine the acceptability of a performance-based design, the code official may require the owner or agent to provide, without charge to the jurisdiction, a technical opinion and report. The code official may require

the technical opinion and report to be prepared by, and bear the stamp of, a licensed design professional.

- C. Performance-based designs shall be prepared by, and bear the stamp of, a licensed design professional competent in the area of work. The design professional shall provide written confirmation to the code official before a certificate of occupancy is issued that the performance-based design has been properly implemented, the operation or use of the building is within the limitations of the design, and adequate controls are in place to maintain compliance with the conditions of the design throughout the life of the building.

Subp. 15. Tests. If there is insufficient evidence of compliance with the code, or evidence that a material or method does not conform to the requirements of the code, or in order to substantiate claims for alternative materials or methods, the building official shall have the authority to require tests as evidence of compliance to be made at no expense to the municipality. Test methods shall be as specified in the code or by other recognized test standards. In the absence of recognized and accepted test methods, the building official shall approve the testing procedures. Tests shall be performed by an approved agency. Reports of the tests shall be retained by the building official.

**1300.0120
PERMITS**

Subpart 1. Required. An owner or authorized agent who intends to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building or structure, or to erect, install, enlarge, alter, repair, remove, convert, or replace any gas, mechanical, electrical, plumbing system, or other equipment, the installation of which is regulated by the code; or cause any such work to be done, shall first make application to the building official and obtain the required permit.

Subp. 2. Annual permit. In lieu of an individual permit for each alteration to an already approved electrical, gas, mechanical, or plumbing installation, the building official may issue an annual permit upon application for the permit to any person, firm, or corporation regularly employing one or more qualified trade persons in the building, structure, or on the premises owned or operated by the applicant for the permit.

Subp. 3. Annual permit records. The person to whom an annual permit is issued shall keep a detailed record of alterations made under the annual permit. The building official shall have access to the records at all times or the records shall be filed with the building official as designated.

Subp. 4. Work exempt from permit. Exemptions from permit requirements of the code do not authorize work to be done in any manner in violation of the code or any other laws or ordinances of this jurisdiction. Permits shall not be required for the following:

- A. Building:
 - (1) One-story detached accessory structures used as tool and storage sheds, playhouses, and similar

uses, provided the floor area does not exceed 200 square feet (60 960 mm²);

- (2) Fences not over seven feet (2134 mm) high;
- (3) Oil derricks;
- (4) Retaining walls that are not over four feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding Class I, II, or III-A liquids;
- (5) Water tanks supported directly upon grade if the capacity does not exceed 5,000 gallons (18 927 L) and the ratio of height to diameter or width does not exceed 2 to 1;
- (6) Sidewalks and driveways that are not part of an accessible route;
- (7) Decks and platforms not more than 30 inches (762 mm) above adjacent grade and not attached to a structure with frost footings and which is not part of an accessible route;
- (8) Painting, papering, tiling, carpeting, cabinets, countertops, and similar finish work;
- (9) Temporary motion picture, television, and theater stage sets and scenery;
- (10) Prefabricated swimming pools installed entirely above ground accessory to dwelling units constructed to the provisions of the *International Residential Code* or R-3 occupancies constructed to the provisions of the *International Building Code*, which do not exceed both 5,000 gallons in capacity (18 925 L) and a 24-inch (610 mm) depth;
- (11) Window awnings supported by an exterior wall that do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support, when constructed under the *International Residential Code* or Group R-3 and Group U occupancies constructed to the provisions of the *International Building Code*;
- (12) Movable cases, counters, and partitions not over five feet, nine inches (1753 mm) in height; and
- (13) Swings and other playground equipment.

Unless otherwise exempted, plumbing, electrical, and mechanical permits are required for subitems (1) to (13).

- B. Gas:
 - (1) Portable heating, cooking, or clothes drying appliances;
 - (2) Replacement of any minor part that does not alter approval of equipment or make the equipment unsafe; and
 - (3) Portable fuel cell appliances that are not connected to a fixed piping system and are interconnected to a power grid.

- C. Mechanical:
 - (1) Portable heating appliances;

organization securing the permit is responsible for code compliance for the work being performed.

**1300.0130
CONSTRUCTION DOCUMENTS**

Subpart 1. Submittal documents. Construction documents, special inspection and structural observation programs, and other data shall be submitted in one or more sets with each application for a permit.

Exception: The building official may waive the submission of construction documents and other data if the nature of the work applied for is such that reviewing of construction documents is not necessary to obtain compliance with the code.

The building official may require plans or other data be prepared according to the rules of the Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience and Interior Design, Chapter 1800, and Minnesota Statutes, Sections 326.02 to 326.15, and other state laws relating to plan and specification preparation by occupational licenses. If special conditions exist, the building official may require additional construction documents to be prepared by a licensed design professional.

Subp. 2. Information on construction documents. Construction documents shall be dimensioned and drawn upon suitable material. Electronic media documents are permitted to be submitted when approved by the building official. Construction documents shall be of sufficient clarity to indicate the location, nature, and extent of the work proposed and show in detail that it will conform to the code and relevant laws, ordinances, rules, and regulations, as determined by the building official.

Subp. 3. Manufacturer's installation instructions. When required by the building official, manufacturer's installation instructions for construction equipment and components regulated by the code, shall be available on the job site at the time of inspection.

Subp. 4. Site plan. The construction documents submitted with the application for permit shall be accompanied by a site plan drawn to scale, showing the size and location of new construction and existing structures on the site, distances from lot lines, the established street grades, and the proposed finished grades, and it shall be drawn according to an accurate boundary line survey. In the case of demolition, the site plan shall show construction to be demolished and the location and size of existing structures and construction that are to remain on the site or plot. The building official may waive or modify the requirement for a site plan if the application for permit is for alteration or repair or when otherwise warranted.

Subp. 5. Examination of documents. The building official shall examine or cause to be examined the accompanying construction documents to ascertain whether the construction indicated and described complies with the requirements of the code and other pertinent laws and ordinances.

Subp. 6. Approval of construction documents.

A. If the building official issues a permit, the construction documents shall be approved in writing or by a stamp, stating "Reviewed for Code Compliance," dated, and signed by the building official or an authorized representative. One set of the construction documents that were reviewed shall be retained by the building official. The other set shall be returned to the applicant, kept at the site of the work, and open to inspection by the building official or an authorized representative.

B. Any code deficiencies identified by the building official during the plan review process for construction documents that are prepared by a design professional who is licensed or certified under Minnesota Statutes, Sections 326.02 to 326.15, must be itemized by the building official through a comprehensive plan review letter only. Any code deficiencies identified by the building official during the plan review process for construction documents that are not prepared by a licensed or certified design professional may be marked directly on the document or itemized by the building official through a comprehensive plan review letter. The issuance of a permit based on construction documents and other data does not prevent the building official from requiring the correction of errors in the construction documents and other data. All sets of required construction documents, including the site copy, municipality copy, or inspector copy, must be marked identically by the building official, with one copy retained by the building official after construction is completed. Work regulated by the code must be installed according to the reviewed construction documents. Work that does not comply with approved construction documents must not precede until the applicant submits changes that are approved by the building official.

Subp. 7. Previous approvals. The code in effect at the time of application shall be applicable.

Subp. 8. Phased approval. The building official may issue a permit for the construction of foundations or any other part of a building or structure before the construction documents for the whole building or structure have been submitted, provided that adequate information and detailed statements have been filed complying with pertinent requirements of the code. The holder of the permit for the foundation or other parts of a building or structure shall proceed at the holder's own risk with the building operation and without assurance that a permit for the entire structure will be granted.

Subp. 9. Design professional in responsible charge.

A. The building official may require the owner to engage and designate on the building permit application a licensed design professional who shall act as the licensed design professional in responsible charge. If the circumstances require, the owner shall designate a substitute licensed design professional in responsible charge who shall perform the duties required of the

Subp. 6. Plan review of similar plans.

A. Any number of similar buildings may be built from a master plan if:

- (1) Plan review fees have been paid for the master plan;
- (2) A code change has not occurred that impacts the design of a master plan;
- (3) The similar building has the same physical dimensions and structural design as the master plan;

Exception: The following modifications to the master plan are not considered to be significant modifications, according to Minnesota Statutes, Section 326B.106, subdivision 1, and are permitted for dwelling units and their accessory structures built to the *International Residential Code*, and residential occupancies built to the *International Building Code* that are three stories or less in height and their accessory structures:

- (a) foundation configurations of walkout, look-out, and full basements;
 - (b) alternate foundation materials approved by the building official;
 - (c) roof design changed by a revised truss plan approved by the building official; and
 - (d) other modifications approved by the building official;
- (4) occupancy groups other than those identified in the exceptions listed in part 1300.0160, subpart 6, item A, subitem (3), must be the same type of construction and occupancy classification and must have the same exit system;

Exception: Minor changes to the exit access; and

- (5) the similar plan is based on a master plan for which the municipality has issued a permit within the last 12 months.

B. Plan review fees for similar building plans must be based on the costs commensurate with the direct and indirect cost of the service, but must not exceed 25 percent of the normal building permit fee established and charged by the municipality for the same structure.

C. The plan review fee charged for similar building plans applies to all buildings regulated by the code regardless of occupancy classification including industrialized/modular buildings constructed under a program specified in Minnesota Statutes, Section 326B.194.

D. The applicant must submit a new plan set and other information as required by the building official for each building reviewed as a similar building.

Subp. 7. Payment of fees. A permit shall not be issued until the fees prescribed by the municipality have been paid.

Subp. 8. Work commencing before permit issuance. If work for which a permit is required by the code has been commenced without first obtaining a permit, a special investigation shall be made before a permit may be issued for the

work. An investigation fee established by the municipality shall be collected whether or not a permit is issued and is in addition to the required permit fees, but it may not exceed the permit fee.

Subp. 9. Fee refunds. The municipality shall establish a permit and plan review fee refund policy.

Subp. 10. State surcharge fees. All municipal permits issued for work under the code are subject to a surcharge fee. The fees are established by Minnesota Statutes, Section 326B.148. Reports and remittances by municipalities must be filed with the commissioner.

Surcharge fees imposed by the state are in addition to municipal permit fees. Surcharge report forms and information may be obtained by writing the commissioner.

**1300.0170
STOP WORK ORDER**

If the building official finds any work regulated by the code being performed in a manner contrary to the provisions of the code or in a dangerous or unsafe manner, the building official is authorized to issue a stop work order or a notice or order pursuant to part 1300.0110, subpart 4.

The stop work order shall be in writing and issued to the owner of the property involved, to the owner's agent, or to the person doing the work. Upon issuance of a stop work order, the cited work shall immediately cease. A person who continues work after having been served with a stop work order, except for work that the person is directed to perform to remove a violation or unsafe condition, is subject to penalties as prescribed by law. The stop work order shall state the reason for the order and the conditions under which the cited work will be permitted to resume.

**1300.0180
UNSAFE BUILDINGS OR STRUCTURES**

A building or structure regulated by the code is unsafe, for purposes of this part, if it is structurally unsafe, not provided with adequate egress, a fire hazard, or otherwise dangerous to human life.

Building service equipment that is regulated by the code is unsafe, for purposes of this part, if it is a fire, electrical, or health hazard; an unsanitary condition; or otherwise dangerous to human life. Use of a building, structure, or building service equipment constituting a hazard to safety, health, or public welfare by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, disaster, damage, or abandonment is, for the purposes of this part, an unsafe use. Parapet walls, cornices, spires, towers, tanks, statuary, and other appendages or structural members that are supported by, attached to, or a part of a building and that are in deteriorated condition or otherwise unable to sustain the design loads that are specified in the code are unsafe building appendages.

The building official shall order any building or portion of a building to be vacated if continued use is dangerous to life, health, or safety of the occupants. The building official shall

have the authority to order, disconnection of utility services to the building, structure, or system, regulated by the code, in case of an emergency to eliminate a hazard to life or property. The order shall be in writing and state the reasons for the action.

All unsafe buildings, structures, or appendages are public nuisances and must be abated by repair, rehabilitation, demolition, or removal according to Minnesota Statutes, Sections 463.15 to 463.26.

**1300.0190
TEMPORARY STRUCTURES AND USES**

Subpart 1. General. The building official may issue a permit for temporary structures and temporary uses.

Subp. 2. Conformance. Temporary structures and uses shall conform to the structural strength, fire safety, means of egress, accessibility, light, ventilation, and sanitary requirements of the code as necessary to ensure the public health, safety, and general welfare.

Subp. 3. Termination of approval. The building official may terminate the permit for a temporary structure or use and order the temporary structure or use to be discontinued if the conditions required in this part have not been complied with.

**1300.0210
INSPECTIONS**

Subpart 1. General. Construction or work for which a permit is required is subject to inspection by the building official and the construction or work shall remain accessible and exposed for inspection purposes until approved. Approval as a result of an inspection is not approval of a violation of the code or of other ordinances of the jurisdiction. Inspections presuming to give authority to violate or cancel the provisions of the code or of other ordinances of the jurisdiction are not valid. It shall be the duty of the permit applicant to cause the work to remain accessible and exposed for inspection purposes. Neither the building official nor the jurisdiction is liable for expense entailed in the removal or replacement of any material required to allow inspection.

Subp. 2. Preliminary inspection. Before issuing a permit, the building official may examine, or cause to be examined, buildings, structures, and sites for which an application has been filed.

Subp. 3. Inspection record card. The building official shall identify which inspections are required for the work requiring a permit. Work requiring a permit shall not be commenced until the permit holder or an agent of the permit holder has posted or otherwise made available an inspection record card that allows the building official to conveniently make all required entries regarding inspection of the work. This card shall be maintained and made available by the permit holder until final approval has been granted by the building official.

Subp. 4. Inspection requests. The building official shall provide the applicant with policies, procedures, and a timeline for requesting inspections. The person doing the work authorized by a permit shall notify the building official that the

work is ready for inspection. The person requesting an inspection required by the code shall provide access to and means for inspection of the work.

Subp. 5. Approval required. Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the building official. The building official, upon notification, shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed or notify the permit holder or an agent of the permit holder of any failures to comply with the code. Any portion that does not comply shall be corrected and the portion shall not be covered or concealed until authorized by the building official.

Subp. 6. Required inspections. The building official, upon notification, shall make the inspections in this part. In addition to the inspections identified in this subpart, see applicable rule chapters in part 1300.0050 for specific inspection and testing requirements.

- A. Footing inspections shall be made after excavations for footings are complete and any required reinforcing steel is in place. Materials for the foundation shall be on the job, except that concrete need not be on the job if the concrete is ready mixed according to approved nationally recognized standards.
- B. Foundations:
 - (1) Foundation inspections for poured walls shall be made after all forms are in place with any required reinforcing steel and bracing in place, and prior to pouring concrete.
 - (2) All foundation walls shall be inspected prior to backfill for specific code requirements.
 - (3) The foundation inspection shall include excavations for thickened slabs intended for the support of bearing walls, partitions, structural supports, or equipment.
- C. Concrete slab and under-floor inspections shall be made after in-slab or under-floor reinforcing steel and building service equipment, conduit, piping accessories, and other ancillary equipment items are in place, but before any concrete is placed or floor sheathing installed, including the subfloor.
- D. Rough-in inspections of plumbing, mechanical, gas, sprinklers, alarms, and electrical systems shall be made before covering or concealment, before fixtures or appliances are set or installed, and before framing inspection.
- E. Inspection of framing and masonry construction shall be made after the roof, masonry, framing, firestopping, draftstopping, and bracing are in place and after the plumbing, mechanical, and electrical rough inspections are approved.
- F. Energy efficiency inspections shall be made to determine compliance with *Minnesota Energy Code* requirements.
- G. Lath and gypsum board inspections shall be made after lathing and gypsum board, interior and exterior, are in

place, but before any plastering is applied or before gypsum board joints and fasteners are taped and finished.

Exception: Gypsum board that is not part of a fire-resistive assembly or a shear assembly.

- H. Protection of joints and penetrations in fire-resistance-rated or smoke-resistance-rated assemblies shall not be concealed from view until inspected and approved.
- I. Installation of manufactured homes (mobile homes) shall be made after the installation of the support systems and all utility service connections are in place, but before any covering material or skirting is in place. Evaluation of an approved anchoring system is part of the installation inspection.
- J. Fireplaces must be inspected for compliance with applicable requirements of the code and the manufacturer’s installation instructions.
- K. A final inspection shall be made for all work for which a permit is issued.
- L. Special inspections shall be as required by the code.
- M. In addition to the inspections in items A to K, the building official is authorized to make or require other inspections of any construction work to ascertain compliance with the code and other laws that are enforced by the Department of Building Safety.

Subp. 7. Inspection agencies. The building official is authorized to accept inspection reports by approved agencies.

**1300.0215
PLUMBING**

Subpart 1. Inspections, testing, and permits.

- A. For purposes of this part, “administrative authority” is defined in part 4715.0010, subpart 2.
- B. Except as provided in item C, new plumbing systems or parts of existing plumbing systems that have been altered, extended, or repaired shall be tested and approved by the administrative authority before the plumbing system is put into use. The administrative authority shall perform the final inspection and witness the test. The administrative authority shall approve the plumbing system if the system complies with the requirements of this code, any permit requirements, and the requirements of any plan approved pursuant to subpart 6. Plumbing system tests shall comply with part 4715.2820.
- C. Unless the plumbing work poses an unsanitary or hazardous condition, the administrative authority is authorized to waive the permit, inspection, and testing requirements for the following plumbing work performed in one- and two-family dwellings:
 - (1) The reconnection of an existing water supply line to a replacement appliance that does not involve

the replacement or alteration of the existing water supply line;

- (2) Replacement of the internal working components of existing water closets, faucets, or valves;
- (3) Replacement of sink faucets when the work does not include alterations to the existing plumbing piping system; or
- (4) Replacement or resetting of water closets when the work does not include alterations to the existing plumbing piping systems.

D. The administrative authority is permitted to waive testing requirements for plumbing work that does not include any addition to or replacement, alteration, or relocation of any water supply, drainage, or vent piping, if it does not create a hazardous or unsanitary condition.

Subp. 2. (Repealed).

Subp. 3. Covering of work. No building drainage or plumbing system or part thereof shall be covered until it has been inspected, tested, and approved as herein prescribed.

If any building drainage or plumbing system or part thereof is covered before being regularly inspected, tested, and approved, as herein prescribed, it shall be uncovered upon the direction of the proper administrative authority.

Subp. 4. Building sewer. The building sewer shall be inspected by the proper administrative authority to ensure compliance with the provisions of the code.

Subp. 5. Certificate of approval. Upon the satisfactory completion and final inspection of the plumbing system, a certificate of approval shall be issued by the proper administrative authority.

Subp. 6. Plans and specifications. Prior to the installation by any person, corporation, or public agency, of a system of plumbing that serves the public or that serves any considerable number of persons, or any plumbing system that shall affect the public health in any manner, complete plans and specifications, together with any additional information that the commissioner of labor and industry may require, shall be submitted and approved by the commissioner. The appraisal of the commissioner shall reflect the degree to which these plans and specifications affect the public health and conform to the provisions of the *Minnesota Plumbing Code*. No construction shall proceed except in accordance with approved plans and specifications. Any material alteration or extension of the existing system shall be subject to these same requirements. This rule shall not apply to cities of the first class, except those plumbing installations in state-licensed health care facilities or in buildings in these cities owned by the state government.

Except as approved in Chapter 4715, there shall be no physical connection between water supply systems that are safe for domestic use and those that are unsafe for domestic use. There shall be no apparatus through which unsafe water may be discharged or drawn into a safe water supply system.

**1300.0220
CERTIFICATE OF OCCUPANCY**

Subpart 1. Use and occupancy. No building or structure shall be used or occupied, and no change in the existing occupancy classification of a building, structure, or portion of a building or structure shall be made until the building official has issued a certificate of occupancy for the building or structure under this part. Issuance of a certificate of occupancy is not approval of a violation of the code or other ordinances of the municipality. Certificates presuming to give authority to violate or cancel the code or other ordinances of the municipality are not valid.

Exception: A municipality has the option of requiring certificates of occupancy for:

- A. "U" occupancies constructed under the *International Building Code*;
- B. Accessory structures constructed under the *International Residential Code*; or
- C. Used manufactured homes moved into or within a jurisdiction.

Subp. 2. Existing structures. The legal occupancy of any structure existing on the date of adoption of the code shall be permitted to continue without change.

Subp. 3. Change in use. Changes in the character or use of an existing structure must comply with Chapter 1305 or 1311.

Subp. 4. Moved buildings. Buildings or structures moved into or within a jurisdiction shall comply with the provisions of the code for new buildings or structures.

Exception:

- A. Buildings designed to comply with Chapter 1311; or
- B. A residential building relocated within or into a municipality need not comply with the *Minnesota Energy Code* or Minnesota Statutes, Section 326B.439.

Subp. 5. Certificate issued. After the building official inspects a building or structure and finds no violations of the code or other laws that are enforced by the Department of Building Safety, the building official shall issue a certificate of occupancy containing the following:

- A. The building permit number;
- B. The address of the structure;
- C. The name and address of the owner;
- D. A statement that the described portion of the structure has been inspected for compliance with the requirements of the code for the occupancy and division of occupancy and the use for which the proposed occupancy is classified;
- E. The name of the building official;
- F. The edition of the code under which the permit was issued;
- G. The use and occupancy classification;
- H. The type of construction;

- I. If an automatic sprinkler system is provided; and
- J. Any special stipulations and conditions of the building permit.

Subp. 6. Temporary occupancy. The building official is authorized to issue a temporary certificate of occupancy before the completion of the entire work covered by the permit, provided that the portion or portions shall be occupied safely. The building official shall set a time period during which the temporary certificate of occupancy is valid.

Subp. 7. Revocation. The building official may issue a written suspension or revocation of a certificate of occupancy issued under the code if the certificate is issued in error or on the basis of incorrect information supplied, or if the building or use of the building, structure, or portion of the building or structure is in violation of any ordinance or regulation or a provision of the code.

**1300.0225
MAINTENANCE**

All buildings and structures, both existing and new, and all parts of the buildings or structures, shall be maintained in a safe and sanitary condition. All devices or safeguards required by this code shall be maintained in conformance with the code editions under which the devices or safeguards are installed. The owner or the owner's designated agent shall be responsible for the maintenance of buildings and structures. A building official is authorized to require reinspection of a building or structure if the building official is unable to determine whether or not the building or structure complies with this part.

**1300.0230
BOARD OF APPEALS**

Subpart 1. Local board of appeals. In order to hear and decide appeals of orders, decisions, or determinations made by the building official relative to the application and interpretation of this code, there shall be and is hereby created a board of appeals. The building official shall be an ex officio member of said board but shall have no vote on any matter before the board. The board of appeals shall be designated by the governing body. Appeals hearings must occur within ten working days from the date the municipality receives a properly completed application for appeal. If an appeals hearing is not held within this time, the applicant may appeal directly to the State Building Code Appeals Board.

The board shall adopt rules of procedures for conducting its business and shall render all decisions and findings in writing to the appellant with a duplicate copy to the building official and to the state building official within five working days of the decision. For jurisdictions without a board of appeals, the appellant may appeal to an appeals board assembled by the state of Minnesota, Department of Labor and Industry's Construction Codes and Licensing Division.

Subp. 2. Qualifications. The board of appeals shall consist of members who are qualified by experience and training to

2015 MINNESOTA ACCESSIBILITY CODE

(Chapter 11 of the 2012 IBC with MN Amendments)

SECTION 1101 GENERAL

1101.1 Scope. The provisions of this chapter shall control the design and construction of facilities for accessibility to physically disabled persons.

1101.2 Design. Buildings and facilities shall be designed and constructed to be *accessible* in accordance with this code and ICC A117.1.

1101.3 Equity. Where not all similar type *facilities* and spaces are required to be *accessible*, *accessible* facilities and spaces shall be provided with the same or equivalent elements as provided in the nonaccessible *facilities* and spaces.

1101.4 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 is permitted.

SECTION 1102 DEFINITIONS

1102.1 Definitions. The following words and terms shall, for the purposes of this chapter, have the following meanings:

ACCESSIBLE. A site, building, facility, or portion thereof that complies with this chapter.

ACCESSIBLE ROUTE. A continuous, unobstructed path that complies with this chapter.

ACCESSIBLE UNIT. A *dwelling unit* or sleeping unit that complies with this code and the provisions for *accessible* units in ICC A117.1.

APPROVED. “Approved” means approval by the building official, pursuant to the *Minnesota State Building Code*, by reason of: inspection, investigation, or testing; accepted principles; computer simulations; research reports; or testing performed by either a licensed engineer or by a locally or nationally recognized testing laboratory.

CIRCULATION PATH. An exterior or interior way of passage from one place to another for pedestrians.

CODE. For purposes of this chapter, “the code” or “this code” means the *Minnesota Accessibility Code*, Minnesota Rules, Chapter 1341.

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.

DETECTABLE WARNING. A standardized surface feature built in or applied to walking surfaces or other elements to warn visually impaired persons of hazards on a *circulation path*.

EMPLOYEE WORK AREA. All or any portion of a space used only by employees and only for work. Corridors, toilet rooms, kitchenettes, and break rooms are not *employee work areas*.

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

INTENDED TO BE OCCUPIED AS A RESIDENCE. A *dwelling unit* or sleeping unit that can or will be used all or part of the time as the occupant’s place of abode.

MULTILEVEL ASSEMBLY SEATING. Seating that is arranged in distinct levels where each level is comprised of either multiple rows, or a single row of box seats accessed from a separate level.

MULTISTORY UNIT. A *dwelling unit* or sleeping unit with habitable space located on more than one *story*.

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 service 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 rooms, employee lounges or locker rooms; janitorial closets, entrances, corridors, and restrooms are not areas containing a primary function.

PUBLIC ENTRANCE. An entrance that is not a service entrance or a restricted entrance.

PUBLIC-USE AREAS. Interior or exterior rooms or spaces that are made available to the general public.

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.

SELF-SERVICE STORAGE FACILITY. Real property 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 lot line or a designated portion of public right-of-way.

TECHNICALLY INFEASIBLE. An alteration of a building or a facility that has little likelihood of being accom-

**SECTION 1106
PARKING AND PASSENGER LOADING FACILITIES**

1106.1 Required. Where parking is provided, *accessible* parking spaces shall be provided in compliance with Table 1106.1, except as required by Sections 1106.2 through 1106.4. Where more than one parking facility is provided on a *site*, the number of parking spaces required to be *accessible* shall be calculated separately for each parking facility.

Exception: This section does not apply to parking spaces used exclusively for buses, trucks, other delivery vehicles, law enforcement vehicles or vehicular impound and motor pools where lots accessed by the public are provided with an *accessible* passenger loading zone.

**TABLE 1106.1
ACCESSIBLE PARKING SPACES**

TOTAL PARKING SPACES PROVIDED	REQUIRED MINIMUM NUMBER OF ACCESSIBLE 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 1,000	2% of total
1,001 and over	20, plus one for each 100, or fraction thereof, over 1,000

1106.2 Groups R-2 and R-3. At least 2 percent, but not less than one, of each type of parking space provided for occupancies in Groups R-2 and R-3, which are required to have *Accessible, Type A* or *Type B dwelling or sleeping units*, shall be *accessible*. Where parking is provided within or beneath a building, *accessible* parking spaces shall also be provided within or beneath the building.

1106.3 Hospital outpatient facilities. At least 10 percent, but not less than one, of care recipient and visitor parking spaces provided to serve hospital outpatient facilities shall be *accessible*.

1106.4 Rehabilitation facilities and outpatient physical therapy facilities. At least 20 percent, but not less than one, of the portion of care recipient and visitor parking spaces serving rehabilitation facilities specializing in treating conditions that affect mobility and outpatient physical therapy facilities shall be *accessible*.

1106.5 Van spaces. For every six or fraction of six *accessible* parking spaces, at least one shall be a van-accessible parking space.

Exception: In Group R-2 and R-3 occupancies, van-accessible spaces located within private garages shall be permitted to have vehicular routes, entrances, parking spaces and access aisles with a minimum vertical clearance of 7 feet (2134 mm).

1106.6 Location. *Accessible* parking spaces shall be located on the shortest *accessible route* of travel from adjacent parking to an *accessible* building entrance. In parking facilities that do not serve a particular building, *accessible* parking spaces shall be located on the shortest route to an *accessible* pedestrian entrance to the parking facility. Where buildings have multiple *accessible* entrances with adjacent parking, *accessible* parking spaces shall be dispersed and located near the *accessible* entrances.

Exceptions:

1. In multilevel parking structures, van-accessible parking spaces are permitted on one level.
2. *Accessible* 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.

1106.7 Passenger loading zones. Passenger loading zones shall be *accessible*.

1106.7.1 Continuous loading zones. Where passenger loading zones are provided, one passenger loading zone in every continuous 100 linear feet (30.4 m) maximum of loading zone space shall be *accessible*.

1106.7.2 Medical facilities. A passenger loading zone shall be provided at an *accessible* entrance to licensed medical and long-term care facilities where people receive physical or medical treatment or care and where the period of stay exceeds 24 hours.

1106.7.3 Valet parking. A passenger loading zone shall be provided at valet parking services.

1106.7.4 Mechanical access parking garages. Mechanical access parking garages shall provide at least one passenger loading zone at vehicle drop-off and vehicle pick-up areas.

1106.7.5 Bus boarding and alighting. At least one bus boarding and alighting space in each boarding and alighting area shall be *accessible*.

1106.8 Restriping. Renewing parking striping shall be allowed. New striping due to surface seal coating, resurfacing, reconfiguration of parking spaces, or some other reason, shall provide *accessible* spaces as applicable in Sections 1106.1 to 1106.7.

M
N
N
N
N
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**SECTION 1107
DWELLING UNITS AND SLEEPING UNITS**

1107.1 General. In addition to the other requirements of this chapter, occupancies having *dwelling units* or *sleeping units* shall be provided with *accessible* features in accordance with this section.

1107.2 Design. *Dwelling units* and *sleeping units* that are required to be *Accessible units, Type A units* and *Type B units* shall comply with the applicable portions of Chapter 10 of ICC A117.1. Units required to be *Type A units* are permitted to be designed and constructed as *Accessible units*. Units

required to be *Type B units* are permitted to be designed and constructed as *Accessible units* or as *Type A units*.

1107.3 Accessible spaces. Rooms and spaces available to the general public or available for use by residents and serving *Accessible units*, *Type A units* or *Type B units* shall be *accessible*. *Accessible* spaces shall include toilet and bathing rooms, kitchen, living and dining areas and any exterior spaces, including patios, terraces and balconies.

Exceptions:

1. Recreational facilities in accordance with Section 1109.15.
2. In Group I-2 facilities, doors to *sleeping units* shall be exempted from the requirements for maneuvering clearance at the room side provided the door is a minimum of 44 inches (1118 mm) in width.

1107.4 Accessible route. At least one *accessible route* shall connect *accessible* building or facility entrances with the primary entrance of each *Accessible unit*, *Type A unit*, and *Type B unit* within the building or facility and with those exterior and interior spaces and *facilities* that serve the units.

Exceptions:

1. If, due to circumstances outside the control of the owner, either the slope of the finished ground level between *accessible* facilities and *Type B units* exceeds one unit vertical in 12 units horizontal (1:12), or where physical barriers or legal restrictions prevent the installation of an *accessible route*, a vehicular route with parking that complies with Section 1106 at each public or common use facility or building is permitted in place of the *accessible route*.
2. Deleted.

1107.5 Group I. *Accessible units* and *Type B units* shall be provided in Group I occupancies in accordance with Sections 1107.5.1 to 1107.5.5. *Dwelling units* and *sleeping units* intended to be used by guests in Groups I-1 and I-2 occupancies providing *Accessible units* or *Type B units* shall comply with Sections 1107.6.1.1, 1107.6.1.3, and 1107.6.1.5.

1107.5.1 Group I-1. In Group I-1 occupancies not licensed by the Department of Health, *Accessible units* and *Type B units* shall be provided in accordance with Sections 1107.5.1.1 and 1107.5.1.2. Group I-1 boarding care facilities licensed by the Department of Health shall be provided in accordance with Section 1107.5.1.3.

1107.5.1.1 Accessible units. At least 4 percent, but not less than one, of the *dwelling units* and *sleeping units* shall be *Accessible units*.

1107.5.1.2 Type B units. In structures with four or more *dwelling units* or *sleeping units intended to be occupied as a residence*, every *dwelling unit* and *sleeping unit intended to be occupied as a residence* shall be a *Type B unit*.

Exception: The number of *Type B units* is permitted to be reduced in accordance with Section 1107.7.

1107.5.1.3 Boarding care. All boarding care resident rooms and common use bathing rooms provided only for

boarding care resident use shall comply with Minnesota Rules, Chapter 4660. All other rooms and spaces shall comply with the applicable provisions of this code.

1107.5.2 Group I-2 nursing homes. In Group I-2 nursing homes licensed by the Department of Health, at least 10 percent, but not less than one room of all nursing home resident rooms, and all common use toilet rooms and bathing rooms provided only for nursing home resident use, shall comply with Minnesota Rules, part 4658.4150. All other rooms and spaces shall comply with the applicable provisions of this code.

1107.5.2.1 Accessible units. Deleted.

1107.5.2.2 Type B units. Deleted.

1107.5.3 Group I-2 hospitals. *Accessible units* and *Type B units* shall be provided in general-purpose hospitals, psychiatric facilities and detoxification facilities of Group I-2 occupancies in accordance with Sections 1107.5.3.1 and 1107.5.3.2.

1107.5.3.1 Accessible units. At least 10 percent, but not less than one, of the *dwelling units* and *sleeping units* shall be *Accessible units*.

1107.5.3.2 Type B units. In structures with four or more *dwelling units* or *sleeping units intended to be occupied as a residence*, every *dwelling unit* and *sleeping unit intended to be occupied as a residence* shall be a *Type B unit*.

Exception: The number of *Type B units* is permitted to be reduced in accordance with Section 1107.7.

1107.5.4 Group I-2 rehabilitation facilities. In hospitals and rehabilitation facilities of Group I-2 occupancies which specialize in treating conditions that affect mobility, or units within either which specialize in treating conditions that affect mobility, 100 percent of the *dwelling units* and *sleeping units* shall be *Accessible units*.

1107.5.5 Group I-3. *Accessible units* shall be provided in Group I-3 occupancies in accordance with Sections 1107.5.5.1 through 1107.5.5.3.

1107.5.5.1 Group I-3 sleeping units. In Group I-3 occupancies, at least 3 percent of the total number of *dwelling units* and *sleeping units* in the facility, but not less than one unit in each classification level, shall be *Accessible units*.

1107.5.5.2 Special holding cells and special housing cells or rooms. In addition to the *Accessible units* required by Section 1107.5.5.1, where special holding cells or special housing cells or rooms are provided, at least one serving each purpose shall be an *Accessible unit*. Cells or rooms 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: Cells or rooms specially designed without protrusions and that are used solely for purposes of suicide prevention shall not be required to include grab bars.

1107.5.5.3 Medical care facilities. Patient *sleeping units* or cells required to be *Accessible units* in medical care facilities shall be provided in addition to any medical isolation cells required to comply with Section 1107.5.5.2.

1107.6 Group R. Dwelling units and *sleeping units* shall be provided in Group R occupancies in accordance with Sections 1107.6.1 to 1107.6.4, except as provided in subitems (1) to (3). Bedrooms within student facilities and congregate living facilities shall be considered *sleeping units* for the purpose of determining the number of units.

- (1) Dwelling units and *sleeping units* intended to be used by guests in Groups R-2, R-3, and R-4 occupancies providing *Type B units* shall comply with Sections 1107.6.1.1, 1107.6.1.3, and 1107.6.1.5.
- (2) Facilities that provide student housing shall be considered *sleeping units* and comply with Sections 1107.6.1.1 to 1107.6.1.5.
- (3) Crew quarters that are used exclusively as a residence by emergency response personnel of a government entity and the kitchens and bathrooms exclusively serving those quarters shall, at a minimum, comply with the provisions for *Type B units*.

1107.6.1 Group R-1. *Accessible units*, *Type B units*, and units with communication features shall be provided in Group R-1 occupancies in accordance with Sections 1107.6.1.1 to 1107.6.1.4. Units not required to be *Accessible units* or *Type B units* shall comply with Section 1107.6.1.5.

1107.6.1.1 Accessible units. *Accessible dwelling units* and *sleeping units* shall be provided in accordance with Table 1107.6.1.1. All dwelling units and *sleeping units*

on a site shall be considered to determine the total number of *Accessible units*.

1107.6.1.1.1 Accessible unit facilities. All interior and exterior spaces provided as part of or serving an *Accessible dwelling unit* or *sleeping unit* shall be *accessible* and be located on an *accessible route*.

Exceptions:

- 1. Where multiple bathrooms are provided within an *Accessible unit*, at least one full bathroom shall be *accessible*.
- 2. Where multiple-family or assisted bathrooms serve an *Accessible unit*, at least 50 percent but not less than one room for each use at each cluster shall be *accessible*.
- 3. Five percent, but not less than one bed shall be *accessible*.

1107.6.1.2 Type B units. In structures with four or more *dwelling units* or *sleeping units intended to be occupied as a residence*, every *dwelling unit* and *sleeping unit intended to be occupied as a residence* shall be a *Type B unit*.

Exception: The number of *Type B units* is permitted to be reduced in accordance with Section 1107.7.

1107.6.1.3 Communication features. Dwelling units and *sleeping units* with *accessible communication features* shall be provided in accordance with Table 1107.6.1.3 and shall provide the following:

- 1. Audible and visual alarms complying with ICC A117.1; and
- 2. Visual notification devices to alert room occupants of a door knock or bell. Notification

**TABLE 1107.6.1.1
ACCESSIBLE DWELLING UNITS AND SLEEPING UNITS**

TOTAL NUMBER OF UNITS PROVIDED	MINIMUM REQUIRED NUMBER OF ACCESSIBLE UNITS WITHOUT ROLL-IN SHOWERS	MINIMUM REQUIRED NUMBER OF ACCESSIBLE UNITS WITH ROLL-IN SHOWERS	TOTAL NUMBER OF REQUIRED ACCESSIBLE UNITS
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 1,000	2% of total	1% of total	3% of total
Over 1,000	20, plus 1 for each 100, or fraction thereof, over 1,000	10 plus 1 for each 100, or fraction thereof, over 1,000	30 plus 2 for each 100, or fraction thereof, over 1,000

devices shall not be connected to visual alarm signal appliances.

1107.6.1.4 Dispersion. Units required to comply with Sections 1107.6.1.1 and 1107.6.1.3 shall be dispersed to multiple floors in multistory facilities having more than two stories or providing more than 100 total units. Units required to comply with Sections 1107.6.1.1 and 1107.6.1.3 shall be dispersed among the various classes of rooms. Where the minimum number of units required to comply with Sections 1107.6.1.1 and 1107.6.1.3 is not sufficient to allow for complete dispersion, units shall be dispersed in the following priority: room type, number of beds, and amenities. At least one unit required to comply with Section 1107.6.1.1 shall also comply with Section 1107.6.1.3. Not more than 10 percent of units required to comply with Section 1107.6.1.1 shall be used to satisfy the minimum number of units required to comply with Section 1107.6.1.3.

1107.6.1.5 Passage doors. Passage doors into and within units not required to comply with Section 1107.6.1.1 or 1107.6.1.2 shall provide a clear width in compliance with ICC A117.1.

Exception: Shower and sauna doors.

1107.6.2 Group R-2. Dwelling units and *sleeping units* shall be provided in Group R-2 occupancies in accordance with Sections 1107.6.2.1 and 1107.6.2.2.

1107.6.2.1 Apartment houses, monasteries and convents. *Type A units* and *Type B units* shall be provided in apartment houses, monasteries and convents in accordance with Sections 1107.6.2.1.1 and 1107.6.2.1.2.

1107.6.2.1.1 Type A units. In Group R-2 occupancies containing more than seven dwelling units or *sleeping units*, at least 2 percent but not less than one of the units shall be a *Type A unit*. All Group R-2

units within a contiguous parcel of land development, irrespective of lot lines and public rights-of-way within the development, shall be considered to determine the total number of units and the required number of *Type A units*. *Type A units* shall be dispersed among the various classes of units. Where three or more *Type A units* are required, at least one *Type A unit* shall be provided with an *accessible roll-in shower*.

Exceptions:

1. The number of *Type A units* is permitted to be reduced in accordance with Section 1107.7.
2. Existing Group R-2 units shall not contribute to the total number of units considered to determine the number of *Type A units* required.

1107.6.2.1.2 Type B units. Where there are four or more *dwelling units* or *sleeping units intended to be occupied as a residence* in a single structure, every *dwelling unit* and *sleeping unit intended to be occupied as a residence* shall be a *Type B unit*.

Exception: The number of *Type B units* is permitted to be reduced in accordance with Section 1107.7.

1107.6.2.2 Group R-2 other than apartment houses, monasteries, and convents. In Group R-2 occupancies, other than apartment houses, monasteries, and convents, dwelling units and *sleeping units* shall be provided in accordance with Sections 1107.6.1.1 to 1107.6.1.5.

1107.6.2.2.1 Accessible units. Deleted.

1107.6.2.2.2 Type B units. Deleted.

**TABLE 1107.6.1.3
DWELLING OR SLEEPING UNITS WITH ACCESSIBLE COMMUNICATION FEATURES**

TOTAL NUMBER OF DWELLING OR SLEEPING UNITS PROVIDED	MINIMUM REQUIRED NUMBER OF DWELLING OR SLEEPING UNITS WITH ACCESSIBLE COMMUNICATION FEATURES
1	1
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 1,000	5 percent of total
Over 1,000	50, plus 3 for each 100 over 1,000

1107.6.3 Group R-3. Group R-3 occupancies shall comply with Section 1107.6.3.1, 1107.6.3.2, or 1107.6.3.3 as applicable.

1107.6.3.1 Dwelling units and sleeping units. In occupancies where there are four or more dwelling units or *sleeping units* intended to be occupied as a residence in a single structure, every *dwelling unit* and sleeping unit intended to be occupied as a residence shall be a *Type B unit*.

Exception: The number of *Type B units* is permitted to be reduced in accordance with Section 1107.7.

1107.6.3.2 Congregate living facilities, boarding houses, and care facilities. Congregate living facilities, boarding houses, and care facilities that have four or more *sleeping units* in each facility shall comply with Sections 1107.6.4.1 and 1107.6.4.2.

1107.6.3.3 Care facilities. Care facilities that provide accommodations for less than 24 hours are not required to be *accessible*.

1107.6.4 Group R-4. *Accessible units* and *Type B units* shall be provided in Group R-4 occupancies in accordance with Sections 1107.6.4.1 and 1107.6.4.2.

1107.6.4.1 Accessible units. At least one of the *dwelling* or *sleeping units* shall be an *Accessible unit*.

1107.6.4.2 Type B units. In structures with four or more *dwelling units* or *sleeping units intended to be occupied as a residence*, every *dwelling unit* and *sleeping unit intended to be occupied as a residence* shall be a *Type B unit*.

Exception: The number of *Type B units* is permitted to be reduced in accordance with Section 1107.7.

1107.7 General exceptions. Where specifically permitted by Section 1107.5 or 1107.6, the required number of *Type A* and *Type B units* is permitted to be reduced in accordance with Sections 1107.7.1 to 1107.7.6.

1107.7.1 Structures without elevator service. Where no elevator service is provided in a structure, only the *dwelling units* and *sleeping units* that are located on stories indicated in Sections 1107.7.1.1 and 1107.7.1.2 are required to be *Type A units* and *Type B units*, respectively. The number of *Type A units* shall be determined in accordance with Section 1107.6.2.1.1.

1107.7.1.1 One story with Type B units required. At least one *story* containing *dwelling units* or *sleeping units intended to be occupied as a residence* shall be provided with an *accessible* entrance from the exterior of the structure and all units *intended to be occupied as a residence* on that *story* shall be *Type B units*.

1107.7.1.2 Additional stories with Type B units. On all other stories that have a building entrance in proximity to arrival points intended to serve units on that *story*, as indicated in Items 1 and 2, all *dwelling units* and *sleeping units intended to be occupied as a residence* served by that entrance on that *story* shall be *Type B units*.

1. Where the slopes of the undisturbed *site* measured between the planned entrance and all vehicular or pedestrian arrival points within 50 feet (15 240 mm) of the planned entrance are 10 percent or less, and
2. Where the slopes of the planned finished grade measured between the entrance and all vehicular or pedestrian arrival points within 50 feet (15 240 mm) of the planned entrance are 10 percent or less.

Where no such arrival points are within 50 feet (15 240 mm) of the entrance, the closest arrival point shall be used unless that arrival point serves the *story* required by Section 1107.7.1.1.

1107.7.2 Multistory units. A *multistory dwelling* or *sleeping unit* which is not provided with elevator service is not required to be a *Type B unit*. Where a *multistory unit* is provided with external elevator service to only one floor, the floor provided with elevator service shall be the primary entry to the unit, shall comply with the requirements for a *Type B unit* and a toilet facility shall be provided on that floor.

1107.7.3 Elevator service to the lowest story with units. Where elevator service in the building provides an *accessible route* only to the lowest *story* containing *dwelling* or *sleeping units intended to be occupied as a residence*, only the units on that *story* which are *intended to be occupied as a residence* are required to be *Type B units*.

1107.7.4 Site impracticality. On a *site* with multiple non-elevator buildings, the number of units required by Section 1107.7.1 to be *Type B units* is permitted to be reduced to a percentage which is equal to the percentage of the entire *site* having grades, prior to development, which are less than 10 percent, provided that all of the following conditions are met:

1. Not less than 20 percent of the units required by Section 1107.7.1 on the *site* are *Type B units*;
2. Units required by Section 1107.7.1, where the slope between the building entrance serving the units on that *story* and a pedestrian or vehicular arrival point is no greater than 8.33 percent, are *Type B units*;
3. Units required by Section 1107.7.1, where an elevated walkway is planned between a building entrance serving the units on that *story* and a pedestrian or vehicular arrival point and the slope between them is 10 percent or less are *Type B units*; and
4. Units served by an elevator in accordance with Section 1107.7.3 are *Type B units*.

1107.7.5 Design flood elevation. The required number of *Type A units* and *Type B units* shall not apply to a *site* where the required elevation of the lowest floor or the lowest horizontal structural building members of nonelevator buildings are at or above the *design flood elevation* resulting in:

1. A difference in elevation between the minimum required floor elevation at the primary entrances and

vehicular and pedestrian arrival points within 50 feet (15 240 mm) exceeding 30 inches (762 mm), and

2. A slope exceeding 10 percent between the minimum required floor elevation at the primary entrances and vehicular and pedestrian arrival points within 50 feet (15 240 mm).

Where no such arrival points are within 50 feet (15 240 mm) of the primary entrances, the closest arrival points shall be used.

1107.7.6 Owner occupied units. Type A units are not required in dwelling units or *sleeping units* where sale of the unit occurs prior to construction of the unit and the *dwelling unit* owner declines the Type A provisions. The dwelling units and *sleeping units* shall be *Type B units*.

SECTION 1108 SPECIAL OCCUPANCIES

1108.1 General. In addition to the other requirements of this chapter, the requirements of Sections 1108.2 through 1108.4 shall apply to specific occupancies.

1108.2 Assembly area seating. A building, room, or space used for assembly purposes with *fixed seating* shall comply with Sections 1108.2.1 to 1108.2.5. A building, room, or space used for assembly purposes with nonfixed seating shall comply with Section 1108.2.6. Assistive listening systems shall comply with Section 1108.2.7. Performance areas viewed from assembly seating areas shall comply with Section 1108.2.8. Dining areas shall comply with Section 1108.2.9.

1108.2.1 Services. If a service or facility is provided in an area that is not *accessible*, the same service or facility shall be provided on an *accessible* level and shall be *accessible*.

1108.2.2 Wheelchair spaces. In theaters, *bleachers*, *grandstands*, stadiums, arenas and other *fixed seating* assembly areas, *accessible wheelchair spaces* shall be provided in accordance with Sections 1108.2.2.1 through 1108.2.2.4.

1108.2.2.1 General seating. *Wheelchair spaces* shall be provided in accordance with Table 1108.2.2.1.

TABLE 1108.2.2.1
ACCESSIBLE WHEELCHAIR SPACES

CAPACITY OF SEATING IN ASSEMBLY AREAS	MINIMUM REQUIRED NUMBER OF WHEELCHAIR SPACES
4 to 25	1
26 to 50	2
51 to 100	4
101 to 300	5
301 to 500	6
501 to 5,000	6, plus 1 for each 150, or fraction thereof, between 501 through 5,000
5,001 and over	36 plus 1 for each 200, or fraction thereof, over 5,000

1108.2.2.2 Luxury boxes, club boxes and suites. In each luxury box, club box, and suite within arenas, stadiums and *grandstands*, *wheelchair spaces* shall be provided in accordance with Table 1108.2.2.1.

1108.2.2.3 Other boxes. In boxes other than those required to comply with Section 1108.2.2.2, the total number of *wheelchair spaces* provided shall be determined in accordance with Table 1108.2.2.1. *Wheelchair spaces* shall be located in not less than 20 percent of all boxes provided.

1108.2.2.4 Team or player seating. At least one *wheelchair space* 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 that are not required to be located on an *accessible route* in accordance with Section 1109.15.4.1.

1108.2.3 Companion seats. At least one companion seat shall be provided for each *wheelchair space* required by Sections 1108.2.2.1 through 1108.2.2.3.

1108.2.4 Dispersion of wheelchair spaces in multilevel assembly seating areas. In *multilevel assembly seating* areas, *wheelchair spaces* shall be provided on the main floor level and on one of each two additional floor or *mezzanine* levels. *Wheelchair spaces* shall be provided in each luxury box, club box and suite within assembly facilities.

Exceptions:

1. In *multilevel assembly seating* areas utilized for worship services where the second floor or *mezzanine* level contains 25 percent or less of the total seating capacity, *wheelchair spaces* shall be permitted to all be located on the main level.
2. In *multilevel assembly seating* areas where the second floor or *mezzanine* level provides 25 percent or less of the total seating capacity and 300 or fewer seats, all *wheelchair spaces* shall be permitted to be located on the main level.
3. *Wheelchair spaces* in team or player seating serving areas of sport activity are not required to be dispersed.

1108.2.5 Designated aisle seats. At least 5 percent, but not less than one, of the total number of aisle seats provided shall be designated aisle seats and shall be the aisle seats located closest to *accessible routes*.

Exception: Designated aisle seats are not required in team or player seating serving areas of sport activity.

1108.2.6 Nonfixed seating. Seating areas where fixed seats are not provided shall connect to an *accessible route*.

1108.2.7 Assistive listening systems. Each building, room or space used for assembly purposes where audible communications are integral to the use of the space shall have an assistive listening system.

Exception: Other than in courtrooms, an assistive listening system is not required where there is no audio amplification system.

1108.2.7.1 Receivers. Receivers shall be provided for assistive listening systems in accordance with Table 1108.2.7.1.

Exceptions:

1. Where a building contains more than one room or space used for assembly purposes, the total number of required receivers shall be permitted to be calculated according to the total number of seats in the building, provided that all receivers are usable with all systems and if the rooms or spaces used for assembly purposes required to provide assistive listening are under one management.
2. Where all seats in a building, room or space used for assembly purposes are served by an induction loop assistive listening system, the minimum number of receivers required by Table 1108.2.7.1 to be hearing-aid compatible shall not be required.

1108.2.7.2 Ticket windows. Where ticket windows are provided in stadiums and arenas, at least one window at each location shall have an assistive listening system.

1108.2.7.3 Public address systems. Where stadiums, arenas and *grandstands* have 15,000 fixed seats or more and provide audible public announcements, they shall also provide prerecorded or real-time captions of those audible public announcements.

1108.2.8 Performance areas. An *accessible route* shall directly connect the performance area to the assembly seating area where a *circulation path* directly connects a performance area to an assembly seating area. An *accessible route* shall be provided from performance areas to ancillary areas or *facilities* used by performers.

1108.2.9 Dining and drinking areas. In dining and drinking areas, all interior and exterior floor areas shall be *accessible*.

Exceptions:

1. An *accessible route* between *accessible* levels and stories above or below is not required where permitted by Section 1104.4, Exception 1.

2. In buildings or *facilities* not required to provide an *accessible route* between stories, an *accessible route* to a *mezzanine* is not required, provided that the *mezzanine* contains less than 25 percent of the total area and the same services, decor and amenities are provided in the *accessible* area.
3. In sports facilities, tiered dining areas providing seating required to be *accessible* shall be required to have *accessible routes* serving at least 25 percent of the dining area, provided that *accessible routes* serve *accessible* seating and where each tier is provided with the same services.
4. Employee-only work areas shall comply with Sections 1103.2.3 and 1104.3.1.

1108.2.9.1 Dining surfaces. Where dining surfaces for the consumption of food or drink are provided, at least 5 percent, but not less than one, of the dining surfaces for the seating and standing spaces shall be *accessible* and be distributed throughout the facility and located on a level accessed by an *accessible route*.

1108.3 Self-service storage facilities. *Self-service storage facilities* shall provide *accessible* individual self-storage spaces in accordance with Table 1108.3.

**TABLE 1108.3
ACCESSIBLE SELF-SERVICE STORAGE FACILITIES**

TOTAL SPACES IN FACILITY	MINIMUM NUMBER OF REQUIRED ACCESSIBLE SPACES
1 to 200	5%, but not less than 1
Over 200	10, plus 2% of total number of units over 200

1108.3.1 Dispersion. *Accessible* 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 of required *accessible* spaces, the number of *accessible* spaces shall not be required to exceed that required by Table 1108.3. *Accessible* spaces are permitted to be dispersed in a single building of a multibuilding facility.

1108.4 Judicial facilities. Judicial facilities shall comply with Sections 1108.4.1 through 1108.4.3.

**TABLE 1108.2.7.1
RECEIVERS FOR ASSISTIVE LISTENING SYSTEMS**

CAPACITY OF SEATING IN ASSEMBLY AREAS	MINIMUM REQUIRED NUMBER OF RECEIVERS	MINIMUM NUMBER OF RECEIVERS TO BE HEARING-AID COMPATIBLE
50 or less	2	2
51 to 200	2, plus 1 per 25 seats over 50 seats*	2
201 to 500	2, plus 1 per 25 seats over 50 seats*	1 per 4 receivers*
501 to 1,000	20, plus 1 per 33 seats over 500 seats*	1 per 4 receivers*
1,001 to 2,000	35, plus 1 per 50 seats over 1,000 seats*	1 per 4 receivers*
Over 2,000	55, plus 1 per 100 seats over 2,000 seats*	1 per 4 receivers*

Note: * = or fraction thereof

1108.4.1 Courtrooms. Each courtroom shall be *accessible* and comply with Sections 1108.4.1.1 through 1108.4.1.5.

1108.4.1.1 Jury box. A *wheelchair space* shall be provided within the jury box.

Exception: Adjacent companion seating is not required.

1108.4.1.2 Gallery seating. *Wheelchair spaces* shall be provided in accordance with Table 1108.2.2.1. Designated aisle seats shall be provided in accordance with Section 1108.2.5.

1108.4.1.3 Assistive listening systems. An assistive listening system must be provided. Receivers shall be provided for the assistive listening system in accordance with Section 1108.2.7.1.

1108.4.1.4 Employee work stations. The judge’s bench, clerk’s station, bailiff’s station, deputy clerk’s station and court reporter’s station shall be located on an accessible route. The vertical access to elevated employee work stations within a courtroom is not required at the time of initial construction, provided a *ramp*, lift or elevator can be installed without requiring reconfiguration or extension of the courtroom or extension of the electrical system.

1108.4.1.5 Other work stations. The litigant’s and counsel stations, including the lectern, shall be *accessible*.

1108.4.2 Holding cells. Central holding cells and court-floor holding cells shall comply with Sections 1108.4.2.1 and 1108.4.2.2.

1108.4.2.1 Central holding cells. Where separate central holding cells are provided for adult males, juvenile males, adult females or juvenile females, one of each type shall be *accessible*. Where central holding cells are provided and are not separated by age or sex, at least one *accessible* cell shall be provided.

1108.4.2.2 Court-floor holding cells. Where separate court-floor holding cells are provided for adult males, juvenile males, adult females or juvenile females, each courtroom shall be served by one *accessible* cell of each type. Where court-floor holding cells are provided and are not separated by age or sex, courtrooms shall be served by at least one *accessible* cell. *Accessible* cells shall be permitted to serve more than one courtroom.

1108.4.3 Visiting areas. Visiting areas shall comply with Sections 1108.4.3.1 and 1108.4.3.2.

1108.4.3.1 Cubicles and counters. At least 5 percent but no fewer than one of the cubicles shall be *accessible* on both the visitor and detainee sides. Where counters are provided, at least one shall be *accessible* on both the visitor and detainee sides.

Exception: This requirement shall not apply to the detainee side of cubicles or counters at noncontact visiting areas not serving *accessible* holding cells.

1108.4.3.2 Partitions. Where solid partitions or security glazing separate visitors from detainees, at least one of each type of cubicle or counter partition shall be *accessible*.

**SECTION 1109
OTHER FEATURES AND FACILITIES**

1109.1 General. *Accessible* building features and *facilities* shall be provided in accordance with Sections 1109.2 to 1109.19.

Exception: *Accessible* units, Type A units, and *Type B* units shall comply with Chapter 10 of ICC A117.1.

1109.2 Toilet and bathing facilities. Each toilet room and bathing room shall be *accessible*. Where a floor level is not required to be connected by an *accessible route*, the only toilet rooms or bathing rooms provided within the facility shall not be located on the inaccessible floor. At least one of each type of fixture, element, control or dispenser in each *accessible* toilet room and bathing room shall be *accessible*.

Exceptions:

1. In toilet rooms or bathing rooms accessed only through a private office, not for *common* or *public use* and intended for use by a single occupant, any of the following alternatives are allowed:
 - 1.1. Doors are permitted to swing into the clear floor space, provided the door swing can be reversed to meet the requirements in ICC A117.1;
 - 1.2. The height requirements for the water closet in ICC A117.1 are not applicable;
 - 1.3. Grab bars are not required to be installed in a toilet room, provided that reinforcement has been installed in the walls and located so as to permit the installation of such grab bars; and
 - 1.4. The requirement for height, knee and toe clearance shall not apply to a lavatory.
2. This section is not applicable to toilet and bathing rooms that serve *dwelling units* or *sleeping units* that are not required to be *accessible* by Section 1107.
3. Where multiple single-user toilet rooms or bathing rooms are clustered at a single location, at least 50 percent but not less than one room for each use at each cluster shall be *accessible*.
4. Where no more than one urinal is provided in a toilet room or bathing room, the urinal is not required to be *accessible*.
5. Toilet rooms that are part of critical care or intensive care patient sleeping rooms are not required to be *accessible*.
6. Where toilet facilities are primarily for children’s use, required *accessible* water closets, toilet compartments and lavatories shall be permitted to comply with the children’s provisions of ICC A117.1.

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1109.2.1 Family or assisted-use toilet and bathing rooms. In assembly and mercantile occupancies, an *accessible* family or assisted-use toilet room shall be provided where an aggregate of six or more male and female water closets is required. In buildings of mixed occupancy, only those water closets required for the assembly or mercantile occupancy shall be used to determine the family or assisted-use toilet room requirement. In recreational facilities where separate-sex bathing rooms are provided, an *accessible* family or assisted-use bathing room shall be provided. Fixtures located within family or assisted-use toilet and bathing rooms shall be included in determining the number of fixtures provided in an occupancy.

Exception: Where each separate-sex bathing room has only one shower or bathtub fixture, a family or assisted-use bathing room is not required.

1109.2.1.1 Standard. Family or assisted-use toilet and bathing rooms shall comply with Sections 1109.2.1.2 through 1109.2.1.7.

1109.2.1.2 Family or assisted-use toilet rooms. Family or assisted-use toilet rooms shall include only one water closet and only one lavatory. A family or assisted-use bathing room in accordance with Section 1109.2.1.3 shall be considered a family or assisted-use toilet room.

Exception: A urinal is permitted to be provided in addition to the water closet in a family or assisted-use toilet room.

1109.2.1.3 Family or assisted-use bathing rooms. Family or assisted-use bathing rooms shall include only one shower or bathtub fixture. Family or assisted-use bathing rooms shall also include one water closet and one lavatory. Where storage facilities are provided for separate-sex bathing rooms, *accessible* storage facilities shall be provided for family or assisted-use bathing rooms.

1109.2.1.4 Location. Family or assisted-use toilet and bathing rooms shall be located on an *accessible route*. Family or assisted-use toilet rooms shall be located not more than one *story* above or below separate-sex toilet rooms. The *accessible route* from any separate-sex toilet room to a family or assisted-use toilet room shall not exceed 500 feet (152 m).

1109.2.1.5 Prohibited location. The *accessible* route from separate-sex toilet rooms to a family or assisted-use toilet room shall not pass through security checkpoints.

1109.2.1.6 Clear floor space. Where doors swing into a family or assisted-use toilet or bathing room, a clear floor space not less than 30 inches by 48 inches (762 mm by 1219 mm) shall be provided, within the room, beyond the area of the door swing.

1109.2.1.7 Privacy. Doors to family or assisted-use toilet and bathing rooms shall be securable from within the room.

1109.2.2 Water closet compartment. Where water closet compartments are provided in a toilet room or bathing

room, at least one wheelchair-*accessible* compartment shall be provided. Where two or more water closet compartments are provided in a toilet room or bathing room, at least one ambulatory-*accessible* water closet compartment shall be provided in addition to the wheelchair-*accessible* compartment.

1109.2.3 Lavatories. Where lavatories are provided, at least 5 percent, but not less than one, shall be *accessible*. Where the total lavatories provided in a toilet room or bathing facility is six or more, at least one lavatory with enhanced reach ranges shall be provided.

1109.3 Sinks. Where sinks are provided, at least 5 percent but not less than one provided in *accessible* spaces shall be *accessible*.

Exception: Deleted.

1109.4 Kitchens and kitchenettes. Where kitchens and kitchenettes are provided in *accessible* spaces or rooms, they shall be *accessible*.

Exception: Where multiple kitchens are provided in a space or room, at least one kitchen shall be *accessible*.

1109.5 Drinking fountains. Where drinking fountains are provided on an exterior site, on a floor or within a secured area, the drinking fountains shall be provided in accordance with Sections 1109.5.1 and 1109.5.2.

1109.5.1 Minimum number. No fewer than two drinking fountains shall be provided. One drinking fountain shall comply with the requirements for people who use a wheelchair and one drinking fountain shall comply with the requirements for standing persons.

Exceptions:

- 1. A single drinking fountain that complies with the requirements for people who use a wheelchair and standing persons shall be permitted to be substituted for two separate drinking fountains.
- 2. Where drinking fountains are primarily for children's use, drinking fountains for people using wheelchairs shall be permitted to comply with the children's provisions in ICC A117.1 and drinking fountains for standing children shall be permitted to provide the spout at 30 inches (762 mm) minimum above the floor.

1109.5.2 More than the minimum number. Where more than the minimum number of drinking fountains specified in Section 1109.5.1 are provided, 50 percent of the total number of drinking fountains provided shall comply with the requirements for persons who use a wheelchair and 50 percent of the total number of drinking fountains provided shall comply with the requirements for standing persons.

Exceptions:

- 1. 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 this section equals 100 percent of the drinking fountains.

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2. Where drinking fountains are primarily for children’s use, drinking fountains for people using wheelchairs shall be permitted to comply with the children’s provisions in ICC A117.1 and drinking fountains for standing children shall be permitted to provide the spout at 30 inches (762 mm) minimum above the floor.

1109.6 Swimming pools, wading pools, hot tubs, spas, saunas, and steam rooms. Common use and public use swimming pools, wading pools, hot tubs, spas, saunas, and steam rooms shall be *accessible*.

Exception: Where hot tubs, spas, saunas, or steam rooms are clustered at a single location, at least 5 percent but not less than one of each type in each cluster shall be *accessible*.

1109.7 Elevators. Passenger elevators on an *accessible route* shall be *accessible* and comply with Minnesota Rules, Chapter 1307, Minnesota Elevators and Related Devices.

1109.8 Lifts. Platform (wheelchair) lifts are permitted to be a part of a required *accessible route* in new construction where indicated in items 1 to 11. Platform (wheelchair) lifts shall be *accessible* and comply with Minnesota Rules, Chapter 1307, Minnesota Elevators and Related Devices.

1. An *accessible route* to a performing area and speaker platforms in Group A occupancies.
2. An *accessible route* to *wheelchair spaces* required to comply with the wheelchair space dispersion requirements of Sections 1108.2.2 to 1108.2.6 or the accessible route requirements of Sections 1104.4.3 and 1104.4.4.
3. An *accessible route* to spaces that are not open to the general public with an *occupant load* of not more than five.
4. An *accessible route* within a *dwelling* or *sleeping unit*.
5. An *accessible route* to wheelchair seating spaces located in outdoor dining terraces in Group A-5 occupancies where the *means of egress* from the dining terraces to a *public way* are open to the outdoors.
6. 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 the court.
7. An *accessible route* to load and unload areas serving amusement rides.
8. An *accessible route* to play components or soft contained play *structures*.
9. An *accessible route* to team or player seating areas serving areas of sport activity.
10. An *accessible route* where existing exterior *site* constraints make use of a *ramp* or elevator infeasible.
11. An *accessible route* within a tenant space as required in Section 1104.5 where the area accessed by the lift has an *occupant load* of 150 maximum or where the

structural limitations make use of an elevator impracticable.

1109.9 Storage. Where fixed or built-in storage elements such as cabinets, coat hooks, shelves, medicine cabinets, lockers, closets and drawers are provided in required *accessible* spaces, at least 5 percent, but not less than one of each type shall be *accessible*.

1109.9.1 Equity. *Accessible* facilities and spaces shall be provided with the same storage elements as provided in the similar nonaccessible facilities and spaces.

1109.9.2 Shelving and display units. Self-service shelves and display units shall be located on an *accessible route*. Such shelving and display units shall not be required to comply with reach-range provisions.

1109.10 Detectable warnings. Passenger transit platform edges bordering a drop-off and not protected by platform screens or *guards* and circulation paths that cross tracks shall have a *detectable warning*.

Exception: Detectable warnings are not required at bus stops.

1109.11 Seating at tables, counters and work surfaces. Where seating or standing space at fixed or built-in tables, counters or work surfaces is provided in *accessible* spaces, at least 5 percent of the seating and standing spaces, but not less than one, shall be *accessible*. In Group I-3 occupancy visiting areas at least 5 percent, but not less than one, cubicle or counter shall be *accessible* on both the visitor and detainee sides.

Exceptions:

1. Check-writing surfaces at check-out aisles not required to comply with Section 1109.11.2 are not required to be *accessible*.
2. In Group I-3 occupancies, the counter or cubicle on the detainee side is not required to be *accessible* at noncontact visiting areas or in areas not serving *accessible* holding cells or *sleeping units*.

1109.11.1 Dispersion. *Accessible* fixed or built-in seating at tables, counters or work surfaces shall be distributed throughout the space or facility containing such elements and located on a level accessed by an *accessible route*.

1109.12 Service facilities. Service facilities shall provide for *accessible* features in accordance with Sections 1109.12.1 through 1109.12.5.

1109.12.1 Dressing, fitting and locker rooms. Where dressing rooms, fitting rooms or locker rooms are provided, at least 5 percent, but not less than one, of each type of use in each cluster provided shall be *accessible*.

1109.12.2 Check-out aisles. Where check-out aisles are provided, *accessible* check-out aisles shall be provided in accordance with Table 1109.12.2. Where check-out aisles serve different functions, at least one *accessible* check-out aisle shall be provided for each function. Where check-out aisles serve different functions, *accessible* check-out aisles shall be provided in accordance with Table 1109.12.2 for each function. Where check-out aisles are dispersed throughout the building or facility, *accessible* check-out aisles shall also be dispersed. Traffic control devices,

security devices and turnstiles located in *accessible* check-out aisles or lanes shall be *accessible*.

**TABLE 1109.12.2
ACCESSIBLE CHECK-OUT AISLES**

TOTAL CHECK-OUT AISLES OF EACH FUNCTION	MINIMUM NUMBER OF ACCESSIBLE CHECK-OUT AISLES OF EACH FUNCTION
1 to 4	1
5 to 8	2
9 to 15	3
Over 15	3, plus 20% of additional aisles

1109.12.3 Point of sale and service counters. Where counters are provided for sales or distribution of goods or services, at least one of each type provided in each area shall be *accessible*. Where such counters are dispersed throughout the building or facility, *accessible* counters shall also be dispersed.

1109.12.4 Food service lines. Food service lines shall be *accessible*. Where self-service shelves are provided, at least 50 percent, but not less than one, of each type provided shall be *accessible*.

1109.12.5 Queue and waiting lines. Queue and waiting lines servicing *accessible* counters or check-out aisles shall be *accessible*.

1109.13 Controls, operating mechanisms and hardware. Controls, operating mechanisms and hardware intended for operation by the occupant, including switches that control lighting and ventilation and electrical convenience outlets, in *accessible* spaces, along *accessible routes* or as parts of *accessible* elements shall be *accessible*.

Exceptions:

- Operable parts that are intended for use only by service or maintenance personnel shall not be required to be *accessible*.
- Electrical or communication receptacles serving a dedicated use shall not be required to be *accessible*.
- 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 be *accessible*.
- Floor electrical receptacles shall not be required to be *accessible*.
- HVAC diffusers shall not be required to be *accessible*.
- Except for light switches, where redundant controls are provided for a single element, one control in each space shall not be required to be *accessible*.
- Access doors or 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 and 48 inches minimum above the finished floor or ground, provided the self-latching devices are not also self-locking devices, operated by means

of a key, electronic opener, or integral combination lock.

1109.13.1 Operable window. Where operable windows are provided in rooms that are required to be *accessible* in accordance with Sections 1107.5.1.1, 1107.5.2.1, 1107.5.3.1, 1107.5.4, 1107.6.1.1, 1107.6.2.1.1, 1107.6.2.2.1 and 1107.6.4.1, at least one window in each room shall be *accessible* and each required operable window shall be *accessible*.

Exception: *Accessible* windows are not required in bathrooms and kitchens.

1109.14 Fuel-dispensing systems. Deleted.

1109.15 Recreational and sports facilities. Recreational and sports facilities shall be provided with *accessible* features in accordance with Sections 1109.15.1 through 1109.15.4.

1109.15.1 Facilities serving a single building. In Group R-2 and R-3 occupancies where recreational facilities are provided serving a single building containing *Type A units* or *Type B units*, 25 percent, but not less than one, of each type of recreational facility shall be *accessible*. Every recreational facility of each type on a site shall be considered to determine the total number of each type that is required to be *accessible*.

1109.15.2 Facilities serving multiple buildings. In Group R-2 and R-3 occupancies on a single *site* where multiple buildings containing *Type A units* or *Type B units* are served by recreational facilities, 25 percent, but not less than one, of each type of recreational facility serving each building shall be *accessible*. The total number of each type of recreational facility that is required to be *accessible* shall be determined by considering every recreational facility of each type serving each building on the site.

1109.15.3 Other occupancies. All recreational and sports facilities not falling within the purview of Section 1109.15.1 or 1109.15.2 shall be *accessible*.

1109.15.4 Recreational and sports facilities exceptions. Recreational and sports facilities required to be *accessible* shall be exempt from this chapter to the extent specified in this section.

1109.15.4.1 Bowling lanes. An *accessible route* shall be provided to at least 5 percent, but no less than one, of each type of bowling lane.

1109.15.4.2 Court sports. In court sports, at least one *accessible route* shall directly connect both sides of the court.

1109.15.4.3 Raised boxing or wrestling rings. Raised boxing or wrestling rings are not required to be *accessible*.

1109.15.4.4 Raised refereeing, judging and scoring areas. Raised structures used solely for refereeing, judging or scoring a sport are not required to be *accessible*.

1109.15.4.5 Raised diving boards and diving platforms. Raised diving boards and diving platforms are not required to be *accessible*.

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gars in a facility, but not less than one hangar used for the storage or repair of private aircraft.

1109.19 Two-way communication systems. 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 ICC A117.1.

**SECTION 1110
SIGNAGE**

1110.1 General. Signs shall be provided in accordance with Section 1110 and shall comply with ICC A117.1.

Exceptions:

- 1. 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.
- 2. Temporary, seven days or less, signs shall not be required to comply.
- 3. In detention and correctional facilities, signs not located in public use areas shall not be required to comply.

1110.2 Designations. Interior and exterior signs identifying toilet rooms, bathing rooms, locker rooms, dressing rooms, fitting rooms, room numbers, and room names shall comply with ICC A117.1, Section 703.3. Where pictograms are provided, they shall comply with ICC A117.1, Section 703.5 and include text descriptors. The International Symbol of Accessibility complying with ICC A117.1, Section 703.6.3.1 shall be provided at the following locations:

- 1. *Accessible* passenger loading zones.
- 2. *Accessible* toilet and bathing rooms where not all such rooms are *accessible*.
- 3. *Accessible* dressing, fitting, and locker rooms where not all such rooms are *accessible*.

1110.2.1 Exterior signs. Exterior signs that are not located at the door to the space they serve shall comply with ICC A117.1, Section 703.2.

1110.3 Directional and informational signs. Signs that provide direction to or information about interior spaces and *facilities* of the site shall comply with ICC A117.1, Section 703.2.

1110.4 Means of egress. Signage providing instructions for the operation of exit doors shall comply with ICC A117.1, Section 703.2. Floor designations within *exit stairways* shall comply with ICC A117.1, Section 504.9. Other signs for *accessible means of egress* shall comply with IBC Chapter 10.

1110.5 Parking. *Accessible* parking spaces shall be identified by signs complying with ICC A117.1, Section 502.7.

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

1110.6 Entrances. Where not all entrances are *accessible*, *accessible* entrances shall be identified by the International Symbol of Accessibility complying with ICC A117.1, Section 703.6.3.1. Directional signs complying with ICC A117.1, Section 703.2, that indicate the location of the nearest *accessible* entrance shall be provided at all nonaccessible entrances.

1110.7 TTYs. TTY identification and directional signs shall be provided in accordance with Section 1110.7.

1110.7.1 Identification signs. Public TTYs shall be identified by the International Symbol of TTY complying with ICC A117.1, Section 703.6.3.2.

1110.7.2 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 ICC A117.1, Section 703.2, and shall include the International Symbol of TTY complying with ICC A117.1, Section 703.6.3.2.

1110.8 Assistive listening systems. Each assembly area required to provide assistive listening systems shall provide signs informing patrons of the availability of the assistive listening system. Assistive listening signs shall comply with ICC A117.1, Section 703.2, and shall include the International Symbol of Access for Hearing Loss complying with ICC A117.1, Section 703.6.3.3.

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.

1110.9 Check-out aisles. Where not all check-out aisles are *accessible*, *accessible* check-out aisles shall be identified by the International Symbol of Accessibility complying with ICC A117.1, Section 703.6.3.1. Signage at *accessible* check-out aisles shall be located in the same location as the nonaccessible check-out aisle identification.

Exception: Where all check-out aisles serving a single function are *accessible*, signs complying with ICC A117.1, Section 703.6.3.1, shall not be required.

1110.10 Variable message signs. Where provided in the locations in Sections 1110.10.1 and 1110.10.2, variable message signs (VMS) shall be *accessible*.

1110.10.1 Transportation facilities. Where provided in transportation facilities, variable message signs conveying transportation-related information shall comply with Section 1110.10.

1110.10.2 Emergency shelters. Where provided in buildings that are designated as emergency shelters, variable message signs conveying emergency-related information shall comply with Section 1110.10.

Exception: Where equivalent information is provided in an audible manner, VMS signs are not required to comply with Section 1110.10.

**SECTION 1111
ADDITIONS**

1111.1 Minimum requirements. Accessibility provisions for new construction shall apply to additions. Each addition shall, to the maximum extent feasible, be located on an *accessible route* of travel from an *accessible* main entrance. An addition that affects the accessibility to an existing area of primary function shall, to the maximum extent feasible, provide an *accessible route* to the existing area of primary function. Existing space and space added by the addition shall be considered aggregately for the purpose of determining compliance with Section 1104.4. Existing toilet rooms, parking facilities, telephones, or drinking fountains that serve the addition shall be provided in accordance with Section 1112.7.

1111.2 Dwelling units and sleeping units. Where dwelling units or *sleeping units* are being added, the requirements of Section 1107 for *Accessible* units, Type A units, or *Type B units*, and Chapter 9 for *accessible* alarms, apply only to the quantity of spaces being added, until the number of units complies with the minimum number required for new construction.

**SECTION 1112
ALTERATIONS**

1112.1 Application. Where existing elements, spaces, features, or common areas are altered, then each altered element, space, feature, or common area shall comply with the applicable provision for new construction. If the applicable provision for new construction requires that an element, space, feature, or common area be on an *accessible route*, the altered element, space, feature, or common area shall be on an *accessible route* as provided in Section 1112.7.

1112.2 Extent of application. No alteration of an existing element, space, feature, or area of a building or facility shall impose a requirement for greater accessibility than that which would be required for new construction.

1112.3 Decrease accessibility. No alteration shall be undertaken that decreases or has the effect of decreasing accessibility or usability of a building or facility below the requirements for new construction at the time of alteration.

1112.4 Extent technically feasible. Where compliance with this section is technically infeasible, the alteration shall provide accessibility to the maximum extent feasible. Any elements or features of the building or facility that are being altered and can be made *accessible* shall be made *accessible* within the scope of the alteration.

1112.5 Addition of pedestrian route. Where a pedestrian route is installed where none existed previously, an *accessible route* shall be provided.

1112.6 Entrances. Where a planned alteration entails an alteration to a building entrance, and the building or facility has an *accessible* entrance, the altered entrance is not required to be *accessible* unless required by Section 1112.7. If a particular entrance is not made *accessible*, appropriate *accessible* signage indicating the location of the nearest *accessible* entrance shall be installed at or near the inaccessible entrance so that a person with disabilities will not be

required to retrace the approach route from the inaccessible entrance.

1112.7 Alterations to an area containing a primary function. In addition to the requirements of Sections 1112.1 to 1112.6, an alteration that affects or could affect the usability of or access to an area containing a primary function shall be made to ensure that, to the maximum extent feasible, the path of travel to the altered area and the toilet rooms, parking facilities, telephones, and drinking fountains serving the altered area are *accessible*. The alterations to the path of travel, toilet rooms, parking facilities, telephones, and drinking fountains serving the altered area need not exceed 20 percent of the cost of the alteration to the primary function area.

Exceptions:

1. This provision does not apply to alterations limited solely to the electrical, mechanical, or plumbing system, or to hazardous material abatement or automatic sprinkler installation or retrofitting.
2. This provision does not apply to alterations limited solely to windows, hardware, operating controls, electrical outlets, and signs.
3. This provision does not apply to alterations undertaken for the primary purpose of increasing accessibility.
4. This provision does not apply to alterations undertaken by a tenant where the *accessible route*, toilet facilities, parking facilities, telephones, and drinking fountains are outside the tenant space.

1112.7.1 Priority for application. Priority for application of the 20 percent cost for the primary function area shall be as follows:

1. *Accessible* path of travel to the primary function area, such as exterior route, building entrance, interior route, or elevator;
2. *Accessible* toilet facilities;
3. *Accessible* parking;
4. *Accessible* telephones; and
5. *Accessible* drinking fountains.

1112.8 Special technical provisions for alterations to existing buildings and facilities. Alterations to existing buildings and *facilities* shall comply with Sections 1112.8.1 to 1112.8.10.

1112.8.1 Elevators. Altered elements of existing elevators shall be *accessible* and comply with Minnesota Rules, Chapter 1307, Minnesota Elevators and Related Devices. The elements shall also be altered in elevators programmed to respond to the same hall call control as the altered elevator.

1112.8.2 Platform lifts. Platform (wheelchair) lifts complying with ICC A117.1 and Minnesota Rules, Chapter 1307, Minnesota Elevators and Related Devices, shall be permitted to be used as part of an *accessible route*. Standby power shall be provided where a platform lift provides the only *accessible route* from a space listed in Section 1109.8.

1112.8.10 Parking restriping. Renewing existing parking striping shall be allowed. New striping, due to surface resurfacing, reconfiguration of parking spaces, or other reason, shall provide *accessible* spaces as applicable in Sections 1106.1 to 1106.7.

**SECTION 1113
CHANGE OF OCCUPANCY**

1113.1 General. Existing buildings or portions of buildings that undergo a change of group or occupancy classification shall comply with Section 1113.1.1 or 1113.1.2. No requirement for change of occupancy shall impose a requirement for greater accessibility than that which would be required for new construction. Platform (wheelchair) lifts complying with ICC A117.1 and Minnesota Rules, Chapter 1307, Minnesota Elevators and Related Devices, shall be permitted as a component of an *accessible route*. Standby power shall be provided where a platform lift provides the only *accessible route* from a space listed in Section 1109.8. A change of occupancy that incorporates any additions or alterations shall comply with Sections 1111 to 1113.

1113.1.1 Entire building. When a change of occupancy affects the entire building, the building shall have all of the following *accessible* features:

1. At least one *accessible* building entrance.
2. At least one *accessible route* from an *accessible* building entrance to primary function areas.
3. Signage complying with Section 1110.
4. *Accessible* parking, where parking is provided.
5. At least one *accessible* passenger loading zone, when loading zones are provided.
6. At least one *accessible route* connecting *accessible* parking and *accessible* passenger loading zones to an *accessible* entrance.
7. At least one *accessible* family or assisted-use toilet room or bathing room, or one *accessible* male and one *accessible* female toilet room or bathing room, located on an *accessible route* not more than one *story* above or one *story* below a floor without such *facilities*. Signage complying with Section 1112.8.3.3 shall be provided.

Where it is technically infeasible to comply with the new construction criteria for a change of occupancy, items 1 to 7 shall conform to the criteria to the maximum extent technically feasible.

1113.1.2 Portion of a building. When a change of occupancy affects a portion of the building, all of the following *accessible* features shall be provided:

1. At least one *accessible* building entrance.
2. At least one *accessible route* from an *accessible* building entrance to the portion of the building undergoing the change of occupancy. In multistory

buildings where the portion of the building undergoing the change of occupancy is located above or below the level of access and the number of occupants of the new occupancy exceeds 30 occupants, an *accessible route* shall be provided.

Exception: Regardless of *occupant load*, an *accessible route* shall be provided where the new occupancy is a public area of: a Group M occupancy; a medical care facility; a transportation facility; or a government or municipal facility.

3. *Accessible* parking, where parking is provided.
4. At least one *accessible route* from *accessible* parking to an *accessible* building entrance.
5. At least one *accessible* family or assisted-use toilet room or bathing room, or one *accessible* male and one *accessible* female toilet or bathing room, located on an *accessible route* not more than one *story* above or one *story* below the portion of the building undergoing the change in occupancy. Signage complying with Section 1112.8.3.3 shall be provided.

Where it is technically infeasible to comply with the new construction criteria for a change of occupancy, items 1 to 5 shall conform to the criteria to the maximum extent technically feasible.

ACCESSIBILITY, TECHNICAL CRITERIA

(ICC/ANSI A117.1-2009 with MN Amendments)

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CHAPTER 1

APPLICATION AND ADMINISTRATION

SECTION 101 PURPOSE

The technical criteria in Chapters 3 through 9, Sections 1002, 1003 and 1006 and Chapter 11 of this standard make sites, facilities, buildings and elements accessible to and usable by people with such physical disabilities as the inability to walk, difficulty walking, reliance on walking aids, blindness and visual impairment, deafness and hearing impairment, incoordination, reaching and manipulation disabilities, lack of stamina, difficulty interpreting and reacting to sensory information, and extremes of physical size. The intent of these sections is to allow a person with a physical disability to independently get to, enter, and use a site, facility, building, or element.

Section 1004 of this standard provides criteria for Type B units. These criteria are intended to be consistent with the intent of the criteria of the U.S. Department of Housing and Urban Development (HUD) Fair Housing Accessibility Guidelines. The Type B units are intended to supplement, not replace, Accessible units or Type A units as specified in this standard.

Section 1005 of this standard provides criteria for minimal accessibility features for one and two family dwelling units and townhouses which are not covered by the U.S. Department of Housing and Urban Development (HUD) Fair Housing Accessibility Guidelines.

This standard is intended for adoption by government agencies and by organizations setting model codes to achieve uniformity in the technical design criteria in building codes and other regulations.

101.1 Applicability. Sites, facilities, buildings, and elements required to be accessible shall comply with the applicable provisions of Chapters 3 through 9 and Chapter 11. Dwelling units and sleeping units shall comply with the applicable provisions of Chapter 10.

SECTION 102 ANTHROPOMETRIC PROVISIONS

The technical criteria in this standard are based on adult dimensions and anthropometrics. This standard also contains technical criteria based on children's dimensions and anthropometrics for drinking fountains, water closets, toilet compartments, lavatories and sinks, dining surfaces, work surfaces and benches.

SECTION 103 COMPLIANCE ALTERNATIVES

Nothing in this standard is intended to prevent the use of designs, products, or technologies as alternatives to those prescribed by this standard, provided they result in equivalent or greater accessibility and such equivalency is approved by the administrative authority adopting this standard.

SECTION 104 CONVENTIONS

104.1 General. Where specific criteria of this standard differ from the general criteria of this standard, the specific criteria shall apply.

104.2 Dimensions. Dimensions that are not stated as "maximum" or "minimum" are absolute. All dimensions are subject to conventional industry tolerances except where the dimension is stated as a range with specific minimum and maximum end points.

104.3 Figures. Unless specifically stated, figures included herein are provided for informational purposes only and are not considered part of the standard.

104.4 Floor or floor surface. The terms floor or floor surface refer to the finish floor surface or ground surface, as applicable.

104.5 Referenced sections. Unless specifically stated otherwise, a reference to another section or subsection within this standard includes all subsections of the referenced section or subsection.

M
N
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SECTION 105 REFERENCED DOCUMENTS

105.1 General. The documents listed in Section 105.2 shall be considered part of this standard to the prescribed extent of each such reference. Where criteria in this standard differ from those of these referenced documents, the criteria of this standard shall apply.

105.2 Documents.

105.2.1 Manual on Uniform Traffic Control Devices: MUTCD-2003 (The Federal Highway Administration, Office of Transportation Operations, Room 3408, 400 7th Street, S.W., Washington, DC 20590).

105.2.2 National Fire Alarm Code: NFPA 72-2007 (National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269-9101).

Convention	Description
	dimension showing English units (in inches unless otherwise specified) above the line and SI units (in millimeters unless otherwise specified) below the line
	dimension for small measurements
	dimension showing a range with minimum – maximum
min	minimum
max	maximum
>	greater than
≥	greater than or equal to
<	less than
≤	less than or equal to
----	boundary of clear floor space or maneuvering clearance
-----Ⓞ	centerline
-----	a permitted element or its extension
	direction of travel or approach
	a wall, floor, ceiling or other element cut in section or plan
	a highlighted element in elevation or plan
	location zone of element, control or feature

FIGURE 104.3
GRAPHIC CONVENTION FOR FIGURES

105.2.3 Power Assist and Low Energy Power Operated Doors: ANSI/BHMA A156.19-2007. (Builders Hardware Manufacturers' Association, 355 Lexington Avenue, 15th Floor, New York, NY 10017).

105.2.4 Power Operated Pedestrian Doors: ANSI/BHMA A156.10-2005 (Builders Hardware Manufacturers' Association, 355 Lexington Avenue, 15th Floor, New York, NY 10017).

105.2.5 Safety Code For Elevators and Escalators: Deleted.

105.2.6 Safety Standard for Platform Lifts And Stairway Chairlifts: Deleted.

105.2.7 Performance Criteria for Accessible Communications Entry Systems. ANSI/DASMA 303-2006. (Door and Access Systems Manufacturers Association, 1300 Sumner Avenue, Cleveland, OH 44115-2851).

105.2.8 Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment ASTM F 1292-99. (ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959).

105.2.9 Standard Specification for Impact Attenuation of Surfacing Materials Within the Use Zone of Playground Equipment ASTM F 1292-04. (ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959).

105.2.10 Standard Consumer Safety Performance Specification for Playground Equipment for Public Use ASTM F 1487-01. (ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959).

105.2.11 Americans with Disabilities Act (ADA) Accessibility Guidelines for Transportation Vehicles 36 CFR 1192 published in 56 Federal Register 45558, September 6, 1991 (United States Access Board, 1331 F Street, NW, Suite 1000, Washington, DC 20004-1111).

SECTION 106 DEFINITIONS

106.1 General. For the purpose of this standard, the terms listed in Section 106.5 have the indicated meaning.

106.2 Terms defined in referenced documents. Terms specifically defined in a referenced document, and not defined in this section, shall have the specified meaning from the referenced document.

106.3 Undefined terms. The meaning of terms not specifically defined in this standard or in a referenced document 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. Describes a site, building, facility, or portion thereof that complies with this standard.

ADMINISTRATIVE AUTHORITY. A jurisdictional body that adopts or enforces regulations and standards for the design, construction, or operation of buildings and facilities.

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.

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.

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. Spaces and elements specifically designed for use primarily by people 12 years old and younger.

CIRCULATION PATH. An exterior or interior way of passage from one place to another for pedestrians.

COUNTER SLOPE. Any slope opposing the running slope of a curb ramp.

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.

DESTINATION-ORIENTED ELEVATOR SYSTEM. An elevator system that provides lobby controls for the selection of destination floors, lobby indicators designating which elevator to board, and a car indicator designating the floors at which the car will stop.

DETECTABLE WARNING. A standardized surface feature built in or applied to floor surfaces to warn of hazards on a circulation path.

DWELLING UNIT. A single unit providing complete, independent living facilities for one or more persons including permanent provisions for living, sleeping, eating, cooking and sanitation.

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.

ELEVATOR CAR CALL SEQUENTIAL STEP SCANNING. A technology used to enter a car call by means of an up or down floor selection button.

FACILITY. All or any portion of a building, structure, 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.

HABITABLE. A space in a building for living, sleeping, eating or cooking. Bathrooms, toilet rooms, closets, halls, storage or utility spaces and similar areas are not considered habitable spaces.

KEY SURFACE. The surface or plane of any key or button that must be touched to activate or deactivate an operable part or a machine function or enter data.

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

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.

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

RUNNING SLOPE. The slope that is parallel to the direction of travel (see cross slope).

SIGN. An architectural element composed of displayed textual, symbolic, tactile, or pictorial information.

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

SLEEPING UNIT. A room or space in which people sleep that can also include permanent provisions for living, sleeping, eating, and either sanitation or kitchen facilities but not both. Such rooms and spaces that are also part of a dwelling unit are not sleeping units.

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.

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 aide to and from an amusement ride seat.

TTY. An abbreviation for teletypewriter. Equipment that employs interactive, text-based communications through the transmission of coded signals across the standard telephone network. The term TTY also refers to devices known as text telephones and TDDs.

USE ZONE. The ground level area beneath and immediately adjacent to a play structure or play equipment that is designed

by ASTM F 1487 listed in Section 105.2.10, 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.

VARIABLE MESSAGE SIGNS (VMS). Electronic signs that have a message with the capacity to change by means of scrolling, streaming, or paging across a background.

VARIABLE MESSAGE SIGN (VMS) CHARACTERS. Characters of an electronic sign are composed of pixels in an array. High resolution VMS characters have vertical pixel counts of 16 rows or greater. Low resolution VMS characters have vertical pixel counts of 7 to 15 rows.

VEHICULAR WAY. A route provided for vehicular traffic.

WALK. An exterior pathway with a prepared surface for pedestrian use.

WHEELCHAIR SPACE. A space for a single wheelchair and its occupant.

WHEELCHAIR SPACE LOCATIONS. A space for a minimum of a single wheelchair and the associated companion seating. Wheelchair space locations can contain multiple wheelchair spaces and associated companion seating.

CHAPTER 2

SCOPING

SECTION 201 GENERAL

M This standard provides technical criteria for making sites,
N facilities, buildings, and elements accessible. The scoping
N provisions provided in the *State Building Code* specify the
N extent to which these technical criteria apply. These scoping
N provisions shall address the application of this standard to:
N each building and occupancy type; new construction, altera-
N tions, temporary facilities, and existing buildings; specific
N site and building elements; and to multiple elements or spaces
N provided within a site or building.
M

SECTION 202 DWELLING AND SLEEPING UNITS

M Chapter 10 contains dwelling unit and sleeping unit criteria
N for Accessible units, Type A units, Type B units, Type C
N (Visitable) dwelling units, and units with accessible commu-
N nication features. The extent to which these technical criteria
M apply is provided in the scoping provisions of the *Minnesota*
M *State Building Code*. These scoping provisions address the
N types and numbers of units required to comply with each set
M of unit criteria.
M

SECTION 203 ADMINISTRATION

> Deleted (see Minnesota Rules Chapter 1300 included herein).

CHAPTER 3 BUILDING BLOCKS

SECTION 301 GENERAL

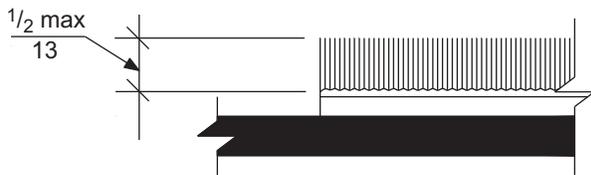
301.1 Scope. The provisions of Chapter 3 shall apply where required by the scoping provisions adopted by the administrative authority or by Chapters 4 through 11.

301.2 Overlap. Unless otherwise specified, clear floor spaces, clearances at fixtures, maneuvering clearances at doors, and turning spaces shall be permitted to overlap.

SECTION 302 FLOOR SURFACES

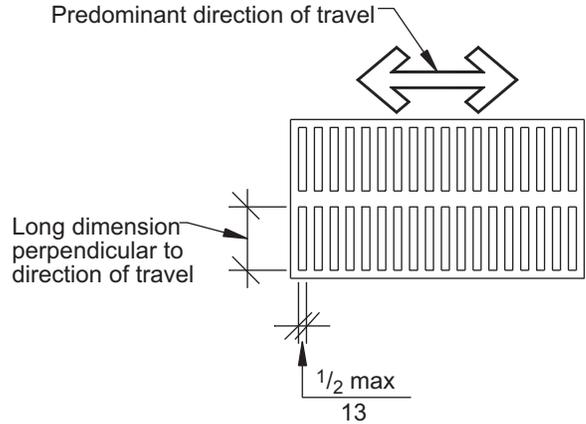
302.1 General. Floor surfaces shall be stable, firm, and slip resistant, and shall comply with Section 302. Changes in level in floor surfaces shall comply with Section 303.

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. The pile shall be $\frac{1}{2}$ inch (13 mm) maximum in height. Exposed edges of carpet shall be fastened to the floor and shall have trim along the entire length of the exposed edge. Carpet edge trim shall comply with Section 303.



**FIGURE 302.2
CARPET ON FLOOR SURFACES**

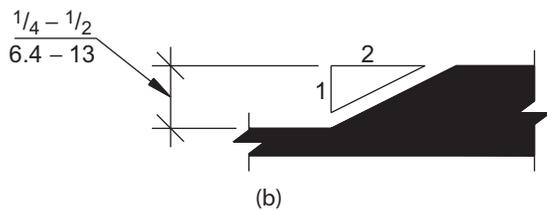
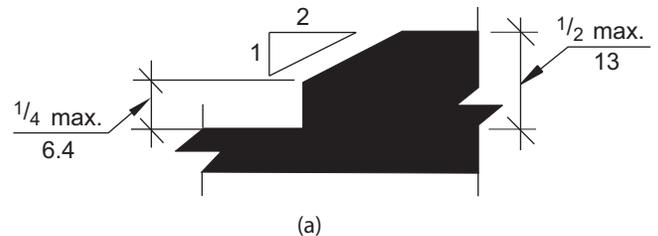
302.3 Openings. Openings in floor surfaces shall be of a size that does not permit the passage of a $\frac{1}{2}$ inch (13 mm) diameter sphere, except as allowed in Sections 407.4.3, 408.4.3, 409.4.3, 410.4, and 805.10. Elongated openings shall be placed so that the long dimension is perpendicular to the predominant direction of travel.



**FIGURE 302.3
OPENINGS IN FLOOR SURFACES**



**FIGURE 303.2
VERTICAL CHANGES IN LEVEL**



**FIGURE 303.3
BEVELED CHANGES IN LEVEL**

SECTION 303 CHANGES IN LEVEL

303.1 General. Changes in level in floor surfaces shall comply with Section 303.

303.2 Vertical. Changes in level of $\frac{1}{4}$ inch (6.4 mm) maximum in height shall be permitted to be vertical.

303.3 Beveled. Changes in level greater than $\frac{1}{4}$ inch (6.4 mm) in height and not more than $\frac{1}{2}$ inch (13 mm) maximum in height shall be beveled with a slope not steeper than 1:2.

303.4 Ramps. Changes in level greater than $\frac{1}{2}$ inch (13 mm) in height shall be ramped and shall comply with Section 405 or 406.

**SECTION 304
TURNING SPACE**

304.1 General. A turning space shall comply with Section 304.

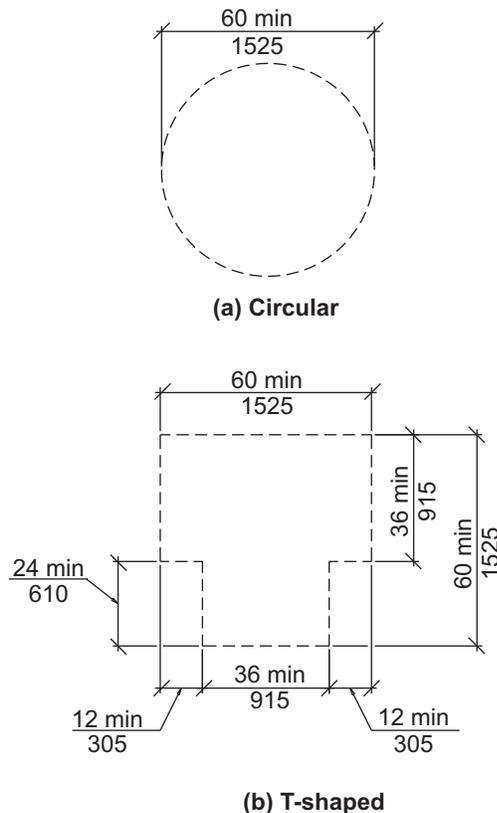
304.2 Floor surface. Floor surfaces of a turning space shall comply with Section 302. Changes in level are not permitted within the turning space.

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

304.3 Size. Turning spaces shall comply with Section 304.3.1 or 304.3.2.

304.3.1 Circular space. The turning space shall be a circular space with a 60-inch (1525 mm) minimum diameter. The turning space shall be permitted to include knee and toe clearance complying with Section 306.

304.3.2 T-Shaped space. The turning space shall be a T-shaped space within a 60-inch (1525 mm) minimum square, with arms and base 36 inches (915 mm) minimum in width. 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 turning space shall be permitted to include knee and toe clearance complying with Section 306 only at the end of either the base or one arm.



**FIGURE 304.3
SIZE OF TURNING SPACE**

304.4 Door swing. Unless otherwise specified, doors shall be permitted to swing into turning spaces.

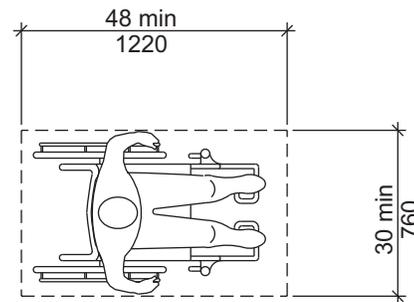
**SECTION 305
CLEAR FLOOR SPACE**

305.1 General. A clear floor space shall comply with Section 305.

305.2 Floor surfaces. Floor surfaces of a clear floor space shall comply with Section 302. Changes in level are not permitted within the clear floor space.

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

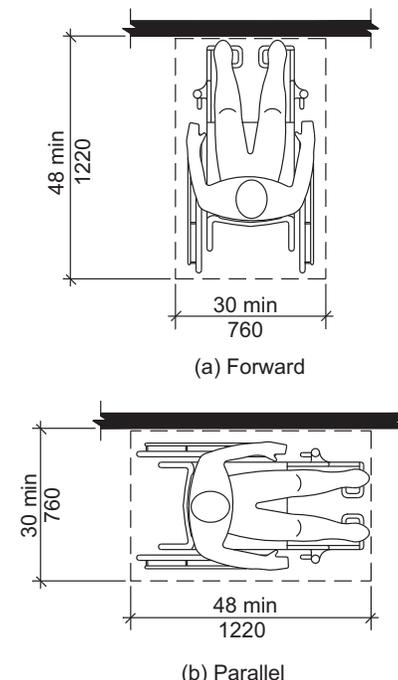
305.3 Size. The clear floor space shall be 48 inches (1220 mm) minimum in length and 30 inches (760 mm) minimum in width.



**FIGURE 305.3
SIZE OF CLEAR FLOOR SPACE**

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

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



**FIGURE 305.5
POSITION OF CLEAR FLOOR SPACE**

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

305.7 Alcoves. If a clear floor space is in an alcove or otherwise confined on all or part of three sides, additional maneuvering clearances complying with Sections 305.7.1 and 305.7.2 shall be provided, as applicable.

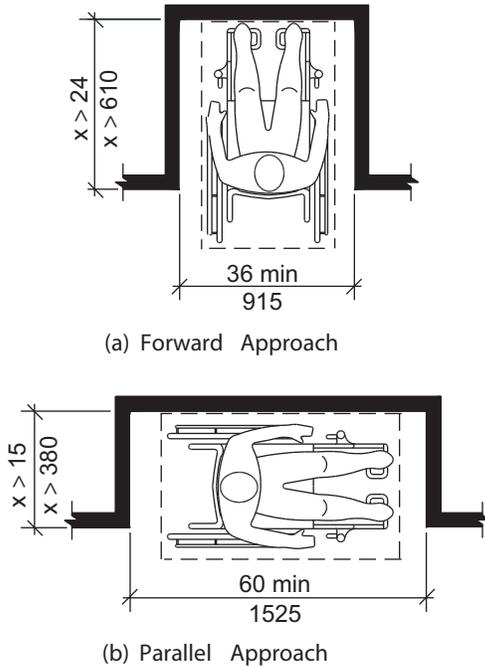


FIGURE 305.7
MANEUVERING CLEARANCE IN AN ALCOVE

305.7.1 Parallel approach. Where the clear floor space is positioned for a parallel approach, the alcove shall be 60 inches (1525 mm) minimum in width where the depth exceeds 15 inches (380 mm).

305.7.2 Forward approach. Where the clear floor space is positioned for a forward approach, the alcove shall be 36 inches (915 mm) minimum in width where the depth exceeds 24 inches (610 mm).

SECTION 306
KNEE AND TOE CLEARANCE

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

306.2 Toe Clearance.

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

306.2.2 Maximum depth. Toe clearance shall be permitted to extend 25 inches (635 mm) maximum under an element.

306.2.3 Minimum depth. Where toe clearance is required at an element as part of a clear floor space complying with Section 305, the toe clearance shall extend 17 inches (430 mm) minimum beneath 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 floor shall not be considered toe clearance.

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

306.3 Knee clearance.

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

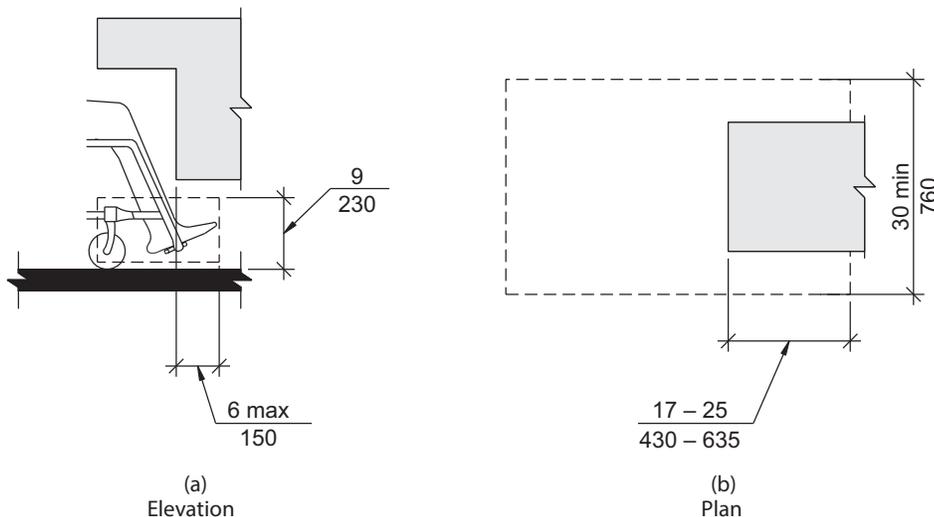


FIGURE 306.2
TOE CLEARANCE

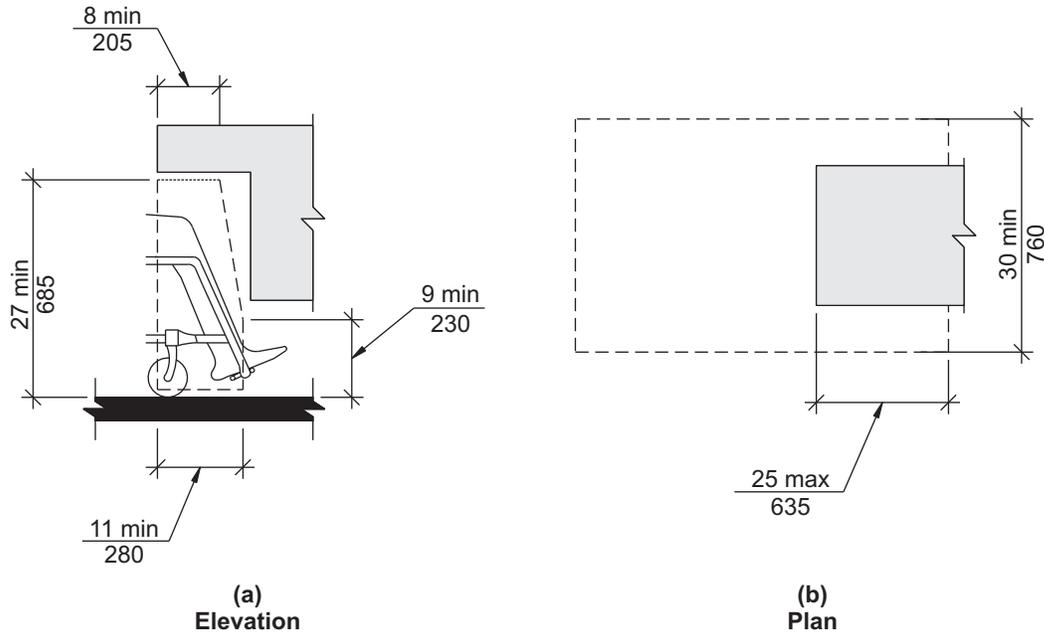


FIGURE 306.3
KNEE CLEARANCE

306.3.2 Maximum depth. Knee clearance shall be permitted to extend 25 inches (635 mm) maximum under an element at 9 inches (230 mm) above the floor.

306.3.3 Minimum depth. Where knee clearance is required beneath an element as part of a clear floor space complying with Section 305, the knee clearance shall be 11 inches (280 mm) minimum in depth at 9 inches (230 mm) above the floor, and 8 inches (205 mm) minimum in depth at 27 inches (685 mm) above the floor.

306.3.4 Clearance reduction. Between 9 inches (230 mm) and 27 inches (685 mm) above the floor, the knee clearance shall be permitted to be reduced 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) minimum in width.

or pylons where the clear distance between the posts or pylons is greater than 12 inches (305 mm) shall have the lowest edge of such object either 27 inches (685 mm) maximum or 80 inches (2030 mm) minimum above the floor.

Exception: Sloping portions of handrails between the top and bottom riser of stairs and above the ramp run shall not be required to comply with Section 307.3.

SECTION 307 PROTRUDING OBJECTS

307.1 General. Protruding objects on circulation paths shall comply with Section 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 floor shall protrude 4 inches (100 mm) maximum horizontally into the circulation path.

Exception: Handrails shall be permitted to protrude 4½ inches (115 mm) maximum.

307.3 Post-mounted objects. Objects on posts or pylons shall be permitted to overhang 4 inches (100 mm) maximum where more than 27 inches (685 mm) and not more than 80 inches (2030 mm) above the floor. Objects on multiple posts

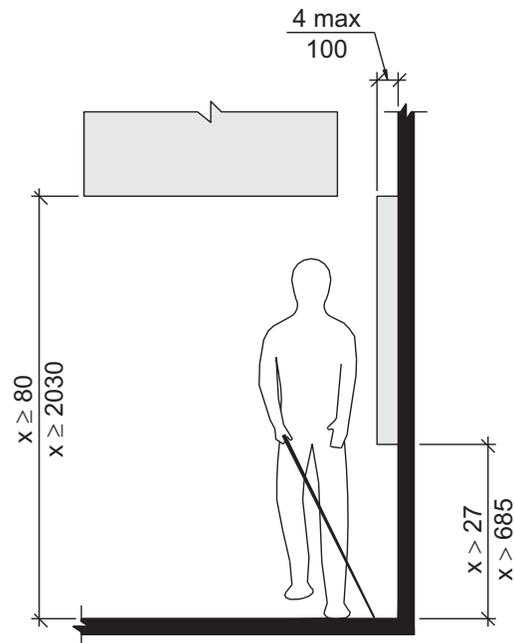


FIGURE 307.2
LIMITS OF PROTRUDING OBJECTS

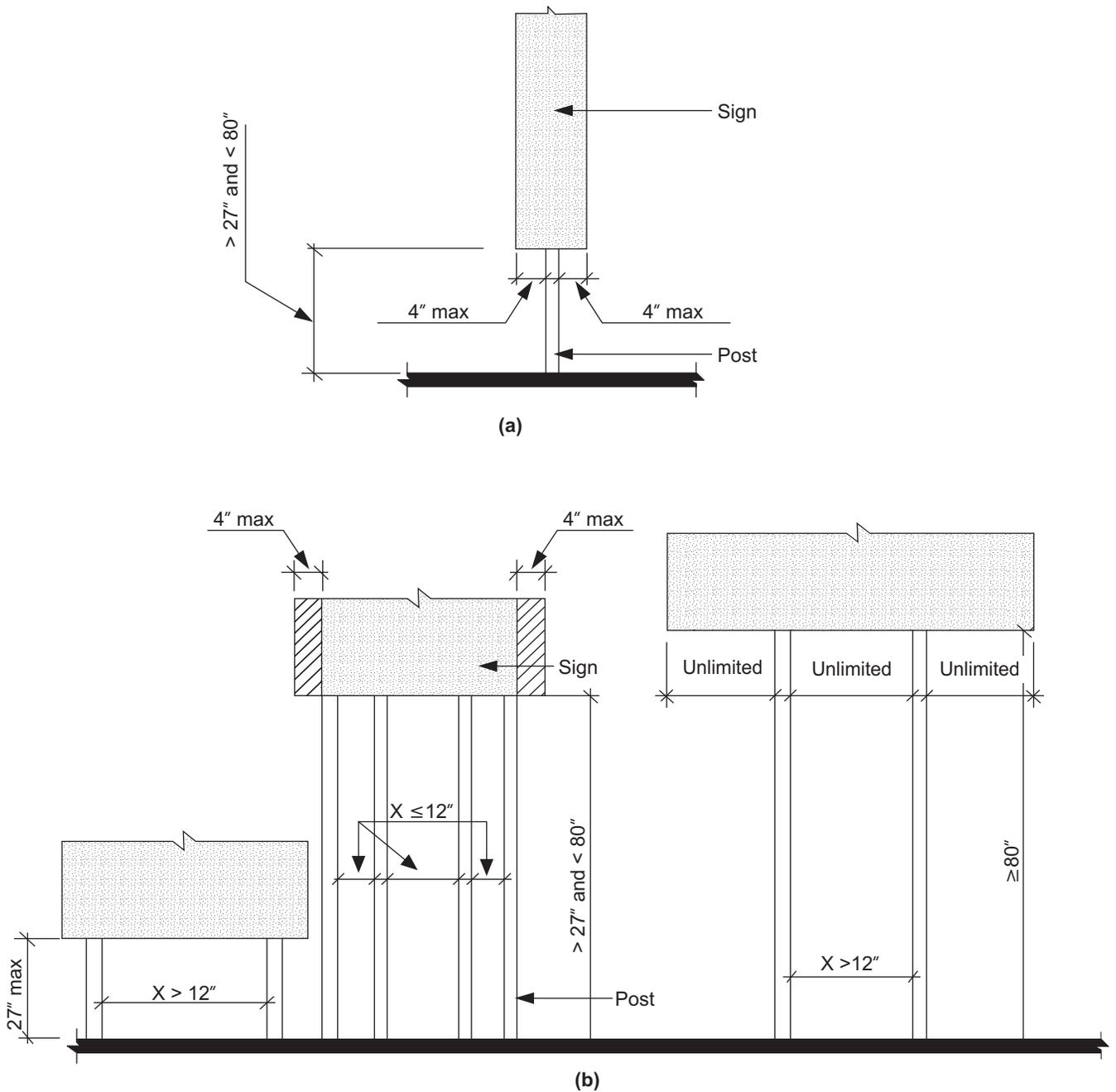


FIGURE 307.3
POST-MOUNTED PROTRUDING OBJECTS

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

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

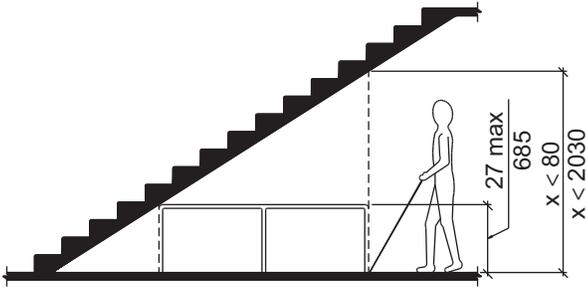


FIGURE 307.4
REDUCED VERTICAL CLEARANCE

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

SECTION 308
REACH RANGES

308.1 General. Reach ranges shall comply with Section 308.

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 floor.

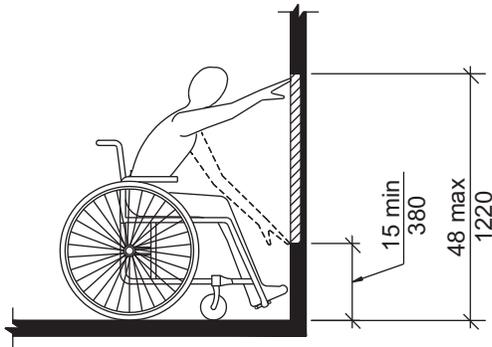


FIGURE 308.2.1
UNOBSTRUCTED FORWARD REACH

308.2.2 Obstructed high reach. Where a high forward reach is over an obstruction, the clear floor space complying with Section 305 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 above the floor where the reach depth is 20 inches (510mm) maximum. Where the reach depth exceeds 20 inches (510 mm), the high forward reach

shall be 44 inches (1120 mm) maximum above the floor, and the reach depth shall be 25 inches (635 mm) maximum.

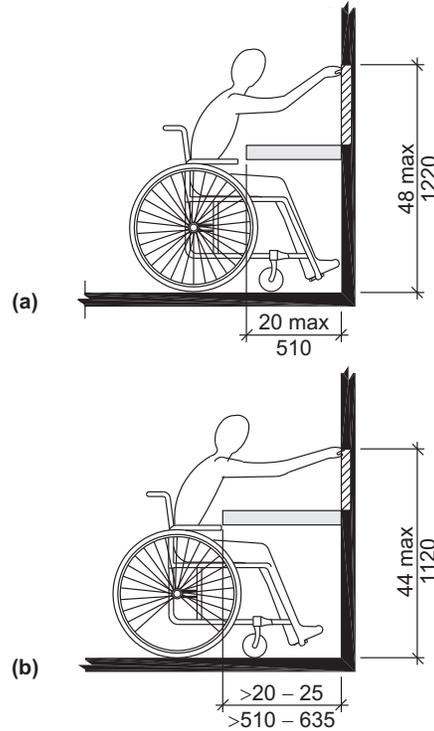


FIGURE 308.2.2
OBSTRUCTED HIGH FORWARD REACH

308.3 Side reach.

308.3.1 Unobstructed. Where a clear floor space complying with Section 305 allows a parallel approach to an element and the edge of the clear floor space is 10 inches (255 mm) maximum from the element, 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 floor.

Exception: Existing elements that are not altered shall be permitted at 54 inches (1370 mm) maximum above the floor.

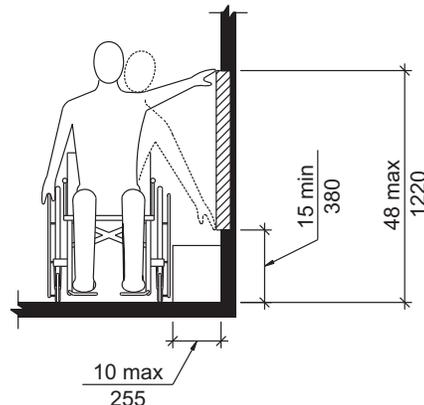


FIGURE 308.3.1
UNOBSTRUCTED SIDE REACH

308.3.2 Obstructed high reach. Where a clear floor space complying with Section 305 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 above the floor and the depth of the obstruction shall be 24 inches (610 mm) maximum. The high side reach shall be 48 inches (1220 mm) maximum above the floor 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 above the floor for a reach depth of 24 inches (610 mm) maximum.

Exception: At washing machines and clothes dryers, the height of the obstruction shall be permitted to be 36 inches (915 mm) maximum above the floor.

**SECTION 309
OPERABLE PARTS**

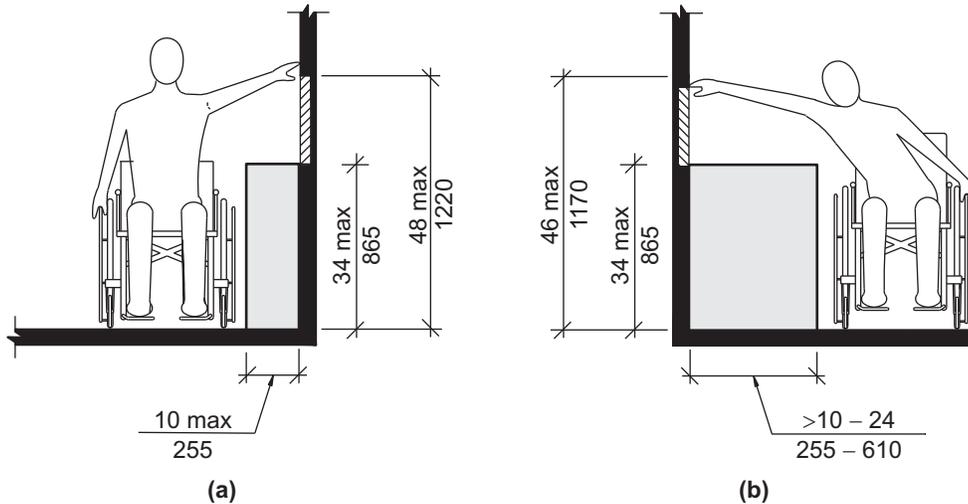
309.1 General. Operable parts required to be accessible shall comply with Section 309.

309.2 Clear floor space. A clear floor space complying with Section 305 shall be provided.

309.3 Height. Operable parts shall be placed within one or more of the reach ranges specified in Section 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 5.0 pounds (22.2 N) maximum.

Exception: Gas pump nozzles shall not be required to provide operable parts that have an activating force of 5.0 pounds (22.2 N) maximum.



**FIGURE 308.3.2
OBSTRUCTED HIGH SIDE REACH**

CHAPTER 4

ACCESSIBLE ROUTES

SECTION 401 GENERAL

401.1 Scope. Accessible routes required by the scoping provisions adopted by the administrative authority shall comply with the applicable provisions of Chapter 4.

SECTION 402 ACCESSIBLE ROUTES

402.1 General. Accessible routes shall comply with Section 402.

402.2 Components. All components of an accessible route shall comply with the applicable portions of this standard. Accessible building entrances shall comply with Section 402.2.1. Accessible routes within a site shall comply with Section 402.2.2. All other accessible routes shall consist of one or more of the following components: walking surfaces with a slope not steeper than 1:20, doors and doorways, ramps, curb ramps excluding the flared sides, elevators, and platform lifts.

402.2.1 Accessible building entrance components. Accessible building entrances shall provide an exterior accessible route consisting of one or more of the following components: walking surfaces with a slope of not steeper than 1:20; doors and doorways; curb ramps excluding the flared sides; elevators; and platform lifts.

Exceptions:

1. Buildings not normally occupied shall be permitted to provide an accessible route by means of a ramp.
2. In addition to the components listed in Section 402.2.2, a ramp shall be considered as a component of an exterior accessible route in Group R-2,

R-3, and R-4 occupancies where a slope not steeper than 1:20 is not feasible.

402.2.2 Components within a site. Buildings, facilities, elements, and spaces that are required to be accessible and are on the same site shall be connected by an accessible route consisting of one or more of the following components: walking surfaces with a slope not steeper than 1:20; doors and doorways; curb ramps excluding the flared sides; elevators; and platform lifts.

Exception: Buildings, facilities, elements, and spaces not normally occupied shall be permitted to provide an accessible route by means of a ramp.

402.3 Revolving doors, revolving gates, and turnstiles. Revolving doors, revolving gates, and turnstiles shall not be part of an accessible route.

SECTION 403 WALKING SURFACES

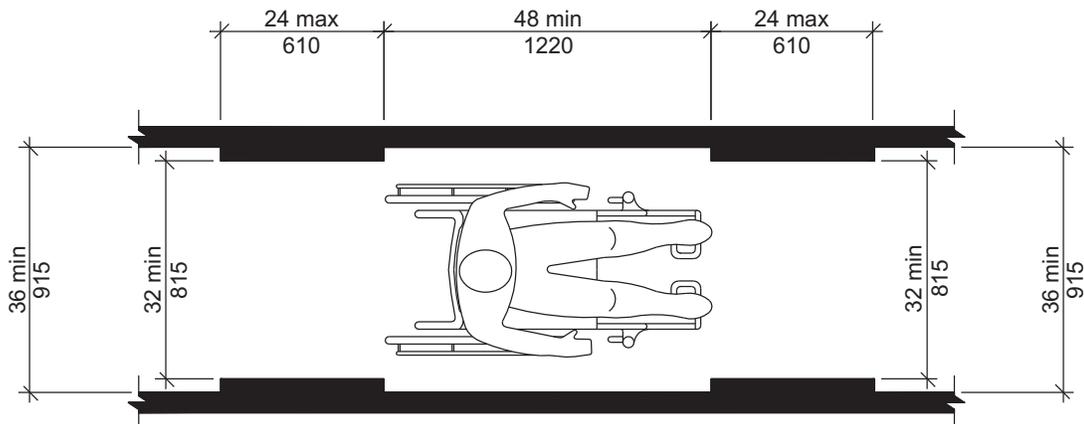
403.1 General. Walking surfaces that are a part of an accessible route shall comply with Section 403.

403.2 Floor surface. Floor surfaces shall comply with Section 302.

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

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

403.5 Clear width. The clear width of an accessible route shall comply with Section 403.5.1, 403.5.2, 403.5.3, or 403.5.4, as applicable.



**FIGURE 403.5
CLEAR WIDTH OF AN ACCESSIBLE ROUTE**

403.5.1 General. The clear width of an accessible route 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 the reduced width segments are separated by segments that are 48 inches (1220 mm) minimum in length and 36 inches (915 mm) minimum in width.

403.5.2 Clear width at turn. Where an accessible route makes a 180-degree turn around an object that is less than 48 inches (1220 mm) in width, clear widths shall be 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum during the turn and 42 inches (1065 mm) minimum leaving the turn.

Exception: Section 403.5.2 shall not apply where the clear width at the turn is 60 inches (1525 mm) minimum.

403.5.3 Passing space. 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 60-inch (1525 mm) minimum by 60-inch (1525 mm) minimum space, or an intersection of two walking surfaces that provide a T-shaped turning space complying with Section 304.3.2, provided the base

and arms of the T-shaped space extend 48 inches (1220 mm) minimum beyond the intersection.

403.5.4 Exterior walking surfaces. Exterior walking surfaces with a slope not steeper than 1:20 that are part of an accessible route shall be 48 inches (1220 mm) minimum in width.

403.6 Handrails. Where handrails are required at the side of a corridor they shall comply with Sections 505.4 through 505.9.

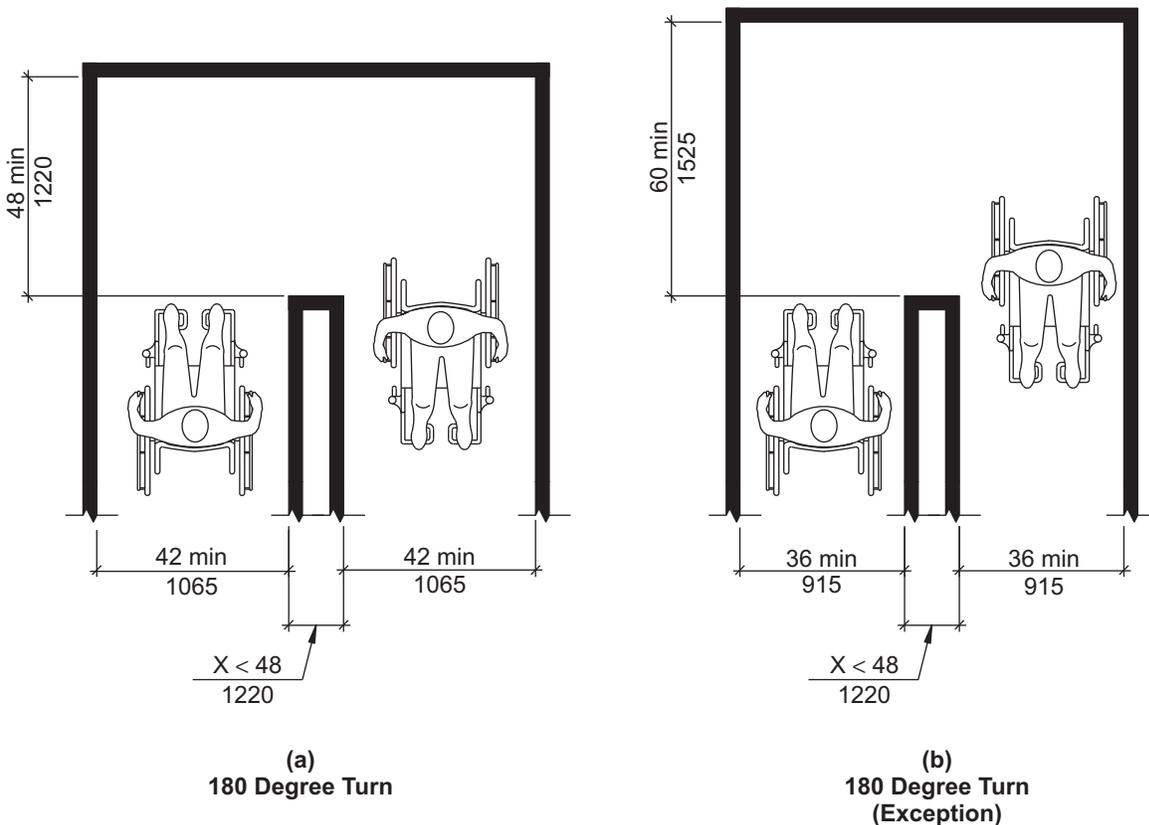
**SECTION 404
DOORS AND DOORWAYS**

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

404.2 Manual doors. Manual doors and doorways, and manual gates, including ticket gates, shall comply with Section 404.2.

Exception: Doors, doorways, and gates designed to be operated only by security personnel shall not be required to comply with Sections 404.2.6, 404.2.7, and 404.2.8.

404.2.1 Double-leaf doors and gates. At least one of the active leaves of doorways with two leaves shall comply with Sections 404.2.2 and 404.2.3.



**FIGURE 403.5.2
CLEAR WIDTH AT 180 TURN**

404.2.2 Clear width. Doorways shall have a clear opening width of 32 inches (815 mm) minimum. Clear opening width of doorways with swinging doors shall be measured between the face of door and stop, with the door open 90 degrees. Openings more than 24 inches (610 mm) in depth at doors and doorways without doors shall provide a clear opening width of 36 inches (915 mm) minimum. There shall be no projections into the clear opening width lower than 34 inches (865 mm) above the floor. Projections into the clear opening width between 34 inches (865 mm) and 80 inches (2030 mm) above the floor shall not exceed 4 inches (100 mm).

Exceptions:

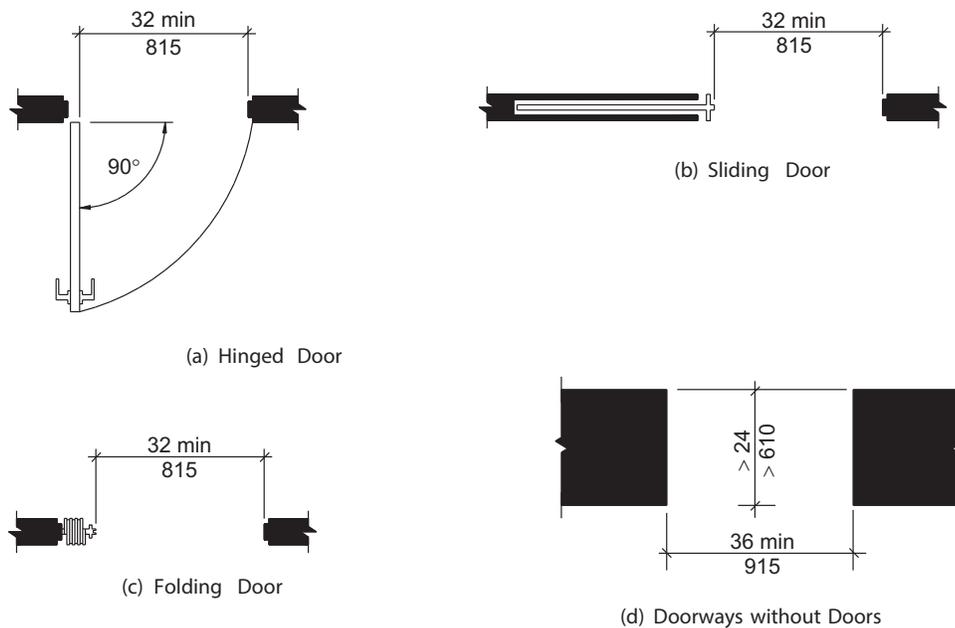
1. Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the floor.

2. In alterations, a projection of $\frac{5}{8}$ inch (16 mm) maximum into the required clear opening width shall be permitted for the latch side stop.

404.2.3 Maneuvering clearances. Minimum maneuvering clearances at doors shall comply with Section 404.2.3 and shall include the full clear opening width of the doorway. Required door maneuvering clearances shall not include knee and toe clearance.

404.2.3.1 Floor surface. Floor surface within the maneuvering clearances shall have a slope not steeper than 1:48 and shall comply with Section 302.

404.2.3.2 Swinging doors. Swinging doors shall have maneuvering clearances complying with Table 404.2.3.2.



**FIGURE 404.2.2
CLEAR WIDTH OF DOORWAYS**

**TABLE 404.2.3.2
MANEUVERING CLEARANCES AT MANUAL SWINGING DOORS**

TYPE OF USE		MANEUVERING CLEARANCES AT MANUAL SWINGING DOORS	
Approach Direction	Door Side	Perpendicular to Doorway	Parallel to Doorway (beyond latch unless noted)
From front	Pull	60 inches (1525 mm)	18 inches (455 mm)
From front	Push	48 inches (1220 mm)	0 inches (0 mm) ³
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) ¹	22 inches (560 mm) ^{3&4}
From latch side	Pull	48 inches (1220 mm) ²	24 inches (610 mm)
From latch side	Push	42 inches (1065 mm) ²	24 inches (610 mm)

1. Add 6 inches (150 mm) if closer and latch provided.
2. Add 6 inches (150 mm) if closer provided.
3. Add 12 inches (305 mm) beyond latch if closer and latch provided.
4. Beyond hinge side.

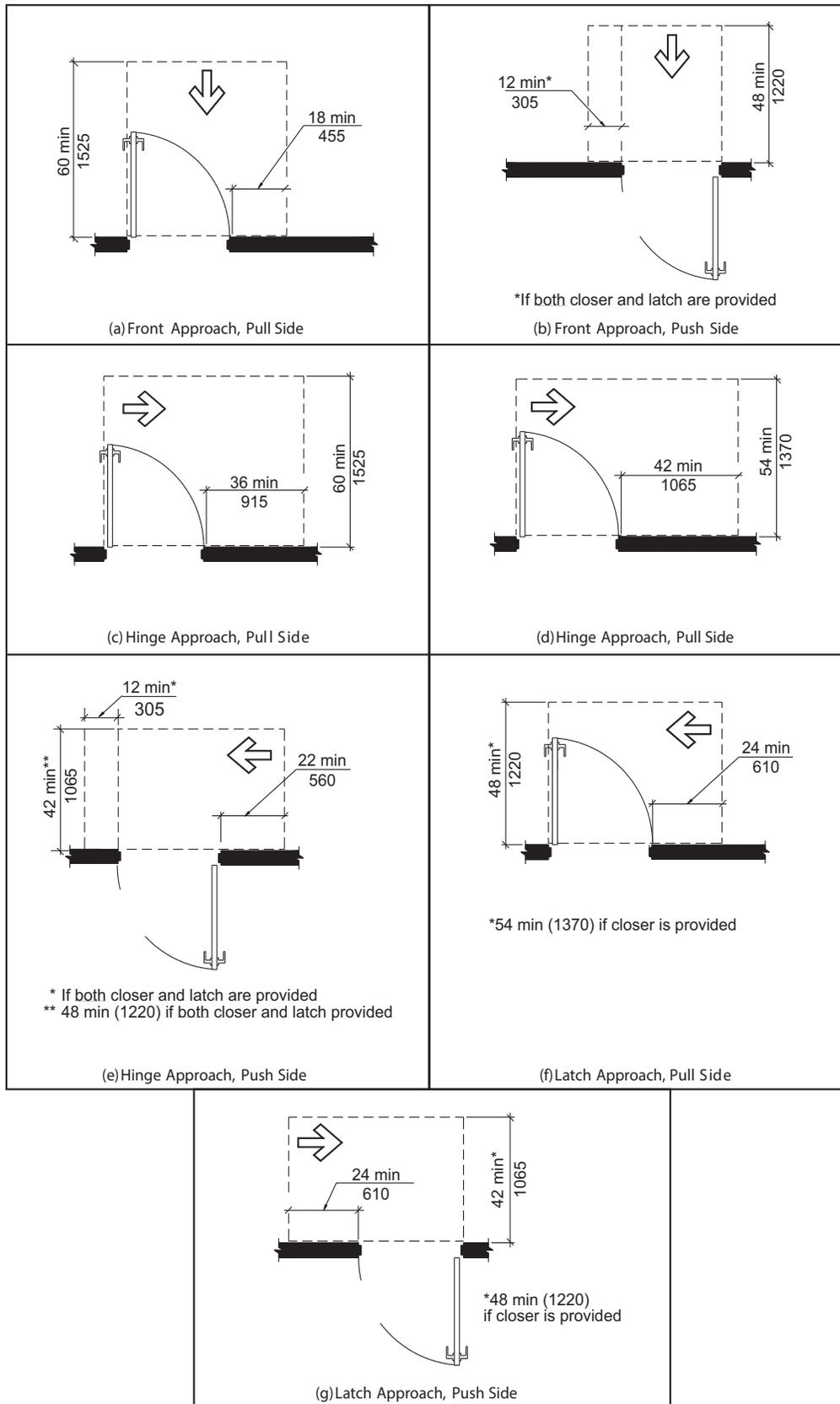


FIGURE 404.2.3.2
MANEUVERING CLEARANCE AT MANUAL SWINGING DOORS

404.2.3.3 Sliding and folding doors. Sliding doors and folding doors shall have maneuvering clearances complying with Table 404.2.3.3.

**TABLE 404.2.3.3
MANEUVERING CLEARANCES AT SLIDING AND FOLDING DOORS**

APPROACH DIRECTION	MINIMUM MANEUVERING CLEARANCES	
	Perpendicular to Doorway	Parallel to Doorway (beyond stop or latch side unless noted)
From front	48 inches (1220 mm)	0 inches (0 mm)
From nonlatch side	42 inches (1065 mm)	22 inches (560 mm) ¹
From latch side	42 inches (1065 mm)	24 inches (610 mm)

1. Beyond pocket or hinge side.

404.2.3.4 Doorways without doors. Doorways without doors that are less than 36 inches (915 mm) in width shall have maneuvering clearances complying with Table 404.2.3.4

**TABLE 404.2.3.4
MANEUVERING CLEARANCES FOR DOORWAYS WITHOUT DOORS**

APPROACH DIRECTION	MINIMUM MANEUVERING CLEARANCES (Perpendicular to Doorway)
From front	48 inches (1220 mm)
From side	(1065 mm)

404.2.3.5 Recessed doors. Where 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, maneuvering clearances for a forward approach shall be provided.

404.2.4 Thresholds. If provided, thresholds at doorways shall be 1/2 inch (13 mm) maximum in height. Raised thresholds and changes in level at doorways shall comply with Sections 302 and 303.

Exception: An existing or altered threshold shall be permitted to be 3/4 inch (19 mm) maximum in height

provided that the threshold has a beveled edge on each side with a maximum slope of 1:2 for the height exceeding 1/4 inch (6.4 mm).

404.2.5 Two doors in series. Distance between two hinged or pivoted doors in series shall be 48 inches (1220 mm) minimum plus the width of any door swinging into the space. The space between the doors shall provide a turning space complying with Section 304.

404.2.6 Door hardware. Handles, pulls, latches, locks, and other operable parts on accessible doors shall have a shape that is easy to grasp with one hand and does not require tight grasping, pinching, or twisting of the wrist to operate. Operable parts of such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the floor. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.

Exception: Locks used only for security purposes and not used for normal operation shall not be required to comply with Section 404.2.6.

404.2.7 Closing speed.

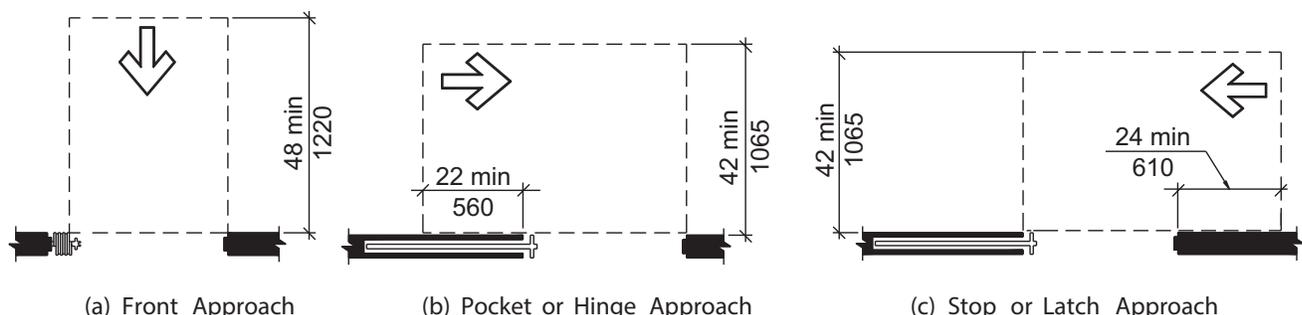
404.2.7.1 Door closers. Door closers shall be adjusted so that from an open position of 90 degrees, the time required to move the door to an open position of 12 degrees shall be 5 seconds minimum.

404.2.7.2 Spring hinges. Door spring hinges shall be adjusted so that from an open position of 70 degrees, the door shall move to the closed position in 1.5 seconds minimum.

404.2.8 Door-opening force. Fire doors shall have the minimum opening force allowable by the appropriate administrative authority. The force for pushing or pulling open doors other than fire doors shall be as follows:

1. Interior hinged door: 5.0 pounds (22.2 N) maximum.
2. Sliding or folding door: 5.0 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 in a closed position.



**FIGURE 404.2.3.3
MANEUVERING CLEARANCE AT SLIDING AND FOLDING DOORS**

ACCESSIBLE ROUTES

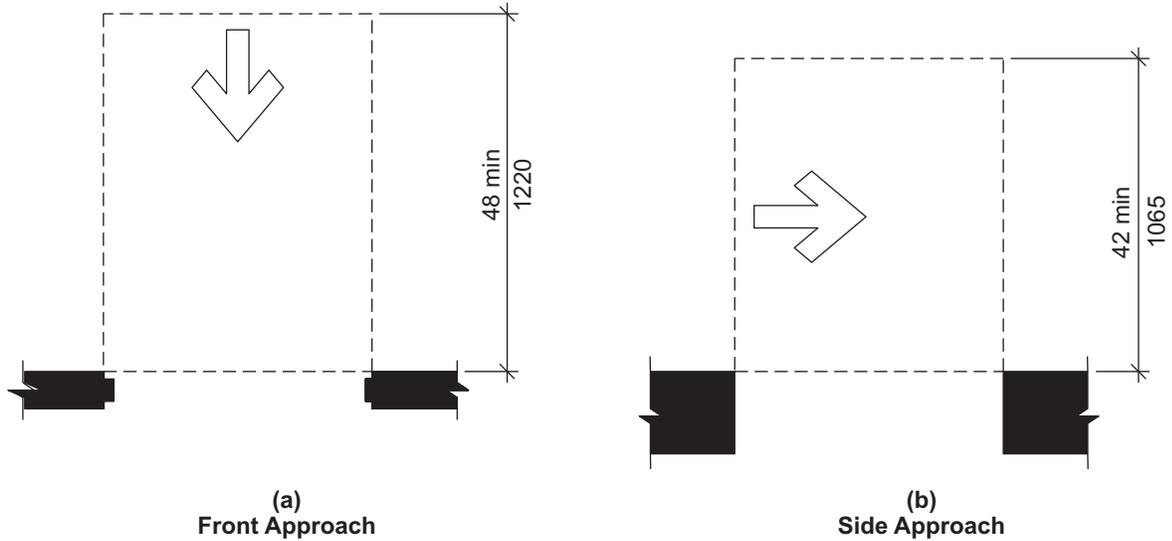


FIGURE 404.2.3.4
MANEUVERING CLEARANCE AT DOORWAYS WITHOUT DOORS

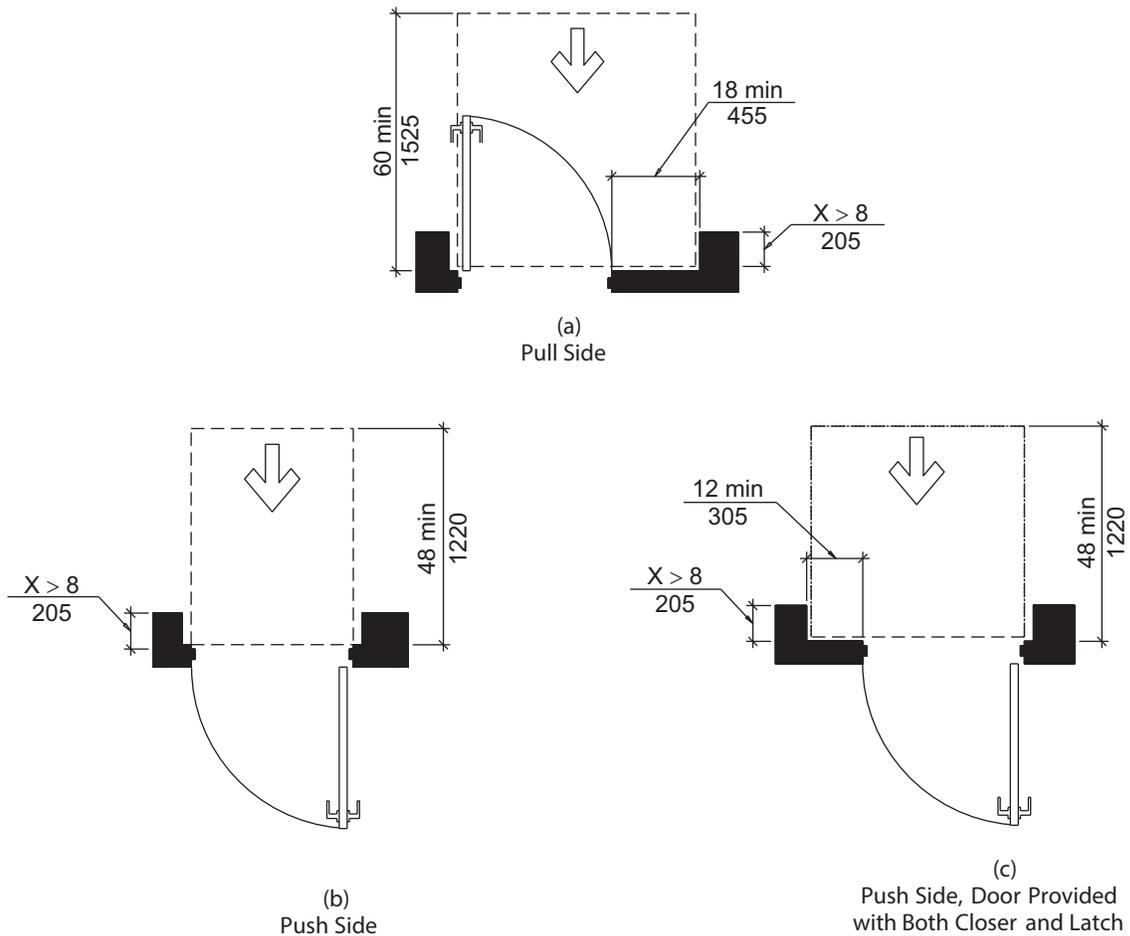


FIGURE 404.2.3.5
MANEUVERING CLEARANCE AT RECESSED DOORS

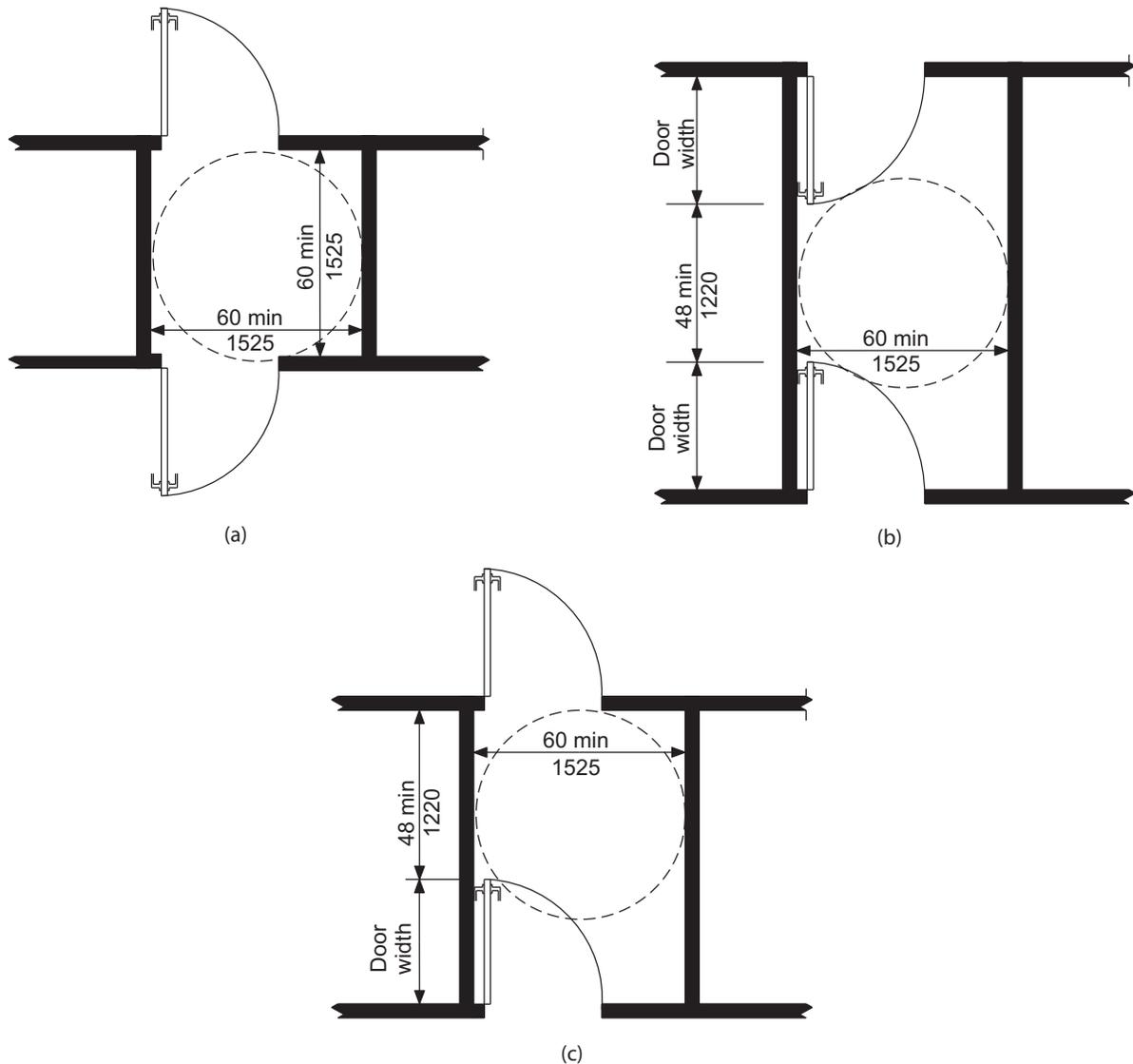


FIGURE 404.2.5
TWO DOORS IN A SERIES

404.2.9 Door surface. Door surfaces within 10 inches (255 mm) of the floor, measured vertically, shall be a smooth surface on the push side extending the full width of the door. Parts creating horizontal or vertical joints in such surface shall be within $\frac{1}{16}$ inch (1.6 mm) of the same plane as the other. Cavities created by added kick plates shall be capped.

Exceptions:

1. Sliding doors shall not be required to comply with Section 404.2.9.
2. Tempered glass doors without stiles and having a bottom rail or shoe with the top leading edge tapered at no less than 60 degrees from the horizontal shall not be required to comply with the

10-inch (255 mm) bottom rail height requirement.

3. Doors that do not extend to within 10 inches (255 mm) of the floor shall not be required to comply with Section 404.2.9.

404.2.10 Vision lites. Doors and sidelites adjacent to doors containing one or more glazing panels that permit viewing through the panels shall have the bottom of at least one panel on either the door or an adjacent sidelite 43 inches (1090 mm) maximum above the floor.

Exception: Vision lites with the lowest part more than 66 inches (1675 mm) above the floor shall not be required to comply with Section 404.2.10.

404.3 Automatic doors. Automatic doors and automatic gates shall comply with Section 404.3. Full powered automatic

doors shall comply with ANSI/BHMA A156.10 listed in Section 105.2.4. Power-assist and low-energy doors shall comply with ANSI/BHMA A156.19 listed in Section 105.2.3.

Exception: Doors, doorways, and gates designed to be operated only by security personnel shall not be required to comply with Sections 404.3.2, 404.3.4, and 404.3.5.

404.3.1 Clear width. Doorways shall have a clear opening width of 32 inches (815 mm) in power-on and power-off mode. The minimum clear opening width for automatic door systems shall be based on the clear opening width provided with all leaves in the open position.

404.3.2 Maneuvering clearances. Maneuvering clearances at power-assisted doors shall comply with Section 404.2.3. Clearances at automatic doors and gates without standby power and serving an accessible means of egress shall comply with Section 404.2.3.

Exception: Automatic doors and gates which remain open in the power-off condition.

404.3.3 Thresholds. Thresholds and changes in level at doorways shall comply with Section 404.2.4.

404.3.4 Two Doors in series. Doors in series shall comply with Section 404.2.5.

404.3.5 Control switches. Manually operated control switches shall comply with Section 404.3.5.

404.3.5.1 Interior location. Manually operated control switches at interior locations shall comply with Section 309. The clear floor space adjacent to the control switch shall be located beyond the arc of the door swing.

404.3.5.2 Exterior location. Manually operated control switches at exterior locations shall comply with Sections 309.2 and 309.4. The clear floor space adjacent to the control switch shall be located beyond the arc of the door swing, be centered on the control switch, and be positioned for a parallel approach to the control switch. Control switches shall have a 3-inch (75 mm) minimum dimension measured at at least one point, such as diagonal, diameter or one side. Control switches shall be mounted 30 inches (760 mm) minimum, measured to the bottom of the control switch, and 36 inches (915 mm) maximum, measured to the top of the control switch, above the finished floor.

**SECTION 405
RAMPS**

405.1 General. Ramps along accessible routes shall comply with Section 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 Section 405.

405.2 Slope. Ramp runs shall have a running slope greater than 1:20 and not steeper than 1:12.

Exception: In existing buildings or facilities, ramps shall be permitted to have slopes steeper than 1:12 complying with Table 405.2 where such slopes are necessary due to space limitations.

**TABLE 405.2
ALLOWABLE RAMP DIMENSIONS FOR CONSTRUCTION
IN EXISTING SITES, BUILDINGS AND FACILITIES**

SLOPE ¹	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)

1. A slope steeper than 1:8 shall not be permitted.

405.3 Cross slope. Cross slope of ramp runs shall not be steeper than 1:48.

405.4 Floor surfaces. Floor surfaces of ramp runs shall comply with Section 302.

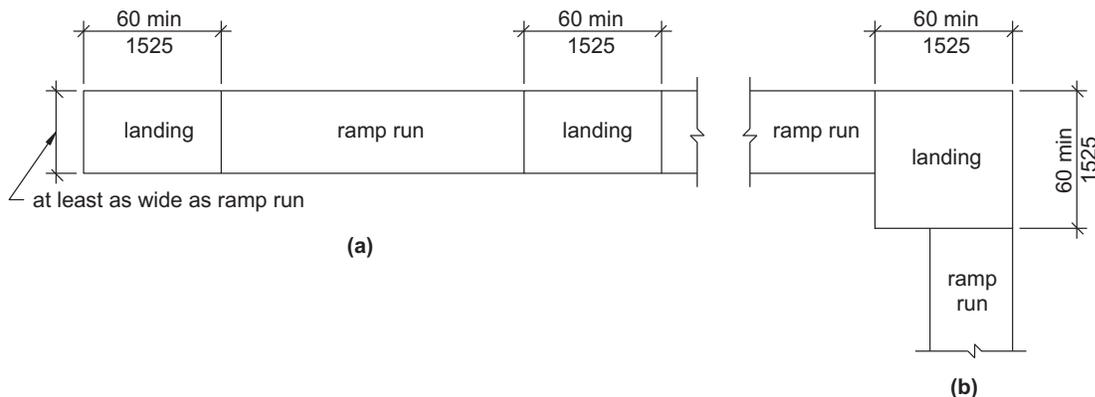
405.5 Clear width. The clear width of a ramp run shall be 36 inches (915 mm) minimum. Handrails and handrail supports that are provided on the ramp run shall not project into the required clear width of the ramp run.

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 bottom and top of each ramp run. Landings shall comply with Section 405.7.

405.7.1 Slope. Landings shall have a slope not steeper than 1:48 and shall comply with Section 302.

405.7.2 Width. Clear width of landings shall be at least as wide as the widest ramp run leading to the landing.



**FIGURE 405.7
RAMP LANDINGS**

405.7.3 Length. Landings shall have a clear length of 60 inches (1525 mm) minimum.

405.7.4 Change in direction. Ramps that change direction at ramp landings shall be sized to provide a turning space complying with Section 304.3.

405.7.5 Doorways. Where doorways are adjacent to a ramp landing, maneuvering clearances required by Sections 404.2.3 and 404.3.2 shall be permitted to overlap the landing area. Where a door that is subject to locking is located adjacent to a ramp landing, the landing shall be sized to provide a turning space complying with Section 304.3.

405.8 Handrails. Ramp runs with a rise greater than 6 inches (150 mm) shall have handrails complying with Section 505.

405.9 Edge protection. Edge protection complying with Section 405.9.1 or 405.9.2 shall be provided on each side of ramp runs and at each side of ramp landings.

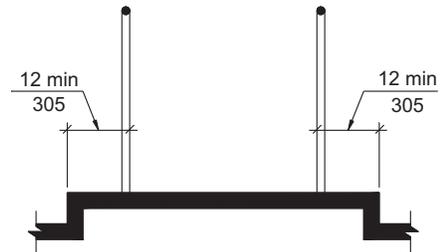
Exceptions:

1. Edge protection shall not be required on ramps not required to have handrails and that have flared sides complying with Section 406.3.
2. Edge protection shall not be required on the sides of ramp landings serving an adjoining ramp run or stairway.

3. 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 Section 405.7.

4. Edge protection shall not be required on the sides of ramped aisles where the ramps provide access to the adjacent seats and aisle access ways.

405.9.1 Extended floor surface. The floor surface of the ramp run or ramp landing shall extend 12 inches (305 mm) minimum beyond the inside face of a railing complying with Section 505.



Extended Floor Surface
FIGURE 405.9.1
EXTENDED FLOOR SURFACE

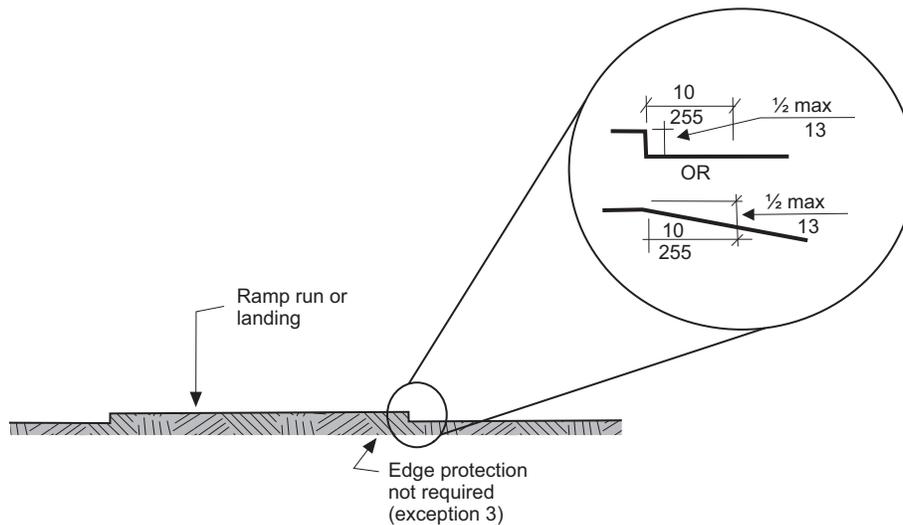


FIGURE 405.9
EDGE PROTECTION—LIMITED DROP OFF

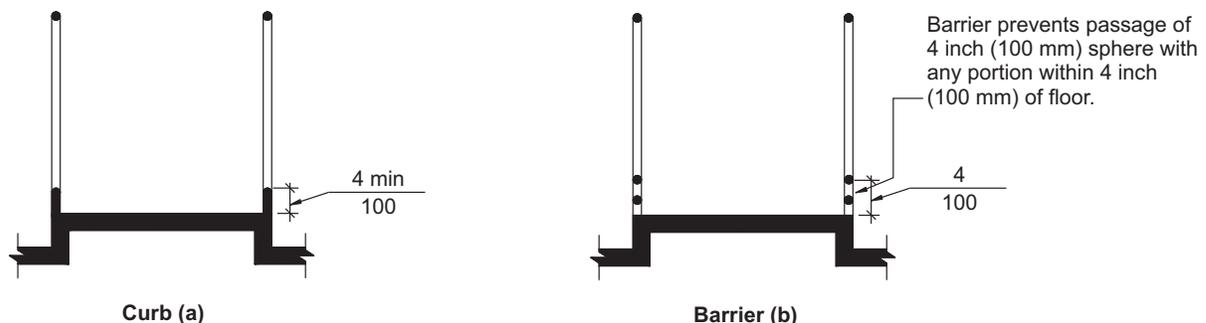


FIGURE 405.9.2
RAMP EDGE PROTECTION

405.9.2 Curb or barrier. A curb complying with Section 405.9.2.1 or a barrier complying with Section 405.9.2.2 shall be provided.

405.9.2.1 Curb. A curb shall be a minimum of 4 inches (100 mm) in height.

405.9.2.2 Barrier. Barriers shall be constructed so that the barrier 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 floor.

405.10 Wet conditions. Landings subject to wet conditions shall be designed to prevent the accumulation of water.

**SECTION 406
CURB RAMPS**

406.1 General. Curb ramps on accessible routes shall comply with Sections 406, 405.2, 405.3, 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.

406.3 Sides of curb ramps. Where provided, curb ramp flares shall comply with Section 406.3.

406.3.1 Slope. Flares shall not be steeper than 1:10.

406.3.2 Marking. If curbs adjacent to the ramp flares are painted, the painted surface shall extend along the flared portion of the curb.

406.4 Width. Curb ramps shall be 36 inches (915 mm) minimum in width, exclusive of flared sides.

406.5 Floor surface. Floor surfaces of curb ramps shall comply with Section 302.

406.6 Location. Curb ramps and the flared sides of curb ramps shall be located so 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.

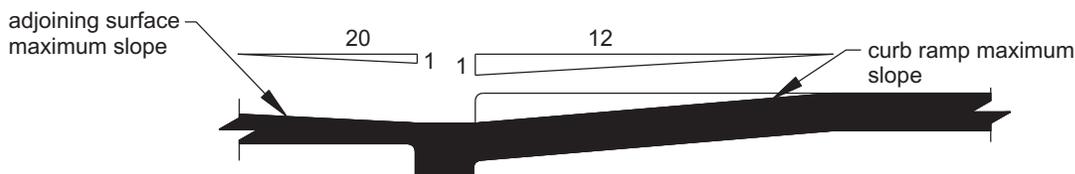
406.7 Landings. Landings shall be provided at the tops of curb ramps. The clear length of the landing shall be 36 inches (915 mm) minimum. The clear width of the landing shall be at least as wide as the curb ramp, excluding flared sides, leading to the landing.

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.

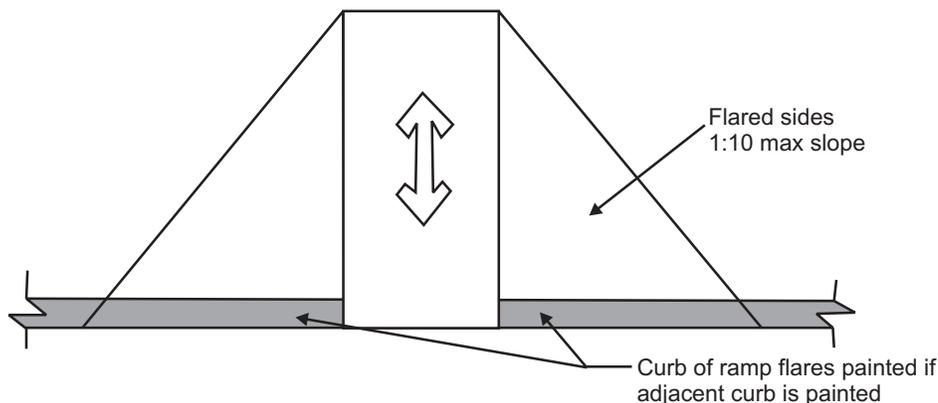
406.8 Obstructions. Curb ramps shall be located or protected to prevent their obstruction by parked vehicles.

406.9 Handrails. Handrails shall not be required on curb ramps.

406.10 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 bottoms of diagonal curb ramps shall have 48 inches (1220 mm) minimum clear space 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) minimum in length on each side of the curb ramp and within the marked crossing.



**FIGURE 406.2
COUNTER SLOPE OF SURFACES ADJACENT TO CURB RAMPS**



**FIGURE 406.3
SIDES OF CURB RAMPS**

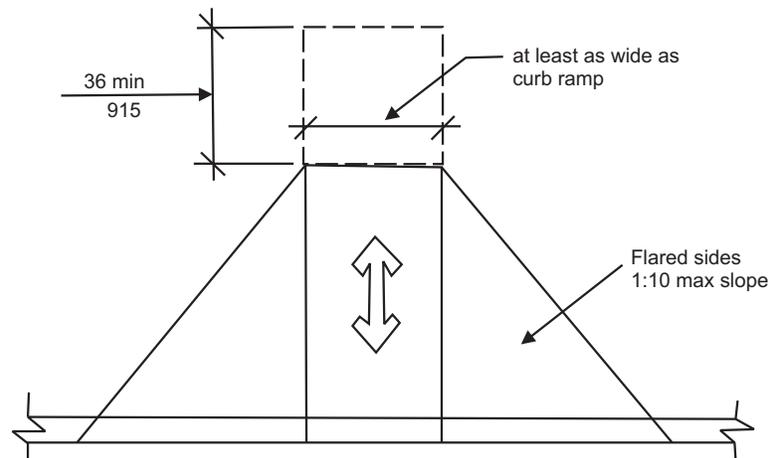


FIGURE 406.7
LANDINGS

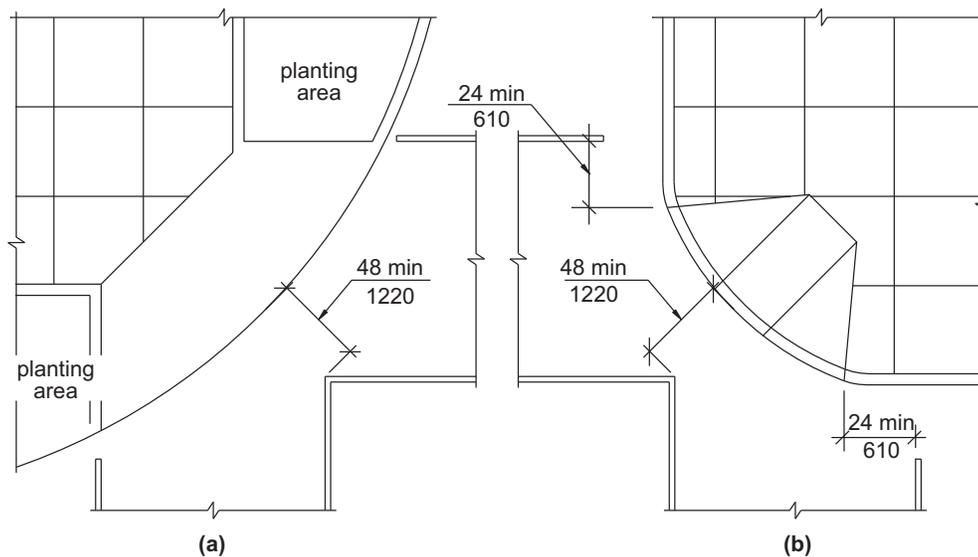


FIGURE 406.10
DIAGONAL CURB RAMPS

406.11 Islands. Raised islands in crossings shall be a 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) minimum in length and 36 inches (915 mm) minimum in width at the top of the curb ramp in the part of the island intersected by the crossings. Each 48-inch (1220 mm) by 36-inch (915 mm) area shall be oriented so the 48-inch (1220 mm) length is in the direction of the running slope of the curb ramp it serves. The 48-inch (1220 mm) by 36-inch (915 mm) areas and the accessible route shall be permitted to overlap.

406.12 Detectable warnings at raised marked crossings. Marked crossings that are raised to the same level as the adjoining sidewalk shall be preceded by a detectable warning 24 inches (610 mm) in depth complying with Section 705. The detectable warning shall extend the full width of the marked crossing.

406.13 Detectable warnings at curb ramps. Where detectable warnings are provided on curb ramps, they shall comply with Sections 406.13 and 705.

406.13.1 Area covered. Detectable warnings shall be 24 inches (610 mm) minimum in depth in the direction of travel. The detectable warning shall extend the full width of the curb ramp or flush surface.

406.13.2 location. The detectable warning shall be located so the edge nearest the curb line is 6 inches (150 mm) minimum and 8 inches (205 mm) maximum from the curb line.

406.14 Detectable warnings at islands or cut-through medians. Where detectable warnings are provided on curb ramps or at raised marked crossings leading to islands or cut-through medians, the island or cut-through median shall be

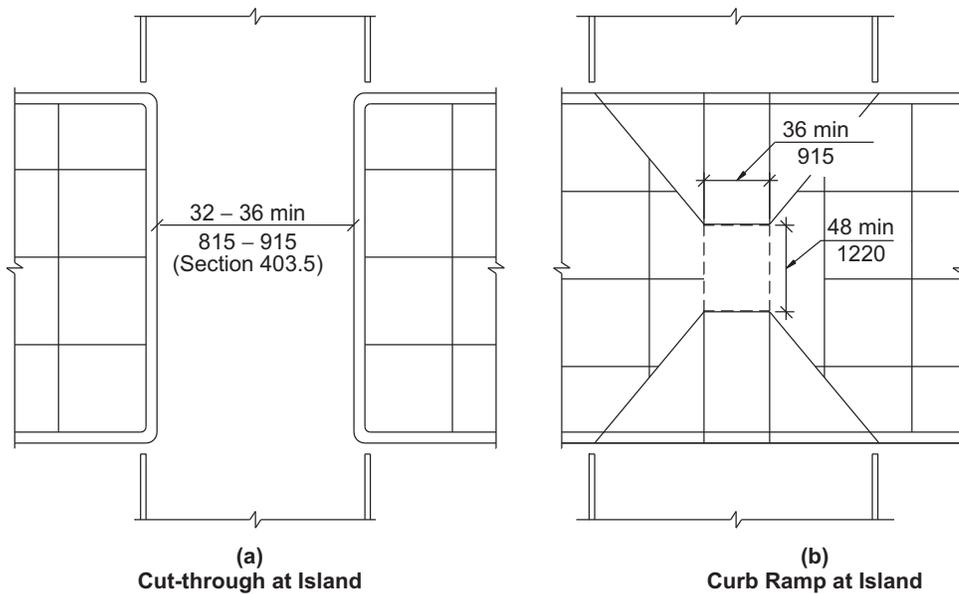


FIGURE 406.11 ISLANDS

provided with detectable warnings complying with Section 705, that are 24 inches (610 mm) in depth, and extend the full width of the pedestrian route or cut-through. Where such island or cut-through median is less than 48 inches (1220 mm) in depth, the entire width and depth of the pedestrian route or cut-through shall have detectable warnings.

SECTION 407 ELEVATORS

407.1 General. Elevators shall comply with Section 407 and Minnesota Rules, Chapter 1307, Minnesota Elevators and Related Devices. Elevators shall be passenger elevators as classified by Minnesota Rules, Chapter 1307, Minnesota Elevators and Related Devices. Elevator operation shall be automatic. Elevators shall not be attendant or key operated and shall provide unassisted entry and exit from the elevator.

Exception: When approved by the administrative authority, attendant or key operation shall be permitted when all occupants have controlled or restricted access to the space served by the elevator.

407.2 Elevator landing requirements. Elevator landings shall comply with Section 407.2.

407.2.1 Call controls. Where elevator call buttons or keypads are provided, they shall comply with Sections 407.2.1 and 309.4. Call buttons shall be raised or flush. Objects beneath hall call buttons shall protrude 1 inch (25 mm) maximum.

Exceptions:

- Existing elevators shall be permitted to have recessed call buttons.
- The restriction on objects beneath call buttons shall not apply to existing call buttons.

407.2.1.1 Height. Call buttons and keypads shall be located within one of the reach ranges specified in Section 308, measured to the centerline of the highest operable part.

Exception: Existing call buttons and existing keypads shall be permitted to be located 54 inches (1370 mm) maximum above the 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 Section 407.2.1.2.

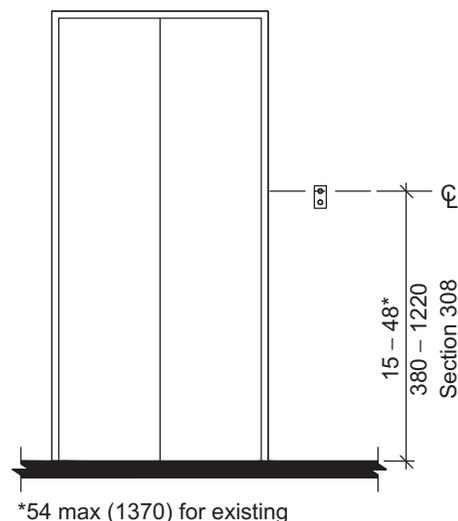


FIGURE 407.2.1.1 HEIGHT OF ELEVATOR CALL BUTTONS

407.2.1.3 Clear floor space. A clear floor space complying with Section 305 shall be provided at call controls.

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 Section 407.2.1.4.

407.2.1.5 Signals. Call buttons shall have visible signals to indicate when each call is registered and when each call is answered. Call buttons shall provide an audible signal or mechanical motion of the button to indicate when each call is registered.

Exceptions:

1. Destination-oriented elevators shall not be required to comply with Section 407.2.1.5, provided a visible signal and audible tones and verbal announcements complying with Section 407.2.1.7 are provided.
2. Existing elevators shall not be required to comply with Section 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 Section 407.4.7.2.

407.2.1.7 Destination-oriented elevator signals. Destination-oriented elevators shall be provided with a visible signal and audible tones and verbal announcements to indicate which car is responding to a call. The audible tone and verbal announcement shall be activated by pressing a function button. The function button shall be identified by the International Symbol for Accessibility and a raised indication. The International Symbol for Accessibility, complying with Section 703.6.3.1, shall be $\frac{5}{8}$ inch (16 mm) in height and be a visual character complying with Section 703.2. The indication shall be three raised dots, spaced $\frac{1}{4}$ inch (6.4 mm) at base diameter, in the form of an equilateral triangle. The function button shall be located immediately below the keypad arrangement or floor buttons.

407.2.2 Hall signals. Hall signals, including in-car signals, shall comply with Section 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:

1. Destination-oriented elevators shall not be required to comply with Section 407.2.2.1, provided a visible signal and audible tones and verbal announcements complying with Section 407.2.1.7 are provided.
2. 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 floor. The visible signal elements shall be $2\frac{1}{2}$ inches (64 mm) minimum between the uppermost and lowest edges of the illuminated shape measured vertically. Signals shall be visible from the floor area adjacent to the hall call button.

Exceptions:

1. Destination-oriented elevators shall be permitted to have signals visible from the floor area adjacent to the hoistway entrance.
2. Existing elevators shall not be required to comply with Section 407.2.2.2.

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 3,000 Hz maximum. The audible signal or verbal annunciator shall be 10 dBA minimum above ambient,

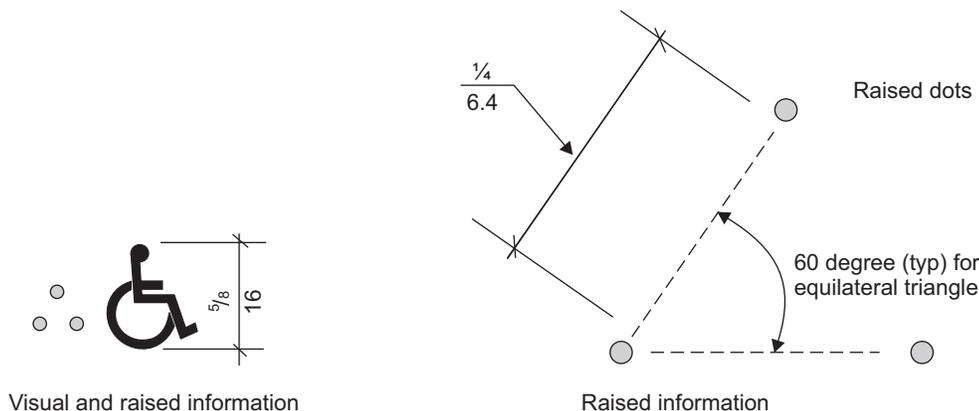
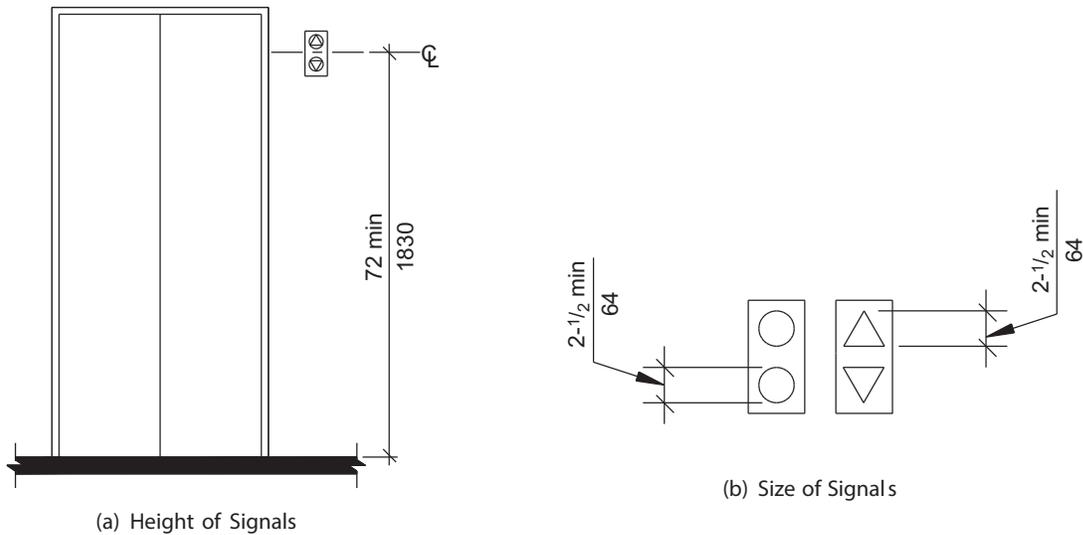


FIGURE 407.2.1.7
DESTINATION-ORIENTED ELEVATOR INDICATION

ACCESSIBLE ROUTES



**FIGURE 407.2.2.2
ELEVATOR VISIBLE SIGNALS**

but shall not exceed 80 dBA, measured at the hall call button.

Exceptions:

1. Destination-oriented elevators shall not be required to comply with Section 407.2.2.3, provided the audible tone and verbal announcement is the same as those given at the call button or call button keypad.
2. The requirement for the frequency and range of audible signals shall not apply in existing elevators.

407.2.2.4 Differentiation. Each destination-oriented elevator in a bank of elevators shall have audible and visible means for differentiation.

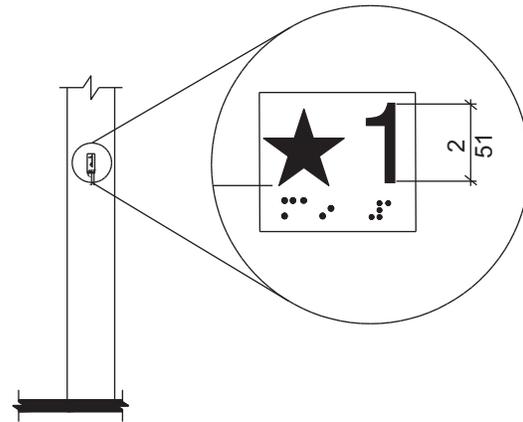
407.2.3 Hoistway signs. Signs at elevator hoistways shall comply with Section 407.2.3.

407.2.3.1 Floor designation. Floor designations shall be provided in raised characters and braille complying with Sections 703.3 and 703.4. Raised characters shall be 2 inches (51 mm) minimum in height. Floor designations shall be located on both jambs of elevator hoistway entrances. A raised star shall be provided on both jambs at the main entry level.

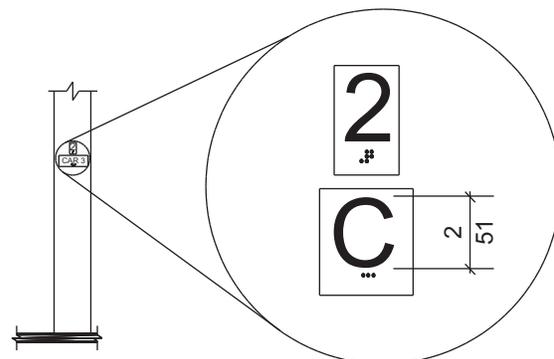
407.2.3.2 Car identification. Destination-oriented elevators shall provide car identification in raised characters and braille complying with Sections 703.3 and 703.4. Raised characters shall be 2 inches (51 mm) minimum in height. Car identifications shall be located on both jambs of the hoistway immediately below the floor designation.

407.2.4 Destination signs. Where signs indicate that elevators do not serve all landings, signs in raised characters and braille complying with Sections 703.3 and 703.4 shall be provided above the hall call button or keypad.

Exception: Destination oriented elevator systems shall not be required to comply with Section 407.2.4.



**FIGURE 407.2.3.1
FLOOR DESIGNATION**



**FIGURE 407.2.3.2
DESTINATION-ORIENTED ELEVATOR CAR IDENTIFICATION**

407.3 Elevator door requirements. Hoistway and elevator car doors shall comply with Section 407.3.

407.3.1 Type. Elevator doors shall be 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 the following criteria are met:

- a) The hoistway doors comply with Sections 404.2.2 and 404.2.8;
- b) The car door closing is not initiated until the hoistway door is closed.

407.3.3 Reopening device. Elevator doors shall be provided with a reopening device complying with Section 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: In existing elevators, manually operated doors shall not be required to comply with Section 407.3.3.

407.3.3.1 Height. The reopening 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 floor.

407.3.3.2 Contact. The reopening device shall not require physical contact to be activated, although contact shall be permitted before the door reverses.

407.3.3.3 Duration. The reopening device 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 until the doors of that car start to close shall be calculated from the following equation:

$T = D/(1.5 \text{ ft/s})$ or $T = D/(455 \text{ mm/s}) = 5$ 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:

- 1. 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.

- 2. Destination-oriented elevators shall not be required to comply with Section 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. Elevator door clear opening width shall comply with Table 407.4.1.

Exception: In existing elevators, a power-operated car door complying with Section 404.2.2 shall be permitted.

407.4 Elevator car requirements. Elevator cars shall comply with Section 407.4.

407.4.1 Inside Dimensions. Inside dimensions of elevator cars 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 provide a clear inside dimension of 36 inches (915 mm) minimum in width and 54 inches (1370 mm) minimum in depth, shall be permitted.

407.4.2 Floor Surfaces. Floor surfaces in elevator cars shall comply with Section 302.

407.4.3 Platform to hoistway clearance. The clearance between the car platform sill and the edge of any hoistway landing shall comply with Minnesota Rules, Chapter 1307, Minnesota Elevators and Related Devices.

407.4.4 Leveling. Each car shall automatically stop and maintain position 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 comply with Minnesota Rules, Chapter 1307, Minnesota Elevators and Related Devices.

407.4.6 Elevator car controls. Where provided, elevator car controls shall comply with Sections 407.4.6 and 309.

Exception: In existing elevators, where a new car operating panel complying with Section 407.4.6 is provided, existing car operating panels shall not be required to comply with Section 407.4.6.

**TABLE 407.4.1
MINIMUM DIMENSIONS OF ELEVATOR CARS**

DOOR LOCATION	DOOR CLEAR OPENING WIDTH	INSIDE CAR, SIDE TO SIDE	INSIDE CAR, BACK WALL TO FRONT RETURN	INSIDE CAR, BACK WALL TO INSIDE FACE
Centered	42 inches (1065 mm)	80 inches (2030 mm)	51 inches (1295 mm)	54 inches (1370 mm)
Side (off center)	36 inches (915 mm) ¹	68 inches (1725 mm)	51 inches (1295 mm)	54 inches (1370 mm)
Any	36 inches (915 mm) ¹	54 inches (1370 mm)	80 inches (2030 mm)	80 inches (2030 mm)
Any	36 inches (915 mm) ¹	60 inches (1525 mm) ²	60 inches (1525 mm) ²	60 inches (1525 mm) ²

1. A tolerance of minus 5/8 inch (16 mm) is permitted.

2. Other car configurations that provide a 36-inch (915 mm) door clear opening width and a turning space complying with Section 304 with the door closed are permitted.

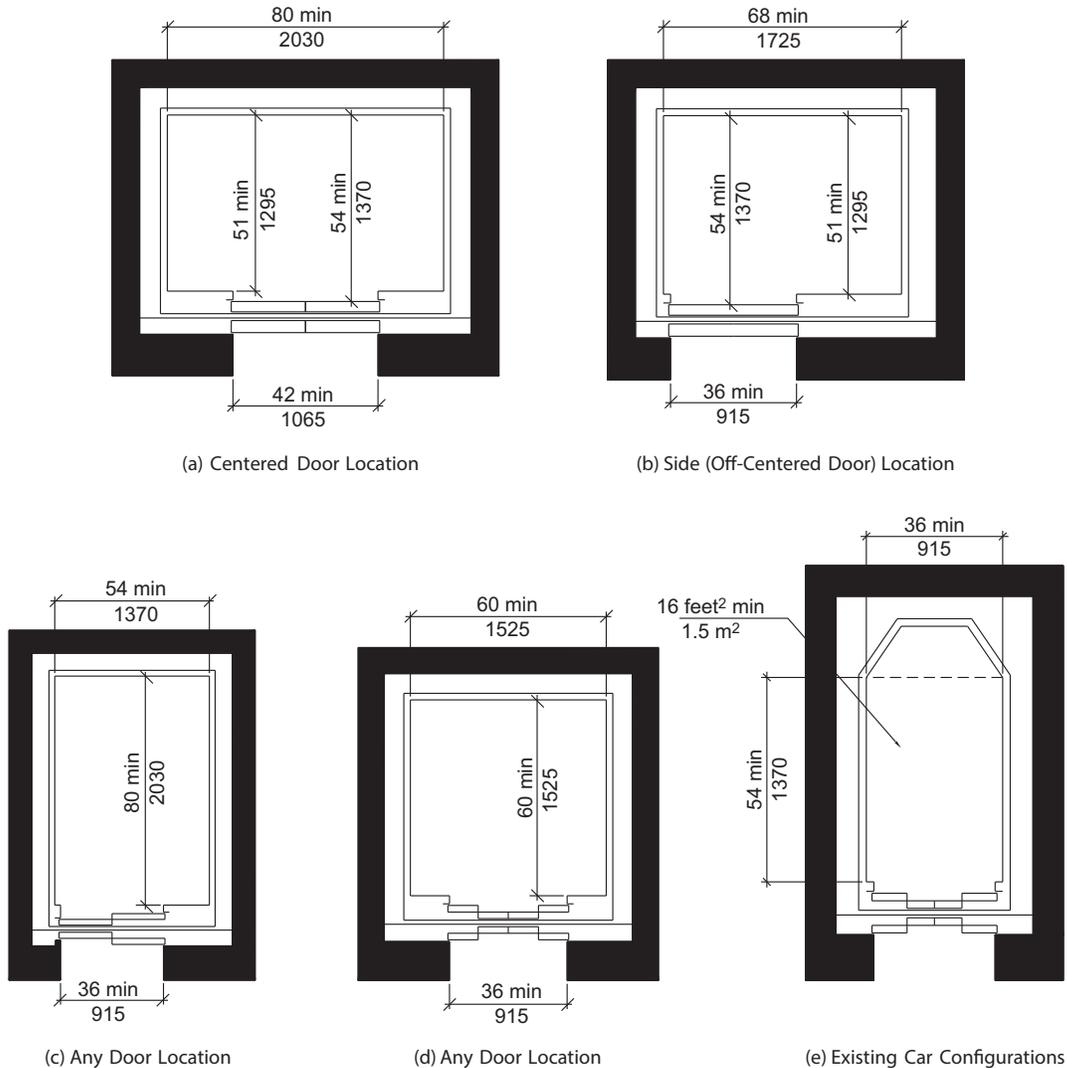


FIGURE 407.4.1
INSIDE DIMENSIONS OF ELEVATOR CARS

407.4.6.1 Location. Controls shall be located within one of the reach ranges specified in Section 308.

Exceptions:

1. Where the elevator panel complies with Section 407.4.8.
2. In existing elevators, where a parallel approach is provided to the controls, car control buttons with floor designations shall be permitted to be located 54 inches (1370 mm) maximum above the floor. Where the panel is changed, it shall comply with Section 407.4.6.1.

407.4.6.2 Buttons. Car control buttons with floor designations shall be raised or flush, and shall comply with Section 407.4.6.2.

Exception: In existing elevators, buttons shall be permitted to be recessed.

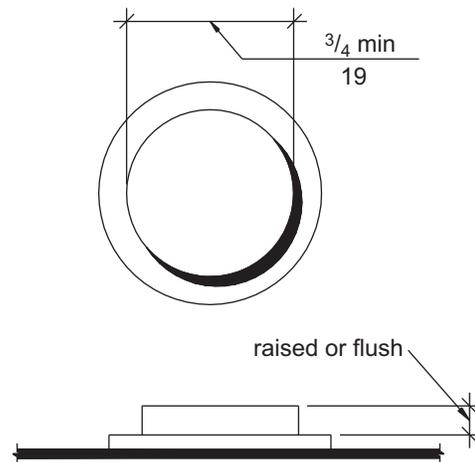


FIGURE 407.4.6.2
ELEVATOR CAR CONTROL BUTTONS

407.4.6.2.1 Size. Buttons shall be $\frac{3}{4}$ inch (19 mm) minimum in their smallest dimension.

407.4.6.2.2 Arrangement. Buttons shall be arranged with numbers in ascending order. Floors shall be designated . . . -4, -3, -2, -1, 0, 1, 2, 3, 4, etcetera, with floors below the main entry floor designated with minus numbers. Numbers shall be permitted to be omitted, provided the remaining numbers are in sequence. Where a telephone keypad arrangement is used, the number key (“#”) shall be utilized to enter the minus symbol (“-”). When two or more columns of buttons are provided they shall read from left to right.

407.4.6.3 Keypads. Where provided, car control keypads shall be in a standard telephone keypad arrangement and shall comply with Section 407.4.7.2.

407.4.6.4 Emergency controls. Emergency controls shall comply with Section 407.4.6.4.

407.4.6.4.1 Height. Emergency control buttons shall have their centerlines 35 inches (890 mm) minimum above the 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 Section 407.4.7.

Exceptions:

1. In existing elevators, where a new car operating panel complying with Section 407.4.7 is provided, existing car operating panels shall not be required to comply with Section 407.4.7.
2. Where existing building floor designations differ from the arrangement required by Section 407.4.6.2.2, or are alphanumeric, a new operating panel shall be permitted to use such existing building floor designations.

407.4.7.1 Buttons. Car control buttons shall comply with Section 407.4.7.1.

407.4.7.1.1 Type. Control buttons shall be identified by raised characters and braille complying with Sections 703.3 and 703.4.

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. Where a negative number is used to indicate a negative floor, the braille designation shall be a cell with the dots 3 and 6 followed by the ordinal number.

Exception: Where space on an existing car operating panel precludes raised characters and braille

to the left of the control button, markings shall be placed as near to the control button 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 raised symbols and braille as shown in Table 407.4.7.1.3.

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. Keypad keys shall be identified by visual characters complying with Section 703.2 centered on the corresponding keypad button. The number five key shall have a single raised dot. The dot shall have a base diameter of 0.118 inch (3 mm) minimum and 0.120 inch (3.05 mm) maximum, and a height of 0.025 inch (0.6 mm) minimum and 0.037 inch (0.9 mm) maximum.

407.4.8 Elevator car call sequential step scanning. Elevator car call sequential step scanning shall be provided where car control buttons are provided more than 48 inches (1220 mm) above the floor. Floor selection shall be accomplished by applying momentary or constant pressure to the up or down scan button. The up scan button shall sequentially select floors above the current floor. The down scan button shall sequentially select floors below the current floor. When pressure is removed from the up or down scan button for more than 2 seconds, the last floor selected shall be registered as a car call. The up and down scan button shall be located adjacent to or immediately above the emergency control buttons.

407.4.9 Car position indicators. Audible and visible car position indicators shall be provided in elevator cars.

407.4.9.1 Visible indicators. Visible indicators shall comply with Section 407.4.9.1.

407.4.9.1.1 Size. Characters shall be $\frac{1}{2}$ inch (13 mm) minimum in height.

407.4.9.1.2 Location. Indicators shall be located above the car control panel or above the door.

407.4.9.1.3 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 Section 407.4.9.1.3, provided the visible indicators extinguish when the call has been answered.

407.4.9.1.4 Destination indicator. In destination-oriented elevators, a display shall be provided in the car with visible indicators to show car destinations.

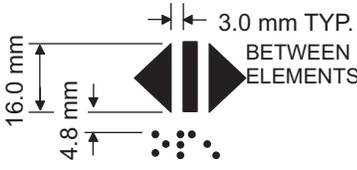
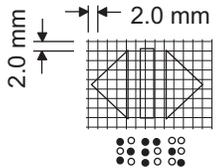
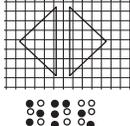
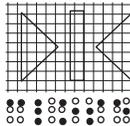
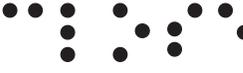
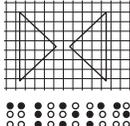
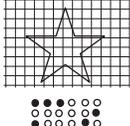
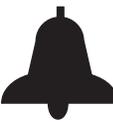
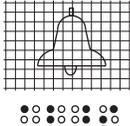
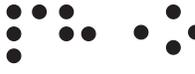
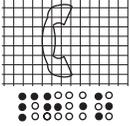
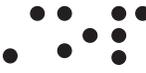
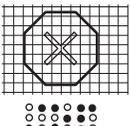
Control Button Type	Raised Symbol	Braille Message	Proportions (Open circles indicate unused dots within each braille cell)
 <p>DOOR OPEN</p>		 <p>op“en”</p>	
 <p>REAR/SIDE DOOR OPEN</p>		 <p>op“en”</p>	
 <p>DOOR CLOSE</p>		 <p>close</p>	
 <p>REAR/SIDE DOOR CLOSE</p>		 <p>close</p>	
 <p>MAIN</p>		 <p>ma“in”</p>	
 <p>ALARM</p>		 <p>al“ar”m</p>	
 <p>PHONE</p>		 <p>ph“one”</p>	
 <p>EMERGENCY STOP (WHEN PROVIDED) X on face of octagon is not required to be tactile</p>		 <p>“st”op</p>	

TABLE 407.4.7.1.3
CONTROL BUTTON IDENTIFICATION

407.4.9.2 Audible indicators. Audible indicators shall comply with Section 407.4.9.2.

407.4.9.2.1 Signal type. The signal shall be an automatic verbal annunciator that announces the floor at which the car is about to stop. The verbal announcement indicating the floor shall be completed prior to the initiation of the door opening.

Exception: For elevators other than destination-oriented elevators that have a rated speed of 200 feet per minute (1 m/s) maximum, a non-verbal audible signal with a frequency of 1500 Hz maximum that sounds as the car passes or is about to stop at a floor served by the elevator shall be permitted.

407.4.9.2.2 Signal level. The verbal annunciator shall be 10 dBA minimum above ambient, but shall not exceed 80 dBA, measured at the annunciator.

407.4.9.2.3 Frequency. The verbal annunciator shall have a frequency of 300 Hz minimum and 3,000 Hz maximum.

407.4.10 Emergency communications. Emergency two-way communication systems between the elevator car and a point outside the hoistway shall comply with Section 407.4.10 and Minnesota Rules, Chapter 1307, Minnesota Elevators and Related Devices.

407.4.10.1 Height. The highest operable part of a two-way communication system shall comply with Section 308.

407.4.10.2 Identification. Raised characters and braille complying with Sections 703.3 and 703.4 and raised symbols complying with Section 407.4.7.1.3 shall be provided adjacent to the device.

**SECTION 408
LIMITED-USE/LIMITED-
APPLICATION ELEVATORS**

408.1 General. Limited-use/limited-application elevators shall comply with Section 408 and Minnesota Rules, Chapter 1307, Minnesota Elevators and Related Devices. Elevator operation shall be automatic. Limited-use/limited-application elevators shall not be attendant or key operated and shall provide unassisted entry and exit from the elevator.

Exception: When approved by the administrative authority, attendant or key operation shall be permitted when all occupants have controlled or restricted access to the space served by the elevator.

408.2 Elevator landing requirements. Landings serving limited-use/limited application elevators shall comply with Section 408.2.

408.2.1 Call controls. Elevator call buttons and keypads shall comply with Section 407.2.1.

408.2.2 Hall signals. Hall signals shall comply with Section 407.2.2.

408.2.3 Hoistway signs. Signs at elevator hoistways shall comply with Section 407.2.3.

408.3 Elevator door requirements. Elevator hoistway doors shall comply with Section 408.3.

408.3.1 Sliding doors. Sliding hoistway and car doors shall comply with Sections 407.3.1 through 407.3.3, and 408.3.3.

408.3.2 Swinging doors. Swinging hoistway doors shall open and close automatically and shall comply with Sections 408.3.2, 404, and 407.3.2.

408.3.2.1 Power operation. Swinging doors shall be power-operated and shall comply with ANSI/BHMA A156.19 listed in Section 105.2.3.

408.3.2.2 Duration. Power-operated swinging doors shall remain open for 20 seconds minimum when activated.

408.3.3 Door Location and width. Car doors shall comply with Section 408.3.3.

408.3.3.1 Cars with single door or doors on opposite ends. Car doors shall be positioned at the narrow end of cars with a single door and on cars with doors on opposite ends. Doors shall provide a clear opening width of 32 inches (815 mm) minimum.

408.3.3.2 Cars with doors on adjacent sides. Car doors shall be permitted to be located on adjacent sides of cars that provide an 18 square foot (1.67 m²) platform. Doors located on the narrow end of cars shall provide a clear opening width of 36 inches (915 mm) minimum. Doors located on the long side shall provide a clear opening width of 42 inches (1065 mm) minimum and be located as far as practicable from the door on the narrow end.

Exception: Car doors that provide a clear opening width of 36 inches (915 mm) minimum shall be permitted to be located on adjacent sides of cars that provide a clear floor area of 51 inches (1295 mm) in width and 51 inches (1295 mm) in depth.

408.4 Elevator car requirements. Elevator cars shall comply with Section 408.4.

408.4.1 Inside dimensions. Elevator cars shall provide a clear floor width of 42 inches (1065 mm) minimum. The clear floor area shall not be less than 15.75 square feet (1.46 m²).

Exception: For installations in existing buildings, elevator cars that provide a clear floor area of 15 square feet (1.4 m²) minimum, and provide a clear inside dimension of 36 inches (915 mm) minimum in width and 54 inches (1370 mm) minimum in depth, shall be permitted. This exception shall not apply to cars with doors on adjacent sides.

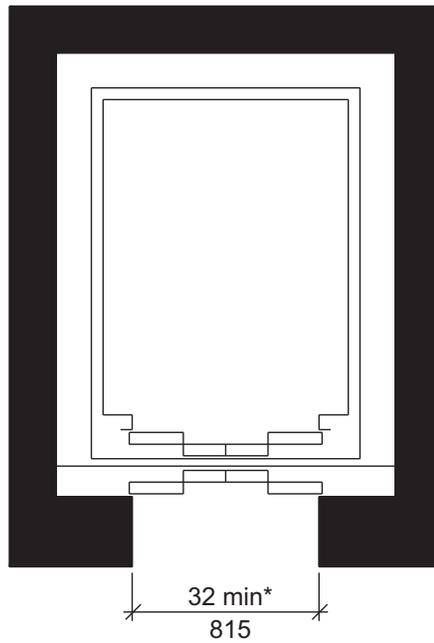
408.4.2 Floor surfaces. Floor surfaces in elevator cars shall comply with Section 302.

408.4.3 Platform to hoistway clearance. The clearance between the car platform sill and the edge of any hoistway landing shall comply with Minnesota Rules, Chapter 1307, Minnesota Elevators and Related Devices.

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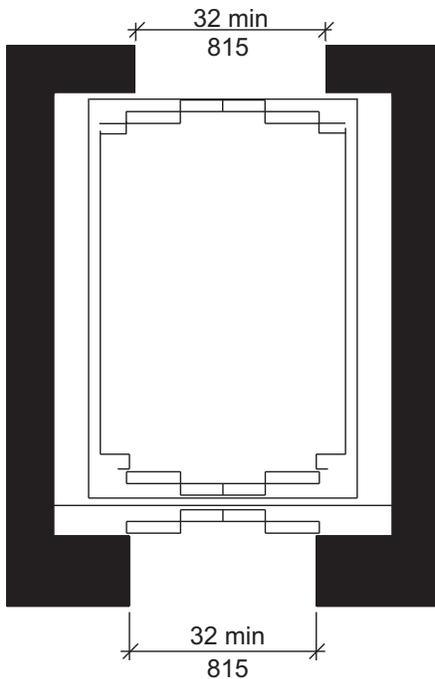
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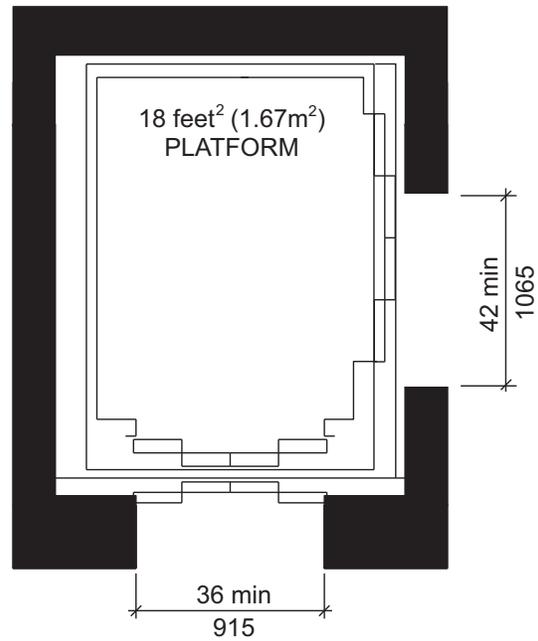


(a) Car with Single Door

*Door opening size from Section 408.3.3

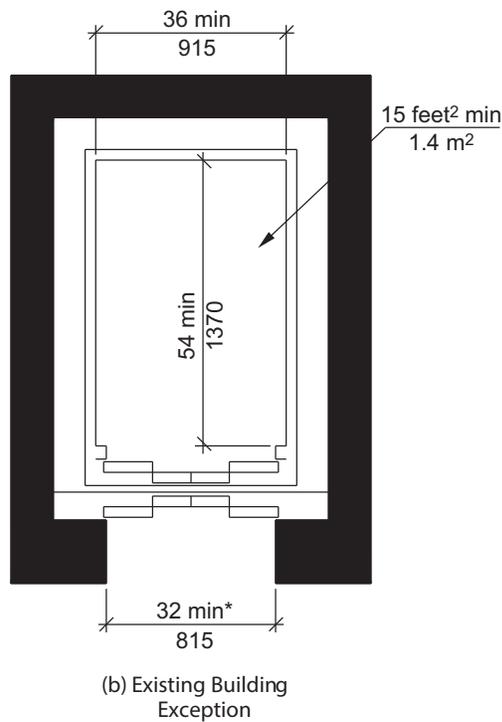
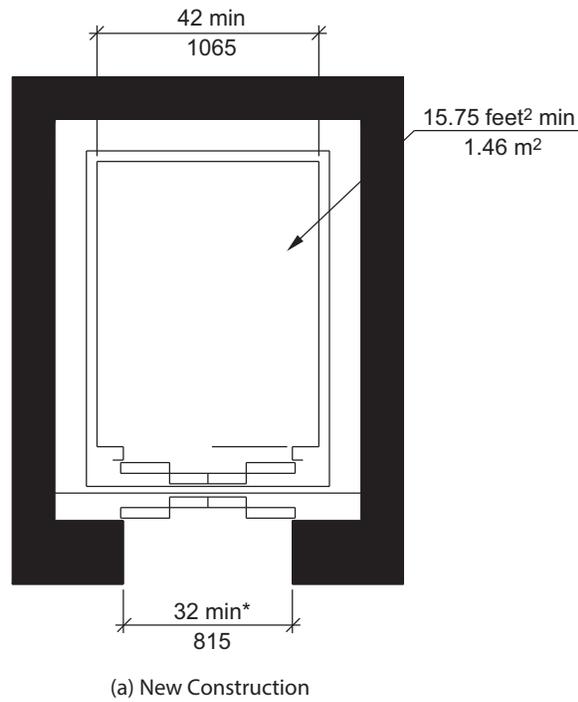


(b) Doors on Opposite Sides



(c) Doors on Adjacent Sides

FIGURE 408.3.3
DOOR LOCATION FOR LIMITED USE/LIMITED APPLICATION (LULA) ELEVATORS



*Door opening size from Section 408.3.3

FIGURE 408.4.1
INSIDE DIMENSIONS OF LIMITED USE/LIMITED APPLICATION (LULA) ELEVATOR CARS

408.4.4 Leveling. Elevator car leveling shall comply with Section 407.4.4.

408.4.5 Illumination. Elevator car illumination shall comply with Section 407.4.5.

408.4.6 Elevator car controls. Elevator car controls shall comply with Section 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 Section 407.4.7.

408.4.8 Emergency communications. Car emergency signaling devices complying with Section 407.4.10 shall be provided.

**SECTION 409
PRIVATE RESIDENCE ELEVATORS**

409.1 General. Private residence elevators shall comply with Section 409 and Minnesota Rules, Chapter 1307, Minnesota Elevators and Related Devices. Elevator operation shall be automatic.

Exception: Elevators complying with Section 407 or 408 shall not be required to comply with Section 409.

409.2 Call Controls. Call buttons at elevator landings shall comply with Section 309. Call buttons shall be 3/4 inch (19 mm) minimum in their smallest dimension.

409.3 Doors and gates. Elevator car and hoistway doors and gates shall comply with Sections 409.3 and 404.

Exception: The maneuvering clearances required by Section 404.2.3 shall not apply for approaches to the push side of swinging doors.

409.3.1 Power operation. Elevator car doors and gates shall be power operated and shall comply with ANSI/BHMA A156.19 listed in Section 105.2.3. Elevator cars with a single opening shall have low energy power operated hoistway doors and gates.

Exception: Hoistway doors or gates shall be permitted to be of the self-closing, manual type, where that door or gate provides access to a narrow end of the car that serves only one landing.

409.3.2 Duration. Power operated doors and gates shall remain open for 20 seconds minimum when activated.

409.3.3 Door or gate location and width. Car gates or doors positioned at a narrow end of the clear floor area required by Section 409.4.1 shall provide a clear opening width of 32 inches (815 mm) minimum. Car gates or doors positioned on adjacent sides shall provide a clear opening width of 42 inches (1065 mm) minimum.

409.4 Elevator car requirements. Elevator cars shall comply with Section 409.4.

409.4.1 Inside Dimensions. Elevator cars shall provide a clear floor area 36 inches (915 mm) minimum in width and 48 inches (1220 mm) minimum in depth.

409.4.2 Floor surfaces. Floor surfaces in elevator cars shall comply with Section 302.

409.4.3 Platform to hoistway clearance. The clearance between the car platform sill and the edge of any hoistway landing shall be 1 1/4 inches (32 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.

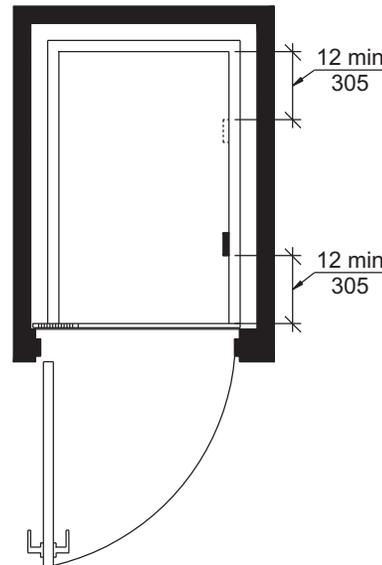
409.4.5 Illumination. The level of illumination at the car controls, platform, and car threshold and landing sill shall be 5 foot-candles (54 lux) minimum.

409.4.6 Elevator car controls. Elevator car controls shall comply with Sections 409.4.6 and 309.4.

409.4.6.1 Buttons. Control buttons shall be 3/4 inch (19 mm) minimum in their smallest dimension. Control buttons shall be raised or flush.

409.4.6.2 Height. Buttons with floor designations shall comply with Section 309.3.

409.4.6.3 Location. Controls shall be on a sidewall, 12 inches (305 mm) minimum from any adjacent wall.



**FIGURE 409.4.6.3
LOCATION OF CONTROLS IN
PRIVATE RESIDENCE ELEVATORS**

409.4.7 Emergency communications. Emergency communications systems shall comply with Section 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 Section 309.3 and 309.4.

409.4.7.3 Compartment. If the device is in a closed compartment, the compartment door hardware shall comply with Section 309.

409.4.7.4 Cord. The telephone cord shall be 29 inches (735 mm) minimum in length.

**SECTION 410
PLATFORM LIFTS**

410.1 General. Platform lifts shall comply with Section 410 and Minnesota Rules, Chapter 1307, Minnesota Elevators and Related Devices. Platform lifts shall not be attendant or key operated and shall provide unassisted entry and exit from the lift.

Exception: When approved by the administrative authority, attendant or key operation shall be permitted when all occupants have controlled or restricted access to the space served by the lift.

410.2 Lift entry. Lifts with doors or gates shall comply with Section 410.2.1. Lifts with ramps shall comply with Section 410.2.2.

410.2.1 Doors and gates. Doors and gates shall be low energy power operated doors or gates complying with Section 404.3. Doors shall remain open for 20 seconds minimum. On lifts with one door or with doors on opposite ends, the end door clear opening width shall be 32 inches (815 mm) minimum. On lifts with one door on a narrow end and one door on a long side, the end door clear opening width shall be 36 inches (915 mm) minimum. Side door clear opening width shall be 42 inches (1065 mm) minimum. Where a door is provided on a long side and on a narrow end of a lift, the side door shall be located with either the strike side or the hinge side in the corner furthest from the door on the narrow end.

Exceptions:

1. Doors or gates shall be permitted to be of the self-closing, manual type, where that door or gate provides access to a narrow end of the platform that serves only one landing. This exception shall not apply to doors or gates with ramps.
2. Lifts serving two landings maximum and having doors or gates on adjacent sides shall be permitted to have self closing manual doors or gates provided that the side door or gate is located with the strike side furthest from the end door. This exception shall not apply to door or gates with ramps.

410.2.2 Ramps. Ramp widths shall not be less than the platform opening they serve.

410.3 Floor Surfaces. Floor surfaces of platform lifts shall comply with Section 302.

410.4 Platform to runway clearance. The clearance between the platform sill and the edge of any runway landing shall be 1 1/4 inch (32 mm) maximum.

410.5 Clear floor space. Clear floor space of platform lifts shall comply with Section 410.5.

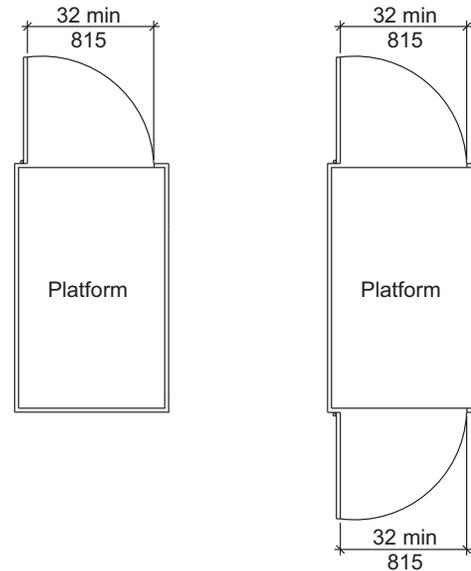
410.5.1 Lifts with single door or doors on opposite ends. Platform lifts with a single door or with doors on opposite ends shall provide a clear floor width of 36 inches (915 mm) minimum and a clear floor depth of 48 inches (1220 mm) minimum.

410.5.2 Lifts with doors on adjacent sides. Platform lifts with doors on adjacent sides shall provide a clear floor

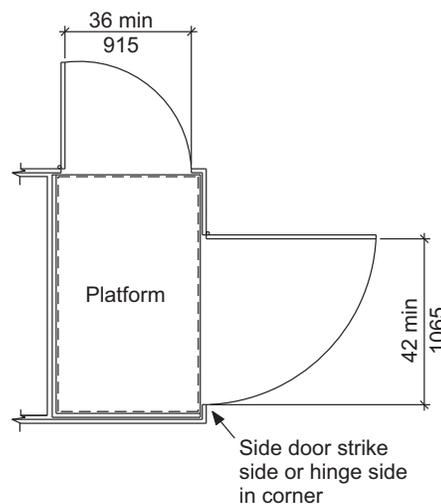
width of 42 inches (1065 mm) minimum and a clear floor depth of 60 inches (1525 mm) minimum.

Exception: Deleted.

410.6 Operable parts. Controls for platform lifts shall comply with Section 309.



(a) Platform lift with door at one end or opposite ends



(b) Platform with doors on adjacent sides

**FIGURE 410.2.1
PLATFORM LIFT DOORS AND GATES**

CHAPTER 5

GENERAL SITE AND BUILDING ELEMENTS

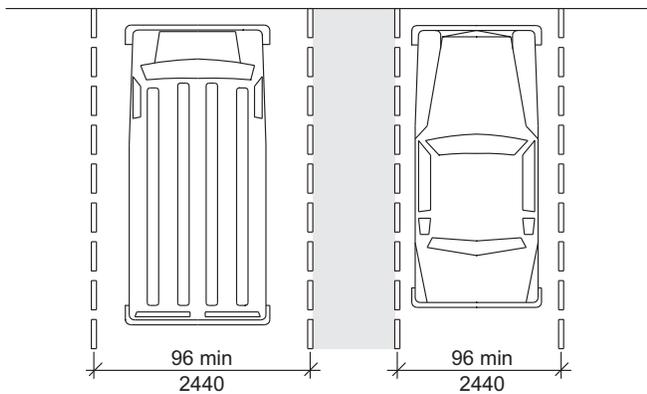
SECTION 501 GENERAL

501.1 Scope. General site and building elements required to be accessible by the scoping provisions adopted by the administrative authority shall comply with the applicable provisions of Chapter 5.

SECTION 502 PARKING SPACES

502.1 General. Accessible car and van parking spaces shall comply with Section 502.

502.2 Vehicle space size. Car and van parking spaces shall be 96 inches (2440 mm) minimum in width.



**FIGURE 502.2
VEHICLE PARKING SPACE SIZE**

502.3 Vehicle space marking. Car and van parking spaces shall be marked to define the width. Where parking spaces are marked with lines, the width measurements of parking spaces and adjacent 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.

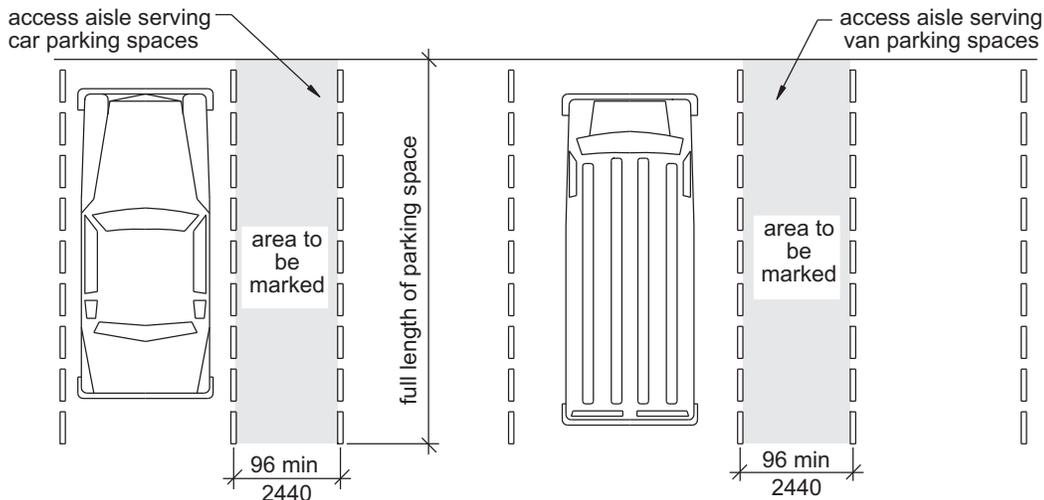
502.4 Access aisle. Car and van parking spaces shall have an adjacent access aisle complying with Section 502.4.

502.4.1 Location. Access aisles shall adjoin an accessible route. Two parking spaces shall be permitted to share a common access aisle. Access aisles shall not overlap with the vehicular way. Parking spaces shall be permitted to have access aisles placed on either side of the car or van parking space. Van parking spaces that are angled shall have access aisles located on the passenger side of the parking space.

502.4.2 Width. Access aisles serving car and van parking spaces shall be 96 inches (2440 mm) minimum in width.

502.4.3 Length. Access aisles shall extend the full length of the parking spaces they serve.

502.4.4 Marking. Access aisles shall be marked so as to discourage parking in them and be provided with the designation “no parking.” The “no parking” designation shall be provided on a sign centered at the head end of the access aisle a maximum of 96 inches (2440 mm) from the head of the access aisle, and be mounted 60 inches (1525 mm) minimum and 66 inches (1676 mm) maximum above the floor of the access aisle, measured to the bottom of the sign. Where access aisles are marked with lines, the width



**FIGURE 502.4
PARKING SPACE ACCESS AISLE**

measurements of access aisles and adjacent parking spaces shall be made from the centerline of the markings.

Exceptions:

1. A sign indicating no parking shall not be required where the sign would obstruct a curb ramp or pedestrian route. In this case, the no parking designation shall be provided on the surface of the access aisle.
2. A sign indicating no parking shall not be required where parking spaces and access aisles are enclosed or otherwise protected from the elements. In this case, the no parking designation shall be provided on the surface of the access aisle.
3. Where access aisles or parking spaces are not adjacent to another access aisle or parking space, measurements shall be permitted to include the full width of the line defining the access aisle or parking space.

502.5 Floor Surfaces. Parking spaces and access aisles shall comply with Section 302 and have surface slopes not steeper than 1:48. Access aisles shall be at the same level as the parking spaces they serve.

502.6 Vertical clearance. A vertical clearance of 98 inches (2490 mm) minimum shall be provided at the following locations:

1. Parking spaces for vans.
2. The access aisles serving parking spaces for vans.
3. The vehicular routes serving parking spaces for vans.

502.7 Identification. Accessible parking spaces shall be identified by signs complying with Minnesota Statutes, Section 169.346, and include the International Symbol of Accessibility complying with Section 703.6.3.1. Where all accessible parking spaces do not provide a minimum vertical clearance of 98 inches (2490 mm), signs identifying van parking spaces shall contain the designation “van accessible.” Signs shall be centered at the head end of the parking space a maximum of 96 inches (2440 mm) from the head of the parking space, and be mounted 60 inches (1525 mm) minimum and 66 inches (1676 mm) maximum above the floor of the parking space, measured to the bottom of the sign.

Exception: Parallel parking spaces shall have a sign located on the side, at the head end of the parking space.

502.8 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.

**SECTION 503
PASSENGER LOADING ZONES**

503.1 General. Accessible passenger loading zones shall comply with Section 503.

503.2 Vehicle pull-up space size. Passenger loading zones shall provide a vehicular pull-up space 96 inches (2440 mm) minimum in width and 20 feet (6095 mm) minimum in length.

503.3 Access aisle. Passenger loading zones shall have an adjacent access aisle complying with Section 503.3.

503.3.1 Location. Access aisles shall adjoin an accessible route. Access aisles shall not overlap the vehicular way.

503.3.2 Width. Access aisles serving vehicle pull-up spaces shall be 60 inches (1525 mm) minimum in width.

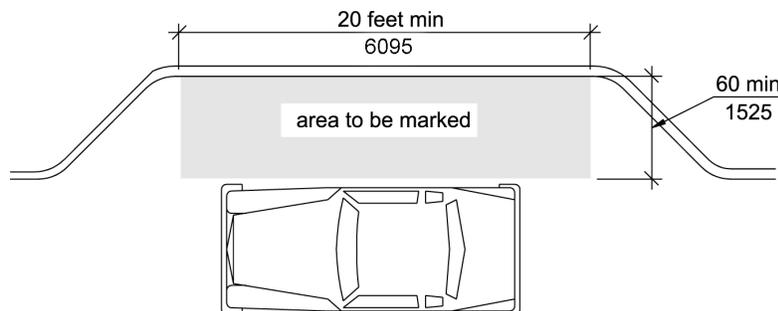
503.3.3 Length. Access aisles shall be 20 feet (6095 mm) minimum in length.

503.3.4 Marking. Access aisles shall be marked so as to discourage parking in them.

503.4 Floor surfaces. Vehicle pull-up spaces and access aisles serving them shall comply with Section 302 and shall have slopes not steeper than 1:48. Access aisles shall be at the same level as the vehicle pull-up space they serve.

503.5 Vertical clearance. A vertical clearance of 114 inches (2895 mm) minimum shall be provided at the following locations:

1. Vehicle pull-up spaces;
2. The access aisles serving vehicle pull-up spaces;
3. A vehicular route from an entrance to the passenger loading zone, and;
4. A vehicular route from the passenger loading zone to a vehicular exit serving vehicle pull-up spaces.



**FIGURE 503.3
PASSENGER LOADING ZONE ACCESS AISLE**

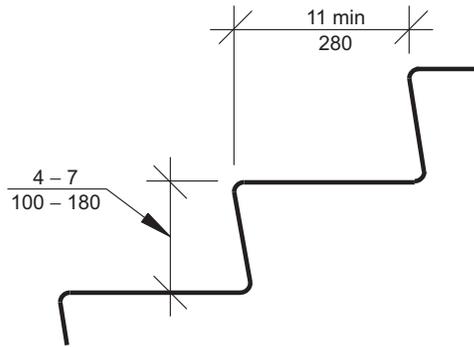
**SECTION 504
STAIRWAYS**

504.1 General. Accessible stairs shall comply with Section 504.

504.2 Treads and risers. All steps on a flight of stairs shall have uniform riser height and uniform tread depth. Risers shall be 4 inches (100 mm) minimum and 7 inches (180 mm) maximum in height. Treads shall be 11 inches (280 mm) minimum in depth.

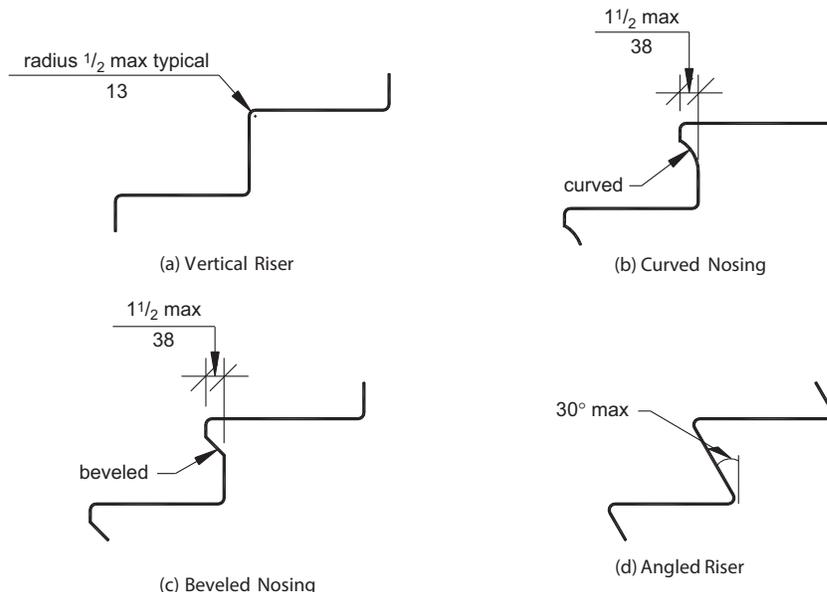
504.3 Open risers. Open risers shall not be permitted.

504.4 Tread surface. Stair treads shall comply with Section 302 and shall have a slope not steeper than 1:48.



**FIGURE 504.2
TREADS AND RISERS FOR ACCESSIBLE STAIRWAYS**

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 be 1 1/2 inches (38 mm) maximum over the tread or floor below.



**FIGURE 504.5
STAIR NOSINGS**

504.5.1 Visual contrast. The leading 2 inches (51 mm) of the tread shall have visual contrast of dark-on-light or light-on-dark from the remainder of the tread.

504.6 Handrails. Stairs shall have handrails complying with Section 505.

504.7 Wet conditions. Stair treads and landings subject to wet conditions shall be designed to prevent the accumulation of water.

504.8 Lighting. Lighting for interior stairways shall comply with Section 504.8.

504.8.1 Illumination level. Lighting facilities shall be capable of providing 10 foot-candles (108 lux) of illuminance measured at the center of tread surfaces and on landing surfaces within 24 inches (610 mm) of step nosings.

504.8.2 Lighting controls. If provided, occupancy-sensing automatic controls shall activate the stairway lighting so the illuminance level required by Section 504.8.1 is provided on the entrance landing, each stair flight adjacent to the entrance landing, and on the landings above and below the entrance landing prior to any step being used.

504.9 Stair level identification. Stair level identification signs in raised characters and braille complying with Sections 703.3 and 703.4 shall be located at each floor level landing in all enclosed stairways adjacent to the door leading from the stairwell into the corridor to identify the floor level. The exit door discharging to the outside or to the level of exit discharge shall have a sign with raised characters and braille stating "EXIT."

**SECTION 505
HANDRAILS**

505.1 General. Handrails required by Section 405.8 for ramps, or Section 504.6 for stairs, shall comply with Section 505.

505.2 Location. Handrails shall be provided on both sides of stairs and ramps.

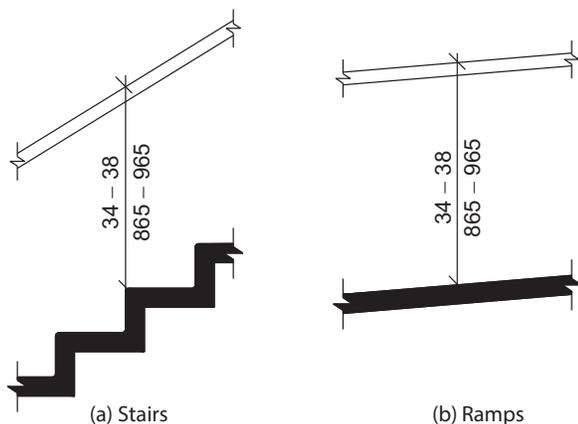
Exceptions:

1. In assembly seating areas, handrails shall not be required on both sides along aisle stairs, provided with a handrail either at the side or within the aisle.
2. In assembly seating areas, handrails shall not be required on the sides of ramped aisles serving seats.

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 or ramps shall be continuous between flights or runs. Other handrails shall comply with Sections 505.10 and 307.

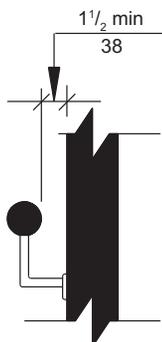
Exception: Handrails shall not be required to be continuous in aisles serving seating where handrails are discontinuous to provide access to seating and to permit crossovers within the aisles.

505.4 Height. Top of gripping surfaces of handrails shall be 34 inches (865 mm) minimum and 38 inches (965 mm) maximum vertically above stair nosings, ramp surfaces and walking surfaces. Handrails shall be at a consistent height above stair nosings, ramp surfaces and walking surfaces.



**FIGURE 505.4
HANDRAIL HEIGHT**

505.5 Clearance. Clearance between handrail gripping surface and adjacent surfaces shall be 1½ inches (38 mm) minimum.



**FIGURE 505.5
HANDRAIL CLEARANCE**

505.6 Gripping surface. Gripping surfaces shall be continuous, without interruption by newel posts, other construction elements, or obstructions.

Exceptions:

1. Handrail brackets or balusters attached to the bottom surface of the handrail shall not be considered obstructions, provided the brackets or balusters comply with the following criteria:
 - a. Not more than 20 percent of the handrail length is obstructed,
 - b. Horizontal projections beyond the sides of the handrail occur 1½ inches (38 mm) minimum below the bottom of the handrail, and provided that for each ½ inch (13 mm) of additional handrail perimeter dimension above 4 inches (100 mm), the vertical clearance dimension of 1½ inch (38 mm) can be reduced by ⅛ inch (3.2 mm), and
 - c. Edges shall be rounded.
2. 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.

505.7 Cross section. Handrails shall have a cross section complying with Section 505.7.1 or 505.7.2.

505.7.1 Circular cross section. Handrails with a circular cross section shall have an outside diameter of 1¼ inches (32 mm) minimum and 2 inches (51 mm) maximum.

505.7.2 Noncircular cross sections. Handrails with a noncircular cross section shall have a perimeter dimension of 4 inches (100 mm) minimum and 6¼ inches (160 mm) maximum, and a cross-section dimension of 2¼ inches (57 mm) maximum.

505.8 Surfaces. Handrails, and any wall or other surfaces adjacent to them, shall be free of any sharp or abrasive elements. Edges shall be rounded.

505.9 Fittings. Handrails shall not rotate within their fittings.

505.10 Handrail extensions. Handrails shall extend beyond and in the same direction of stair flights and ramp runs in accordance with Section 505.10.

Exceptions:

1. Continuous handrails at the inside turn of stairs and ramps.
2. Handrail extensions are not required in aisles serving seating where the handrails are discontinuous to provide access to seating and to permit crossovers within the aisle.
3. In alterations, full extensions of handrails shall not be required where such extensions would be hazardous due to plan configuration.

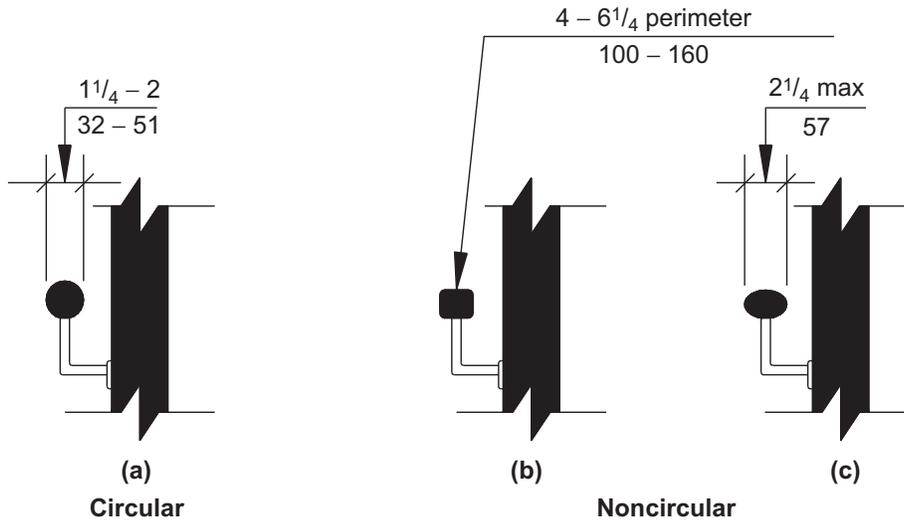
505.10.1 Top and bottom extension at ramps. Ramp handrails shall extend horizontally above the landing 12 inches (305 mm) minimum beyond the top and bottom of ramp runs. Extensions shall return to a wall, guard, or floor, or shall be continuous to the handrail of an adjacent ramp run.

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 landing nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.

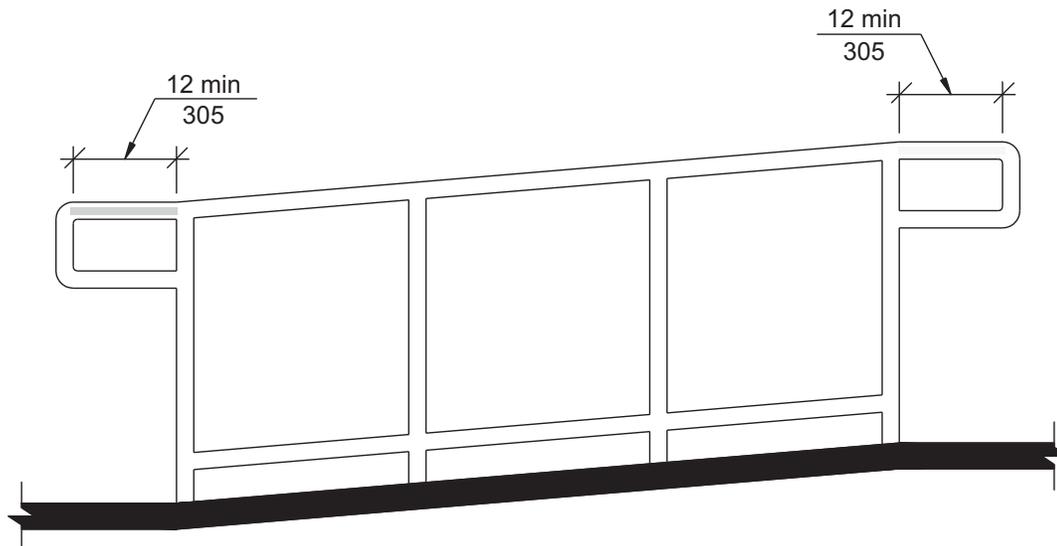
505.10.3 Bottom extension at stairs. At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance equal to one tread depth beyond the bottom tread nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.

**SECTION 506
WINDOWS**

506.1 General. Accessible windows shall have operable parts complying with Section 309.



**FIGURE 505.7
HANDRAIL CROSS SECTION**



**FIGURE 505.10.1
TOP AND BOTTOM HANDRAIL EXTENSIONS AT RAMPS**

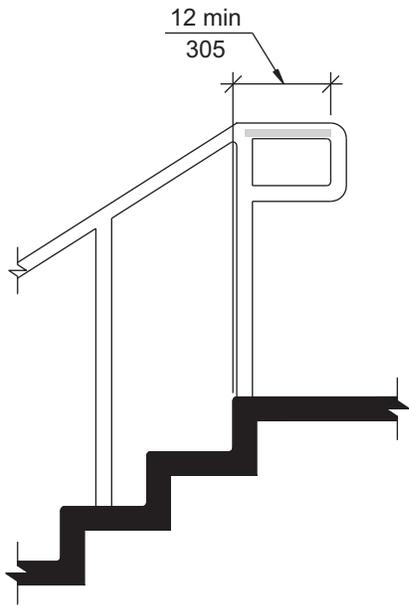


FIGURE 505.10.2
TOP HANDRAIL EXTENSIONS AT STAIRS

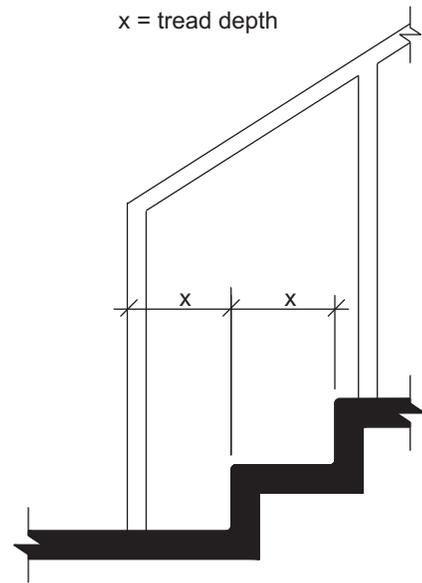


FIGURE 505.10.3
BOTTOM HANDRAIL EXTENSIONS AT STAIRS

CHAPTER 6

PLUMBING ELEMENTS AND FACILITIES

SECTION 601 GENERAL

601.1 Scope. Plumbing elements and facilities required to be accessible by scoping provisions adopted by the administrative authority shall comply with the applicable provisions of Chapter 6.

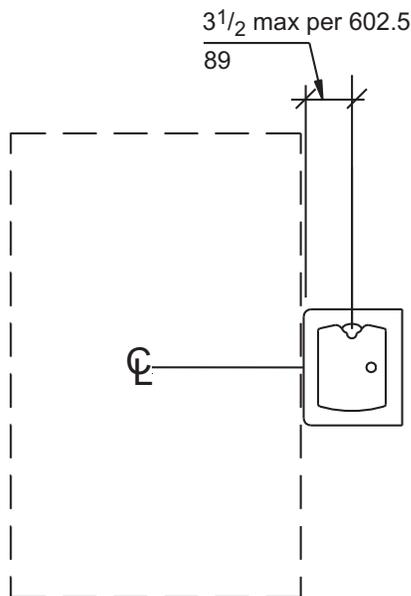
SECTION 602 DRINKING FOUNTAINS

602.1 General. Accessible drinking fountains shall comply with Sections 602 and 307.

602.2 Clear floor space. A clear floor space complying with Section 305, positioned for a forward approach to the drinking fountain, shall be provided. Knee and toe space complying with Section 306 shall be provided. The clear floor space shall be centered on the drinking fountain.

Exceptions:

1. Drinking fountains for standing persons.
2. Drinking fountains primarily for children's use shall be permitted where the spout outlet is 30 inches (760 mm) maximum above the floor, a parallel approach complying with Section 305 is provided and the clear floor space is centered on the drinking fountain.

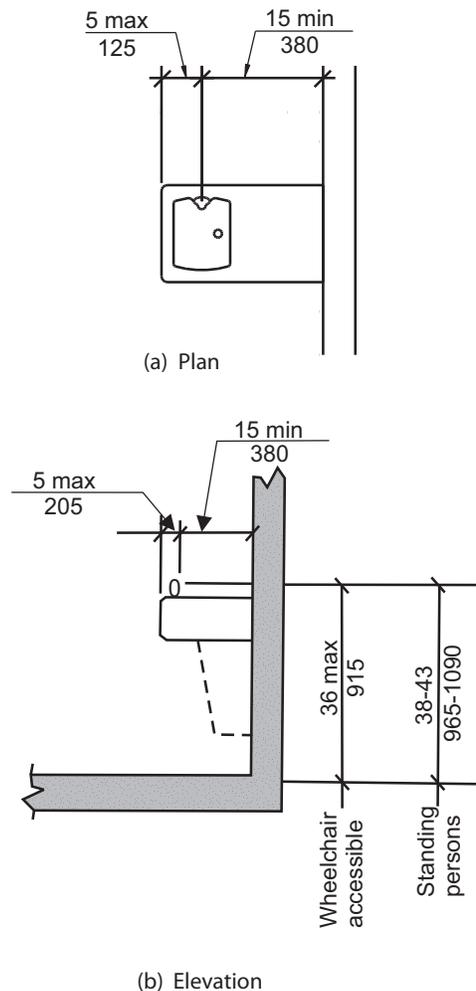


**FIGURE 602.2
PARALLEL APPROACH AT DRINKING FOUNTAINS
PRIMARILY FOR CHILDREN'S USE—(EXCEPTION 2)**

602.3 Operable parts. Operable parts shall comply with Section 309.

602.4 Spout outlet height. Spout outlets of wheelchair accessible drinking fountains shall be 36 inches (915 mm) maximum above the floor. Spout outlets of drinking fountains for standing persons shall be 38 inches (965 mm) minimum and 43 inches (1090 mm) maximum above the floor.

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 drinking fountain, including bumpers. Where only a parallel approach is provided, the spout shall be located 3 1/2 inches (90 mm) maximum from the front edge of the drinking fountain, including bumpers.



**FIGURE 602.5
DRINKING FOUNTAIN SPOUT LOCATION**

602.6 Water flow. The spout shall provide a flow of water 4 inches (100 mm) minimum in height. The angle of the water stream from spouts within 3 inches (75 mm) of the front of the drinking fountain shall be 30 degrees maximum, and from spouts between 3 inches (75 mm) and 5 inches (125 mm) from the front of the drinking fountain shall be 15 degrees maximum, measured horizontally relative to the front face of the drinking fountain.

**SECTION 603
TOILET AND BATHING ROOMS**

603.1 General. Accessible toilet and bathing rooms shall comply with Section 603.

603.2 Clearances.

603.2.1 Turning space. A turning space complying with Section 304 shall be provided within the room. The required turning space shall not be provided within a toilet compartment.

603.2.2 Door swing. Doors shall not swing into the clear floor space or clearance for any fixture.

Exceptions:

1. Doors to a toilet 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, provided the swing of the door can be reversed to comply with Section 603.2.2.
2. Where the room is for individual use and a clear floor space complying with Section 305.3 is provided within the room beyond the arc of the door swing, the door shall not be required to comply with Section 603.2.2.

603.3 Mirrors. Where mirrors are located above lavatories, a mirror shall be located over the accessible lavatory and shall be mounted with the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the floor. Where mirrors are located above counters that do not contain lavatories, the mirror shall be mounted with the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the floor.

Exception: Other than within Accessible dwelling or sleeping units, mirrors are not required over the lavatories or counters if a mirror is located within the same toilet or bathing room and mounted with the bottom edge of the reflecting surface 35 inches (890 mm) maximum above the floor.

603.4 Coat Hooks and shelves. Coat hooks shall be located within one of the reach ranges specified in Section 308.

Shelves shall be 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the floor.

603.5 Diaper changing tables. Diaper changing tables shall comply with Sections 309 and 902. Diaper changing tables shall not be located within toilet compartments.

603.6 Operable parts. Operable parts on towel dispensers and hand dryers serving accessible lavatories shall comply with Table 603.6.

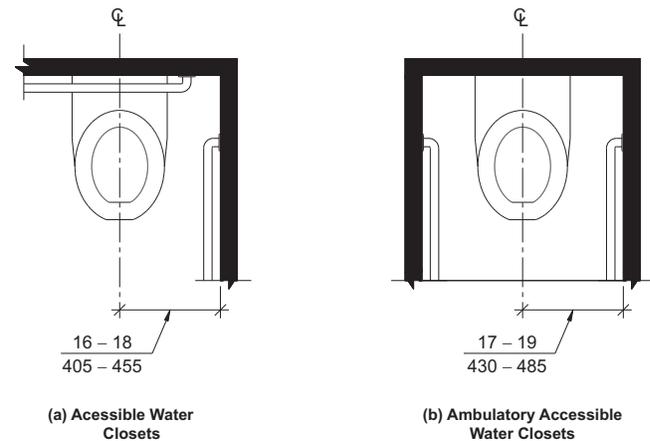
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**SECTION 604
WATER CLOSETS AND TOILET COMPARTMENTS**

604.1 General. Accessible water closets and toilet compartments shall comply with Section 604. Compartments containing more than one plumbing fixture shall comply with Section 603. Wheelchair accessible compartments shall comply with Section 604.9. Ambulatory accessible compartments shall comply with Section 604.10.

Exception: Water closets and toilet compartments primarily for children's use shall be permitted to comply with Section 604.11 as applicable.

604.2 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 16 inches (405 mm) minimum and 18 inches (455 mm) maximum from the side wall or partition. Water closets located in ambulatory accessible compartments specified in Section 604.10 shall have the centerline of the water closet 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition.



**FIGURE 604.2
WATER CLOSET LOCATION**

**TABLE 603.6
MAXIMUM REACH DEPTH AND HEIGHT**

Maximum Reach Depth	0.5 inch (13 mm)	2 inches (51 mm)	5 inches (125 mm)	6 inches (150 mm)	9 inches (230 mm)	11 inches (280 mm)
Maximum Reach Height	48 inches (1220 mm)	46 inches (1170 mm)	42 inches (1065 mm)	40 inches (1015 mm)	36 inches (915 mm)	34 inches (865 mm)

604.3 Clearance.

604.3.1 Clearance width. Clearance around a water closet shall be 60 inches (1525 mm) minimum in width, measured perpendicular from the sidewall.

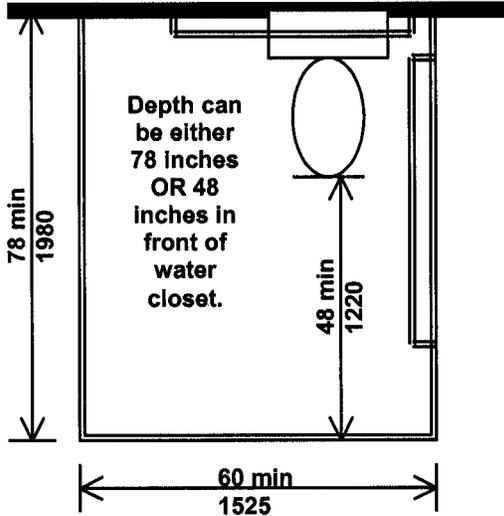


FIGURE 604.3
SIZE OF CLEARANCE FOR WATER CLOSET

604.3.2 Clearance depth. The depth of the clearance around the water closet shall be measured perpendicular from the rear wall and comply with Section 604.3.2.1 or 604.3.2.2.

604.3.2.1 Overall clearance. The overall clearance around the water closet shall be 78 inches (1980 mm) minimum in depth.

604.3.2.2 Water closet clearance. The depth of the clearance around the water closet shall be 48 inches (1220 mm) minimum plus the depth of the water closet fixture.

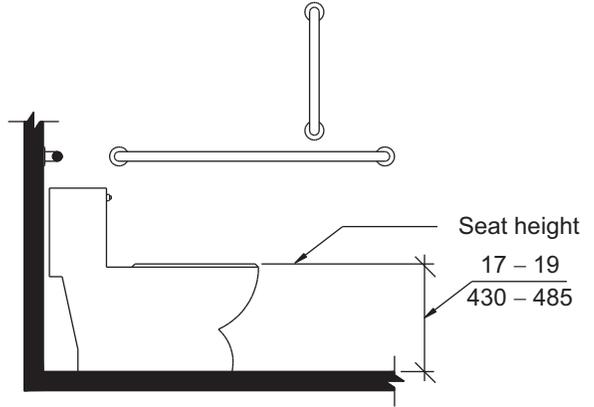
604.3.3 Clearance overlap. The required clearance around the water closet shall be permitted to overlap the water closet, associated grab bars, toilet paper and sanitary seat cover dispensers, sanitary napkin receptacles, coat hooks, a shelf measuring 6 inches (150 mm) maximum in depth by 12 inches (305 mm) maximum in width, accessible routes, clear floor space at other fixtures, and the turning space. No other fixtures or obstructions, including protruding towel dispensers or waste receptacles, shall be within the required water closet clearance.

Exception: A diaper changing table shall be permitted on the wall facing the front of the water closet in family or assisted-use toilet rooms and bathing rooms.

604.4 Height. The height of water closet seats shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the floor, measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

Exception: 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 Section 604.4.



Note: For children's dimensions see Figure 604.11.4

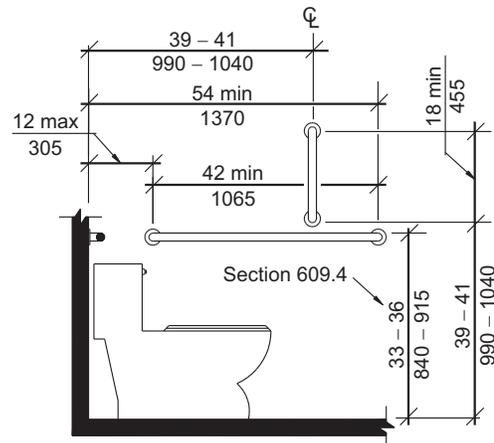
FIGURE 604.4
WATER CLOSET SEAT HEIGHT

604.5 Grab bars. Grab bars for water closets shall comply with Section 609 and shall be provided in accordance with Sections 604.5.1 and 604.5.2. Grab bars shall be provided on the rear wall and on the side wall closest to the water closet.

Exceptions:

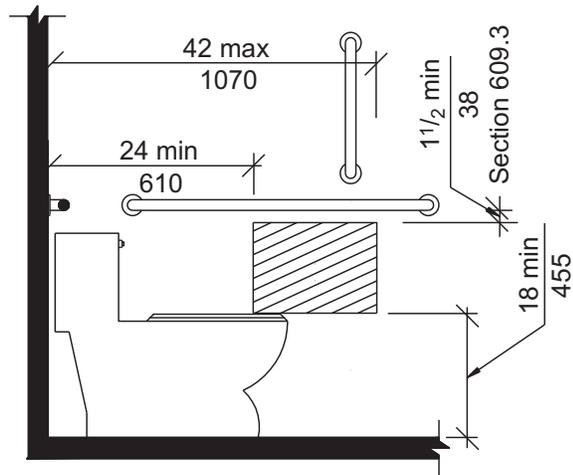
1. Grab bars are not required to be installed in a toilet room for a single occupant, accessed only through a private office and not for common use or public use, provided reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with Section 604.5.
2. In detention or correction facilities, grab bars are not required to be installed in housing or holding cells or rooms that are specially designed without protrusions for purposes of suicide prevention.

604.5.1 Fixed side wall grab bars. Fixed side wall grab bars shall comply with Sections 604.5.1.1 and 604.5.1.2.

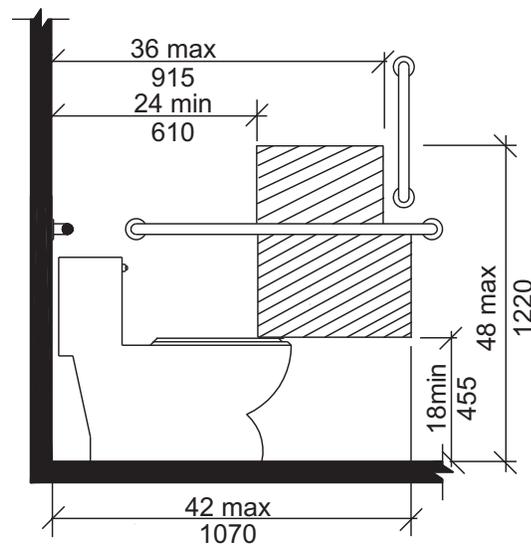


Note: For children's dimensions see Figure 609.4.2

FIGURE 604.5.1
SIDE WALL GRAB BAR FOR WATER CLOSET



(a) Protruding Dispenser Below Grab Bar



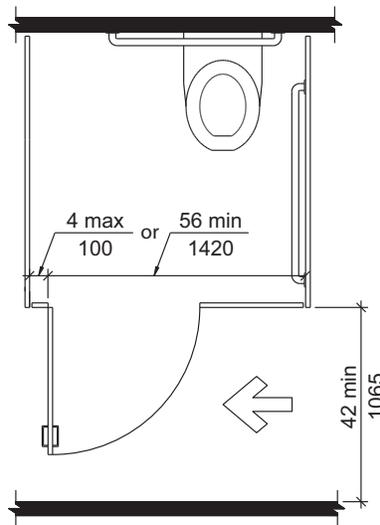
(c) Recessed Dispenser

Note: For children's dimensions see Fig. 604.11.7 dispenser outlet location

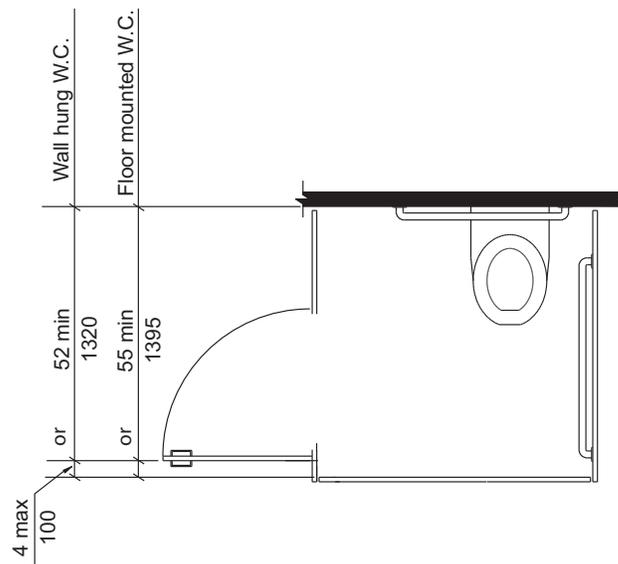
FIGURE 604.7
DISPENSER OUTLET LOCATION

**TABLE 604.9.3.1
DOOR OPENING LOCATION**

DOOR OPENING LOCATION	MEASURED FROM	DIMENSION
Front Wall or Partition	From the side wall or partition closet to the water closet	56 inches (1420 mm) minimum
	or	
Side Wall or Partition Wall-Hung Water Closet	From the rear wall	52 inches (1320 mm) minimum
	or	
Side Wall or Partition Floor-Mounted Water Closet	From the rear wall	55 inches (1395 mm) minimum
	or	
	From the front wall or partition	4 inches (100 mm) maximum



(a) Front partition



(b) Side wall or partition

**FIGURE 604.9.3.1
WHEELCHAIR ACCESSIBLE COMPARTMENT DOOR OPENINGS**

604.9.5 Toe clearance. Toe clearance for compartments primarily for children’s use shall comply with Section 604.9.5.2. Toe clearance for other wheelchair accessible compartments shall comply with Section 604.9.5.1.

604.9.5.1 Toe clearance at compartments. The front partition and at least one side partition shall provide a toe clearance of 9 inches (230 mm) minimum above the floor and extending 6 inches (150 mm) beyond the compartment side face of the partition, exclusive of partition support members.

Exceptions:

1. Toe clearance at the front partition is not required in a compartment greater than 62 inches (1575 mm) in depth with a wall-hung water closet, or greater than 65 inches (1650 mm) in depth with a floor-mounted water closet.
2. Toe clearance at the side partition is not required in a compartment greater than 66 inches (1675 mm) in width.

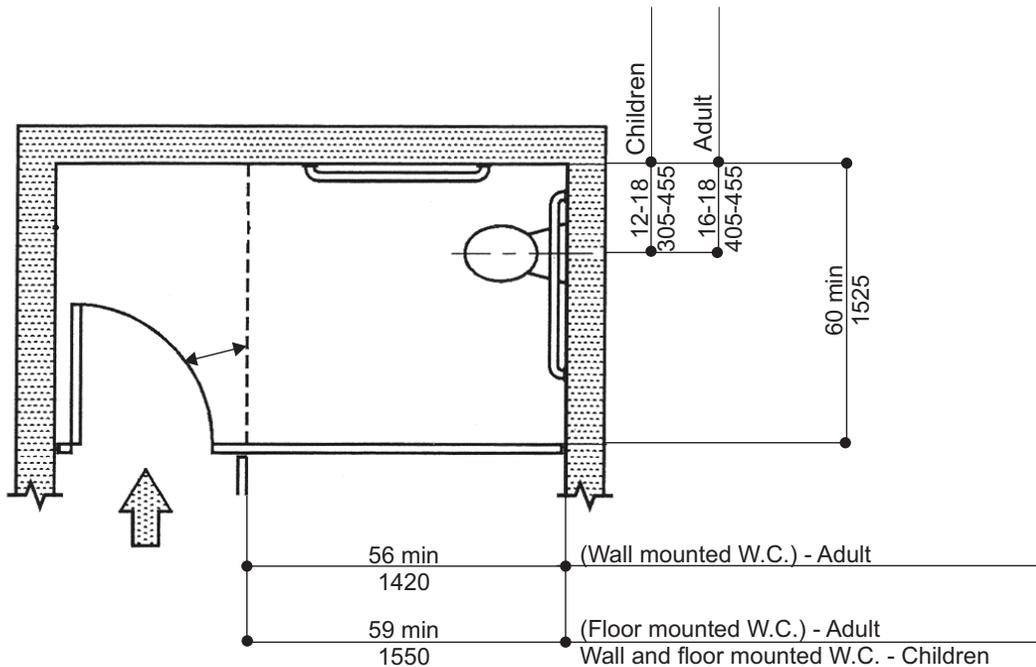


FIGURE 604.9.3.1(C)
WHEELCHAIR ACCESSIBLE COMPARTMENT DOOR OPENINGS—ALTERNATE

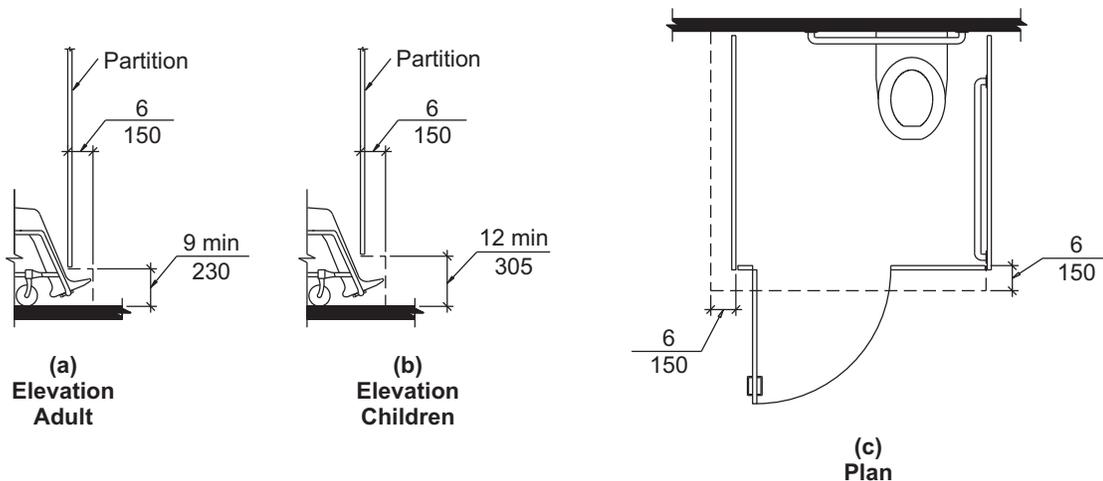


FIGURE 604.9.5
WHEELCHAIR ACCESSIBLE COMPARTMENT TOE CLEARANCE

604.9.5.2 Toe clearance at compartments for children's use. The front partition and at least one side partition of compartments primarily for children's use shall provide a toe clearance of 12 inches (305 mm) minimum above the floor and extending 6 inches (150 mm) beyond the compartment side face of the partition, exclusive of partition support members.

Exceptions:

1. Toe clearance at the front partition is not required in a compartment greater than 65 inches (1650 mm) in depth.
2. Toe clearance at the side partition is not required in a compartment greater than 66 inches (1675 mm) in width.

604.9.6 Grab Bars. Grab bars shall comply with Section 609. Side wall grab bars complying with Section 604.5.1 located on the wall closest to the water closet, and a rear wall grab bar complying with Section 604.5.2, shall be provided.

604.10 Ambulatory accessible compartments.

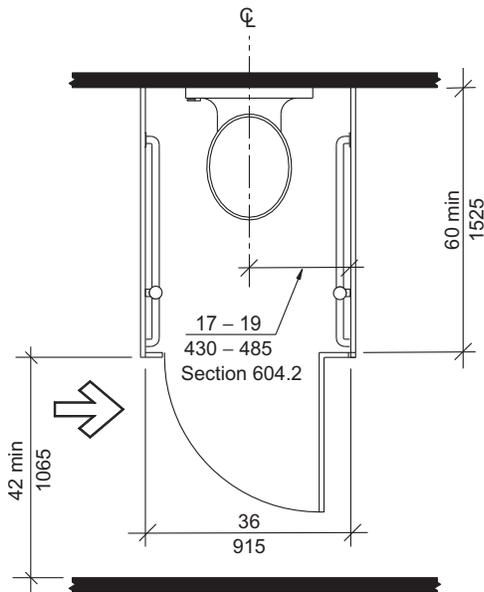


FIGURE 604.10
AMBULATORY ACCESSIBLE COMPARTMENT

604.10.1 General. Ambulatory accessible compartments shall comply with Section 604.10.

604.10.2 Size. The minimum area of an ambulatory accessible compartment shall be 60 inches (1525 mm) minimum in depth and 36 inches (915 mm) in width.

604.10.3 Doors. Toilet compartment doors, including door hardware, shall comply with Section 404, except if the approach is to the latch side of the compartment door the 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 Section 404.2.6 shall be placed on both sides of the door near the latch. Compartment doors shall not swing into the required minimum area of the compartment.

Exception: Door maneuvering clearance complying with Section 404.2.3.2 shall not be required on the compartment side of the door.

604.10.4 Grab bars. Grab bars shall comply with Section 609. Side wall grab bars complying with Section 604.5.1 shall be provided on both sides of the compartment.

604.11 Water closets and toilet compartments for children's use.

604.11.1 General. Accessible water closets and toilet compartments primarily for children's use shall comply with Section 604.11.

604.11.2 Location. The water closet primarily for children's use 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. Water closets located in ambulatory accessible toilet compartments specified in Section 604.10 shall be located as specified in Section 604.2.

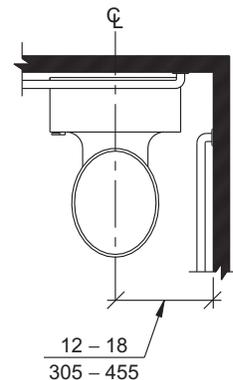


FIGURE 604.11.2
CHILDREN'S WATER CLOSET LOCATION

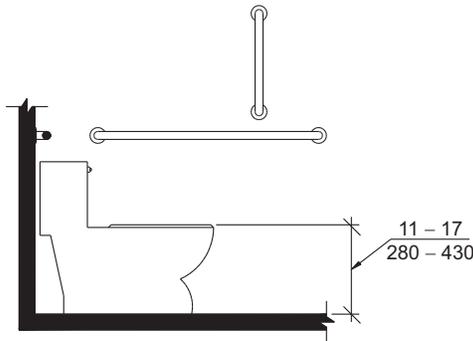
604.11.3 Clearance. A clearance around the water closet primarily for children's use complying with Section 604.3 shall be provided.

604.11.4 Height. The height of water closet seats primarily for children's use shall be 11 inches (280 mm) minimum and 17 inches (430 mm) maximum above the floor, measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

604.11.5 Grab bars. Grab bars for water closets primarily for children's use shall comply with Section 604.5.

604.11.6 Flush controls. Flush controls primarily for children's use shall be hand operated or automatic. Hand operated flush controls shall comply with Sections 309.2 and 309.4 and shall be installed 36 inches (915 mm) maximum above the floor. Flush controls shall be located on the open side of the water closet.

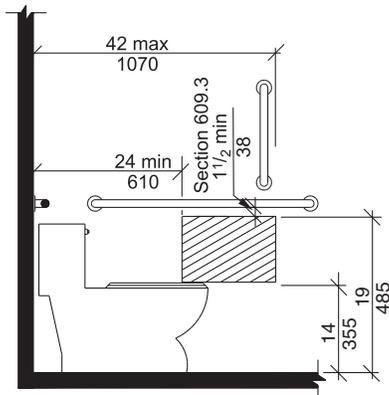
Exception: In ambulatory accessible compartments complying with Section 604.10, flush controls shall be permitted to be located on either side of the water closet.



Note: For adult dimensions see Figure 604.4

FIGURE 604.11.4
CHILDREN'S WATER CLOSET HEIGHT

604.11.7 Dispensers. Toilet paper dispensers primarily for children's use shall comply with Section 309.4. The outlet of dispensers shall be located within an area 24 inches (610 mm) minimum and 42 inches (1065 mm) maximum from the rear wall. The outlet of the dispenser shall be 14 inches (355 mm) minimum and 19 inches (485 mm) maximum above the floor. There shall be a clearance of 1½ inches (38 mm) minimum below the grab bar. Dispensers shall not be of a type that control delivery or do not allow continuous paper flow.



Note: For adult dimensions see Figure 604.4

FIGURE 604.11.7
CHILDREN'S DISPENSER OUTLET LOCATION

604.11.8 Toilet compartments. Toilet compartments primarily for children's use shall comply with Sections 604.9 and 604.10, as applicable.

SECTION 605
URINALS

605.1 General. Accessible urinals shall comply with Section 605.

605.2 Height and depth. Urinals shall be of the stall type or shall be of the wall hung type with the rim at 17 inches (430 mm) maximum above the floor. Wall hung urinals shall be 13½ inches (345 mm) minimum in depth measured from the outer face of the urinal rim to the wall.

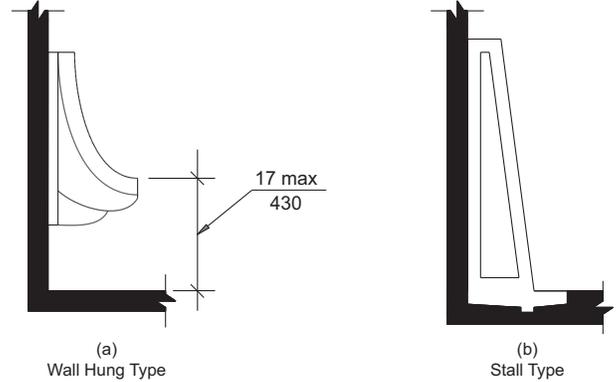


FIGURE 605.2
HEIGHT OF URINALS

605.3 Clear floor space. A clear floor space complying with Section 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 Section 309.

SECTION 606
LAVATORIES AND SINKS

606.1 General. Accessible lavatories and sinks shall comply with Section 606.

606.2 Clear floor space. A clear floor space complying with Section 305.3, positioned for forward approach, shall be provided. Knee and toe clearance complying with Section 306 shall be provided. The dip of the overflow shall not be considered in determining knee and toe clearances.

Exceptions:

1. A parallel approach complying with Section 305 and centered on the sink, shall be permitted to a kitchen sink in a space where a cook top or conventional range is not provided.
2. The requirement for knee and toe clearance shall not apply to 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.
3. A knee clearance of 24 inches (610 mm) minimum above the floor shall be permitted at lavatories and sinks used primarily by children ages 6 through 12 where the rim or counter surface is 31 inches (785 mm) maximum above the floor.
4. A parallel approach complying with Section 305 and centered on the sink, shall be permitted at lavatories and sinks used primarily by children ages 5 and younger.
5. The requirement for knee and toe clearance shall not apply to more than one bowl of a multibowl sink.
6. A parallel approach complying with Section 305 and centered on the sink, shall be permitted at wet bars.
7. A parallel approach complying with Section 305 shall be permitted to a service sink requiring a deep bowl.

606.3 Height. The front of lavatories and sinks shall be 34 inches (865 mm) maximum above the floor, measured to the higher of the rim or counter surface.

Exception: 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 Section 606.3.

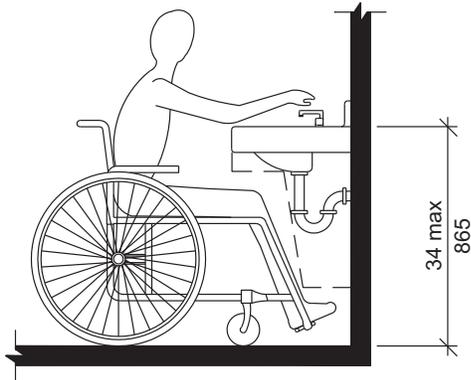


FIGURE 606.3
HEIGHT OF LAVATORIES AND SINKS

606.4 Faucets. Faucets shall comply with Section 309. Hand-operated metering faucets shall remain open for 10 seconds minimum.

606.5 Lavatories with enhanced reach range. Where enhanced reach range is required at lavatories, faucets and soap dispenser controls shall have a reach depth of 11 inches (280 mm) maximum or, if automatic, shall be activated within a reach depth of 11 inches (280 mm) maximum. Water and soap flow shall be provided with a reach depth of 11 inches (280 mm) maximum.

606.6 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.

SECTION 607
BATHTUBS

607.1 General. Accessible bathtubs shall comply with Section 607.

607.2 Clearance. A clearance in front of bathtubs extending the length of the bathtub and 30 inches (760 mm) minimum in depth shall be provided. 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.

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 Section 610.

607.4 Grab bars. Grab bars shall comply with Section 609 and shall be provided in accordance with Section 607.4.1 or 607.4.2.

Exception: Grab bars shall not be required to be installed in a bathing facility for a single occupant accessed only through a private office and not for common use or public use, provided reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with Section 607.4.

607.4.1 Bathtubs with permanent seats. For bathtubs with permanent seats, grab bars complying with Section 607.4.1 shall be provided.

607.4.1.1 Back wall. Two horizontal grab bars shall be provided on the back wall, one complying with Section 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 located 15 inches (380 mm) maximum from the head end wall and extend to 12 inches (305 mm) maximum from the control end wall.

607.4.1.2 control end wall. Control end wall grab bars shall comply with Section 607.4.1.2.

Exception: An L-shaped continuous grab bar of equivalent dimensions and positioning shall be permitted to serve the function of separate vertical and horizontal grab bars.

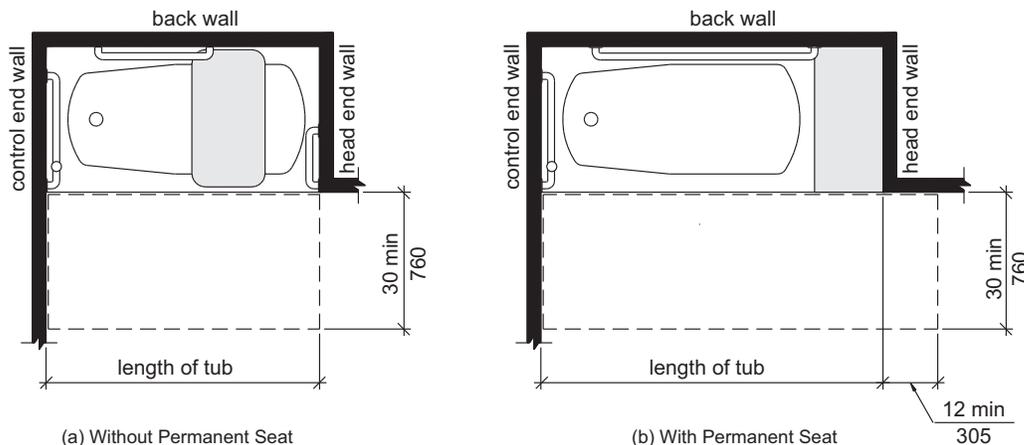
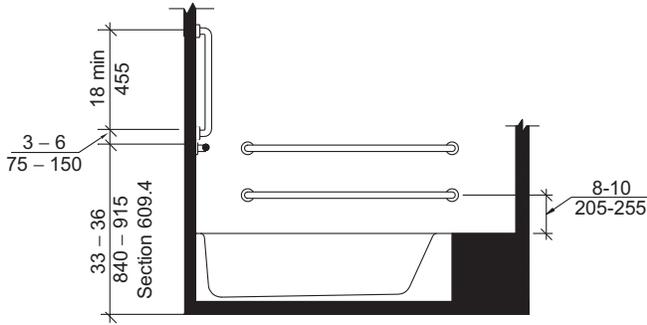
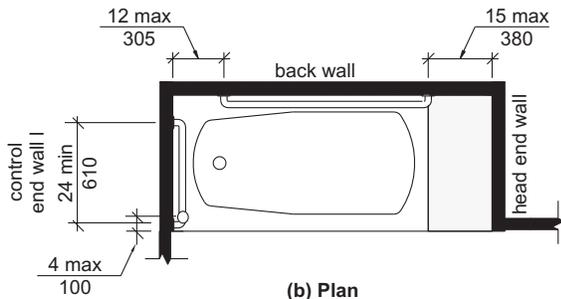


FIGURE 607.2
CLEARANCE FOR BATHTUBS



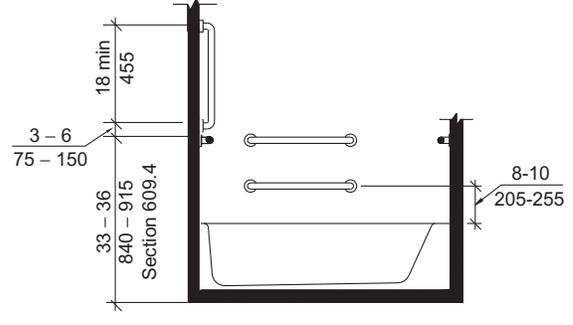
(a) Elevation



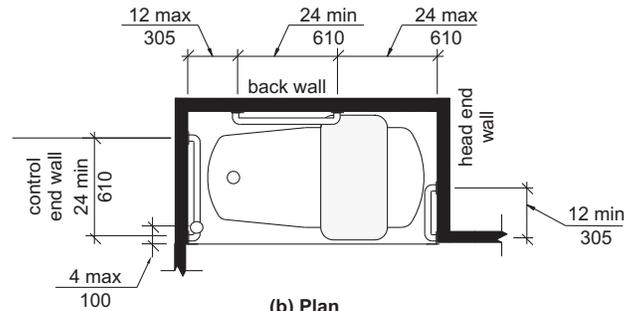
(b) Plan

FIGURE 607.4.1

GRAB BARS FOR BATHTUBS WITH PERMANENT SEATS



(a) Elevation



(b) Plan

FIGURE 607.4.2

GRAB BARS FOR BATHTUBS WITHOUT PERMANENT SEATS

607.4.1.2.1 Horizontal grab bar. A horizontal grab bar 24 inches (610 mm) minimum in length shall be provided on the control end wall beginning near the front edge of the bathtub and extending toward the inside corner of the bathtub.

607.4.1.2.2 Vertical grab bar. A vertical grab bar 18 inches (455 mm) minimum in length shall be provided on the control end wall 3 inches (75 mm) minimum and 6 inches (150 mm) maximum above the horizontal grab bar, and 4 inches (100 mm) maximum inward from the front edge of the bathtub.

607.4.2 Bathtubs without permanent seats. For bathtubs without permanent seats, grab bars complying with Section 607.4.2 shall be provided.

607.4.2.1 Back wall. Two horizontal grab bars shall be provided on the back wall, one complying with Section 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 24 inches (610 mm) minimum in length, located 24 inches (610 mm) maximum from the head end wall and extend to 12 inches (305 mm) maximum from the control end wall.

607.4.2.2 Control end wall. Control end wall grab bars shall comply with Section 607.4.1.2.

607.4.2.3 Head end wall. A horizontal grab bar 12 inches (305 mm) minimum in length shall be provided on the head end wall at the front edge of the bathtub.

607.5 Controls. Controls, other than drain stoppers, shall be provided on an end wall, located 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 Section 309.4.

607.6 Hand shower. A hand shower with a hose 59 inches (1500 mm) minimum in length, that can be used as both a fixed shower head and as a hand shower, shall be provided. The hand shower shall have a control with a nonpositive shut-off feature. Where provided, an adjustable-height hand shower mounted on a vertical bar shall be installed so as to not obstruct the use of grab bars.

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 bathtub.

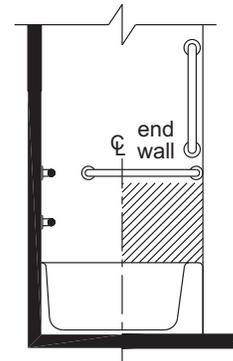


FIGURE 607.5
LOCATION OF BATHTUB CONTROLS

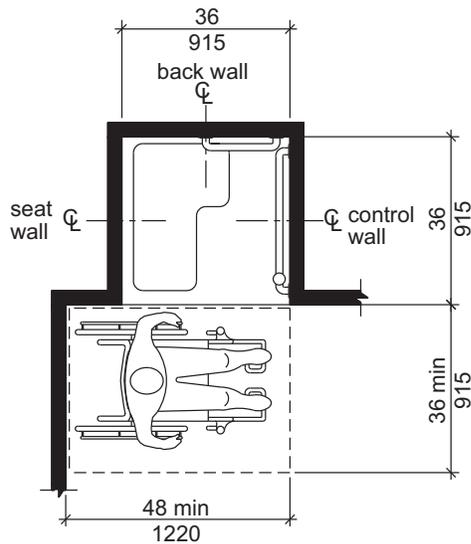
607.8 Water temperature. Bathtubs shall deliver water that is 120°F (49°C) maximum.

**SECTION 608
SHOWER COMPARTMENTS**

608.1 General. Accessible shower compartments shall comply with Section 608.

608.2 Size, clearance and seat. Shower compartments shall have sizes, clearances and seats complying with Section 608.2.

608.2.1 Transfer-type shower compartments. Transfer-type shower compartments shall comply with Section 608.2.1.



Note: inside finished dimensions measured at the center points of opposing sides

**FIGURE 608.2.1
TRANSFER-TYPE SHOWER COMPARTMENT
SIZE AND CLEARANCE**

608.2.1.1 Size. Transfer-type shower compartments shall have a clear inside dimension of 36 inches (915 mm) in width and 36 inches (915 mm) in depth, measured at the center point of opposing sides. An entry 36 inches (915 mm) minimum in width shall be provided.

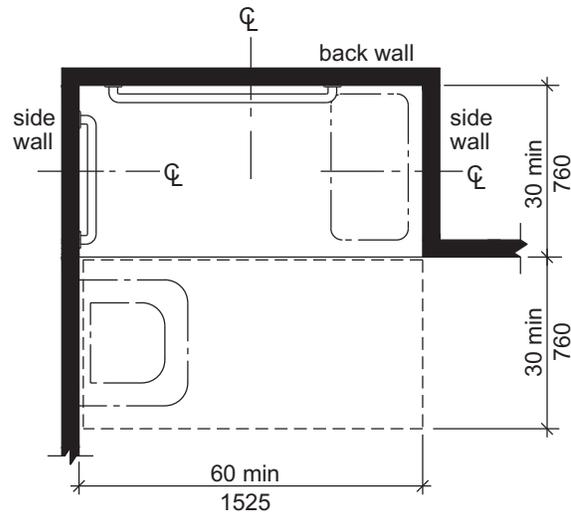
608.2.1.2 Clearance. A clearance of 48 inches (1220 mm) minimum in length measured perpendicular from the control wall, and 36 inches (915 mm) minimum in depth shall be provided adjacent to the open face of the compartment.

608.2.1.3 Seat. A folding or non-folding seat complying with Section 610 shall be provided on the wall opposite the control wall.

Exception: A seat is not required to be installed in a shower for a single occupant, accessed only through a private office and not for common use or public use, provided reinforcement has been installed in walls and located so as to permit the installation of a shower seat.

608.2.2 Standard roll-in-type shower compartments. Standard roll-in-type shower compartments shall comply with Section 608.2.2.

608.2.2.1 Size. Standard roll-in-type shower compartments shall have a clear inside dimension of 60 inches (1525 mm) minimum in width and 30 inches (760 mm) minimum in depth, measured at the center point of opposing sides. An entry 60 inches (1525 mm) minimum in width shall be provided.



Note: inside finished dimensions measured at the center points of opposing sides

**FIGURE 608.2.2
STANDARD ROLL-IN-TYPE SHOWER
COMPARTMENT SIZE AND CLEARANCE**

608.2.2.2 Clearance. A clearance of 60 inches (1525 mm) minimum in length adjacent to the 60-inch (1525 mm) width of the open face of the shower compartment, and 30 inches (760 mm) minimum in depth, shall be provided.

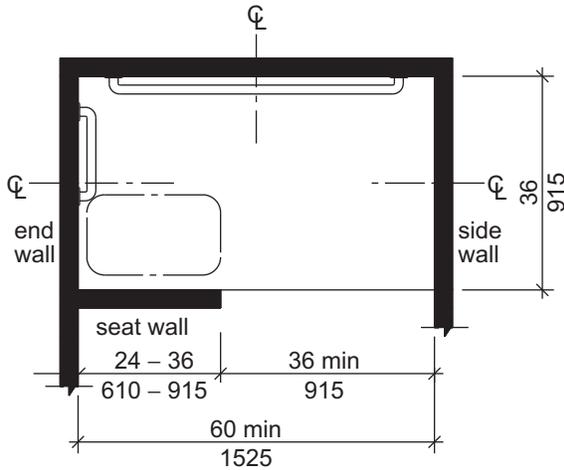
Exception: A lavatory complying with Section 606 shall be permitted at the end of the clearance opposite the seat.

608.2.2.3 Seat. A folding seat complying with Section 610 shall be provided on an end wall.

Exceptions:

1. A seat is not required to be installed in a shower for a single occupant accessed only through a private office and not for common use or public use, provided reinforcement has been installed in walls and located so as to permit the installation of a shower seat.
2. A fixed seat shall be permitted where the seat does not overlap the minimum clear inside dimension required by Section 608.2.2.1.

608.2.3 Alternate roll-in-type shower compartments. Alternate roll-in-type shower compartments shall comply with Section 608.2.3.



Note: inside finished dimensions measured at the center points of opposing sides

**FIGURE 608.2.3
ALTERNATE ROLL-IN-TYPE SHOWER
COMPARTMENT SIZE AND CLEARANCE**

608.2.3.1 Size. Alternate roll-in shower compartments shall have a clear inside dimension of 60 inches (1525 mm) minimum in width, and 36 inches (915 mm) in depth, measured at the center point of opposing sides. An entry 36 inches (915 mm) minimum in width shall be provided at one end of the 60-inch (1525 mm) width of the compartment. A seat wall, 24 inches (610 mm) minimum and 36 inches (915 mm) maximum in length, shall be provided on the entry side of the compartment.

608.2.3.2 Seat. A folding seat complying with Section 610 shall be provided on the seat wall opposite the back wall.

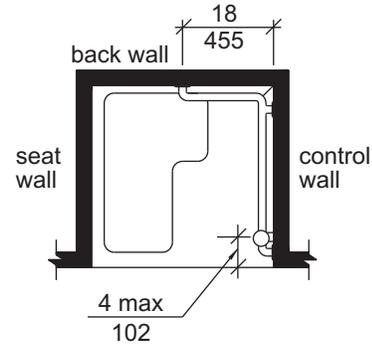
Exception: A seat is not required to be installed in a shower for a single occupant, accessed only through a private office and not for common use or public use, provided reinforcement has been installed in walls and located so as to permit the installation of a shower seat.

608.3 Grab bars. Grab bars shall comply with Section 609 and shall be provided in accordance with Section 608.3. Where multiple grab bars are used, required horizontal grab bars shall be installed at the same height above the floor.

Exception: Grab bars are not required to be installed in a shower for a single occupant, accessed only through a private office and not for common use or public use, provided reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with Section 608.3.

608.3.1 Transfer-type showers. Grab bars for transfer type showers shall comply with Section 608.3.1.

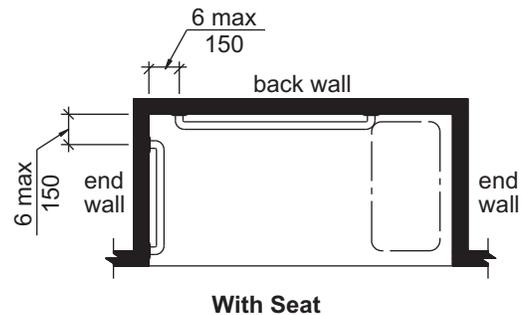
608.3.1.1 Horizontal grab bars. Horizontal grab bars shall be provided across the control wall and on the back wall to a point 18 inches (455 mm) from the control wall.



**FIGURE 608.3.1
GRAB BARS IN TRANSFER-TYPE SHOWERS**

608.3.1.2 Vertical grab bar. A vertical grab bar 18 inches (455 mm) minimum in length shall be provided on the control end wall 3 inches (75 mm) minimum and 6 inches (150 mm) maximum above the horizontal grab bar, and 4 inches (100 mm) maximum inward from the front edge of the shower.

608.3.2 Standard roll-in-type showers. In standard roll-in type showers, a grab bar shall be provided on the back wall beginning at the edge of the seat. The grab bars shall not be provided above the seat. The back wall grab bar shall extend the length of the wall but shall not be required to exceed 48 inches (1220 mm) in length. Where a side wall is provided opposite the seat within 72 inches (1830 mm) of the seat wall, a grab bar shall be provided on the side wall opposite the seat. The side wall grab bar shall extend the length of the wall but shall not be required to exceed 30 inches (760 mm) in length. Grab bars shall be 6 inches (150 mm) maximum from the adjacent wall.



**FIGURE 608.3.2
GRAB BARS IN STANDARD ROLL-IN-TYPE SHOWERS**

608.3.3 Alternate roll-in-type showers. In alternate roll-in type showers, grab bars shall be provided on the back wall and the end wall adjacent to the seat. Grab bars shall not be provided above the seat. Grab bars shall be 6 inches (150 mm) maximum from the adjacent wall.

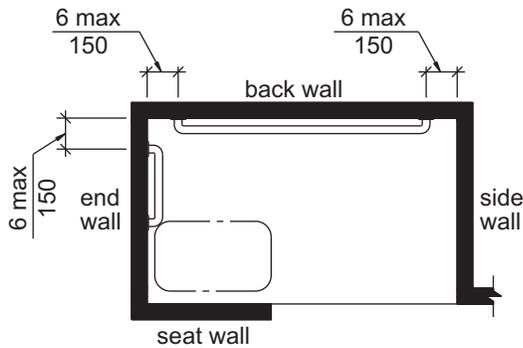


FIGURE 608.3.3
GRAB BARS IN ALTERNATE ROLL-IN-TYPE SHOWERS

608.4 Controls and hand showers. Controls and hand showers shall comply with Sections 608.4 and 309.4.

608.4.1 Transfer-type showers. In transfer-type showers, the controls and hand shower shall be located:

1. On the control wall opposite the seat.
2. At a height of 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor, and
3. 15 inches (380 mm) maximum, from the centerline of the control wall toward the shower opening.

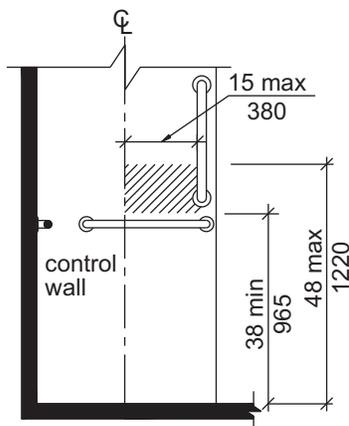
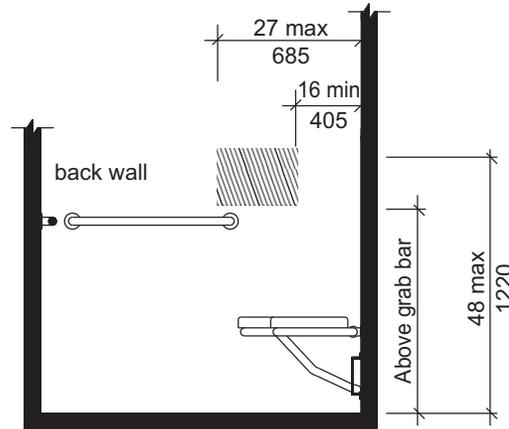


FIGURE 608.4.1
TRANSFER-TYPE SHOWER
CONTROLS AND HANDSHOWER LOCATION

608.4.2 Standard roll-in showers. In standard roll-in showers, the controls and hand shower shall be located on the back wall above the grab bar, 48 inches (1220 mm) maximum above the shower floor and 16 inches (405 mm) minimum and 27 inches (685 mm) maximum from the end wall behind the seat.

608.4.3 Alternate roll-in showers. In alternate roll-in showers, the controls and hand shower shall be located 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor. In alternate roll-in showers with controls and hand shower located on the end wall adjacent to the seat, the controls and hand shower

shall be 27 inches (685 mm) maximum from the seat wall. In alternate roll-in showers with the controls and hand shower located on the back wall opposite the seat, the controls and hand shower shall be located within 15 inches (380 mm), left or right, of the centerline of the seat.



With Seat
FIGURE 608.4.2
STANDARD ROLL-IN-TYPE SHOWER
CONTROL AND HANDSHOWER LOCATION

608.5 Hand showers. A hand shower with a hose 59 inches (1500 mm) minimum in length, that can be used both as a fixed shower head and as a hand shower, shall be provided. The hand shower shall have a control with a nonpositive shut-off feature. Where provided, an adjustable-height hand shower mounted on a vertical bar shall be installed so as to not obstruct the use of grab bars.

Exception: A fixed shower head located 48 inches (1220 mm) maximum above the shower floor shall be permitted in lieu of a hand shower when approved by the administrative authority due to concerns for security or safety.

608.6 Thresholds. Thresholds in roll-in-type shower compartments shall be 1/2 inch (13 mm) maximum in height in accordance with Section 303. In transfer-type shower compartments, thresholds 1/2 inch (13 mm) maximum in height shall be beveled, rounded, or vertical.

Exception: In existing facilities, in transfer-type shower compartments where provision of a threshold 1/2 inch (13 mm) in height would disturb the structural reinforcement of the floor slab, a threshold 2 inches (51 mm) maximum in height shall be permitted.

608.7 Shower enclosures. Shower compartment enclosures for shower compartments shall not obstruct controls or obstruct transfer from wheelchairs onto shower seats.

608.8 Water temperature. Showers shall deliver water that is 120°F (49°C) maximum.

SECTION 609
GRAB BARS

609.1 General. Grab bars in accessible toilet or bathing facilities shall comply with Section 609.

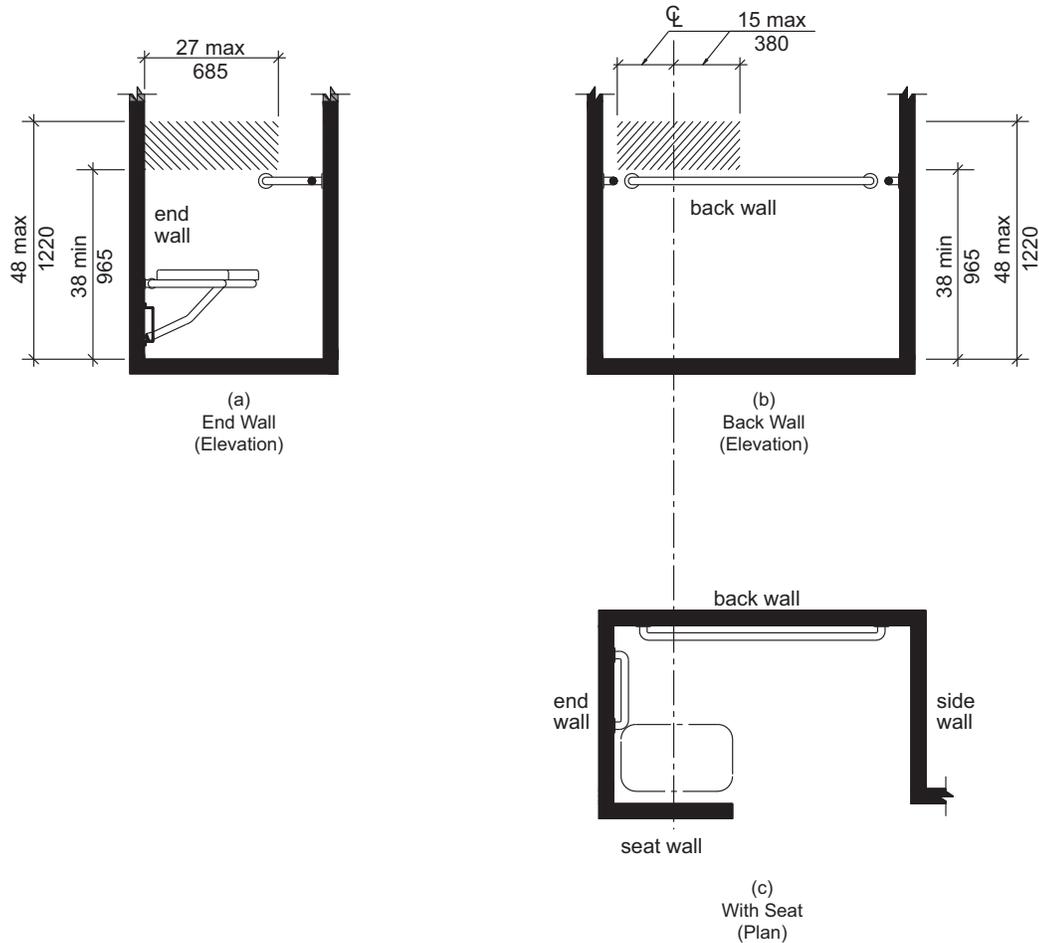


FIGURE 608.4.3
ALTERNATE ROLL-IN-TYPE SHOWER CONTROL
AND HANDSHOWER LOCATION

609.2 Cross section. Grab bars shall have a cross section complying with Section 609.2.1 or 609.2.2.

609.2.1 Circular cross section. Grab bars with a circular cross section shall have an outside diameter of $1\frac{1}{4}$ inch (32 mm) minimum and 2 inches (51 mm) maximum.

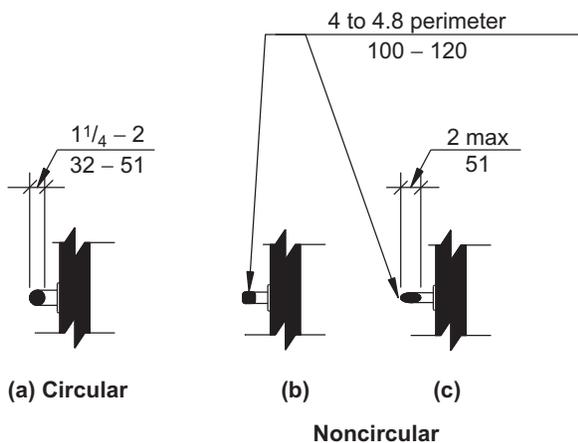


FIGURE 609.2
SIZE OF GRAB BARS

609.2.2 Noncircular cross section. Grab bars with a non-circular cross section 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.

609.3 Spacing. The space between the wall and the grab bar shall be $1\frac{1}{2}$ inches (38 mm). The space between the grab bar and projecting objects below and at the ends of the grab bar shall be $1\frac{1}{2}$ inches (38 mm) minimum. The space between the grab bar and projecting objects above the grab bar shall be 12 inches (305 mm) minimum.

Exceptions:

1. The space between the grab bars and shower controls, shower fittings, and other grab bars above the grab bar shall be permitted to be $1\frac{1}{2}$ inches (38 mm) minimum.
2. Recessed dispensers projecting from the wall $\frac{1}{4}$ inch (6.4 mm) maximum measured from the face of the dispenser and complying with Section 604.7 shall be permitted within the 12-inch (305 mm) space above and the $1\frac{1}{2}$ inch (38 mm) spaces below and at the ends of the grab bar.

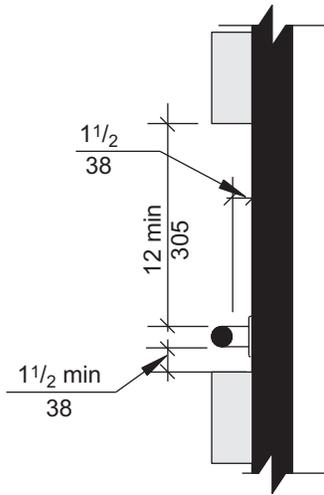


FIGURE 609.3
SPACING OF GRAB BARS

609.4 Position of grab bars.

609.4.1 General. Grab bars shall be installed in a horizontal position, 33 inches (840 mm) minimum and 36 inches (915 mm) maximum above the floor measured to the top of the gripping surface or shall be installed as required by Items 1 through 3.

1. The lower grab bar on the back wall of a bathtub shall comply with Section 607.4.1.1 or 607.4.2.1.
2. Vertical grab bars shall comply with Sections 604.5.1, 607.4.1.2.2, 607.4.2.2, and 608.3.1.2.
3. Grab bars at water closets primarily for children’s use shall comply with Section 609.4.2.

609.4.2 Position of children’s grab bars. At water closets primarily for children’s use complying with Section 604.1.1, grab bars shall be installed in a horizontal position 18 inches (455 mm) minimum and 27 inches (685 mm) maximum above the floor measured to the top of the gripping surface.

609.5 Surface hazards. Grab bars, and any wall or other surfaces adjacent to grab bars, shall be free of sharp or abrasive elements. Edges shall be rounded.

609.6 Fittings. Grab bars shall not rotate within their fittings.

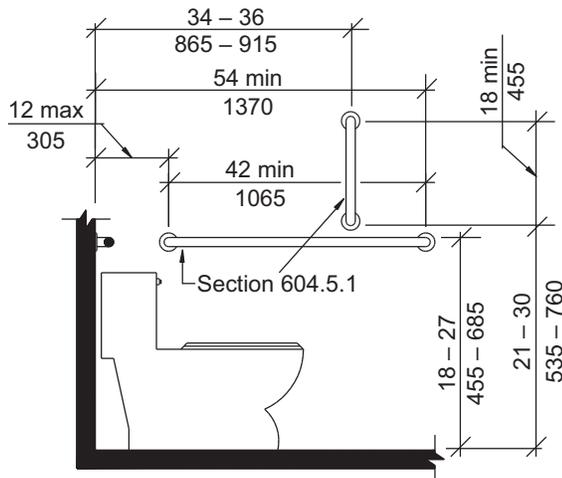
609.7 Installation and configuration. Grab bars shall be installed in any manner that provides a gripping surface at the locations specified in this standard and does not obstruct the clear floor space. Horizontal and vertical grab bars shall be permitted to be separate bars, a single piece bar, or combination thereof.

609.8 Structural strength. Allowable stresses shall not be exceeded for materials used where 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.

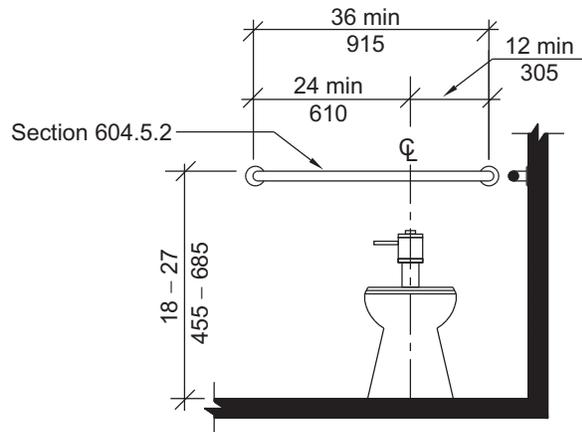
SECTION 610
SEATS

610.1 General. Seats in accessible bathtubs and shower compartments shall comply with Section 610.

610.2 Bathtub seats. The height of bathtub seats shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the bathroom floor, measured to the top of the seat. Removable in-tub seats shall be 15 inches (380 mm) minimum and 16 inches (405 mm) maximum in depth. Removable in-tub seats shall be capable of secure placement. Permanent seats shall be 15 inches (380 mm) minimum in depth and shall extend from the back wall to or beyond the outer edge of the bathtub. Permanent seats shall be positioned at the head end of the bathtub.



Note: For adult dimensions see Figure 604.5.1
(a) Side Wall View



Note: For adult dimensions see Figure 604.5.2
(b) Rear Wall View

FIGURE 609.4.2
POSITION OF CHILDREN’S GRAB BARS

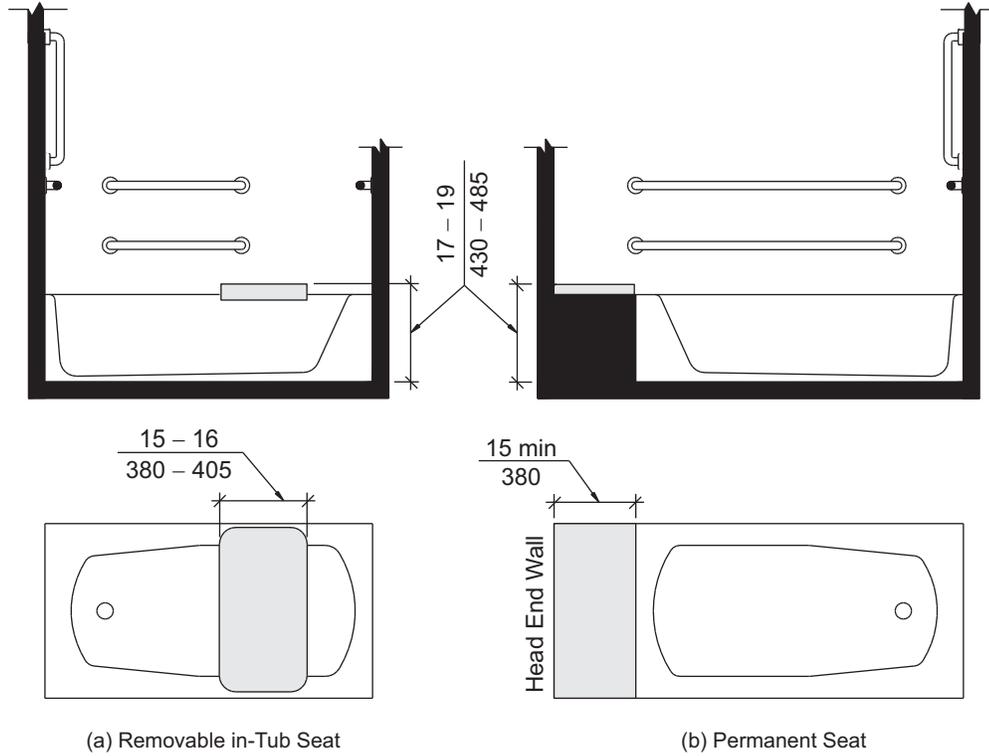


FIGURE 610.2
BATHTUB SEATS

610.3 Shower compartment seats. The height of shower compartment seats shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the bathroom floor, measured to the top of the seat. In transfer-type and alternate roll-in-type showers, the seat shall extend along the seat wall to a point within 3 inches (75 mm) of the compartment entry. In standard roll-in-type showers, the seat shall extend from the control wall to a point within 3 inches (75 mm) of the compartment entry. Seats shall comply with Section 610.3.1 or 610.3.2.

minimum and 23 inches (585 mm) maximum from the main seat wall.

610.4 Structural strength. Allowable stresses shall not be exceeded for materials used where a vertical or horizontal force of 250 pounds (1112 N) is applied at any point on the seat, fastener mounting device, or supporting structure.

Exception: In standard roll-in type showers exceeding 36 inches (915 mm) in depth, the seat shall not be required to exceed 32 inches (815 mm) in length.

610.3.1 Rectangular seats. The rear edge of a rectangular seat shall be 2½ 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 1½ inches (38 mm) maximum from the back wall of a transfer-type shower and 1½ inches (38 mm) maximum from the control wall of a roll-in-type shower.

610.3.2 L-shaped seats. The rear edge of an L-shaped seat shall be 2½ 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 1½ 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)

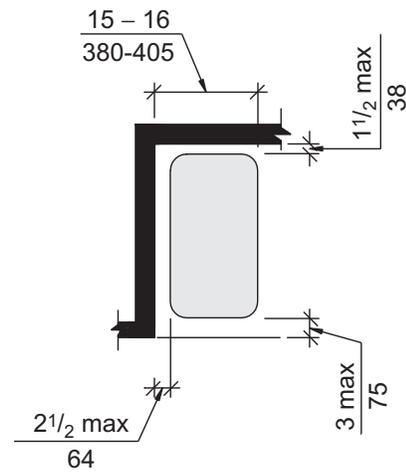


FIGURE 610.3.1
RECTANGULAR SHOWER COMPARTMENT SEAT

M
N
M
M
N

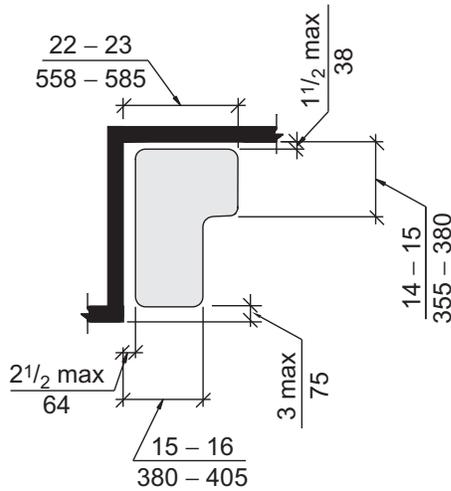


FIGURE 610.3.2
L-SHAPED SHOWER COMPARTMENT SEAT

**SECTION 611
WASHING MACHINES AND CLOTHES DRYERS**

611.1 General. Accessible washing machines and clothes dryers shall comply with Section 611.

611.2 Clear floor space. A clear floor space complying with Section 305, positioned for parallel approach, shall be provided.

vided. For top loading machines, the clear floor space shall be centered on the appliance. For front loading machines, the centerline of the clear floor space shall be offset 24 inches (610 mm) maximum from the centerline of the door opening.

611.3 Operable parts. Operable parts, including doors, lint screens, detergent and bleach compartments, shall comply with Section 309.

611.4 Height. Top loading machines shall have the door to the laundry compartment 36 inches (915 mm) maximum above the floor. Front loading machines shall have the bottom of the opening to the laundry compartment 15 inches (380 mm) minimum and 36 inches (915 mm) maximum above the floor.

**SECTION 612
SAUNAS AND STEAM ROOMS**

612.1 General. Saunas and steam rooms shall comply with Section 612.

612.2 Bench. Where seating is provided in saunas and steam rooms, at least one bench shall comply with Section 903. Doors shall not swing into the clear floor space required by Section 903.2.

612.3 Turning space. A turning space complying with Section 304 shall be provided within saunas and steam rooms.

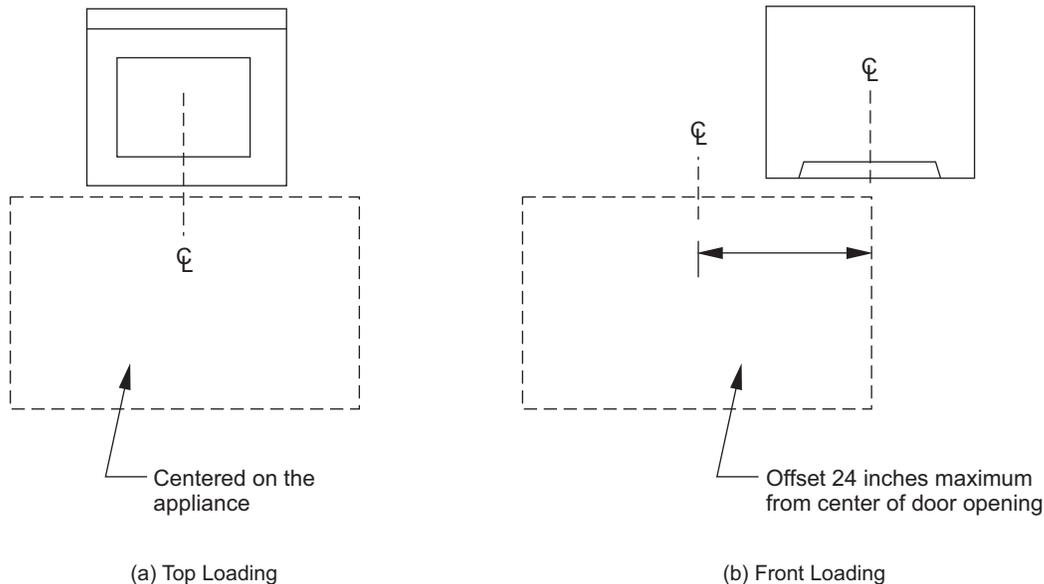


FIGURE 611.2
CLEAR FLOOR SPACE

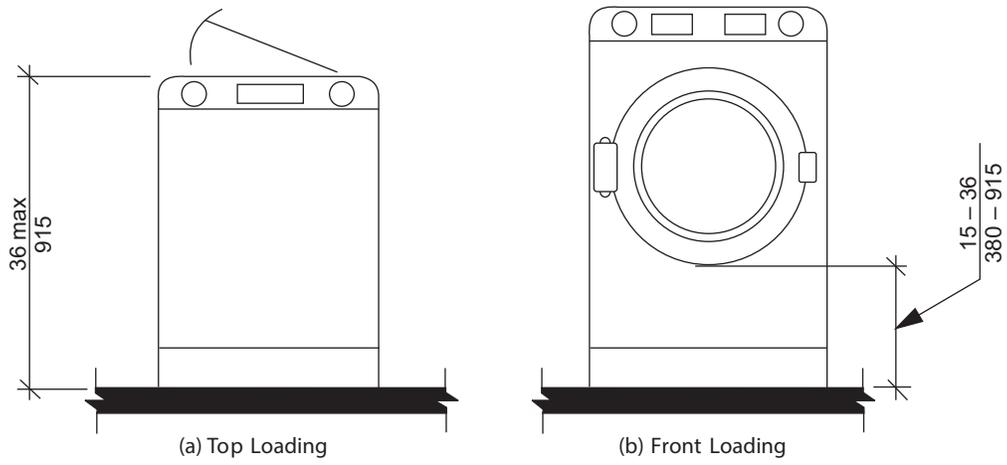


FIGURE 611.4
HEIGHT OF LAUNDRY EQUIPMENT

CHAPTER 7

COMMUNICATION ELEMENTS AND FEATURES

SECTION 701 GENERAL

701.1 Scope. Communications elements and features required to be accessible by the scoping provisions adopted by the administrative authority shall comply with the applicable provisions of Chapter 7.

SECTION 702 ALARMS

702.1 General. Accessible audible and visible alarms and notification appliances shall be installed in accordance with NFPA 72 listed in Section 105.2.2, be powered by a commercial light and power source, be permanently connected to the wiring of the premises electric system, and be permanently installed.

SECTION 703 SIGNS

703.1 General. Accessible signs shall comply with Section 703. Tactile signs shall contain both raised characters and braille. Where signs with both visual and raised characters are required, either one sign with both visual and raised characters, or two separate signs, one with visual, and one with raised characters, shall be provided.

703.1.1 Designations. Interior and exterior signs identifying permanent rooms and spaces shall comply with Sections 703.1, 703.2, and 703.3.

Exception: Exterior signs that are not located at the door to the space they serve shall not be required to comply with Section 703.3.

703.1.2 Directional and informational signs. Signs that provide direction to or information about interior spaces and facilities of the site shall comply with Section 703.2.

703.1.3 Pictograms. Where pictograms are provided as designations of permanent interior rooms and spaces, the

pictograms shall comply with Section 703.5 and shall have text descriptors located directly below the pictogram field and complying with Sections 703.2 and 703.3.

Exception: Pictograms that provide information about a room or space, such as “No Smoking,” occupant logos, and the International Symbol of Accessibility, are not required to have text descriptors.

703.2 Visual Characters.

703.2.1 General. Visual characters shall comply with the following:

1. Visual characters that also serve as raised characters shall comply with Section 703.3, or
2. Visual characters on VMS signage shall comply with Section 703.7, or
3. Visual characters not covered in items 1 and 2 shall comply with Section 703.2.

Exception: The visual and raised requirements of item 1 shall be permitted to be provided by two separate signs that provide corresponding information provided one sign complies with Section 703.2 and the second sign complies with Section 703.3.

703.2.2 Case. Characters shall be uppercase, lowercase, or a combination of both.

703.2.3 Style. Characters shall be conventional in form. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.2.4 Character Height. The uppercase letter “I” shall be used to determine the allowable height of all characters of a font. The uppercase letter “I” of the font shall have a minimum height complying with Table 703.2.4. Viewing distance shall be measured as the horizontal distance between the character and an obstruction preventing further approach towards the sign.

Exception: In assembly seating where the maximum viewing distance is 100 feet (30.5 m) or greater, the height of the uppercase “I” of fonts shall be permitted

**TABLE 703.2.4
VISUAL CHARACTER HEIGHT**

HEIGHT ABOVE FLOOR TO 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 6 feet (1830 mm)	$\frac{5}{8}$ inch (16 mm)
	6 feet (1830 mm) and greater	$\frac{5}{8}$ inch (16 mm), plus $\frac{1}{8}$ inch (3.2 mm) per foot (305 mm) of viewing distance above 6 feet (1830 mm)
Greater than 70 inches (1780 mm) to less than or equal to 120 inches (3050 mm)	Less than 15 feet (4570 mm)	2 inches (51 mm), plus $\frac{1}{8}$ inch (3.2 mm) per foot (305 mm) of viewing distance above 15 feet (4570 mm)
	15 feet (4570 mm) and greater	
Greater than 120 inches (3050 mm)	Less than 21 feet (6400 mm)	3 inches (75 mm), plus $\frac{1}{8}$ inch (3.2 mm) per foot (305 mm) of viewing distance above 21 feet (6400 mm)
	21 feet (6400 mm) and greater	

to be 1 inch (25 mm) for every 30 feet (9145 mm) of viewing distance, provided the character height is 8 inches (205 mm) minimum. Viewing distance shall be measured as the horizontal distance between the character and where someone is expected to view the sign.

703.2.5 Character Width. The uppercase letter “O” shall be used to determine the allowable width of all characters of a font. The width of the uppercase letter “O” of the font shall be 55 percent minimum and 110 percent maximum of the height of the uppercase “I” of the font.

703.2.6 Stroke Width. The uppercase letter “I” shall be used to determine the allowable stroke width of all characters of a font. The stroke width shall be 10 percent minimum and 30 percent maximum of the height of the uppercase “I” of the font.

703.2.7 Character Spacing. Spacing shall be measured between the two closest points of adjacent characters within a message, excluding word spaces. Spacing between individual characters shall be 10 percent minimum and 35 percent maximum of the character height.

703.2.8 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.

Exception: In assembly seating where the maximum viewing distance is 100 feet (30.5 m) or greater, the spacing between the baselines of separate lines of characters within a message shall be permitted to be 120 percent minimum and 170 percent maximum of the character height.

703.2.9 Height Above Floor. Visual characters shall be 40 inches (1015 mm) minimum above the floor of the viewing position, measured to the baseline of the character. Heights shall comply with Table 703.2.4, based on the size of the characters on the sign.

Exception: Visual characters indicating elevator car controls shall not be required to comply with Section 703.2.9.

703.2.10 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.

703.3 Raised Characters.

703.3.1 General. Raised characters shall comply with Section 703.3, and shall be duplicated in braille complying with Section 703.4.

703.3.2 Depth. Raised characters shall be raised $\frac{1}{32}$ inch (0.8 mm) minimum above their background.

703.3.3 Case. Characters shall be uppercase.

703.3.4 Style. Characters shall be sans serif. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.3.5 Character Height. The uppercase letter “I” shall be used to determine the allowable height of all characters

of a font. The height of the uppercase letter “I” of the font, measured vertically from the baseline of the character, shall be $\frac{5}{8}$ inch (16 mm) minimum, and 2 inches (51 mm) maximum.

Exception: Where separate raised and visual characters with the same information are provided, the height of the raised uppercase letter “I” shall be permitted to be $\frac{1}{2}$ inch (13 mm) minimum.

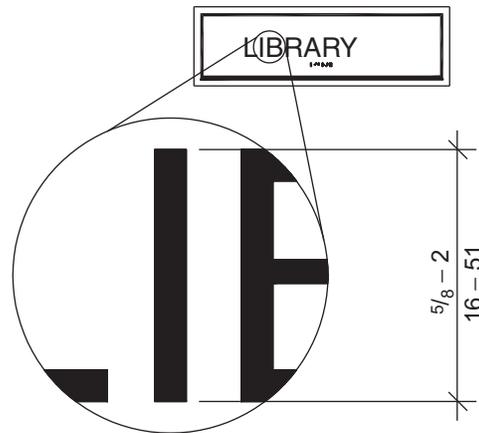


FIGURE 703.3.5 CHARACTER HEIGHT

703.3.6 Character Width. The uppercase letter “O” shall be used to determine the allowable width of all characters of a font. The width of the uppercase letter “O” of the font shall be 55 percent minimum and 110 percent maximum of the height of the uppercase “I” of the font.

703.3.7 Stroke Width. Raised character stroke width shall comply with Section 703.3.7. The uppercase letter “I” of the font shall be used to determine the allowable stroke width of all characters of a font.

703.3.7.1 Maximum. The stroke width shall be 15 percent maximum of the height of the uppercase letter “I” measured at the top surface of the character, and 30 percent maximum of the height of the uppercase letter “I” measured at the base of the character.

703.3.7.2 Minimum. When characters are both visual and raised, the stroke width shall be 10 percent minimum of the height of the uppercase letter “I”.

703.3.8 Character Spacing. Character spacing shall be measured between the two closest points of adjacent raised characters within a message, excluding word spaces. Spacing between individual raised characters shall be $\frac{1}{8}$ inch (3.2 mm) minimum measured at the top surface of the characters, $\frac{1}{16}$ inch (1.6 mm) minimum measured at the base of the characters, and four times the raised character stroke width maximum. Characters shall be separated from raised borders and decorative elements $\frac{3}{8}$ inch (9.5 mm) minimum.

703.3.9 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.

703.3.10 Height above Floor. Raised characters shall be 48 inches (1220 mm) minimum above the floor, measured to the baseline of the lowest raised character and 60 inches (1525 mm) maximum above the floor, measured to the baseline of the highest raised character.

Exception: Raised characters for elevator car controls shall not be required to comply with Section 703.3.10.

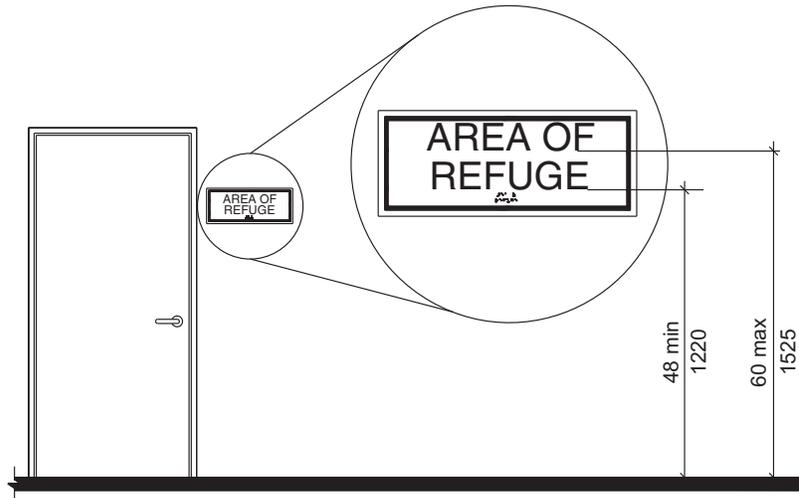
703.3.11 Location. Where a sign containing raised characters and braille is provided at a door, the sign shall be alongside the door at the latch side. Where a sign containing raised characters and braille is provided at double doors with one active leaf, the sign shall be located on the inactive leaf. Where a sign containing raised characters and braille is provided at double doors with two active leaves, the sign shall be to the right of the right-hand door. Where there is no wall space on the latch side of a single door, or to the right side of double doors, signs shall be on

the nearest adjacent wall. Signs containing raised characters and braille shall be located so that a clear floor area 18 inches (455 mm) minimum by 18 inches (455 mm) minimum, centered on the raised characters is provided beyond the arc of any door swing between the closed position and 45 degree open position.

Exception: Signs containing raised characters and braille shall be permitted on the push side of doors with closers and without hold-open devices.

703.3.12 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.

Exception: Where separate raised characters and visual characters with the same information are provided, raised characters are not required to have nonglare finish or to contrast with their background.



Note: For braille character mounting height see Section 703.4.5

FIGURE 703.3.10
HEIGHT OF RAISED CHARACTERS ABOVE FLOOR

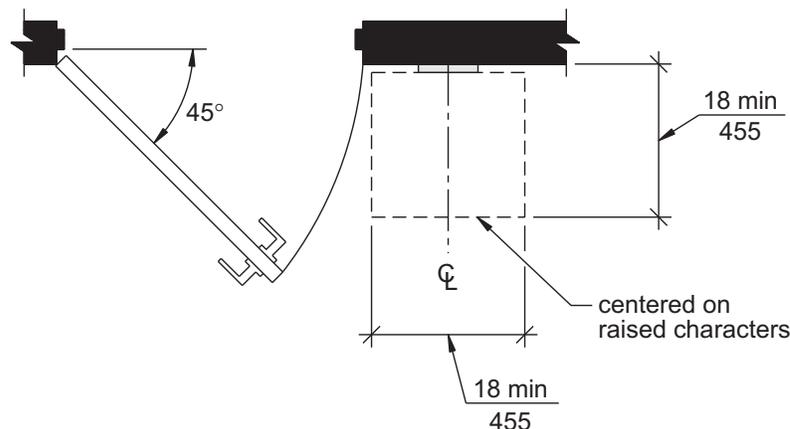


FIGURE 703.3.11
LOCATION OF SIGNS AT DOORS

703.4 Braille.

703.4.1 General. Braille shall be contracted (Grade 2) braille and shall comply with Section 703.4.

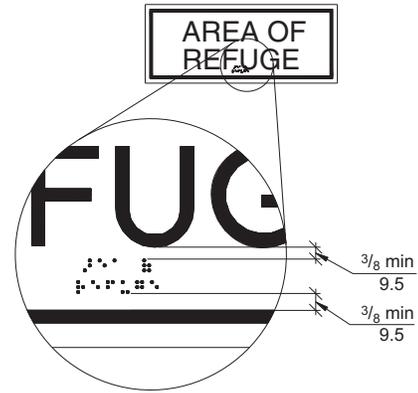
703.4.2 Uppercase letters. The indication of an uppercase letter or letters shall only be used before the first word of sentences, proper nouns and names, individual letters of the alphabet, initials, or acronyms.

703.4.3 Dimensions. Braille dots shall have a domed or rounded shape and shall comply with Table 703.4.3.

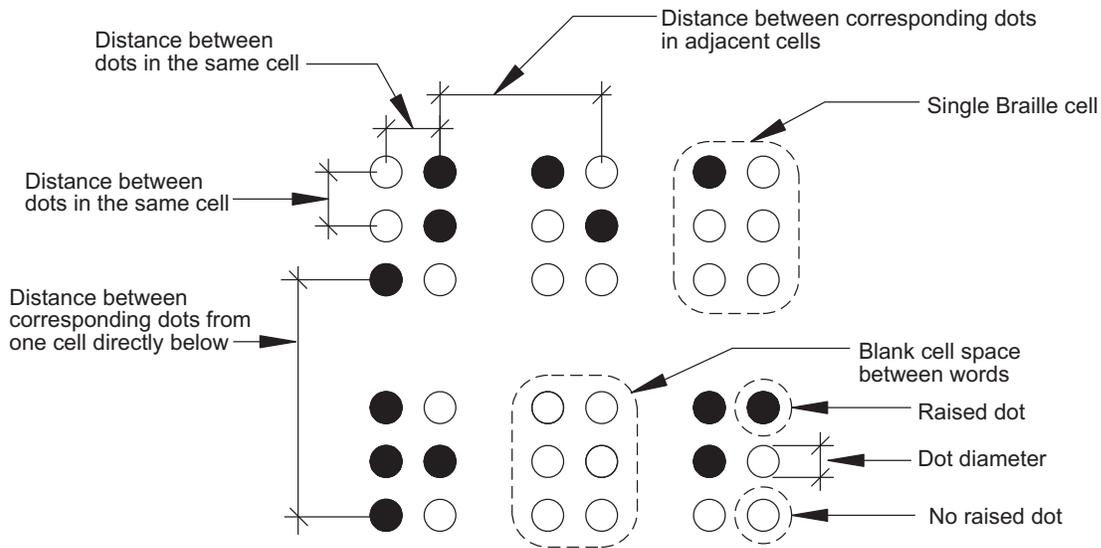
703.4.4 Position. Braille shall be below the corresponding text. If text is multilined, braille shall be placed below entire text. Braille shall be separated $\frac{3}{8}$ inch (9.5 mm) minimum from any other raised characters and $\frac{3}{8}$ inch (9.5 mm) minimum from raised borders and decorative elements. Braille provided on elevator car controls shall be separated $\frac{3}{16}$ inch (4.8 mm) minimum either directly below or adjacent to the corresponding raised characters or symbols.

703.4.5 Mounting height. Braille shall be 48 inches (1220 mm) minimum and 60 inches (1525 mm) maximum above the floor, measured to the baseline of the braille cells.

Exception: Elevator car controls shall not be required to comply with Section 703.4.5.



**FIGURE 703.4.4
POSITION OF BRAILLE**

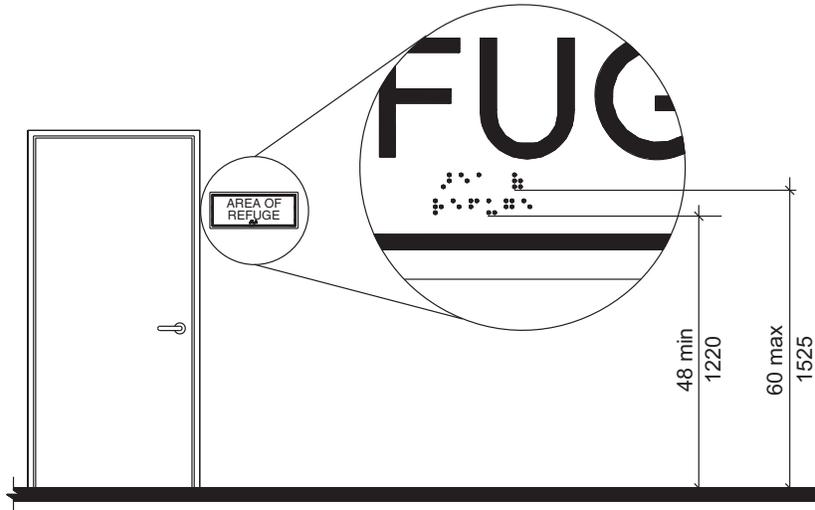


**FIGURE 703.4.3
BRAILLE DIMENSIONS**

**TABLE 703.4.3
BRAILLE DIMENSIONS**

MEASUREMENT RANGE	MINIMUM IN INCHES 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	0.090 (2.3 mm) to 0.100 (2.5 mm)
Distance between corresponding dots in adjacent cells ¹	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 ¹	0.395 (10.0 mm) to 0.400 (10.2 mm)

1. Measured center to center.



Note: For raised character mounting height see Section 703.3.10

FIGURE 703.4.5
HEIGHT OF BRAILLE CHARACTERS ABOVE FLOOR

703.5 Pictograms.

703.5.1 General. Pictograms shall comply with Section 703.5.

703.5.2 Pictogram field. Pictograms shall have a field 6 inches (150 mm) minimum in height. Characters or braille shall not be located in the pictogram field.

703.5.3 Finish and contrast. Pictograms and their fields shall have a nonglare finish. Pictograms shall contrast with their fields, with either a light pictogram on a dark field or a dark pictogram on a light field.

703.6 Symbols of Accessibility.

703.6.1 General. Symbols of accessibility shall comply with Section 703.6.

703.6.2 Finish and contrast. Symbols of accessibility and their backgrounds shall have a non-glare finish. Symbols of accessibility shall contrast with their backgrounds, with either a light symbol on a dark background or a dark symbol on a light background.

703.6.3 Symbols.

703.6.3.1 International Symbol of Accessibility. The International Symbol of Accessibility shall comply with Figure 703.6.3.1.

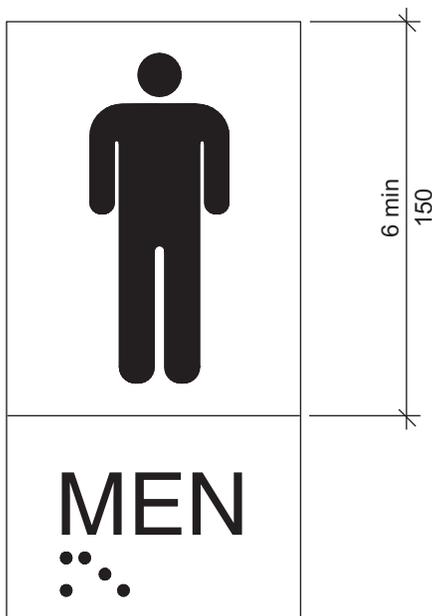


FIGURE 703.5
PICTOGRAM FIELD



FIGURE 703.6.3.1
INTERNATIONAL SYMBOL OF ACCESSIBILITY

703.6.3.2 International Symbol of TTY. The International Symbol of TTY shall comply with Figure 703.6.3.2.

703.6.3.3 Assistive listening systems. Assistive listening systems shall be identified by the International Symbol of Access for Hearing Loss complying with Figure 703.6.3.3.



FIGURE 703.6.3.2
INTERNATIONAL TTY SYMBOL



FIGURE 703.6.3.4
VOLUME-CONTROLLED TELEPHONE



FIGURE 703.6.3.3
INTERNATIONAL SYMBOL OF ACCESS FOR HEARING LOSS

703.6.3.4 Volume-controlled telephones. Telephones with volume controls shall be identified by a pictogram of a telephone handset with radiating sound waves on a square field complying with Figure 703.6.3.4.

703.7 Variable Message Signs.

703.7.1 General. High resolution variable message sign (VMS) characters shall comply with Sections 703.2 and 703.7.12 through 703.7.14. Low resolution variable message sign (VMS) characters shall comply with Section 703.7.

Exception: Theatrical performance related VMS signs, including but not limited to, text and translation deliv-

ery systems, surtitles and subtitles, shall not be required to comply with Section 703.7.1.

703.7.2 Case. Low resolution VMS characters shall be uppercase.

703.7.3 Style. Low resolution VMS characters shall be conventional in form, shall be san serif, and shall not be italic, oblique, script, highly decorative, or of other unusual forms.

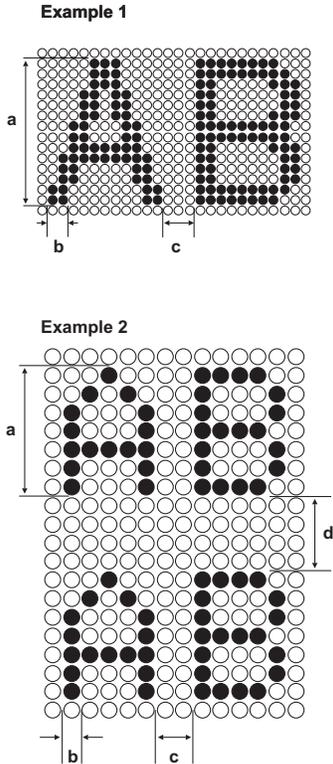
703.7.4 Character height. The uppercase letter “T” shall be used to determine the allowable height of all low resolution VMS characters of a font. Viewing distance shall be measured as the horizontal distance between the character and an obstruction preventing further approach towards the sign. The uppercase letter “T” of the font shall have a minimum height complying with Table 703.7.4.

Exception: In assembly seating where the maximum viewing distance is 100 feet (30.5 m) or greater, the height of the uppercase “T” of low resolution VMS fonts shall be permitted to be 1 inch (25 mm) for every 30 feet (9145 mm) of viewing distance, provided the character height is 8 inches (205 mm) minimum. Viewing distance shall be measured as the horizontal distance between the character and where someone is expected to view the sign.

TABLE 703.7.4
LOW RESOLUTION VMS CHARACTER HEIGHT

HEIGHT ABOVE FLOOR TO 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 10 feet (3050 mm)	2 inches (51 mm)
	10 feet (3050 mm) and greater	2 inches (51 mm), plus 1/5 inch (5.1 mm) per foot (305 mm) of viewing distance above 10 feet (3050 mm)
Greater than 70 inches (1780 mm) to less than or equal to 120 inches (3050 mm)	Less than 15 feet (4570 mm)	3 inches (75 mm)
	15 feet (4570 mm) and greater	3 inches (75 mm), plus 1/5 inch (5.1 mm) per foot (305 mm) of viewing distance above 15 feet (4570 mm)
Greater than 120 inches (3050 mm)	Less than 20 feet (6095 mm)	4 inches (100 mm)
	20 feet (6095 mm) and greater	4 inches (100 mm), plus 1/5 inch (5.1 mm) per foot (305 mm) of viewing distance above 20 feet (6095 mm)

703.7.5 Character width. The uppercase letter “O” shall be used to determine the allowable width of all low resolution VMS characters of a font. Low resolution VMS characters shall comply with the pixel count for character width in Table 703.7.5.



Property	Example 1	Example 2
a Character Height	14 Pixels	7 Pixels
b Stroke Width	2 Pixels	1 Pixel
c Character Spacing	3 Pixels	2 Pixels
d Line Spacing		4 Pixels

FIGURE 703.7.5
LOW RESOLUTION VMS SIGNAGE CHARACTERS

703.7.6 Stroke width. The uppercase letter “I” shall be used to determine the allowable stroke width of all low resolution VMS characters of a font. Low resolution VMS characters shall comply with the pixel count for stroke width in Table 703.7.5.

703.7.7 Character spacing. Spacing shall be measured between the two closest points of adjacent low resolution VMS characters within a message, excluding word spaces. Low resolution VMS character spacing shall comply with the pixel count for character spacing in Table 703.7.5.

703.7.8 Line spacing. Low resolution VMS characters shall comply with Section 703.2.8.

703.7.9 Height above floor. Low resolution VMS characters shall be 40 inches (1015 mm) minimum above the floor of the viewing position, measured to the baseline of the character. Heights of low resolution variable message sign characters shall comply with Table 703.7.4, based on the size of the characters on the sign.

703.7.10 Finish. The background of Low resolution VMS characters shall have a non-glare finish.

703.7.11 Contrast. Low resolution VMS characters shall be light characters on a dark background.

703.7.12 Protective covering. Where a protective layer is placed over VMS characters through which the VMS characters must be viewed, the protective covering shall have a non-glare finish.

703.7.13 Brightness. The brightness of variable message signs in exterior locations shall automatically adjust in response to changes in ambient light levels.

703.7.14 Rate of change. Where a VMS message can be displayed in its entirety on a single screen, it shall be displayed on a single screen and shall remain motionless on the screen for a minimum 3 seconds or one second minimum for every 7 characters of the message including spaces whichever is longer.

703.8 Remote Infrared Audible Sign (RIAS) Systems.

703.8.1 General. Remote Infrared Audible Sign Systems shall comply with Section 703.8.

TABLE 703.7.5
PIXEL COUNT FOR LOW RESOLUTION VMS SIGNAGE¹

CHARACTER HEIGHT	CHARACTER WIDTH RANGE	STROKE WIDTH RANGE	CHARACTER SPACING RANGE
7	5-6	1	2
8	6-7	1-2	2-3
9	6-8	1-2	2-3
10	7-9	2	2-4
11	8-10	2	2-4
12	8-11	2	3-4
13	9-12	2-3	3-5
14	10-13	2-3	3-5
15	11-14	2-3	3-5

1. Measured in pixels.

703.8.2 Transmitters. Where provided, Remote Infrared Audible Sign Transmitters shall be designed to communicate with receivers complying with Section 703.8.3.

703.8.3 Infrared audible sign receivers.

703.8.3.1 Frequency. Basic speech messages shall be frequency modulated at 25 kHz, with a +/- 2.5 kHz deviation, and shall have an infrared wavelength from 850 to 950 nanometer (nm).

703.8.3.2 Optical power density. Receiver shall produce a 12 decibel (dB) signal-plus-noise-to-noise ratio with a 1 kHz modulation tone at +/- 2.5 kHz deviation of the 25 kHz subcarrier at an optical power density of 26 picowatts per square millimeter measured at the receiver photosensor aperture.

703.8.3.3 Audio output. The audio output from an internal speaker shall be at 75 dBA minimum at 18 inches (455 mm) with a maximum distortion of 10 percent.

703.8.3.4 Reception range. The receiver shall be designed for a high dynamic range and capable of operating in full-sun background illumination.

703.8.3.5 Multiple signals. A receiver provided for the capture of the stronger of two signals in the receiver field of view shall provide a received power ratio on the order of 20 dB for negligible interference.

703.9 Pedestrian signals. Accessible pedestrian signals shall comply with Section 4E.06-Accessible Pedestrian Signals, and Section 4E.09-Accessible Pedestrian Signal Detectors, of the Manual on Uniform Traffic Control Devices listed in Section 105.2.1.

Exception: Pedestrian signals are not required to comply with the requirement for choosing audible tones.

**SECTION 704
TELEPHONES**

704.1 General. Accessible public telephones shall comply with Section 704.

704.2 Wheelchair accessible telephones. Wheelchair accessible public telephones shall comply with Section 704.2.

Exception: Drive up only public telephones are not required to comply with Section 704.2.

704.2.1 Clear floor space. A clear floor space complying with Section 305 shall be provided. The clear floor space shall not be obstructed by bases, enclosures, or seats.

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 shall be 10 inches (255 mm) maximum.

704.2.1.2 Forward approach. Where a forward approach is provided, the distance from the front edge of a counter within the enclosure to the face of the telephone shall be 20 inches (510 mm) maximum.

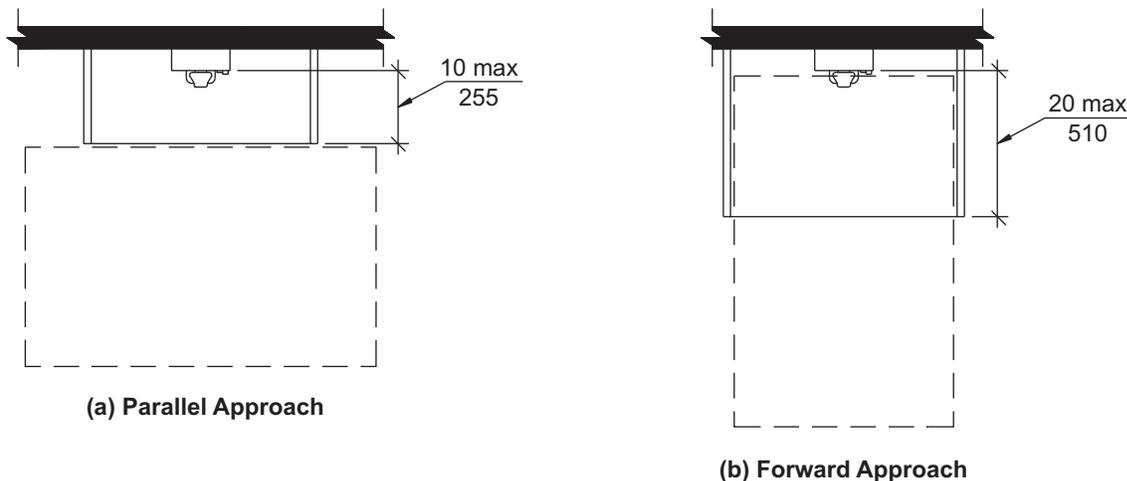
704.2.2 Operable parts. Operable parts shall comply with Section 309. Telephones shall have push button controls where service for such equipment is available.

704.2.3 Telephone directories. Where provided, telephone directories shall comply with Section 309.

704.2.4 Cord length. The telephone handset cord shall be 29 inches (735 mm) minimum in length.

704.2.5 Hearing-aid compatibility. Telephones shall be hearing aid compatible.

704.3 Volume-control telephones. Public telephones required to have volume controls shall be equipped with a receiver volume control that provides a gain adjustable up to 20 dB minimum. Incremental volume controls shall provide at least one intermediate step of gain of 12 dB minimum. An automatic reset shall be provided.



**FIGURE 704.2.1
CLEAR FLOOR SPACE FOR TELEPHONES**

704.4 TTY. 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 of sufficient length to allow connection of the TTY and the telephone receiver.

704.5 Height. When in use, the touch surface of TTY keypads shall be 34 inches (865 mm) minimum above the floor.

Exception: Where seats are provided, TTYs shall not be required to comply with Section 704.5.

704.6 TTY Shelf. Where public pay telephones designed to accommodate a portable TTY are provided, they 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 a vertical clearance 6 inches (150 mm) minimum in height above the area where the TTY is placed.

704.7 Protruding objects. Telephones, enclosures, and related equipment shall comply with Section 307.

**SECTION 705
DETECTABLE WARNINGS**

705.1 General. Detectable warning surfaces shall comply with Section 705.

705.2 Standardization. Detectable warning surfaces shall be standard within a building, facility, site, or complex of buildings.

Exception: In facilities that have both interior and exterior locations, detectable warnings in exterior locations shall not be required to comply with Section 705.4.

705.3 Contrast. Detectable warning surfaces shall contrast visually with adjacent surfaces, either light-on-dark or dark-on-light.

705.4 Interior locations. Detectable warning surfaces in interior locations shall differ from adjoining walking surfaces in resiliency or sound-on-cane contact.

705.5 Truncated domes. Detectable warning surfaces shall have truncated domes complying with Section 705.5.

705.5.1 Size. Truncated domes shall have a base diameter of 0.9 inch (23 mm) minimum and 1.4 inch (36 mm) maximum, and a top diameter of 50 percent minimum and 65 percent maximum of the base diameter.

705.5.2 Height. Truncated domes shall have a height of 0.2 inch (5.1 mm).

705.5.3 Spacing. Truncated domes 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 (16.5 mm) minimum, measured between the most adjacent domes on the grid.

705.5.4 Alignment. Truncated domes shall be aligned in a square grid pattern.

705.6 Transportation platform edges. Detectable warning surfaces at transportation platform boarding edges shall extend the full length of the public use areas of the platform. The detectable warning surface shall extend 24 inches (610 mm) from the boarding edge of the platform.

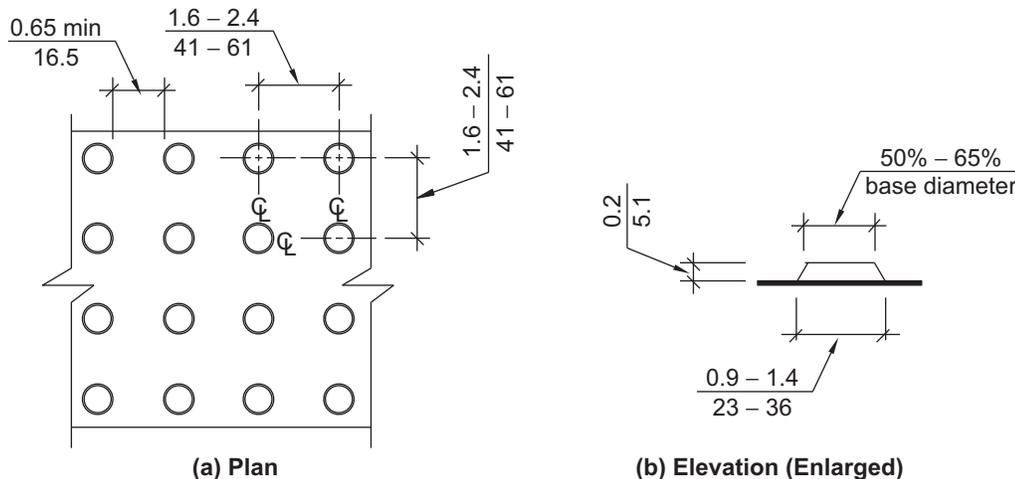
**SECTION 706
ASSISTIVE LISTENING SYSTEMS**

706.1 General. Accessible assistive listening systems in assembly areas shall comply with Section 706.

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 neck loops.

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.



**FIGURE 705.5
TRUNCATED DOME SIZE AND SPACING**

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.

**SECTION 707
AUTOMATIC TELLER MACHINES (ATMS)
AND FARE MACHINES**

707.1 General. Accessible automatic teller machines and fare machines shall comply with Section 707.

707.2 Clear floor space. A clear floor space complying with Section 305 shall be provided in front of the machine.

Exception: Clearfloor space is not required at drive up only automatic teller machines and fare machines.

707.3 Operable parts. Operable parts shall comply with Section 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 Section 309.2 or 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.

707.5 Numeric keys. Numeric keys shall be arranged in a 12-key ascending or descending telephone keypad layout. The number Five key shall have a single raised dot.

707.6 Function keys. Function keys shall comply with Section 707.6.

707.6.1 Raised symbols. Function key surfaces shall have raised symbols as shown in Table 707.6.1.

**TABLE 707.6.1
RAISED SYMBOLS**

Key Function	Description of Raised Symbol	Raised Symbol
Enter or Proceed:	CIRCLE	○
Clear or Correct:	LEFT ARROW	←
Cancel:	“X”	X
Add Value:	PLUS SIGN	+
Decreased Value:	MINUS SIGN	-

707.6.2 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.

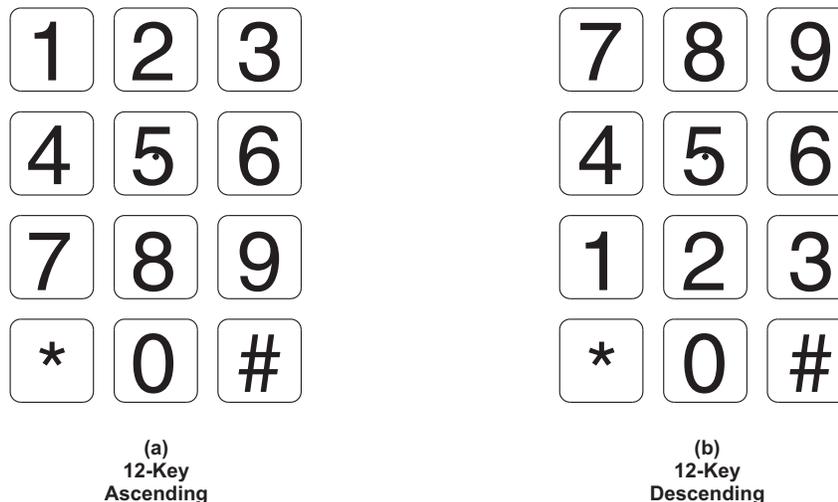
Exception: Raised symbols required by Section 707.6.1 shall not be required to comply with Section 707.6.2.

707.7 Display screen. The display screen shall comply with Section 707.7.

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.

Exception: Drive up only automatic teller machines and fare machines shall not be required to comply with Section 707.7.1.

707.7.2 Characters. Characters displayed on the screen shall be in a sans serif font. The uppercase letter “I” shall be used to determine the allowable height of all characters of the font. The uppercase letter “I” of the font shall be 3/16 inch (4.8 mm) minimum in height. Characters shall contrast with their background with either light characters on a dark background, or dark characters on a light background.



**FIGURE 707.5
NUMERIC KEY LAYOUT**

707.8 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:

1. Audible tones shall be permitted in lieu of speech for visible output that is not displayed for security purposes, including but not limited to, asterisks representing personal identification numbers.
2. 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.
3. Where speech synthesis cannot be supported, dynamic alphabetic output shall not be required to be audible.

707.8.1 User control. Speech shall be capable of being repeated and interrupted by the user. There shall be a volume control for the speech function.

Exception: Speech output for any single function shall be permitted to be automatically interrupted when a transaction is selected.

707.8.2 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:

1. Machine location, date and time of transaction, customer account number, and the machine identifier shall not be required to be audible.
2. Information on printed receipts that duplicates audible information available on-screen shall not be required to be presented in the form of an audible receipt.
3. Printed copies of bank statements and checks shall not be required to be audible.

707.9 Input controls. At least one tactually 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 tactually discernible from surrounding surfaces and adjacent keys.

707.10 Braille instructions. Braille instructions for initiating the speech mode shall be provided. Braille shall comply with Section 703.4.

SECTION 708 TWO-WAY COMMUNICATION SYSTEMS

708.1 General. Accessible two-way communication systems shall comply with Section 708.

708.2 Audible and visual indicators. The system shall provide both visual and audible signals.

708.3 Handsets. Handset cords, if provided, shall be 29 inches (735 mm) minimum in length.

708.4 Telephone entry systems. Telephone entry systems shall comply with ANSI/DASMA 303 listed in Section 105.2.7.

CHAPTER 8

SPECIAL ROOMS AND SPACES

SECTION 801 GENERAL

801.1 Scope. Special rooms and spaces required to be accessible by the scoping provisions adopted by the administrative authority shall comply with the applicable provisions of Chapter 8.

SECTION 802 ASSEMBLY AREAS

802.1 General. Wheelchair spaces and wheel chair space locations in assembly areas with spectator seating shall comply with Section 802. Team and player seating shall comply with Sections 802.2 through 802.6.

802.2 Floor surfaces. The floor surface of wheelchair space locations shall have a slope not steeper than 1:48 and shall comply with Section 302.

802.3 Width. A single wheelchair space shall be 36 inches (915 mm) minimum in width. Where two adjacent wheelchair spaces are provided, each wheelchair space shall be 33 inches (840 mm) minimum in width.

802.4 Depth. Where a wheelchair space can be entered from the front or rear, the wheelchair space shall be 48 inches (1220 mm) minimum in depth. Where a wheelchair space can only be entered from the side, the wheelchair space shall be 60 inches (1525 mm) minimum in depth.

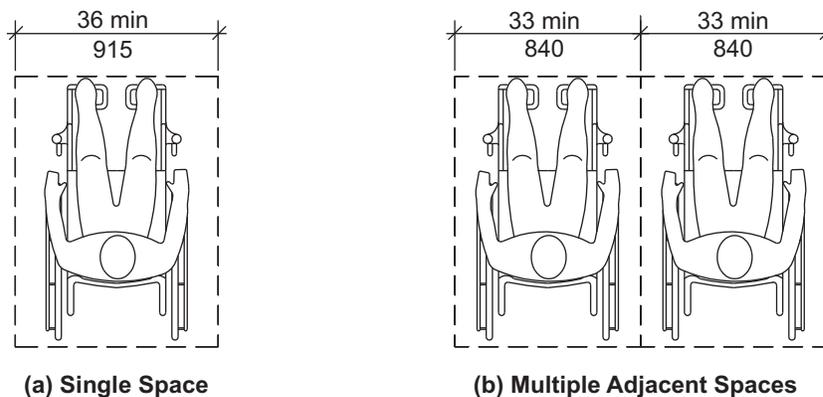


FIGURE 802.3
WIDTH OF A WHEELCHAIR SPACE IN ASSEMBLY AREAS

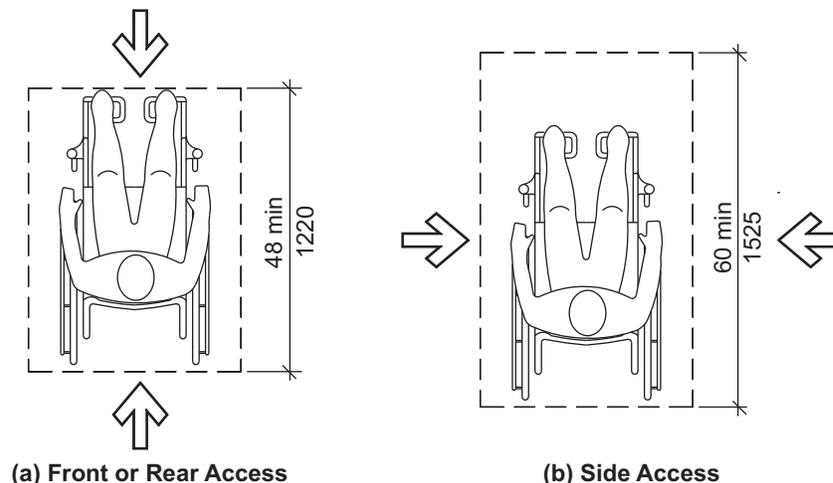


FIGURE 802.4
DEPTH OF A WHEELCHAIR SPACE IN ASSEMBLY AREAS

802.5 Approach. The wheelchair space shall adjoin an accessible route. The accessible route shall not overlap the wheelchair space.

802.5.1 Overlap. A wheelchair space shall not overlap the required width of an aisle.

802.6 Integration of wheelchair space locations. Wheelchair space locations shall be an integral part of any seating area.

802.7 Companion seat. A companion seat, complying with Section 802.7, shall be provided beside each wheelchair space.

802.7.1 Companion seat type. The companion seat shall be equivalent in size, quality, comfort and amenities to the seats in the immediate area to the wheelchair space location. Companion seats shall be permitted to be moveable.

802.7.2 Companion seat alignment. In row seating, the companion seat shall be located to provide shoulder alignment with the wheelchair space occupant. The shoulder of the wheelchair space occupant shall be measured either 36 inches (915 mm) from the front or 12 inches (305 mm) from the rear of the wheelchair space. The floor surface for the companion seat shall be at the same elevation as the wheelchair space floor surface.

802.8 Designated aisle seats. Designated aisle seats shall comply with Section 802.8.

802.8.1 Armrests. Where armrests are provided on seating in the immediate area of designated aisle seats, folding or retractable armrests shall be provided on the aisle side of the designated aisle seat.

802.8.2 Identification. Each designated aisle seat shall be identified by the International Symbol of Accessibility.

802.9 Lines of sight. Where spectators are expected to remain seated for purposes of viewing events, spectators in

wheelchair space locations shall be provided with a line of sight in accordance with Section 802.9.1. Where spectators in front of the wheelchair space locations will be expected to stand at their seats for purposes of viewing events, spectators in wheelchair space locations shall be provided with a line of sight in accordance with Section 802.9.2.

802.9.1 Line of sight over seated spectators. Where spectators are expected to remain seated during events, spectators seated in a wheelchair space shall be provided with lines of sight to the performance area or playing field comparable to that provided to seated spectators in closest proximity to the wheelchair space location. Where seating provides lines of sight over heads, spectators in wheelchair space locations shall be afforded lines of sight complying with Section 802.9.1.1. Where wheelchair space locations provide lines of sight over the shoulder and between heads, spectators in wheelchair space locations shall be afforded lines of sight complying with Section 802.9.1.2.

802.9.1.1 Lines of sight over heads. Spectators seated in a wheelchair space shall be afforded lines of sight over the heads of seated individuals in the first row in front of the wheelchair space location.

802.9.1.2 Lines of sight between heads. Spectators seated in a wheelchair space shall be afforded lines of sight over the shoulders and between the heads of seated individuals in the first row in front of the wheelchair space location.

802.9.2 Line of sight over standing spectators. Wheelchair spaces required to provide a line of sight over standing spectators shall comply with Section 802.9.2.

802.9.2.1 Distance from adjacent seating. The front of the wheelchair space in a wheelchair space location shall be 12 inches (305 mm) maximum from the back of the chair or bench in front.

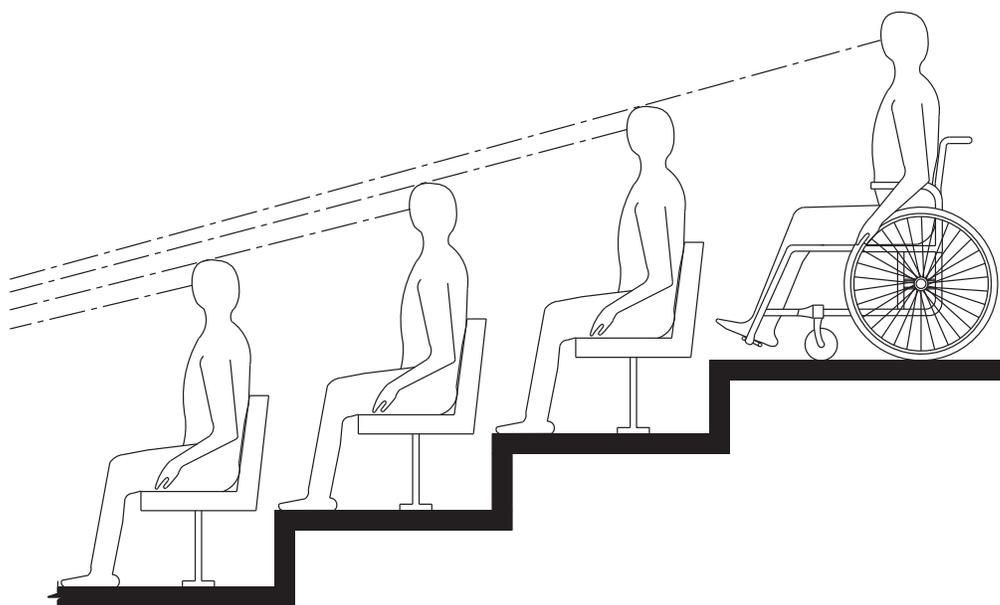


FIGURE 802.9.1.1
LINES OF SIGHT OVER THE HEADS OF SEATED SPECTATORS

802.9.2.2 Height. The height of the floor surface at the wheelchair space location shall comply with Table 802.9.2.2. Interpolations shall be permitted for riser heights that are not listed in the table.

802.10 Wheelchair space dispersion. The minimum number of wheelchair space locations shall be in accordance with Table 802.10. Wheelchair space locations shall be dispersed in accordance with Sections 802.10.1, 802.10.2 and 802.10.3. In addition, wheelchair space locations shall be dispersed in accordance with Section 802.10.4 in spaces utilized primarily for viewing motion picture projection. Once the required

number of wheelchair space locations has been met, further dispersion is not required.

802.10.1 Horizontal dispersion. Wheelchair space locations shall be dispersed horizontally to provide viewing options. Two wheelchair spaces shall be permitted to be located side-by-side.

Exception: Horizontal dispersion shall not be required in assembly areas with 300 or fewer seats if the wheelchair space locations are located within the 2nd and 3rd quartile of the row length. Intermediate aisles shall be included in determining the total row length. If the row

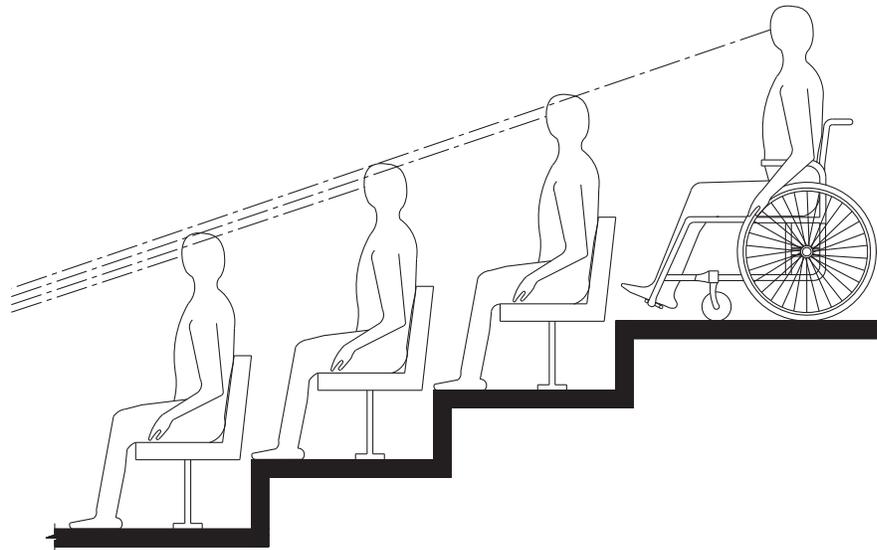


FIGURE 802.9.1.2
LINES OF SIGHT BETWEEN THE HEADS OF SEATED SPECTATORS

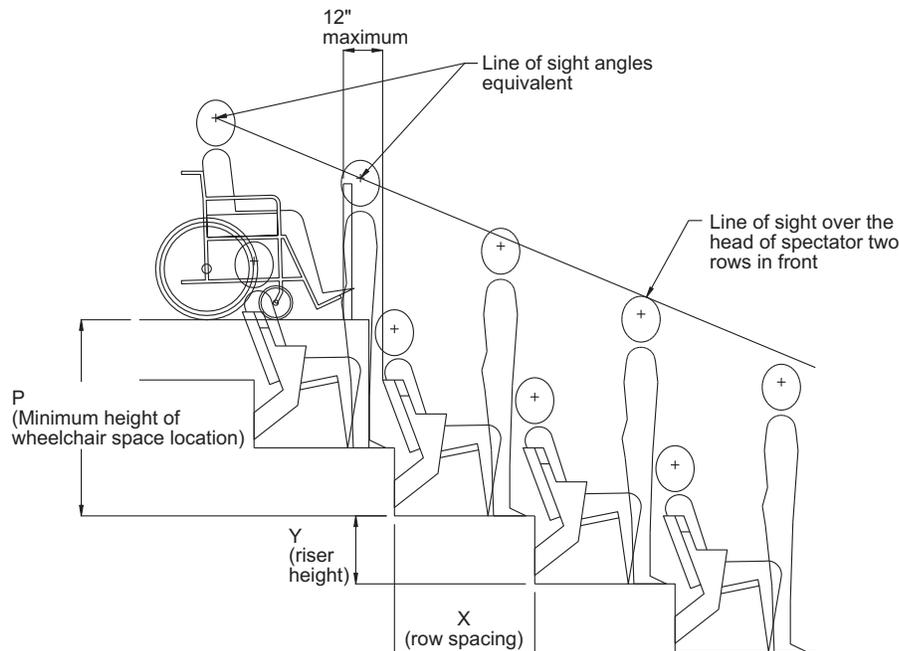


FIGURE 802.9.2
LINE OF SIGHT OVER STANDING SPECTATORS

SPECIAL ROOMS AND SPACES

length in the 2nd and 3rd quartile of the 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 extend into in the 1st and 4th quartile of the row.

802.10.2 Dispersion for variety of distances from the event. Wheelchair space locations shall be dispersed at a variety of distances from the event to provide viewing options.

Exceptions:

1. In bleachers, wheelchair space locations provided only in rows at points of entry to bleacher seating shall be permitted.
2. Assembly areas utilized for viewing motion picture projections with 300 seats or less shall not be required to comply with Section 802.10.2.
3. Assembly areas with 300 seats or less other than those utilized for viewing motion picture projec-

tions shall not be required to comply with Section 802.10.2 where all wheelchair space locations are within the front 50 percent of the total rows.

802.10.3 Dispersion by type. Where assembly seating has multiple distinct seating areas with amenities that differ from other distinct seating areas, wheelchair space locations shall be provided within each distinct seating area.

802.10.4 Spaces utilized primarily for viewing motion picture projections. In spaces utilized primarily for viewing motion picture projections, wheelchair space locations shall comply with Section 802.10.4.

802.10.4.1 Spaces with seating on risers. Where tiered seating is provided, wheelchair space locations shall be integrated into the tiered seating area.

802.10.4.2 Distance from the screen. Wheelchair space locations shall be located within the rear 60 percent of the seats provided.

**TABLE 802.9.2.2
REQUIRED WHEELCHAIR SPACE LOCATION ELEVATION OVER STANDING SPECTATORS**

RISER HEIGHT	MINIMUM HEIGHT OF THE WHEELCHAIR SPACE LOCATION BASED ON ROW SPACING ¹		
	Rows less than 33 inches (840 mm) ²	Rows 33 inches (840 mm) to 44 inches (1120 mm) ²	Rows over 44 inches (1120 mm) ²
0 inch (0 mm)	16 inches (405 mm)	16 inches (405 mm)	16 inches (405 mm)
4 inches (100 mm)	22 inches (560 mm)	21 inches (535 mm)	21 inches (535 mm)
8 inches (205 mm)	31 inches (785 mm)	30 inches (760 mm)	28 inches (710 mm)
12 inches (305 mm)	40 inches (1015 mm)	37 inches (940 mm)	35 inches (890 mm)
16 inches (405 mm)	49 inches (1245 mm)	45 inches (1145 mm)	42 inches (1065 mm)
20 inches (510 mm) ³	58 inches (1475 mm)	53 inches (1345 mm)	49 inches (1245 mm)
24 inches (610 mm)	N/A	61 inches (1550 mm)	56 inches (1420 mm)
28 inches (710 mm) ⁴	N/A	69 inches (1750 mm)	63 inches (1600 mm)
32 inches (815 mm)	N/A	N/A	70 inches (1780 mm)
36 inches (915 mm) and higher	N/A	N/A	77 inches (1955 mm)

Footnotes to Table 802.9.2.2

1. The height of the wheelchair space location is the vertical distance from the tread of the row of seats directly in front of the wheelchair space location to the tread of the wheelchair space location.
2. The row spacing is the back-to-back horizontal distance between the rows of seats in front of the wheelchair space location.
3. Seating treads less than 33 inches (840 mm) in depth are not permitted with risers greater than 18 inches (455 mm) in height.
4. Seating treads less than 44 inches (1120 mm) in depth are not permitted with risers greater than 27 inches (685 mm) in height.

NOTE: Table 802.9.2.2 is based on providing a spectator in a wheelchair a line of sight over the head of a spectator two rows in front of the wheelchair space location using average anthropometrical data. The table is based on the following calculation: $[(2X+34)(Y-2.25)/X]+(20.2-Y)$ where Y is the riser height of the rows in front of the wheelchair space location and X is the tread depth of the rows in front of the wheelchair space location. The calculation is based on the front of the wheelchair space location being located 12 inches (305 mm) from the back of the seating tread directly in front and the eye of the standing spectator being set back 8 inches (205 mm) from the riser.

**TABLE 802.10
WHEELCHAIR SPACE LOCATION DISPERSION**

TOTAL SEATING IN ASSEMBLY AREAS	MINIMUM REQUIRED NUMBER OF WHEELCHAIR SPACE LOCATIONS
Up to 150	1
151 to 500	2
501 to 1000	3
1001 to 5,000	3, plus 1 additional space for each 1,000 seats or portions thereof above 1,000
5,001 and over	7, plus 1 additional space for each 2,000 seats or portions thereof above 5,000

**SECTION 803
DRESSING, FITTING, AND LOCKER ROOMS**

803.1 General. Accessible dressing, fitting, and locker rooms shall comply with Section 803.

803.2 Turning space. A turning space complying with Section 304 shall be provided within the room.

803.3 Door swing. Doors shall not swing into the room unless a clear floor space complying with Section 305.3 is provided within the room, beyond the arc of the door swing.

803.4 Benches. A bench complying with Section 903 shall be provided within the room.

803.5 Coat hooks and shelves. Accessible coat hooks provided within the room shall accommodate a forward reach or side reach complying with Section 308. Where provided, a shelf shall be 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the floor.

**SECTION 804
KITCHENS AND KITCHENETTES**

804.1 General. Accessible kitchens and kitchenettes shall comply with Section 804.

804.2 Clearance. Where a pass-through kitchen is provided, clearances shall comply with Section 804.2.1. Where a U-shaped kitchen is provided, clearances shall comply with Section 804.2.2.

Exception: Spaces that do not provide a cooktop or conventional range shall not be required to comply with Section 804.2 provided there is a 40-inch (1015 mm) minimum clearance between all opposing base cabinets, counter tops, appliances, or walls within work areas.

804.2.1 Pass-through kitchens. 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.

804.2.2 U-shaped kitchens. In kitchens enclosed on three contiguous sides, clearance between all opposing base cabinets, countertops, appliances, or walls within kitchen work areas shall be 60 inches (1525 mm) minimum.

804.3 Work surface. At least one work surface shall be provided in accordance with Section 902.

Exception: Spaces that do not provide a cooktop or conventional range shall not be required to provide an accessible work surface.

804.4 Sinks. The sink shall comply with Section 606.

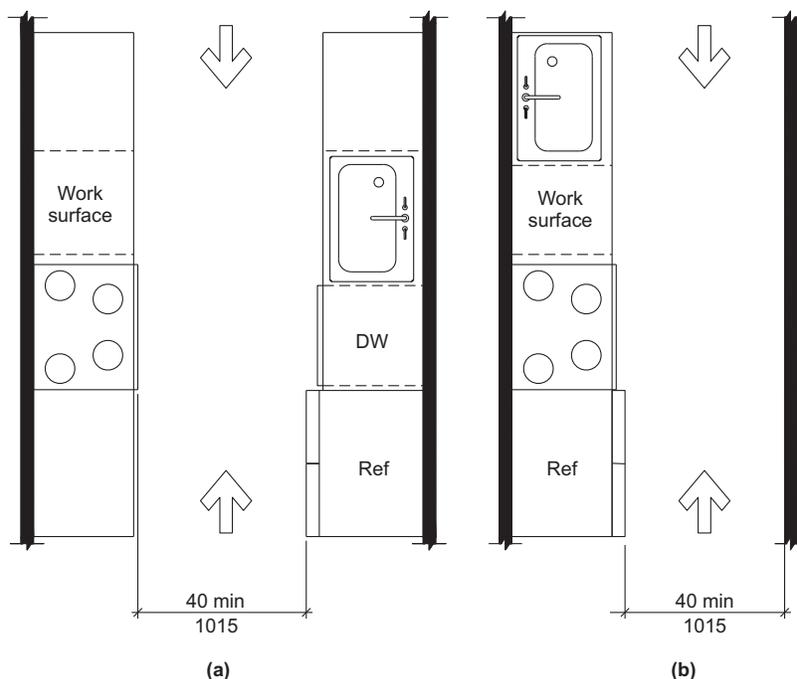
804.5 Appliances. Where provided, kitchen appliances shall comply with Section 804.5.

804.5.1 Clear floor space. A clear floor space complying with Section 305 shall be provided at each kitchen appliance.

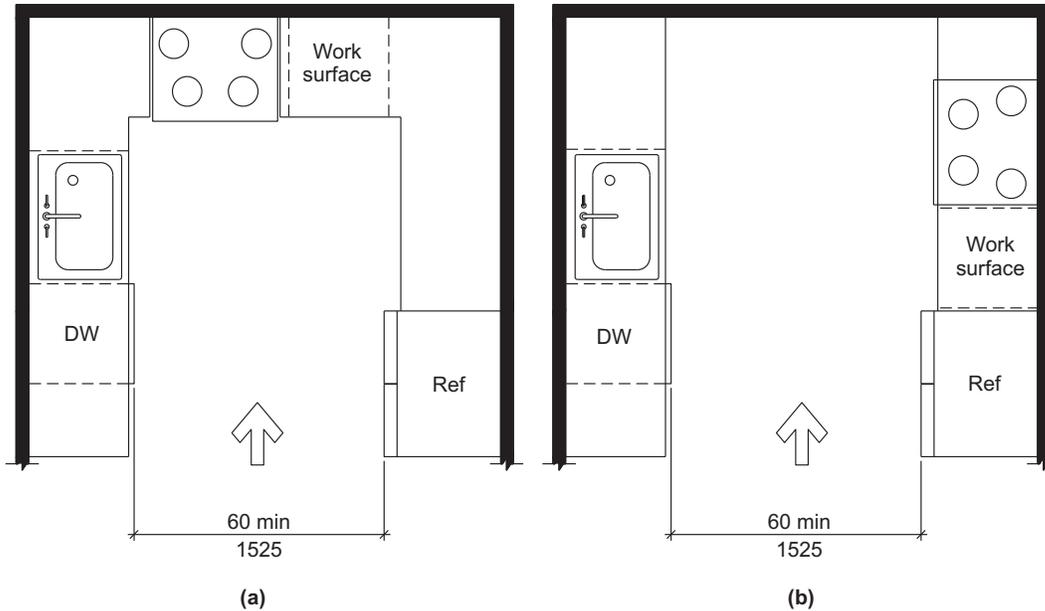
804.5.2 Operable parts. All appliance controls shall comply with Section 309.

Exceptions:

1. Appliance doors and door latching devices shall not be required to comply with Section 309.4.
2. Bottom-hinged appliance doors, when in the open position, shall not be required to comply with Section 309.3.



**FIGURE 804.2.1
PASS-THROUGH KITCHEN CLEARANCE**



**FIGURE 804.2.2
U-SHAPED KITCHEN CLEARANCE**

804.5.3 Dishwasher. A clear floor space positioned adjacent to the dishwasher door, shall be provided. The dishwasher door in the open position shall not obstruct the clear floor space for the dishwasher or an adjacent sink.

804.5.4 Cooktop. Cooktops shall comply with Section 804.5.4.

804.5.4.1 Approach. A clear floor space, positioned for a parallel or forward approach to the cooktop, shall be provided.

804.5.4.2 Forward approach. Where the clear floor space is positioned for a forward approach, knee and toe clearance complying with Section 306 shall be provided. The underside of the cooktop shall be insulated or otherwise configured to prevent burns, abrasions, or electrical shock.

804.5.4.3 Parallel approach. Where the clear floor space is positioned for a parallel approach, the clear floor space shall be centered on the appliance.

804.5.4.4 Controls. The location of controls shall not require reaching across burners.

804.5.5 Oven. Ovens shall comply with Section 804.5.5.

804.5.5.1 Clear floor space. A clear floor space shall be provided. The oven door in the open position shall not obstruct the clear floor space for the oven.

804.5.5.2 Side-hinged door ovens. Side-hinged door ovens shall have a work surface complying with Section 804.3 positioned adjacent to the latch side of the oven door.

804.5.5.3 Bottom-hinged door ovens. Bottom-hinged door ovens shall have a work surface complying with Section 804.3 positioned adjacent to one side of the door.

804.5.5.4 Controls. The location of controls shall not require reaching across burners.

804.5.6 Refrigerator/freezer. Combination refrigerators and freezers shall have at least 50 percent of the freezer compartment shelves, including the bottom of the freezer, 54 inches (1370 mm) maximum above the floor when the shelves are installed at the maximum heights possible in the compartment. A clear floor space, positioned for a parallel approach to the refrigerator/freezer, shall be provided. The centerline of the clear floor space shall be offset 24 inches (610 mm) maximum from the centerline of the appliance.

**SECTION 805
TRANSPORTATION FACILITIES**

805.1 General. Transportation facilities shall comply with Section 805.

805.2 Bus boarding and alighting areas. Bus boarding and alighting areas shall comply with Section 805.2.

805.2.1 Surface. Bus stop boarding and alighting areas shall have a firm, stable surface.

805.2.2 Dimensions. Bus stop boarding and alighting areas shall have a 96-inch (2440 mm) minimum clear length, measured perpendicular to the curb or vehicle roadway edge, and a 60-inch (1525 mm) minimum clear width, measured parallel to the vehicle roadway.

805.2.3 Slope. The slope of the bus stop boarding and alighting area parallel to the vehicle roadway shall be the same as the roadway, to the maximum extent practicable. The slope of the bus stop boarding and alighting area perpendicular to the vehicle roadway shall be 1:48 maximum.

805.2.4 Connection. Bus stop boarding and alighting areas shall be connected to streets, sidewalks, or pedestrian paths by an accessible route complying with Section 402.

805.3 Bus shelters. Bus shelters shall provide a minimum clear floor space complying with Section 305 entirely within the shelter. Bus shelters shall be connected by an accessible route complying with Section 402 to a boarding and alighting area complying with Section 805.2.

805.4 Bus signs. Bus route identification signs shall have visual characters complying with Sections 703.2.2, 703.2.3, and 703.2.5 through 703.2.8. In addition, bus route identifica-

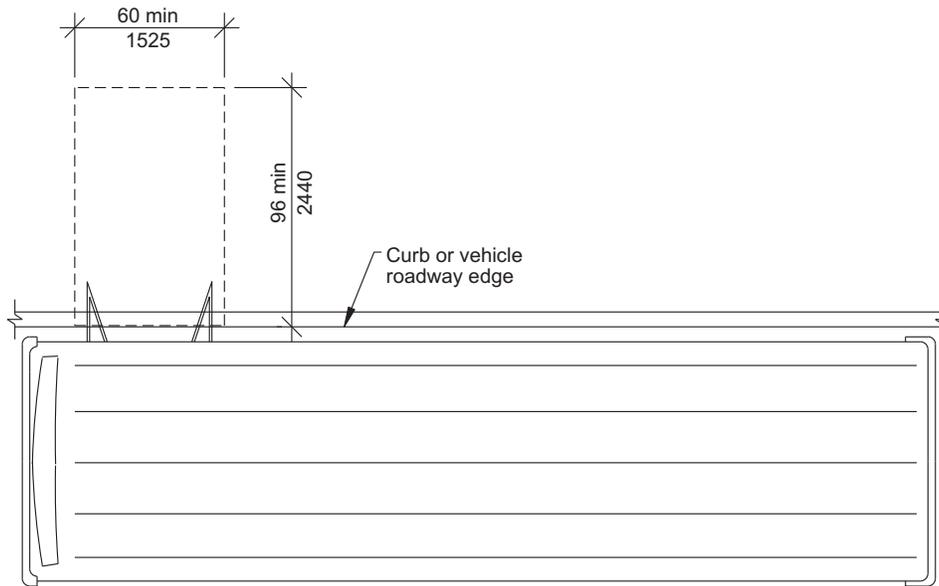
tion numbers shall be visual characters complying with Section 703.2.4.

Exception: Bus schedules, timetables and maps that are posted at the bus stop or bus bay shall not be required to comply with Section 805.4.

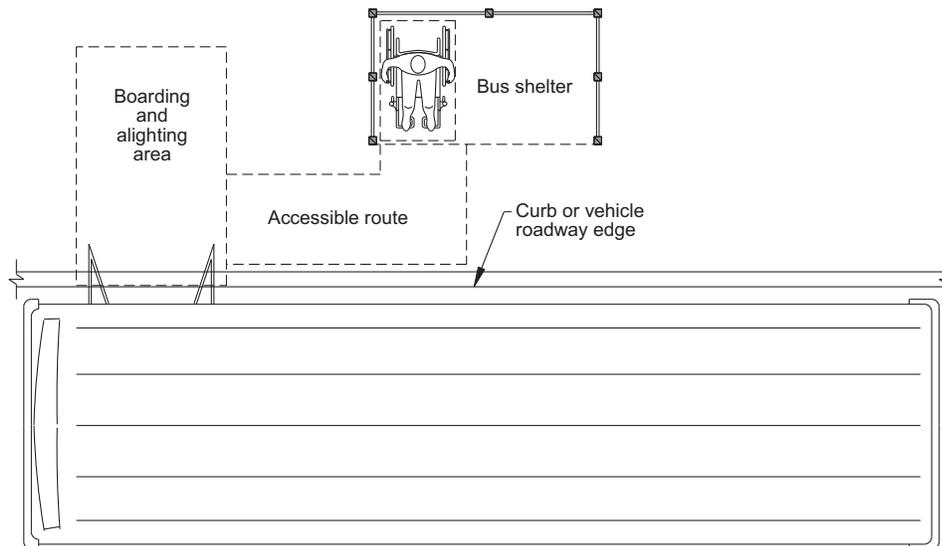
805.5 Rail platforms. Rail platforms shall comply with Section 805.5.

805.5.1 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



**FIGURE 805.2
SIZE OF BUS BOARDING AND ALIGHTING AREAS**



**FIGURE 805.3
BUS SHELTERS**

SPECIAL ROOMS AND SPACES

slope of the platform parallel to the track shall be permitted to be equal to the slope (grade) of the roadway or existing track.

805.5.2 Detectable warnings. Platform boarding edges not protected by platform screens or guards shall have a detectable warning complying with Section 705.

805.6 Rail station signs. Rail station signs shall comply with Section 805.6.

Exception: Signs shall not be required to comply with Sections 805.6.1 and 805.6.2 where audible signs are remotely transmitted to hand-held receivers, or are user- or proximity-actuated.

805.6.1 Entrances. Where signs identify a station or a station entrance, at least one sign with raised characters and braille complying with Sections 703.3 and 703.4 shall be provided at each entrance.

805.6.2 Routes and destinations. Lists of stations, routes and destinations served by the station that are located on boarding areas, platforms, or mezzanines shall have visual characters complying with Section 703.2. A minimum of one sign with raised characters and braille complying with Sections 703.3 and 703.4 shall be provided on each platform or boarding area to identify the specific station.

Exception: Where sign space is limited, characters shall not be required to exceed 3 inches (75 mm) in height.

805.6.3 Station names. Stations covered by this section shall have identification signs with visual characters complying with Section 703.2. The signs shall be clearly visible and within the sight lines of a standing or sitting passenger from within the vehicle on both sides when not obstructed by another vehicle.

805.7 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.

805.8 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 be visual characters complying with Section 703.2.

805.9 Escalators. Where provided, escalators shall comply with Minnesota Rules, Chapter 1307, Minnesota Elevators and Related Devices.

805.10 Track crossings. Where a circulation path crosses tracks, it shall comply with Section 402 and shall have a detectable warning 24 inches (610 mm) in depth complying with Section 705 extending the full width of the circulation path. The detectable warning surface shall be located so that the edge nearest the rail crossing is 6 foot (1830 mm) minimum and 15 foot (4570 mm) maximum from the centerline of the nearest rail.

Exception: Openings for wheel flanges shall be permitted to be 2¹/₂ inches (64 mm) maximum.

SECTION 806

HOLDING CELLS AND HOUSING CELLS

806.1 General. Holding cells and housing cells shall comply with Section 806.

806.2 Features for people using wheelchairs or other mobility aids. Cells required to have features for people using wheelchairs or other mobility aids shall comply with Section 806.2.

806.2.1 Turning space. Turning space complying with Section 304 shall be provided within the cell.

806.2.2 Benches. Where benches are provided, at least one bench shall comply with Section 903.

806.2.3 Beds. Where beds are provided, clear floor space complying with Section 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.

806.2.4 Toilet and bathing facilities. Toilet facilities or bathing facilities provided as part of a cell shall comply with Section 603.

806.3 Communication features. Cells required to have communication features shall comply with Section 806.3.

806.3.1 Alarms. Where audible emergency alarm systems are provided to serve the occupants of cells, visible alarms complying with Section 702 shall be provided.

Exception: In cells where inmates or detainees are not allowed independent means of egress, visible alarms shall not be required.

806.3.2 Telephones. Where provided, telephones within cells shall have volume controls complying with Section 704.3.



FIGURE 805.10
TRACK CROSSINGS

SECTION 807 COURTROOMS

807.1 General. Courtrooms shall comply with Section 807.

807.2 Turning space. Where provided, each area that is raised or depressed shall provide a turning space complying with Section 304.

Exception: Levels of jury boxes not required to be accessible are not required to comply with Section 807.2.

807.3 Clear floor space. Within the defined area of each jury box and witness stand, a clear floor space complying with Section 305 shall be provided.

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 ramps or platform lifts restrict or project into the means of egress required by the administrative authority.

807.4 Courtroom stations. Judges' benches, clerks' stations, bailiffs' stations, deputy clerks' stations, court reporters' stations and litigants' and counsel stations shall comply with Section 902.

807.5 Gallery seating. Gallery seating shall comply with Section 802.

CHAPTER 9

BUILT-IN FURNISHINGS AND EQUIPMENT

SECTION 901 GENERAL

901.1 Scope. Built-in furnishings and equipment required to be accessible by the scoping provisions adopted by the administrative authority shall comply with the applicable provisions of Chapter 9.

SECTION 902 DINING SURFACES AND WORK SURFACES

902.1 General. Accessible dining surfaces and work surfaces shall comply with Section 902.

Exception: Dining surfaces and work surfaces primarily for children's use shall be permitted to comply with Section 902.5.

902.2 Clear floor space. A clear floor space complying with Section 305, positioned for a forward approach, shall be provided. Knee and toe clearance complying with Section 306 shall be provided.

Exceptions:

1. At drink surfaces 12 inches (305 mm) or less in depth, knee and toe space shall not be required to extend beneath the surface beyond the depth of the drink surface provided.
2. Dining surfaces that are 15 inches (380 mm) minimum and 24 inches (610 mm) maximum in height are permitted to have a clear floor space complying with Section 305 positioned for a parallel approach.

902.3 Exposed surfaces. There shall be no sharp or abrasive surfaces under the exposed portions of dining surfaces and work surfaces.

902.4 Height. The tops of dining surfaces and work surfaces shall be 28 inches (710 mm) minimum and 34 inches (865 mm) maximum in height above the floor.

902.5 Dining surfaces and work surfaces for children's use. Accessible dining surfaces and work surfaces primarily for children's use shall comply with Section 902.5.

Exception: Dining surfaces and work surfaces used primarily by children ages 5 and younger shall not be required to comply with Section 902.5 where a clear floor space complying with Section 305 is provided and is positioned for a parallel approach.

902.5.1 Clear floor space. A clear floor space complying with Section 305, positioned for forward approach, shall be provided. Knee and toe clearance complying with Section 306 shall be provided.

Exception: A knee clearance of 24 inches (610 mm) minimum above the floor shall be permitted.

902.5.2 Height. The tops of tables and counters shall be 26 inches (660 mm) minimum and 30 inches (760 mm) maximum above the floor.

SECTION 903 BENCHES

903.1 General. Accessible benches shall comply with Section 903.

903.2 Clear floor space. A clear floor space complying with Section 305, positioned for parallel approach to the bench seat, shall be provided.

903.3 Size. Benches shall have seats 42 inches (1065 mm) minimum in length, and 20 inches (510 mm) minimum and 24 inches (610 mm) maximum in depth.

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) minimum in length 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 2¹/₂ inches (64 mm) maximum from the rear edge of the seat measured horizontally.

903.5 Height. The top of the bench seat shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the floor, measured to the top of the seat.

Exception: Benches primarily for children's use shall be permitted to be 11 inches (280 mm) minimum and 17 inches (430 mm) maximum above the floor, measured to the top of the seat.

903.6 Structural strength. Allowable stresses shall not be exceeded for materials used where 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 provided in wet locations the surface of the seat shall be slip resistant and shall not accumulate water.

SECTION 904 SALES AND SERVICE COUNTERS

904.1 General. Accessible sales and service counters and windows shall comply with Section 904 as applicable.

Exception: Drive up only sales or service counters and windows are not required to comply with Section 904.

904.2 Approach. All portions of counters required to be accessible shall be located where transactions or services are customarily provided and be adjacent to a walking surface complying with Section 403.

904.3 Sales and service counters. Sales and service counters shall comply with Section 904.3.1 or 904.3.2. The accessible

BUILT-IN FURNISHINGS AND EQUIPMENT

portion of the countertop shall extend the same depth as the sales and service countertop.

904.3.1 Parallel approach. A portion of the counter surface 36 inches (915 mm) minimum in length and 36 inches (915 mm) maximum in height above the floor shall be provided. Where the counter surface is less than 36 inches (915 mm) in length, the entire counter surface shall be 36 inches (915 mm) maximum in height above the floor. A clear floor space complying with Section 305, positioned for a parallel approach adjacent to the accessible counter, shall be provided.

904.3.2 Forward approach. A portion of the counter surface 30 inches (760 mm) minimum in length and 36 inches (915 mm) maximum in height above the floor shall be provided. A clear floor space complying with Section 305, positioned for a forward approach to the accessible counter, shall be provided. Knee and toe clearance complying with Section 306 shall be provided under the accessible counter.

904.4 Checkout aisles. Checkout aisles shall comply with Section 904.4.

904.4.1 Aisle. Aisles shall comply with Section 403.

904.4.2 Counters. The checkout counter surface shall be 38 inches (965 mm) maximum in height above the floor. 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 checkout counter.

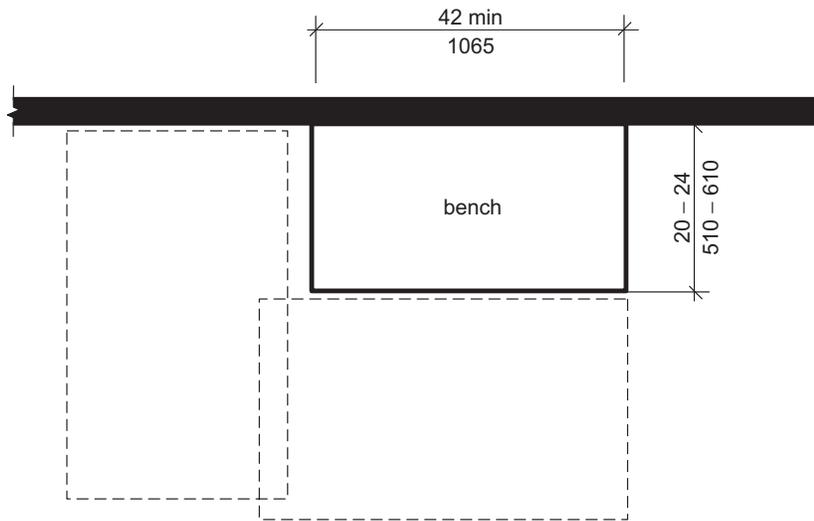
904.4.3 Check writing surfaces. Where provided, check writing surfaces shall comply with Section 902.4.

904.5 Food service lines. Counters in food service lines shall comply with Section 904.5.

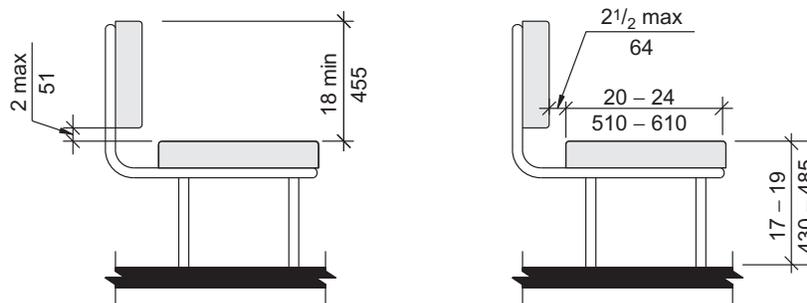
904.5.1 Self-Service shelves and dispensing devices. Self-service shelves and dispensing devices for tableware, dishware, condiments, food and beverages shall comply with Section 308.

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 floor.

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 Section 704.3.



(a) Bench Size and Options for Clear Floor Space



(b) Bench Back Support and Seat Height

**FIGURE 903
BENCHES**

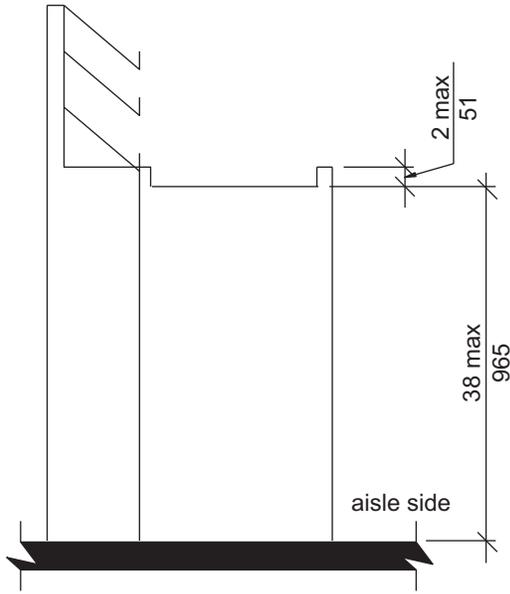
**SECTION 905
STORAGE FACILITIES**

905.1 General. Accessible storage facilities shall comply with Section 905.

905.2 Clear floor space. A clear floor space complying with Section 305 shall be provided.

905.3 Height. Accessible storage elements shall comply with at least one of the reach ranges specified in Section 308.

905.4 Operable parts. Operable parts of storage facilities shall comply with Section 309.



**FIGURE 904.4.2
HEIGHT OF CHECKOUT COUNTERS**

CHAPTER 10

DWELLING UNITS AND SLEEPING UNITS

SECTION 1001 GENERAL

1001.1 Scoping. Dwelling units and sleeping units required to be Accessible units, Type A units, Type B units, Type C (Visitable) units or units with accessible communication features by the scoping provisions adopted by the administrative authority shall comply with the applicable provisions of Chapter 10.

SECTION 1002 ACCESSIBLE UNITS

1002.1 General. Accessible units shall comply with Section 1002.

1002.2 Primary entrance. The accessible primary entrance shall be on an accessible route from public and common areas. The primary entrance shall not be to a bedroom unless it is the only entrance.

1002.3 Accessible route. Accessible routes within Accessible units shall comply with Section 1002.3.

1002.3.1 Location. At least one accessible route shall connect all spaces and elements that are a part of the unit. Accessible routes shall coincide with or be located in the same area as a general circulation path.

Exception: An accessible route is not required to unfinished attics and unfinished basements that are part of the unit.

1002.3.2 Turning space. All rooms served by an accessible route shall provide a turning space complying with Section 304.

Exceptions:

1. A turning space shall not be required in toilet rooms and bathrooms that are not required to comply with Section 1002.11.2.
2. A turning space is not required within closets or pantries that are 48 inches (1220 mm) maximum in depth.

1002.3.3 Components. Accessible routes shall consist of one or more of the following elements: walking surfaces with a slope not steeper than 1:20, doors and doorways, ramps, elevators, and platform lifts.

1002.4 Walking surfaces. Walking surfaces that are part of an accessible route shall comply with Section 403.

1002.5 Doors and doorways. The primary entrance door to the unit, and all other doorways intended for user passage, shall comply with Section 404.

Exceptions:

1. Existing doors to hospital patient sleeping rooms shall be exempt from the requirement for space at

the latch side provided the door is 44 inches (1120 mm) minimum in width.

2. In toilet rooms and bathrooms not required to comply with Section 1002.11.2, maneuvering clearances required by Section 404.2.3 are not required on the toilet room or bathroom side of the door.
3. A turning space between doors in a series as required by Section 404.2.5 is not required.
4. Storm and screen doors are not required to comply with Section 404.2.5.
5. Communicating doors between individual sleeping units are not required to comply with Section 404.2.5.
6. At other than the primary entrance door, where exterior space dimensions of balconies are less than the required maneuvering clearance, door maneuvering clearance is not required on the exterior side of the door.

1002.6 Ramps. Ramps shall comply with Section 405.

1002.7 Elevators. Elevators within the unit shall comply with Section 407, 408, or 409.

1002.8 Platform lifts. Platform lifts within the unit shall comply with Section 410.

1002.9 Operable parts. Lighting controls, electrical panelboards, electrical switches and receptacle outlets, environmental controls, appliance controls, operating hardware for operable windows, plumbing fixture controls, and user controls for security or intercom systems shall comply with Section 309.

Exceptions:

1. Receptacle outlets serving a dedicated use.
2. Where two or more receptacle outlets are provided in a kitchen above a length of counter top that is uninterrupted by a sink or appliance, one receptacle outlet shall not be required to comply with 309.
3. Floor receptacle outlets.
4. HVAC diffusers.
5. Controls mounted on ceiling fans.
6. Where redundant controls other than light switches are provided for a single element, one control in each space shall not be required to be accessible.
7. Reset buttons and shut-offs serving appliances, piping and plumbing fixtures.
8. Electrical panelboards shall not be required to comply with Section 309.4.

1002.10 Laundry equipment. Washing machines and clothes dryers shall comply with Section 611.

1002.11 Toilet and bathing facilities. At least one toilet and bathing facility shall comply with Section 1002.11.2. All other toilet and bathing facilities shall comply with Section 1002.11.1

1002.11.1 Grab bars and shower seat reinforcement. At fixtures in toilet and bathing facilities not required to comply with Section 1002.11.2, reinforcement in accordance with Section 1004.11.1 shall be provided.

Exception: Reinforcement is not required where Type B units are not provided in the structure.

1002.11.2 Accessible toilet and bathing facility. At least one toilet and bathing facility shall comply with Section 603. At least one lavatory, one water closet and either a bathtub or shower within the unit shall comply with Sections 604 through 610. The accessible toilet and bathing fixtures shall be in a single toilet/bathing area, such that travel between fixtures does not require travel through other parts of the unit.

1002.11.2.1 Vanity counter top space. If vanity counter top space is provided in dwelling or sleeping units not required to be Accessible units within the same facility, equivalent vanity counter top space, in terms of size and proximity to the lavatory, shall also be provided in Accessible units.

1002.11.2.2 Mirrors. Mirrors above accessible lavatories shall have the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the floor.

1002.12 Kitchens and kitchenettes. Kitchens and kitchenettes shall comply with Section 804. At least one work surface, 30 inches (760 mm) minimum in length, shall comply with Section 902.

Exception: Spaces that do not provide a cooktop or conventional range shall not be required to provide an accessible work surface.

1002.13 Windows. Windows shall comply with Section 1002.13.

1002.13.1 Natural ventilation. Operable windows required to provide natural ventilation shall comply with Sections 309.2 and 309.3.

1002.13.2 Emergency escape. Operable windows required to provide an emergency escape and rescue opening shall comply with Section 309.2.

1002.14 Storage facilities. Where storage facilities are provided, at least one of each type shall comply with Section 905.

Exception: Kitchen cabinets shall not be required to comply with Section 1002.14.

1002.15 Beds. In at least one sleeping area, a minimum of five percent, but not less than one bed shall comply with Section 1002.15.

1002.15.1 Clear floor space. A clear floor space complying with Section 305 shall be provided on both sides of the 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 Section 305 positioned for parallel approach is

provided between two beds, a clear floor space shall not be required on both sides of the bed.

1002.15.2 Bed frames. At least one bed shall be provided with an open bed frame.

SECTION 1003 TYPE A UNITS

1003.1 General. Type A units shall comply with Section 1003.

1003.2 Primary entrance. The accessible primary entrance shall be on an accessible route from public and common areas. The primary entrance shall not be to a bedroom unless it is the only entrance.

1003.3 Accessible route. Accessible routes within Type A units shall comply with Section 1003.3.

1003.3.1 Location. At least one accessible route shall connect all spaces and elements that are a part of the unit. Accessible routes shall coincide with or be located in the same area as a general circulation path.

Exception: An accessible route is not required to unfinished attics and unfinished basements that are part of the unit.

1003.3.2 Turning space. All rooms served by an accessible route shall provide a turning space complying with Section 304.

Exceptions:

1. A turning space is not required in toilet rooms and bathrooms that are not required to comply with Section 1003.11.2.
2. A turning space is not required within closets or pantries that are 48 inches (1220 mm) maximum in depth.

1003.3.3 Components. Accessible routes shall consist of one or more of the following elements: walking surfaces with a slope not steeper than 1:20, doors and doorways, ramps, elevators, and platform lifts.

1003.4 Walking surfaces. Walking surfaces that are part of an accessible route shall comply with Section 403.

1003.5 Doors and doorways. The primary entrance door to the unit, and all other doorways intended for user passage, shall comply with Section 404.

Exceptions:

1. Thresholds at exterior sliding doors shall be permitted to be $\frac{3}{4}$ inch (19 mm) maximum in height, provided they are beveled with a slope not greater than 1:2.
2. In toilet rooms and bathrooms not required to comply with Section 1003.11.2, maneuvering clearances required by Section 404.2.3 are not required on the toilet room or bathroom side of the door.
3. A turning space between doors in a series as required by Section 404.2.5 is not required.
4. Storm and screen doors are not required to comply with Section 404.2.5.

5. Communicating doors between individual sleeping units are not required to comply with Section 404.2.5.
6. At other than the primary entrance door, where exterior space dimensions of balconies are less than the required maneuvering clearance, door maneuvering clearance is not required on the exterior side of the door.

1003.6 Ramps. Ramps shall comply with Section 405.

1003.7 Elevators. Elevators within the unit shall comply with Section 407, 408, or 409.

1003.8 Platform lifts. Platform lifts within the unit shall comply with Section 410.

1003.9 Operable parts. Lighting controls, electrical panelboards, electrical switches and receptacle outlets, environmental controls, appliance controls, operating hardware for operable windows, plumbing fixture controls, and user controls for security or intercom systems shall comply with Section 309.

Exceptions:

1. Receptacle outlets serving a dedicated use.
2. Where two or more receptacle outlets are provided in a kitchen above a length of counter top that is uninterrupted by a sink or appliance, one receptacle outlet shall not be required to comply with Section 309.
3. Floor receptacle outlets.
4. HVAC diffusers.
5. Controls mounted on ceiling fans.
6. Where redundant controls other than light switches are provided for a single element, one control in each space shall not be required to be accessible.
7. Reset buttons and shut-offs serving appliances, piping and plumbing fixtures.
8. Electrical panelboards shall not be required to comply with Section 309.4.

1003.10 Laundry equipment. Washing machines and clothes dryers shall comply with Section 611.

1003.11 Toilet and bathing facilities. At least one toilet and bathing facility shall comply with Section 1003.11.2. All toilet and bathing facilities shall comply with Section 1003.11.1.

1003.11.1 Grab bar and shower seat reinforcement. Reinforcement shall be provided for the future installation of grab bars complying with Section 604.5 at water closets; grab bars complying with Section 607.4 at bathtubs; and for grab bars and shower seats complying with Sections 608.3, 608.2.1.3, 608.2.2.3 and 608.2.3.2 at shower compartments.

Exceptions:

1. At fixtures not required to comply with Section 1003.11.2, reinforcement in accordance with Section 1004.11.1 shall be permitted.

2. Reinforcement is not required in a room containing only a lavatory and a water closet, provided the room does not contain the only lavatory or water closet on the accessible level of the dwelling unit.
3. Reinforcement for the water closet side wall vertical grab bar component required by Section 604.5 is not required.
4. Where the lavatory overlaps the water closet clearance in accordance with the exception to Section 1003.11.2.4.4 reinforcement at the water closet rear wall for a 24-inch (610 mm) minimum length grab bar, centered on the water closet, shall be provided.

1003.11.2 General. At least one toilet and bathing facility shall comply with Section 1003.11.2. At least one lavatory, one water closet and either a bathtub or shower within the unit shall comply with Section 1003.11.2. The accessible toilet and bathing fixtures shall be in a single toilet/bathing area, such that travel between fixtures does not require travel through other parts of the unit.

1003.11.2.1 Doors. Doors shall not swing into the clear floor space or clearance for any fixture.

Exception: Where a clear floor space complying with Section 305.3 is provided within the room beyond the arc of the door swing.

1003.11.2.2 Lavatory. Lavatories shall comply with Section 606.

Exception: Cabinetry shall be permitted under the lavatory, provided the following criteria are met:

- (a) The cabinetry can be removed without removal or replacement of the lavatory;
- (b) The floor finish extends under the cabinetry; and
- (c) The walls behind and surrounding the cabinetry are finished.

1003.11.2.3 Mirrors. Mirrors above accessible lavatories shall have the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the floor.

1003.11.2.4 Water closet. Water closets shall comply with Section 1003.11.2.4.

1003.11.2.4.1 Location. The water closet shall be positioned with a wall to the rear and to one side. The centerline of the water closet shall be 16 inches (405 mm) minimum and 18 inches (455 mm) maximum from the sidewall.

1003.11.2.4.2 Clearance width. Clearance around the water closet shall be 60 inches (1525 mm) minimum in width, measured perpendicular from the side wall.

1003.11.2.4.3 Clearance depth. Clearance around the water closet shall be 56 inches (1420 mm) minimum in depth, measured perpendicular from the rear wall.

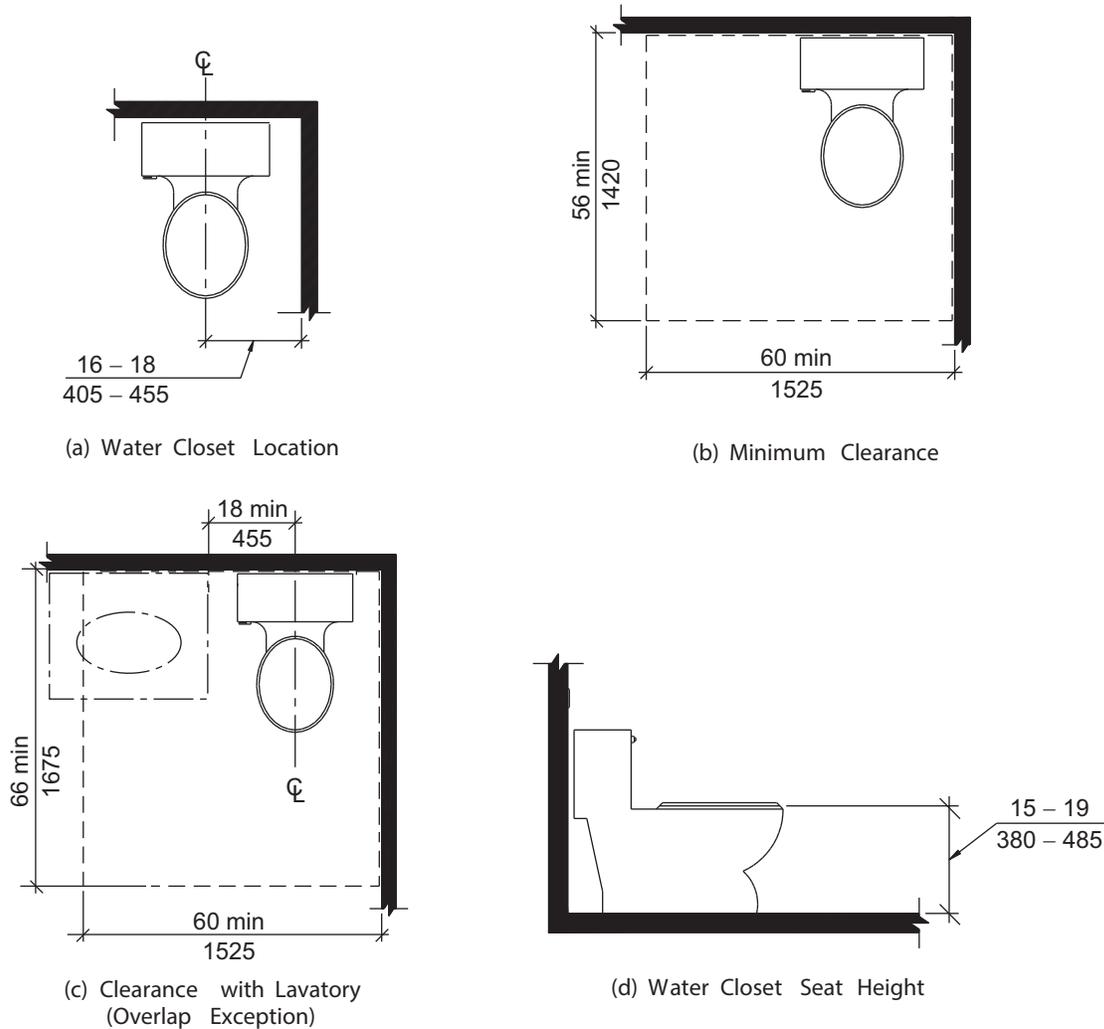


FIGURE 1003.11.2.4
WATER CLOSETS IN TYPE A UNITS

1003.11.2.4.4 Clearance overlap. The required clearance around the water closet shall be permitted to overlap the water closet, associated grab bars, paper dispensers, coat hooks, shelves, accessible routes, clear floor space required at other fixtures, and the wheelchair turning space. No other fixtures or obstructions shall be located within the required water closet clearance.

Exception: A lavatory measuring 24 inches (610 mm) maximum in depth and complying with Section 1003.11.2.2 shall be permitted on the rear wall 18 inches (455 mm) minimum from the centerline of the water closet to the side edge of the lavatory where the clearance at the water closet is 66 inches (1675 mm) minimum measured perpendicular from the rear wall.

1003.11.2.4.5 Height. The top of the water closet seat shall be 15 inches (380 mm) minimum and 19 inches (485 mm) maximum above the floor, measured to the top of the seat.

1003.11.2.4.6 Flush controls. Flush controls shall be hand-operated or automatic. Hand operated flush controls shall comply with Section 309. Hand-operated flush controls shall be located on the open side of the water closet.

1003.11.2.5 Bathing fixtures. The accessible bathing fixture shall be a bathtub complying with Section 1003.11.2.5.1 or a shower compartment complying with Section 1003.11.2.5.2.

1003.11.2.5.1 Bathtub. Bathtubs shall comply with Section 607.

Exceptions:

1. The removable in-tub seat required by Section 607.3 is not required.
2. Counter tops and cabinetry shall be permitted at one end of the clearance, provided the following criteria are met:
 - (a) The countertop and cabinetry can be removed;

- (b) The floor finish extends under the countertop and cabinetry; and
- (c) The walls behind and sur-rounding the countertop and cabinetry are finished.

1003.11.2.5.2 Shower. Showers shall comply with Section 608.

Exception: At standard roll-in shower compartments complying with Section 608.2.2, lavatories, counter tops and cabinetry shall be permitted at one end of the clearance, provided the following criteria are met:

- (a) The countertop and cabinetry can be removed;
- (b) The floor finish extends under the countertop and cabinetry; and
- (c) The walls behind and surrounding the countertop and cabinetry are finished.

1003.12 Kitchens and kitchenettes. Kitchens and kitchenettes shall comply with Section 1003.12.

1003.12.1 Clearance. Clearance complying with Section 1003.12.1 shall be provided.

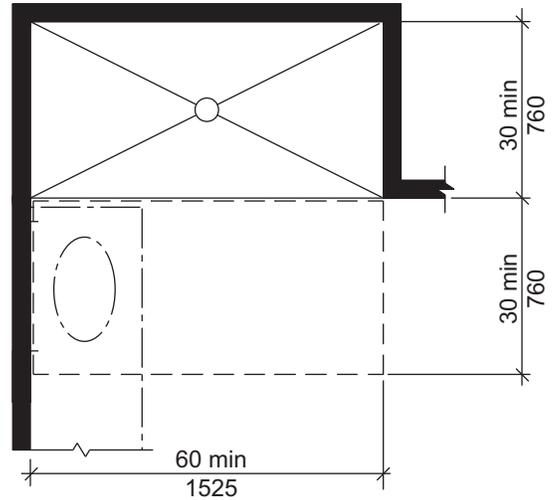
1003.12.1.1 Minimum clearance. Clearance between all opposing base cabinets, counter tops, appliances, or walls within kitchen work areas shall be 40 inches (1015mm) minimum.

1003.12.1.2 U-Shaped kitchens. In kitchens with counters, appliances, or cabinets on three contiguous sides, clearance between all opposing base cabinets,

countertops, appliances, or walls within kitchen work areas shall be 60 inches (1525 mm) minimum.

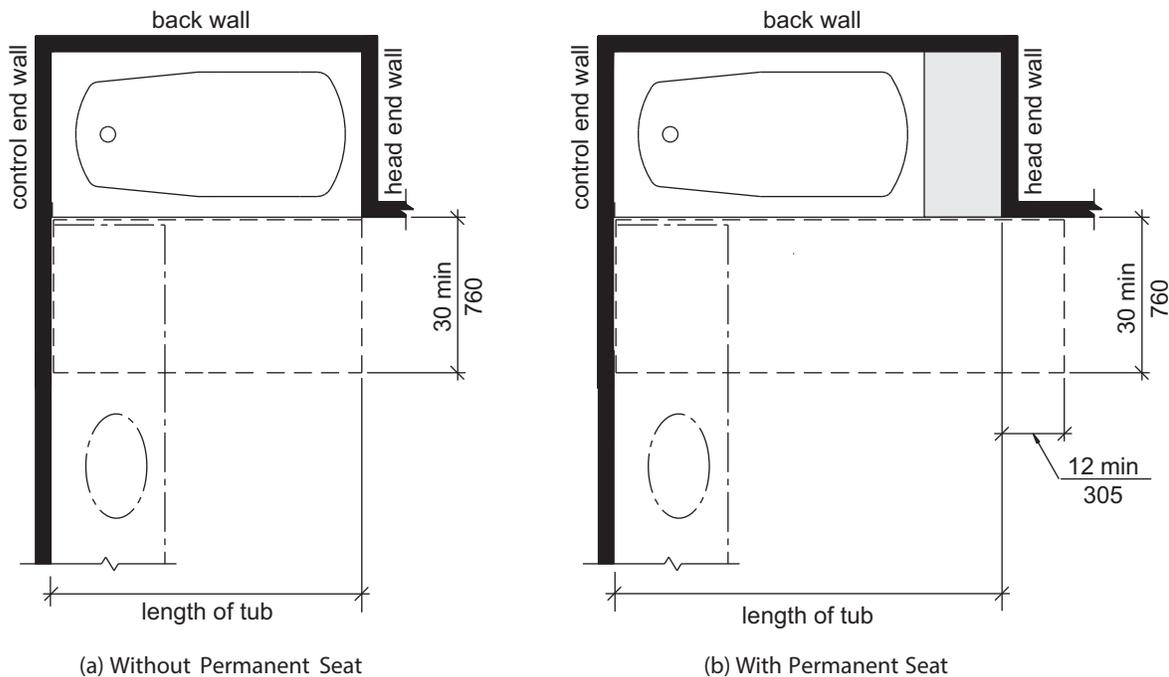
1003.12.2 Clear floor space. Clear floor spaces required by Sections 1003.12.3 through 1003.12.5 shall comply with Section 305.

1003.12.3 Work surface. At least one section of counter shall provide a work surface 30 inches (760 mm) minimum in length complying with Section 1003.12.3.



Note: Lavatory permitted per Section 608.2.2

**FIGURE 1003.11.2.5.2
STANDARD ROLL-IN-TYPE SHOWER
COMPARTMENT IN TYPE A UNITS**



**FIGURE 1003.11.2.5.1
CLEARANCE FOR BATHTUBS IN TYPE A UNITS**

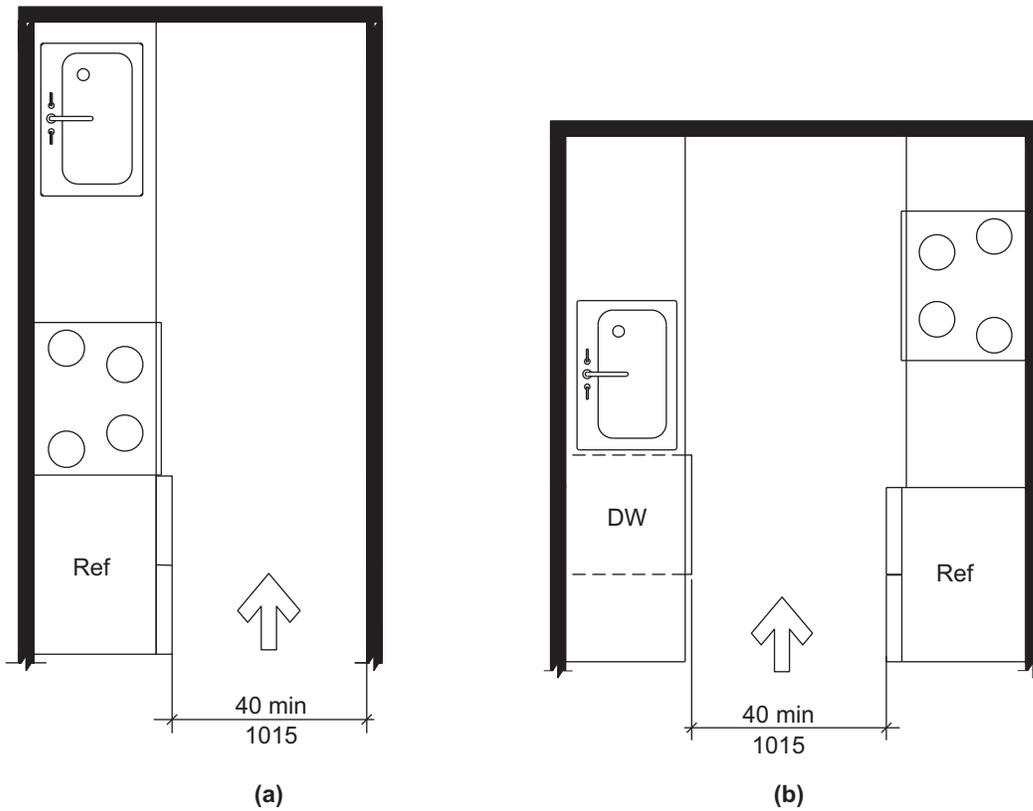


FIGURE 1003.12.1.1
MINIMUM KITCHEN CLEARANCE IN TYPE A UNITS

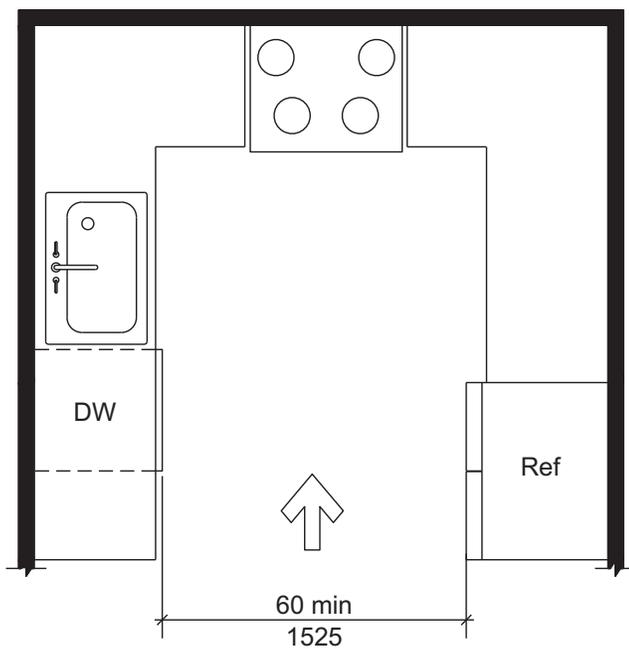
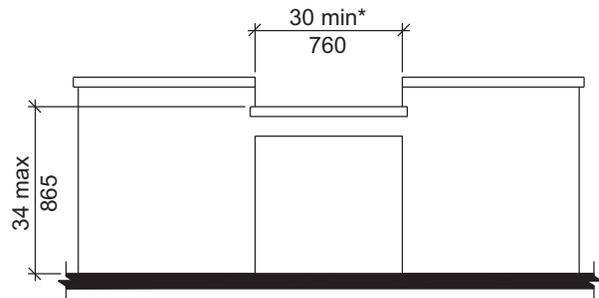


FIGURE 1003.12.1.2
U-SHAPED KITCHEN CLEARANCE IN TYPE A UNITS



* 36 min. (915) if part of T-shaped turning space per Sections 304.3.2 and 1003.3.2

FIGURE 1003.12.3
WORK SURFACE IN KITCHEN FOR TYPE A UNITS

1003.12.3.1 Clear floor space. A clear floor space, positioned for a forward approach to the work surface, shall be provided. Knee and toe clearance complying with Section 306 shall be provided. The clear floor space shall be centered on the work surface.

Exception: Cabinetry shall be permitted under the work surface, provided the following criteria are met:

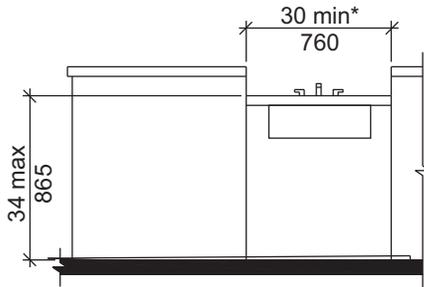
- (a) The cabinetry can be removed without removal or replacement of the work surface,
- (b) The floor finish extends under the cabinetry, and
- (c) The walls behind and surrounding the cabinetry are finished.

1003.12.3.2 Height. The work surface shall be 34 inches (865 mm) maximum above the floor.

Exception: A counter that is adjustable to provide a work surface at variable heights 29 inches (735 mm) minimum and 36 inches (915 mm) maximum above the floor, or that can be relocated within that range without cutting the counter or damaging adjacent cabinets, walls, doors, and structural elements, shall be permitted.

1003.12.3.3 Exposed surfaces. There shall be no sharp or abrasive surfaces under the exposed portions of work surface counters.

1003.12.4 Sink. The sink shall comply with Section 1003.12.4.



* 36 min. (915) if part of T-shaped turning space per Sections 304.3.2 and 1003.3.2

FIGURE 1003.12.4
KITCHEN SINK FOR TYPE A UNITS

1003.12.4.1 Clear floor space. A clear floor space, positioned for a forward approach to the sink, shall be provided. Knee and toe clearance complying with Section 306 shall be provided.

Exceptions:

- 1. The requirement for knee and toe clearance shall not apply to more than one bowl of a multi-bowl sink.
- 2. Cabinetry shall be permitted to be added under the sink, provided the following criteria are met:
 - (a) The cabinetry can be removed without removal or replacement of the sink,

- (b) The floor finish extends under the cabinetry, and
- (c) The walls behind and surrounding the cabinetry are finished.

1003.12.4.2 Height. The front of the sink shall be 34 inches (865 mm) maximum above the floor, measured to the higher of the rim or counter surface.

Exception: A sink and counter that is adjustable to variable heights 29 inches (735 mm) minimum and 36 inches (915 mm) maximum above the floor, or that can be relocated within that range without cutting the counter or damaging adjacent cabinets, walls, doors and structural elements, provided rough-in plumbing permits connections of supply and drain pipes for sinks mounted at the height of 29 inches (735 mm), shall be permitted.

1003.12.4.3 Faucets. Faucets shall comply with Section 309.

1003.12.4.4 Exposed pipes and surfaces. Water supply and drain pipes under sinks shall be insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under sinks.

1003.12.5 Appliances. Where provided, kitchen appliances shall comply with Section 1003.12.5.

1003.12.5.1 Operable parts. All appliance controls shall comply with Section 1003.9.

Exceptions:

- 1. Appliance doors and door latching devices shall not be required to comply with Section 309.4.
- 2. Bottom-hinged appliance doors, when in the open position, shall not be required to comply with Section 309.3.

1003.12.5.2 Clear floor space. A clear floor space, positioned for a parallel or forward approach, shall be provided at each kitchen appliance.

1003.12.5.3 Dishwasher. A clear floor space, positioned adjacent to the dishwasher door, shall be provided. The dishwasher door in the open position shall not obstruct the clear floor space for the dishwasher or an adjacent sink.

1003.12.5.4 Cooktop. Cooktops shall comply with Section 1003.12.5.4.

1003.12.5.4.1 Approach. A clear floor space, positioned for a parallel or forward approach to the cooktop, shall be provided.

1003.12.5.4.2 Forward approach. Where the clear floor space is positioned for a forward approach, knee and toe clearance complying with Section 306 shall be provided. The underside of the cooktop shall be insulated or otherwise configured to protect from burns, abrasions, or electrical shock.

1003.12.5.4.3 Parallel approach. Where the clear floor space is positioned for a parallel approach, the clear floor space shall be centered on the appliance.

1003.12.5.4.4 Controls. The location of controls shall not require reaching across burners.

1003.12.5.5 Oven. Ovens shall comply with Section 1003.12.5.5. Ovens shall have controls on front panels, on either side of the door.

1003.12.5.5.1 Clear floor space. A clear floor space shall be provided. The oven door in the open position shall not obstruct the clear floor space for the oven.

1003.12.5.5.2 Side-hinged door ovens. Side-hinged door ovens shall have a countertop positioned adjacent to the latch side of the oven door.

1003.12.5.5.3 Bottom-hinged door ovens. Bottom-hinged door ovens shall have a countertop positioned adjacent to one side of the door.

1003.12.5.5.4 Controls. The location of controls shall not require reaching across burners.

1003.12.5.6 Refrigerator/freezer. Combination refrigerators and freezers shall have at least 50 percent of the freezer compartment shelves, including the bottom of the freezer 54 inches (1370 mm) maximum above the floor when the shelves are installed at the maximum heights possible in the compartment. A clear floor space, positioned for a parallel approach to the refrigerator/freezer, shall be provided. The centerline of the clear floor space shall be offset 24 inches (610 mm) maximum from the centerline of the appliance.

1003.13 Windows. Windows shall comply with Section 1003.13.

1003.13.1 Natural ventilation. Operable windows required to provide natural ventilation shall comply with Sections 309.2 and 309.3.

1003.13.2 Emergency escape. Operable windows required to provide an emergency escape and rescue opening shall comply with Section 309.2.

1003.14 Storage facilities. Where storage facilities are provided, at least one of each type shall comply with Section 905.

Exception: Kitchen cabinets shall not be required to comply with Section 1003.14.

**SECTION 1004
TYPE B UNITS**

1004.1 General. Type B units shall comply with Section 1004.

1004.2 Primary entrance. The accessible primary entrance shall be on an accessible route from public and common areas. The primary entrance shall not be to a bedroom unless it is the only entrance.

1004.3 Accessible route. Accessible routes within Type B units shall comply with Section 1004.3.

1004.3.1 Location. At least one accessible route shall connect all spaces and elements that are a part of the unit.

Accessible routes shall coincide with or be located in the same area as a general circulation path.

Exceptions:

1. An accessible route is not required to unfinished attics and unfinished basements that are part of the unit.
2. One of the following is not required to be on an accessible route:
 - 2.1. A raised floor area in a portion of a living, dining, or sleeping room; or
 - 2.2. A sunken floor area in a portion of a living, dining, or sleeping room; or
 - 2.3. A mezzanine that does not have plumbing fixtures or an enclosed habitable space.

1004.3.2 Components. Accessible routes shall consist of one or more of the following elements: walking surfaces with a slope not steeper than 1:20, doors and doorways, ramps, elevators, and platform lifts.

1004.4 Walking surfaces. Walking surfaces that are part of an accessible route shall comply with Section 1004.4.

1004.4.1 Clear width. Clear width of an accessible route shall comply with Section 403.5.

1004.4.2 Changes in level. Changes in level shall comply with Section 303.

Exception: Where exterior deck, patio or balcony surface materials are impervious, the finished exterior impervious surface shall be 2 inches (50 mm) below the floor level of the adjacent interior spaces of the unit.

1004.5 Doors and doorways. Doors and doorways shall comply with Section 1004.5.

1004.5.1 Primary entrance door. The primary entrance door to the unit shall comply with Section 404.

Exception: Storm and screen doors serving individual dwelling or sleeping units are not required to comply with Section 404.2.5.

1004.5.2 User passage doorways. Doorways intended for user passage shall comply with Section 1004.5.2.

1004.5.2.1 Clear width. Doorways shall have a clear opening of 31³/₄ inches (805 mm) minimum. Clear opening of swinging doors shall be measured between the face of the door and stop, with the door open 90 degrees.

1004.5.2.1.1 Double leaf doorways. Where the operable parts on an inactive leaf of a double leaf doorway are located more than 48 inches (1220 mm) or less than 15 inches (380 mm) above the floor, the active leaf shall provide the clearance required by Section 1004.5.2.1.

1004.5.2.2 Thresholds. Thresholds shall comply with Section 303.

Exception: Thresholds at exterior sliding doors shall be permitted to be 3/4 inch (19 mm) maximum in height, provided they are beveled with a slope not steeper than 1:2.

M
N
M
N
M
N
M
N
M
N
M

1004.5.2.3 Automatic doors. Automatic doors shall comply with Section 404.3.

1004.6 Ramps. Ramps shall comply with Section 405.

1004.7 Elevators. Elevators within the unit shall comply with Section 407, 408, or 409.

1004.8 Platform lifts. Platform lifts within the unit shall comply with Section 410.

1004.9 Operable parts. Lighting controls, electrical switches and receptacle outlets, environmental controls, electrical panelboards, and user controls for security or intercom systems shall comply with Sections 309.2 and 309.3.

Exceptions:

1. Receptacle outlets serving a dedicated use.
2. Where two or more receptacle outlets are provided in a kitchen above a length of counter top that is uninterrupted by a sink or appliance, one receptacle outlet shall not be required to comply with Section 309.
3. Floor receptacle outlets.
4. HVAC diffusers.
5. Controls mounted on ceiling fans.
6. Controls or switches mounted on appliances.
7. Plumbing fixture controls.
8. Reset buttons and shut-offs serving appliances, piping and plumbing fixtures.
9. Where redundant controls other than light switches are provided for a single element, one control in each space shall not be required to be accessible.
10. Within kitchens and bathrooms, lighting controls, electrical switches and receptacle outlets are permitted to be located over cabinets with counter tops 36 inches (915 mm) maximum in height and 25½ inches (650 mm) maximum in depth.

1004.10 Laundry equipment. Washing machines and clothes dryers shall comply with Section 1004.10.

1004.10.1 Clear floor space. A clear floor space complying with Section 305.3, shall be provided. A parallel approach shall be provided for a top loading machine. A forward or parallel approach shall be provided for a front loading machine.

1004.11 Toilet and bathing facilities. Toilet and bathing fixtures shall comply with Section 1004.11.

Exception: Fixtures on levels not required to be accessible.

1004.11.1 Grab bar and shower seat reinforcement. Reinforcement shall be provided for the future installation of grab bars and shower seats at water closets, bathtubs, and shower compartments. Where walls are located to permit the installation of grab bars and seats complying with Section 604.5 at water closets; grab bars complying with Section 607.4 at bathtubs; and for grab bars and shower seats complying with Sections, 608.3, 608.2.1.3, 608.2.2.3 and 608.2.3.2 at shower compartments; reinforcement

shall be provided for the future installation of grab bars and seats complying with those requirements.

Exceptions:

1. In a room containing only a lavatory and a water closet, reinforcement is not required provided the room does not contain the only lavatory or water closet on the accessible level of the unit.
2. At water closets reinforcement for the side wall vertical grab bar component required by Section 604.5 is not required.
3. At water closets where wall space will not permit a grab bar complying with Section 604.5.2, reinforcement for a rear wall grab bar 24 inches (610 mm) minimum in length centered on the water closet shall be provided.
4. At water closets where a side wall is not available for a 42-inch (1065 mm) grab bar complying with Section 604.5.1, reinforcement for a sidewall grab bar, 24 inches (610 mm) minimum in length, located 12 inches (305 mm) maximum from the rear wall, shall be provided.
5. At water closets where a side wall is not available for a 42-inch (1065 mm) grab bar complying with Section 604.5.1 reinforcement for a swing-up grab bar complying with Section 1004.11.1.1 shall be permitted.
6. At water closets where a side wall is not available for a 42-inch (1065 mm) grab bar complying with Section 604.5.1 reinforcement for two swing-up grab bars complying with Section 1004.11.1.1 shall be permitted to be installed in lieu of reinforcement for rear wall and side wall grab bars.
7. In shower compartments larger than 36 inches (915 mm) in width and 36 inches (915 mm) in depth reinforcement for a shower seat is not required.

1004.11.1.1 Swing-up grab bars. A clearance of 18 inches (455 mm) minimum from the centerline of the water closet to any side wall or obstruction shall be provided where reinforcement for swing-up grab bars is provided. When the approach to the water closet is from the side, the 18 inches (455 mm) minimum shall be on the side opposite the direction of approach. Reinforcement shall accommodate a swing-up grab bar centered 15¾ inches (400 mm) from the centerline of the water closet and 28 inches (710 mm) minimum in length, measured from the wall to the end of the horizontal portion of the grab bar. Reinforcement shall accommodate a swing-up grab bar with a height in the down position of 33 inches (840 mm) minimum and 36 inches (915 mm) maximum. Reinforcement shall be adequate to resist forces in accordance with Section 609.8.

Exception: Where a water closet is positioned with a wall to the rear and to one side, the centerline of the water closet shall be 16 inches (405 mm) minimum and 18 inches (455 mm) maximum from the sidewall.

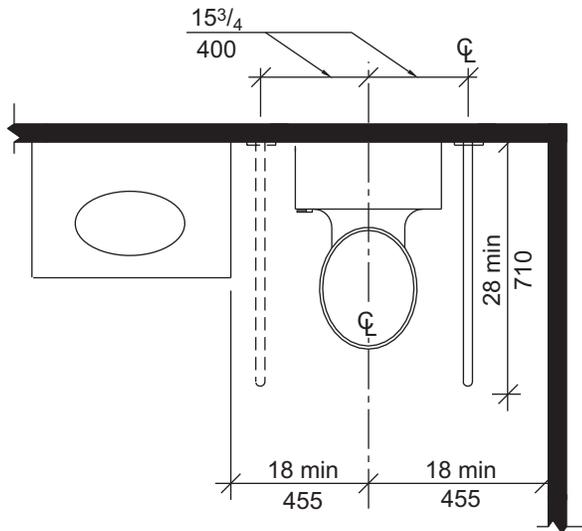


FIGURE 1004.11.1.1
SWING-UP GRAB BAR FOR WATER CLOSET

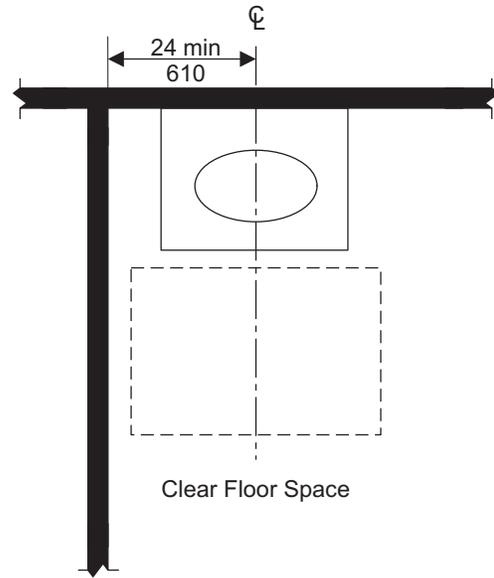


FIGURE 1004.11.3.1.1
LAVATORY IN TYPE B UNITS—OPTION A BATHROOMS

1004.11.2 Clear floor space. Clear floor spaces required by Section 1004.11.3.1 (Option A) or 1004.11.3.2 (Option B) shall comply with Sections 1004.11.2 and 305.3.

1004.11.2.1 Doors. Doors shall not swing into the clear floor space or clearance for any fixture.

Exception: Where a clear floor space complying with Section 305.3, excluding knee and toe clearances under elements, is provided within the room beyond the arc of the door swing.

1004.11.2.2 Knee and toe clearance. Clear floor space at fixtures shall be permitted to include knee and toe clearances complying with Section 306.

1004.11.3 Toilet and bathing areas. Either all toilet and bathing areas provided shall comply with Section 1004.11.3.1 (Option A), or one toilet and bathing area shall comply with Section 1004.11.3.2 (Option B).

1004.11.3.1 Option A. Each fixture provided shall comply with Section 1004.11.3.1.

Exceptions:

1. Where multiple lavatories are provided in a single toilet and bathing area such that travel between fixtures does not require travel through other parts of the unit, not more than one lavatory is required to comply with Section 1004.11.3.1.
2. A lavatory and a water closet in a room containing only a lavatory and water closet, provided the room does not contain the only lavatory or water closet on the accessible level of the unit.

1004.11.3.1.1 Lavatory. A clear floor space complying with Section 305.3, positioned for a parallel approach, shall be provided at a lavatory. The clear floor space shall be centered on the lavatory.

Exception: A lavatory complying with Section 606 shall be permitted. Cabinetry shall be permitted under the lavatory provided the following criteria are met:

- (a) The cabinetry can be removed without removal or replacement of the lavatory; and
- (b) The floor finish extends under the cabinetry; and
- (c) The walls behind and surrounding the cabinetry are finished.

1004.11.3.1.2 Water closet. The water closet shall comply with Section 1004.11.3.1.2.

1004.11.3.1.2.1 Location. The centerline of the water closet shall be 16 inches (405 mm) minimum and 18 inches (455 mm) maximum from one side of the required clearance.

1004.11.3.1.2.2 Clearance. Clearance around the water closet shall comply with Sections 1004.11.3.1.2.2.1 through 1004.11.3.1.2.2.3.

Exception: Clearance complying with Sections 1003.11.2.4.2 through 1003.11.2.4.4.

1004.11.3.1.2.2.1 Clearance width. Clearance around the water closet shall be 48 inches (1220 mm) minimum in width, measured perpendicular from the side of the clearance that is 16 inches (405 mm) minimum and 18 inches (455 mm) maximum from the water closet centerline.

1004.11.3.1.2.2.2 Clearance depth. Clearance around the water closet shall be 56 inches (1420 mm) minimum in depth, measured perpendicular from the rear wall.

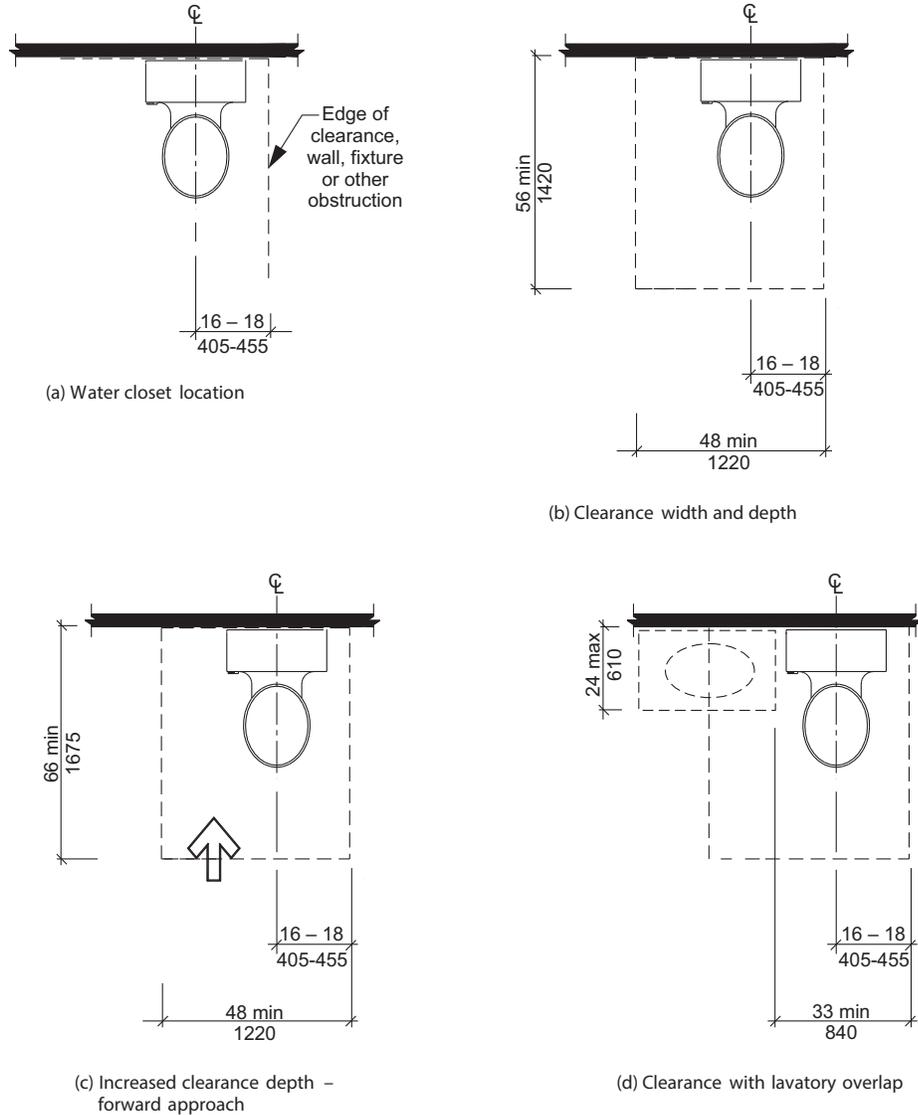


FIGURE 1004.11.3.1.2
CLEARANCE AT WATER CLOSETS IN TYPE B UNITS

1004.11.3.1.2.2.3 Increased clearance depth at forward approach. Where a forward approach is provided, the clearance shall be 66 inches (1675 mm) minimum in depth, measured perpendicular from the rear wall.

1004.11.3.1.2.2.4 Clearance overlap. A vanity or other obstruction 24 inches (610 mm) maximum in depth, measured perpendicular from the rear wall, shall be permitted to overlap the required clearance, provided the width of the remaining clearance at the water closet is 33 inches (840 mm) minimum.

1004.11.3.1.3 Bathing fixtures. Where provided, a bathtub shall comply with Section 1004.11.3.1.3.1 or 1004.11.3.1.3.2 and a shower compartment shall comply with Section 1004.11.3.1.3.3.

1004.11.3.1.3.1 Parallel approach bathtubs. A clearance 60 inches (1525 mm) minimum in

length and 30 inches (760 mm) minimum in width shall be provided in front of bathtubs with a parallel approach. Lavatories complying with Section 606 shall be permitted at the control end of the clearance. A lavatory complying with Section 1004.11.3.1.1 or a water closet shall be permitted at one end of the bathtub if a clearance of 48 inches (1220 mm) minimum in length and 30 inches (760 mm) minimum in width for a parallel approach is provided in front of the bathtub.

1004.11.3.1.3.2 Forward approach bathtubs. A clearance 60 inches (1525 mm) minimum in length and 48 inches (1220 mm) minimum in width shall be provided in front of bathtubs with a forward approach. A water closet and a lavatory shall be permitted in the clearance at one end of the bathtub.

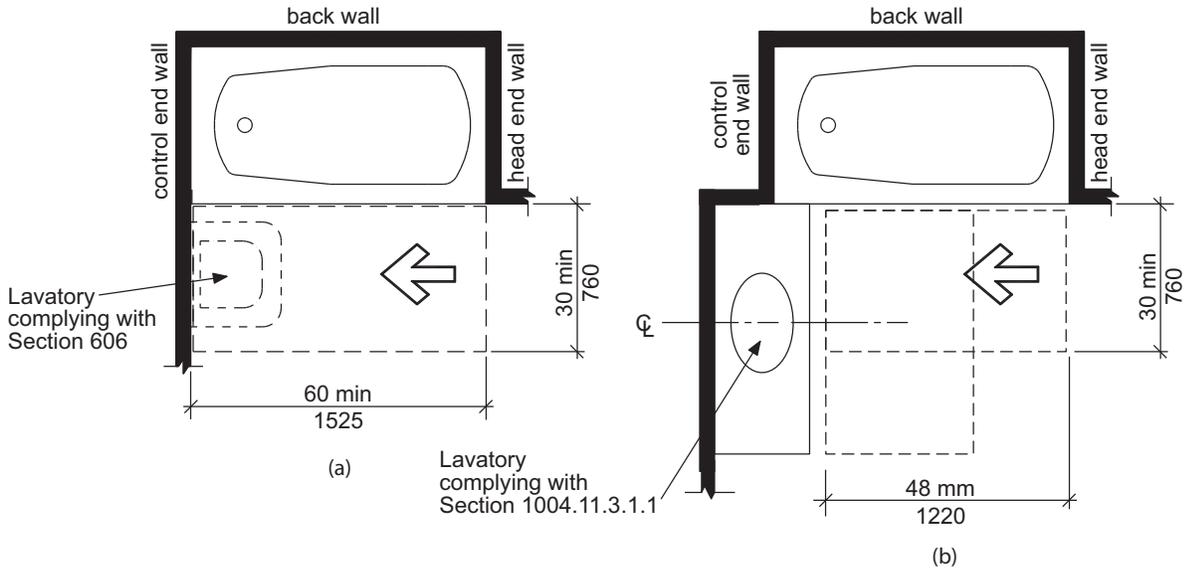


FIGURE 1004.11.3.1.3.1
PARALLEL APPROACH BATHTUB IN TYPE B UNITS—OPTION A BATHROOMS

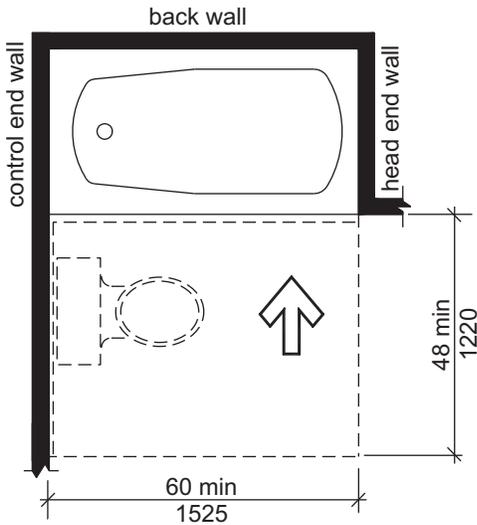


FIGURE 1004.11.3.1.3.2
FORWARD APPROACH BATHTUB IN
TYPE B UNITS—OPTION A BATHROOMS

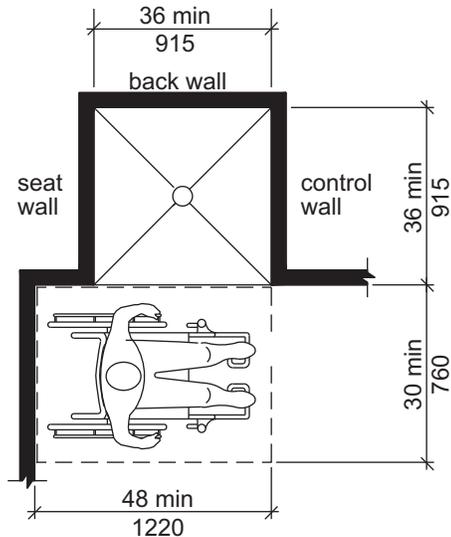


FIGURE 1004.11.3.1.3.3
TRANSFER-TYPE SHOWER
COMPARTMENT IN TYPE B UNITS

1004.11.3.1.3.3 Shower compartment. If a shower compartment is the only bathing facility, the shower compartment shall have dimensions of 36 inches (915 mm) minimum in width and 36 inches (915 mm) minimum in depth. A clearance of 48 inches (1220 mm) minimum in length, measured perpendicular from the shower head wall, and 30 inches (760 mm) minimum in depth, measured from the face of the shower compartment, shall be provided. Reinforcing for a shower seat is not required in shower compartments larger than 36 inches (915 mm) in width and 36 inches (915 mm) in depth.

1004.11.3.2 Option B. One of each type of fixture provided shall comply with Section 1004.11.3.2. The accessible fixtures shall be in a single toilet/bathing area, such that travel between fixtures does not require travel through other parts of the unit.

1004.11.3.2.1 Lavatory. Lavatories shall comply with Sections 1004.11.3.1.1 and 1004.11.3.2.1.1.

1004.11.3.2.1.1 Height. The front of the lavatory shall be 34 inches (865 mm) maximum above the floor, measured to the higher of the rim or counter surface.

1004.11.3.2.2 Water closet. The water closet shall comply with Section 1004.11.3.1.2.

1004.11.3.2.3 Bathing fixtures. The accessible bathing fixture shall be a bathtub complying with Section 1004.11.3.2.3.1 or a shower compartment complying with Section 1004.11.3.2.3.2.

1004.11.3.2.3.1 Bathtub. A clearance 48 inches (1220 mm) minimum in length measured perpendicular from the control end of the bathtub, and 30 inches (760 mm) minimum in width shall be provided in front of bathtubs.

1004.11.3.2.3.2 Shower compartment. A shower compartment shall comply with Section 1004.11.3.1.3.3.

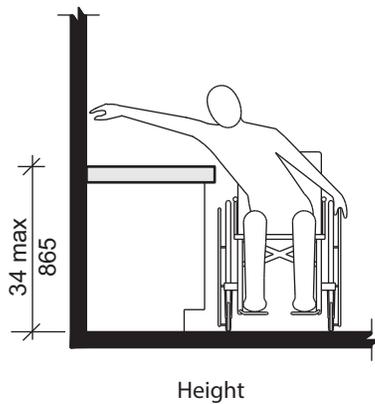


FIGURE 1004.11.3.2.1 LAVATORY IN TYPE B UNITS—OPTION B BATHROOMS

1004.12 Kitchens and kitchenettes. Kitchens and kitchenettes shall comply with Section 1004.12.

1004.12.1 Clearance. Clearance complying with Section 1004.12.1 shall be provided.

1004.12.1.1 Minimum clearance. Clearance between all opposing base cabinets, counter tops, appliances, or walls within kitchen work areas shall be 40 inches (1015 mm) minimum.

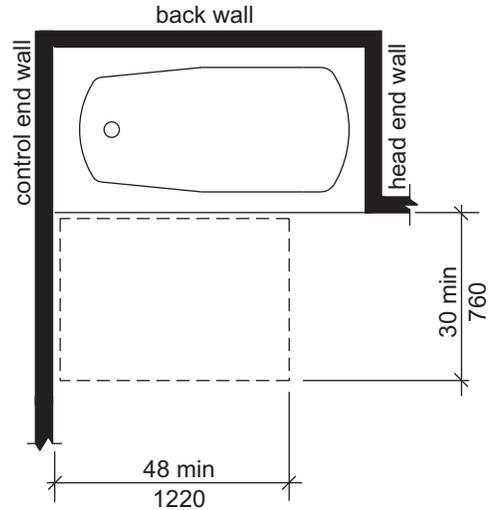
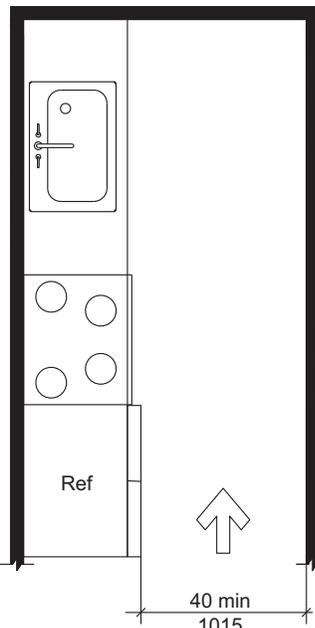
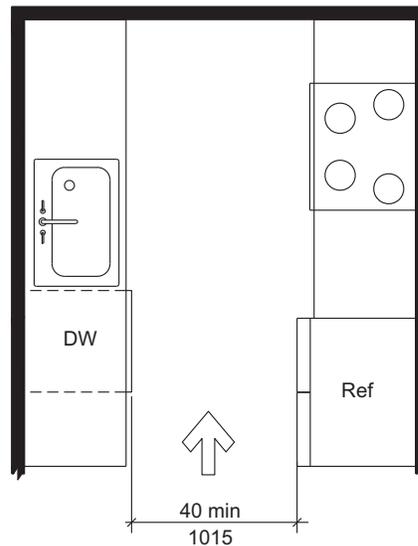


FIGURE 1004.11.3.2.3.1 BATHROOM CLEARANCE IN TYPE B UNITS—OPTION B BATHROOMS



(a)



(b)

FIGURE 1004.12.1.1 MINIMUM KITCHEN CLEARANCE IN TYPE B UNITS

1004.12.1.2 U-shaped kitchens. In kitchens with counters, appliances, or cabinets on three contiguous sides, clearance between all opposing base cabinets, countertops, appliances, or walls within kitchen work areas shall be 60 inches (1525 mm) minimum.

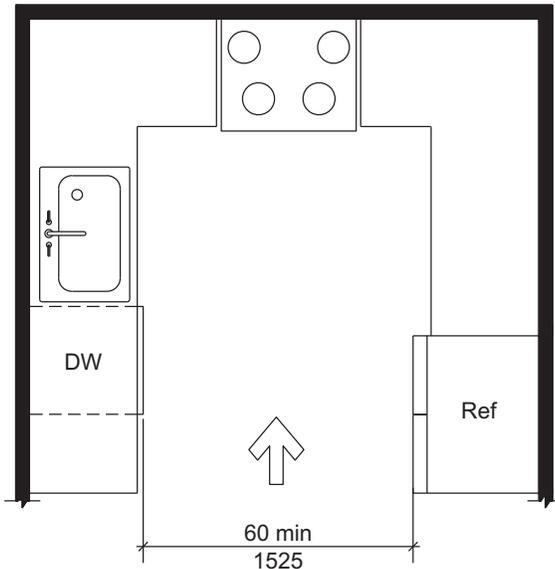


FIGURE 1004.12.1.2
U-SHAPED KITCHEN CLEARANCE IN TYPE B UNITS

1004.12.2 Clear floor space. Clear floor space at appliances shall comply with Sections 1004.12.2 and 305.3.

1004.12.2.1 Sink. A clear floor space, positioned for a parallel approach to the sink, shall be provided. The clear floor space shall be centered on the sink bowl.

Exception: A sink with a forward approach complying with Section 1003.12.4.1.

1004.12.2.2 Dishwasher. A clear floor space, positioned for a parallel or forward approach to the dishwasher, shall be provided. The dishwasher door in the open position shall not obstruct the clear floor space for the dishwasher.

1004.12.2.3 Cooktop. Cooktops shall comply with Section 1004.12.2.3.

1004.12.2.3.1 Approach. A clear floor space, positioned for a parallel or forward approach to the cooktop, shall be provided.

1004.12.2.3.2 Forward approach. Where the clear floor space is positioned for a forward approach, knee and toe clearance complying with Section 306 shall be provided. The underside of the cooktop shall be insulated or otherwise configured to prevent burns, abrasions, or electrical shock.

1004.12.2.3.3 Parallel approach. Where the clear floor space is positioned for a parallel approach, the clear floor space shall be centered on the appliance.

1004.12.2.4 Oven. A clear floor space, positioned for a parallel or forward approach adjacent to the oven shall

be provided. The oven door in the open position shall not obstruct the clear floor space for the oven.

1004.12.2.5 Refrigerator/freezer. A clear floor space, positioned for a parallel approach to the refrigerator/freezer, shall be provided. The centerline of the clear floor space shall be offset 24 inches (610 mm) maximum from the centerline of the appliance.

1004.12.2.6 Trash compactor. A clear floor space, positioned for a parallel or forward approach to the trash compactor, shall be provided.

SECTION 1005 TYPE C (VISITABLE) UNITS

1005.1 General. Type C (Visitable) dwelling units shall comply with Section 1005.

1005.2 Unit entrance. At least one unit entrance shall be on a circulation path complying with Section 1005.5 from a public street or sidewalk, a dwelling unit driveway, or a garage.

1005.3 Connected spaces. A circulation path complying with Section 1005.5 shall connect the unit entrance complying with Section 1005.2 and with the spaces specified in Section 1005.4.

1005.4 Interior spaces. The entrance level shall include a toilet room or bathroom complying with Section 1005.6 and one habitable space with an area 70 square feet (6.5 m²) minimum. Where a food preparation area is provided on the entrance level, it shall comply with Section 1005.7.

Exception: A toilet room or bathroom shall not be required on an entrance level with less than 120 square feet (11.1 m²) of habitable space.

1005.5 Circulation path. Circulation paths shall comply with Section 1005.5.

1005.5.1 Components. The circulation path shall consist of one or more of the following elements: walking surfaces with a slope not steeper than 1:20, doors and doorways, ramps, elevators complying with Sections 407 through 409, and wheelchair (platform) lifts complying with Section 410.

1005.5.2 Walking surfaces. Walking surfaces with slopes not steeper than 1:20 shall comply with Section 303.

1005.5.2.1 Clear width. The clear width of the circulation path shall comply with Section 403.5.

1005.5.3 Doors and doorways. Doors and doorways shall comply with Section 1005.5.3

1005.5.3.1 Clear width. Doorways shall have a clear opening of 31³/₄ inches (805 mm) minimum. Clear opening of swinging doors shall be measured between the face of the door and stop, with the door open 90 degrees.

1005.5.3.2 Thresholds. Thresholds shall comply with Section 303.

Exception: Thresholds at exterior sliding doors shall be permitted to be ³/₄ inch (19 mm) maximum

in height, provided they are beveled with a slope not steeper than 1:2.

1005.5.4 Ramps. Ramps shall comply with Section 405.

Exception: Handrails, intermediate landings and edge protection are not required where the sides of ramp runs have a vertical drop off of 1/2 inch (13 mm) maximum within 10 inches (255 mm) horizontally of the ramp run.

1005.5.4.1 Clear width. The clear width of the circulation path shall comply with Section 403.5.

1005.6 Toilet room or bathroom. At a minimum, the toilet room or bathroom required by Section 1005.4 shall include a lavatory and a water closet. Reinforcement shall be provided for the future installation of grab bars at water closets. Clearances at the water closet shall comply with Section 1004.11.3.1.2.

1005.7 Food preparation area. At a minimum, the food preparation area shall include a sink, a cooking appliance, and a refrigerator. Clearances between all opposing base cabinets, counter tops, appliances or walls within the food preparation area shall be 40 inches (1015 mm) minimum in width.

Exception: Spaces that do not provide a cooktop or conventional range shall be permitted to provide a clearance of 36 inches (915 mm) minimum in width.

1005.8 Lighting controls and receptacle outlets. Receptacle outlets and operable parts of lighting controls shall be located 15 inches (380 mm) minimum and 48 inches (1220 mm) maximum above the floor.

Exception: The following shall not be required to comply with Section 1005.8.

1. Receptacle outlets serving a dedicated use.
2. Controls mounted on ceiling fans and ceiling lights.
3. Floor receptacle outlets.
4. Lighting controls and receptacle outlets over countertops.

**SECTION 1006
UNITS WITH ACCESSIBLE
COMMUNICATION FEATURES**

1006.1 General. Units required to have accessible communication features shall comply with Section 1006.

1006.2 Unit smoke detection. Where provided, unit smoke detection shall include audible notification complying with NFPA 72 listed in Section 105.2.2.

1006.3 Building fire alarm system. Where a building fire alarm system is provided, the system wiring shall be extended to a point within the unit in the vicinity of the unit smoke detection system.

1006.4 Visible notification appliances. Visible notification appliances, where provided within the unit as part of the unit smoke detection system or the building fire alarm system, shall comply with Section 1006.4.

1006.4.1 Appliances. Visible notification appliances shall comply with Section 702.

1006.4.2 Activation. All visible notification appliances provided within the unit for smoke detection notification shall be activated upon smoke detection. All visible notification appliances provided within the unit for building fire alarm notification shall be activated upon activation of the building fire alarm in the portion of the building containing the unit.

1006.4.3 Interconnection. The same visible notification appliances shall be permitted to provide notification of unit smoke detection and building fire alarm activation.

1006.4.4 Prohibited use. Visible notification appliances used to indicate unit smoke detection or building fire alarm activation shall not be used for any other purpose within the unit.

1006.5 Unit primary entrance. Communication features shall be provided at the unit primary entrance complying with Section 1006.5.

1006.5.1 Notification. A hard-wired electric doorbell shall be provided. A button or switch shall be provided on the public side of the unit primary entrance. Activation of the button or switch shall initiate an audible tone within the unit.

1006.5.2 Identification. A means for visually identifying a visitor without opening the unit entry door shall be provided. Peepholes, where used, shall provide a minimum 180-degree range of view.

1006.6 Site, building, or floor entrance. Where a system permitting voice communication between a visitor and the occupant of the unit is provided at a location other than the unit entry door, the system shall comply with Section 1006.6.

1006.6.1 Public or common-use interface. The public or common-use system interface shall include the capability of supporting voice and TTY communication with the unit interface. When requested to be provided by a unit occupant, the cost of providing the public or common-use component of the voice and TTY interface shall not be borne by the unit occupant.

1006.6.2 Unit interface. The unit system interface shall include a telephone jack capable of supporting voice and TTY communication with the public or common-use system interface.

1006.7 Closed-circuit communication systems. Where a closed-circuit communication system is provided, the public or common-use system interface shall comply with Section 1006.6.1, and the unit system interface in units required to have accessible communication features shall comply with Section 1006.6.2.

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CHAPTER 11

RECREATIONAL FACILITIES

SECTION 1101 GENERAL

1101.1 Scope. Recreational facilities required to be accessible by the scoping provisions adopted by the administrative authority shall comply with the applicable provisions of Chapter 11.

1101.2 Special provisions.

1101.2.1 General exceptions. The following shall not be required to be accessible or to be on an accessible route:

1. Raised structures used solely for refereeing, judging, or scoring a sport.
2. Water Slides.
3. Animal containment areas that are not for public use.
4. Raised boxing or wrestling rings.
5. Raised diving boards and diving platforms.
6. Bowling lanes that are not required to provide wheelchair spaces.
7. Mobile or portable amusement rides
8. Amusement rides that are controlled or operated by the rider.
9. Amusement rides designed primarily for children, where children are assisted on and off the ride by an adult.
10. Amusement rides that do not provide amusement ride seats.

1101.2.2 Area of sport activity. Areas of sport activity shall be served by an accessible route and shall not be required to be accessible except as provided in Chapter 11.

1101.2.3 Recreational boating facilities. Operable parts of cleats and other boat securement devices shall not be required to comply with Section 308.

1101.2.4 Exercise machines and equipment. Exercise machines and exercise equipment shall not be required to comply with Section 309.

1101.3 Protruding objects. Protruding objects on circulation paths shall comply with Section 307.

Exceptions:

1. Within areas of sport activity, protruding objects on circulation paths shall not be required to comply with Section 307.
2. Within play areas, protruding objects on circulation paths shall not be required to comply with Section 307 provided that ground level accessible routes provide vertical clearance complying with Section 1108.2.

SECTION 1102 AMUSEMENT RIDES

1102.1 General. Accessible amusement rides shall comply with Section 1102.

1102.2 Accessible routes. Accessible routes serving amusement rides shall comply with Chapter 4.

Exceptions:

1. In load or unload areas and on amusement rides, where complying with Section 405.2 is not structurally or operationally feasible, ramp slope shall be permitted to be 1:8 maximum.
2. In load or unload areas and on amusement rides, handrails provided along walking surfaces complying with Section 403 and required on ramps complying with Section 405 shall not be required to comply with Section 505 where complying is not structurally or operationally feasible.

1102.3 Load and unload areas. A turning space complying with Sections 304.2 and 304.3 shall be provided in load and unload areas.

1102.4 Wheelchair spaces in amusement rides. Wheelchair spaces in amusement rides shall comply with Section 1102.4.

1102.4.1 Floor surface. The floor surface of wheelchair spaces shall be stable and firm.

1102.4.2 Slope. The floor surface of wheelchair spaces shall have a slope not steeper than 1:48 when in the load and unload position.

1102.4.3 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 $\frac{5}{8}$ inch (16 mm) and the horizontal gap shall be 3 inches (75 mm) maximum under normal passenger load conditions.

Exception: Where complying is not operationally or structurally feasible, ramps, bridge plates, or similar devices complying with the applicable requirements of 36 CFR 1192.83(c), listed in Section 105.2.11, shall be provided.

1102.4.4 Clearances. Clearances for wheelchair spaces shall comply with Section 1102.4.4.

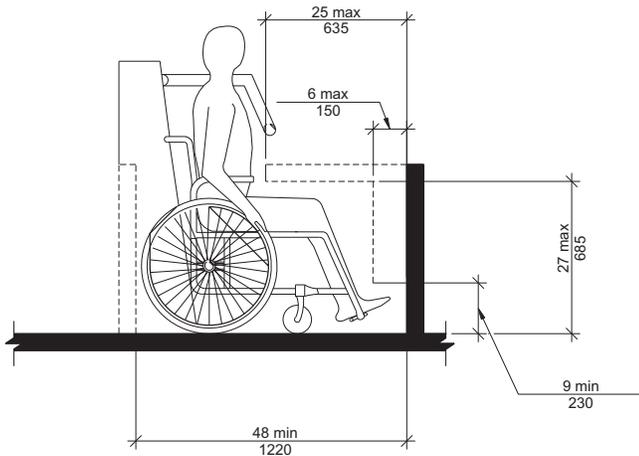
Exceptions:

1. Where provided, securement devices shall be permitted to overlap required clearances.
2. Wheelchair spaces shall be permitted to be mechanically or manually repositioned.
3. Wheelchair spaces shall not be required to comply with Section 307.4.

1102.4.4.1 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.

1102.4.4.2 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.

1102.4.4.3 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 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 of the wheelchair space.



**FIGURE 1102.4.4.3
PROTRUSIONS IN WHEELCHAIR SPACES
IN AMUSEMENT RIDES**

1102.4.5 Ride entry. Openings providing entry to wheelchair spaces on amusement rides shall provide a clear width of 32 inches (815 mm) minimum.

1102.4.6 Approach. One side of the wheelchair space shall adjoin an accessible route when in the load and unload position.

1102.4.7 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.

1102.4.7.1 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,

complying with this requirement shall be required to the maximum extent practicable.

1102.5 Amusement ride seats designed for transfer. Amusement ride seats designed for transfer shall comply with Section 1102.5 when positioned for loading and unloading.

1102.5.1 Clear floor space. A clear floor space complying with Section 305 shall be provided in the load and unload area adjacent to the amusement ride seats designed for transfer.

1102.5.2 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.

1102.5.3 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.

1102.5.4 Wheelchair storage space. Wheelchair storage spaces complying with Section 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.

1102.6 Transfer devices for use with amusement rides. Transfer devices for use with amusement rides shall comply with Section 1102.6 when positioned for loading and unloading.

1102.6.1 Clear floor space. A clear floor space complying with Section 305 shall be provided in the load and unload area adjacent to the transfer device.

1102.6.2 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.

1102.6.3 Wheelchair storage space. Wheelchair storage spaces complying with Section 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.

**SECTION 1103
RECREATIONAL BOATING FACILITIES**

1103.1 General. Accessible recreational boating facilities shall comply with Section 1103.

1103.2 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 Section 1103.2.

1103.2.1 Boat slips. An accessible route shall serve boat slips.

Exceptions:

1. 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 Section 1103.2.

2. Gangways shall not be required to comply with the maximum rise specified in Section 405.6.
3. 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 Section 405.2.
4. 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 Section 405.2.
5. Where gangways connect to transition plates, landings specified by Section 405.7 shall not be required.
6. 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 floor.
7. The cross slope specified in Sections 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.
8. Changes in level complying with Sections 303.3 and 303.4 shall be permitted on the surfaces of gangways and boat launch ramps.
9. Cleats and other boat securement devices shall not be required to comply with Section 309.3.

1103.2.2 Boarding piers at boat launch ramps. An accessible route shall serve boarding piers.

Exceptions:

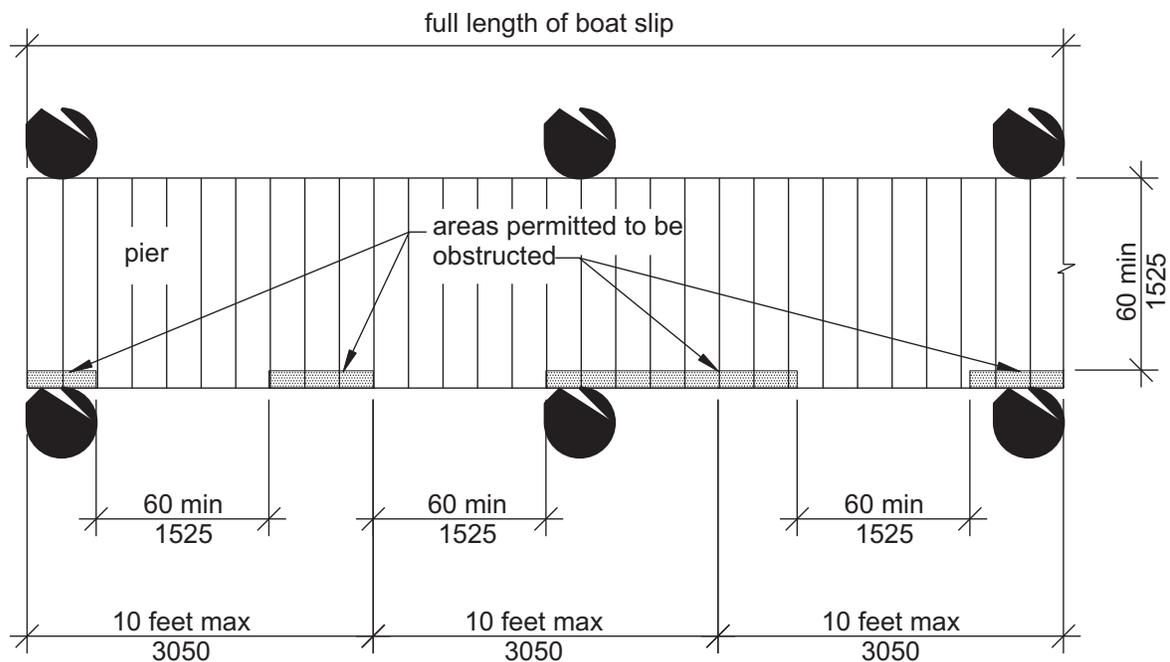
1. Accessible routes serving floating boarding piers shall be permitted to use Exceptions 1, 2, 5, 6, 7 and 8 in Section 1103.2.1.
2. Where the total length of the gangway or series of gangways serving as part of a required accessible route is 30 feet (9145 mm) minimum, gangways shall not be required to comply with Section 405.2.
3. 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 Section 405.

1103.3 Clearances. Clearances at boat slips and on boarding piers at boat launch ramps shall comply with Section 1103.3.

1103.3.1 Boat slip clearance. Boat slips shall provide clear pier space 60 inches (1525 mm) minimum in width that extend the full length of the boat slips. Each 10 feet (3050 mm) of linear pier edge serving boat slips shall contain at least one continuous clear opening 60 inches (1525 mm) minimum in width.

Exceptions:

1. Clear pier space shall be permitted to be 36 inches (915 mm) minimum in width and 24 inches (610 mm) maximum in length, provided that multiple 36-inch (915 mm) wide segments



**FIGURE 1103.3.1(A)
BOAT SLIP CLEARANCE**

are separated by segments that are 60 inches (1525 mm) minimum in width and 60 inches (1525 mm) minimum in length.

2. Edge protection shall be permitted at the continuous clear openings, provided the edge protection is 4 inches (100 mm) maximum in height and 2 inches (51 mm) maximum in width.
3. 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 Section 1103.3, and further compliance with Section 1103.3 would result in a reduction in the number of boat slips available or result in a reduction of the widths of existing slips.

1103.3.2 Boarding pier clearances. Boarding piers at boat launch ramps shall provide clear pier space 60 inches

(1525 mm) minimum in width and shall extend the full length of the boarding pier. Every 10 feet (3050 mm) of linear pier edge shall contain at least one continuous clear opening 60 inches (1525 mm) minimum in width.

Exceptions:

1. The clear pier space shall be permitted to be 36 inches (915 mm) minimum in width and 24 inches (610 mm) maximum in length provided that multiple 36-inch (915 mm) wide segments are separated by segments that are 60 inches (1525 mm) minimum in width and 60 inches (1525 mm) minimum in length.
2. Edge protection shall be permitted at the continuous clear openings provided the edge protection is 4 inches (100 mm) maximum in height and 2 inches (51 mm) maximum in width.

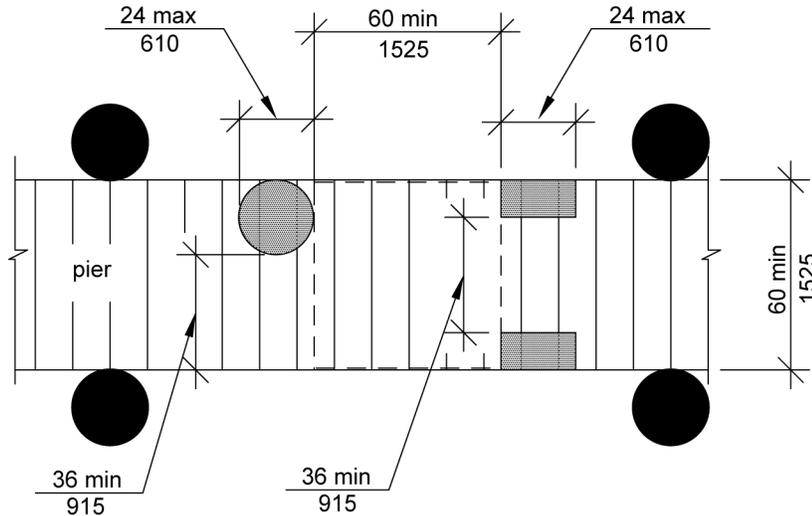


FIGURE 1103.3.1(B)
(EXCEPTION 1) CLEAR PIER SPACE REDUCTION AT BOAT SLIPS

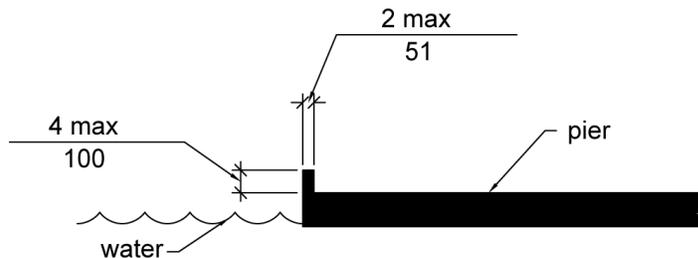


FIGURE 1103.3.1(C)
(EXCEPTION 2) EDGE PROTECTION AT BOAT SLIPS

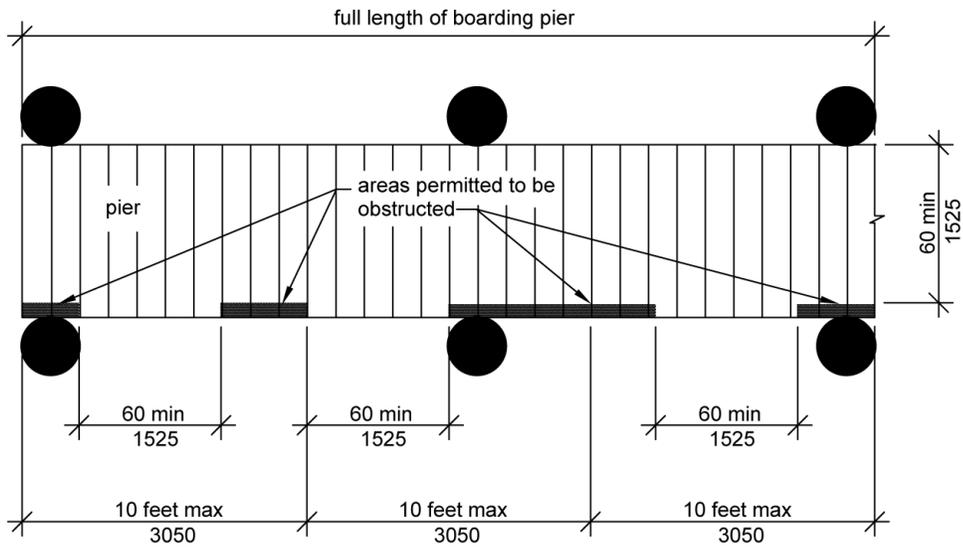


FIGURE 1103.3.2(A)
BOARDING PIER CLEARANCE

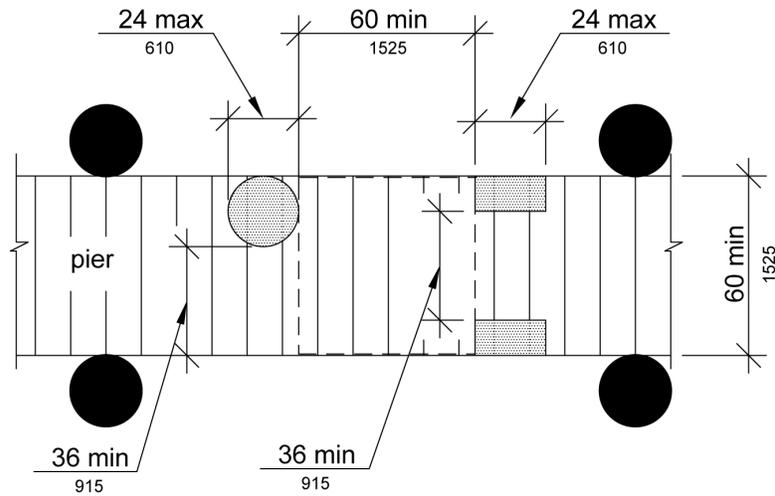


FIGURE 1103.3.2(B)
(EXCEPTION 1) CLEAR PIER SPACE REDUCTION AT BOARDING PIERS

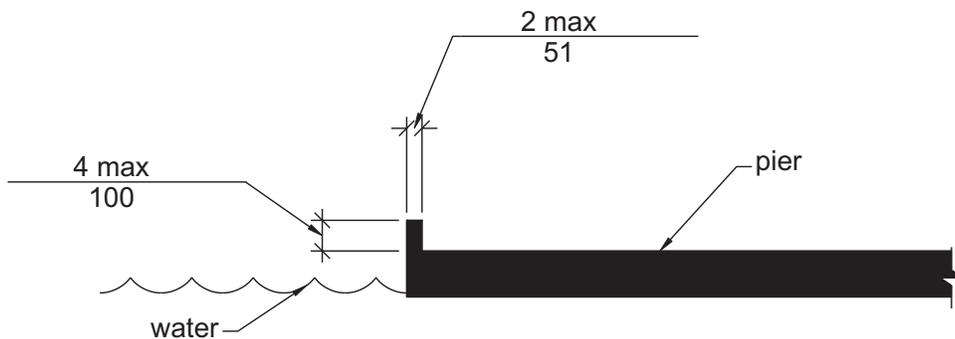


FIGURE 1103.3.2(C)
(EXCEPTION 2) EDGE PROTECTION AT BOARDING PIERS

**SECTION 1104
EXERCISE MACHINES AND EQUIPMENT**

1104.1 Clear floor space. Accessible exercise machines and equipment shall have a clear floor space complying with Section 305 positioned for transfer or for use by an individual seated in a wheelchair. Clear floor spaces required at exercise machines and equipment shall be permitted to overlap.

**SECTION 1105
FISHING PIERS AND PLATFORMS**

1105.1 Accessible routes. Accessible routes serving fishing piers and platforms, including gangways and floating piers, shall comply with Chapter 4.

Exceptions:

1. Accessible routes serving floating fishing piers and platforms shall be permitted to use Exceptions 1, 2, 5, 6, 7 and 8 in Section 1103.2.1.
2. 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 Section 405.2.

1105.2 Railings. Where provided, railings, guards, or handrails shall comply with Section 1105.2.

1105.2.1 Height. A minimum of 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 the applicable building code is provided, the guard shall not be required to comply with Section 1105.2.1.

1105.2.1.1 Dispersion. Railings, guards, or handrails required to comply with Section 1105.2.1 shall be dispersed throughout the fishing pier or platform.

1105.3 Edge protection. Where railings, guards, or handrails complying with Section 1105.2 are provided, edge protection complying with Section 1105.3.1 or 1105.3.2 shall be provided.

1105.3.1 Curb or barrier. Curbs or barriers shall extend 2 inches (51 mm) minimum in height above the surface of the fishing pier or platform.

1105.3.2 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) minimum in width and 9 inches (230 mm) minimum in height above the ground or deck surface beyond the railing.

1105.4 Clear floor space. At each location where there are railings, guards, or handrails complying with Section 1105.2.1, a clear floor space complying with Section 305 shall be provided. Where there are no railings, guards, or handrails, at least one clear floor space complying with Section 305 shall be provided on the fishing pier or platform.

1105.5 Turning space. At least one turning space complying with Section 304.3 shall be provided on fishing piers and platforms.

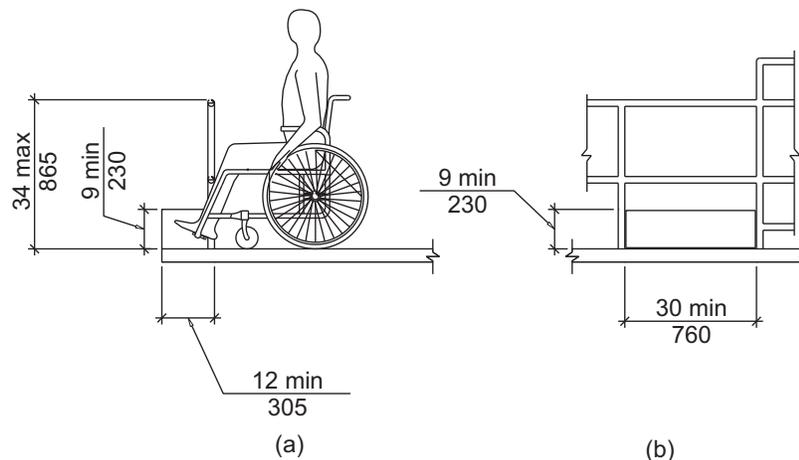
**SECTION 1106
GOLF FACILITIES**

1106.1 General. Golf facilities shall comply with Section 1106.

1106.2 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) minimum in width. Where handrails are provided, accessible routes shall be 60 inches (1525 mm) minimum in width.

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 Section 505.

1106.3 Golf car passages. Golf car passages shall comply with Section 1106.3.



**FIGURE 1105.3.2
EXTENDED GROUND OR DECK SURFACE AT FISHING PIERS AND PLATFORMS**

1106.3.1 Clear width. The clear width of golf car passages shall be 48 inches (1220 mm) minimum.

1106.3.2 Barriers. Where curbs or other constructed barriers prevent golf cars from entering a fairway, openings 60 inches (1525 mm) minimum in width shall be provided at intervals not to exceed 75 yards (69 m).

1106.4 Weather shelters. A clear floor space 60 inches (1525 mm) minimum by 96 inches (2440 mm) minimum shall be provided within weather shelters.

SECTION 1107 MINIATURE GOLF FACILITIES

1107.1 General. Miniature golf facilities shall comply with Section 1107.

1107.2 Accessible routes. Accessible routes serving holes on miniature golf courses shall comply with Chapter 4.

Exception: Accessible routes located on playing surfaces of miniature golf holes shall be permitted to comply with the following:

1. Playing surfaces shall not be required to comply with Section 302.2.
2. Where accessible routes intersect playing surfaces of holes, a curb that is 1 inch (25 mm) maximum in height and 32 inches (815 mm) minimum in width shall be permitted.
3. A slope of 1:4 maximum shall be permitted for a rise of 4 inches (100 mm) maximum.
4. Ramp landing slopes specified by Section 405.7.1 shall be permitted to be 1:20 maximum.
5. Ramp landing length specified by Section 405.7.3 shall be permitted to be 48 inches (1220 mm) minimum.
6. Ramp landing size at a change in direction specified by Section 405.7.4 shall be permitted to be 48 inches

(1220 mm) minimum by 60 inches (1525 mm) minimum.

7. Handrails shall not be required on holes. Where handrails are provided on holes, the handrails shall not be required to comply with Section 505.

1107.3 Miniature golf holes. Miniature golf holes shall comply with Section 1107.3.

1107.3.1 Start of play. A clear floor 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.

1107.3.2 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 space 36 inches (915 mm) minimum in width and 48 inches (1220 mm) minimum in length having a running slope not steeper than 1:20. The clear floor space shall be served by an accessible route.

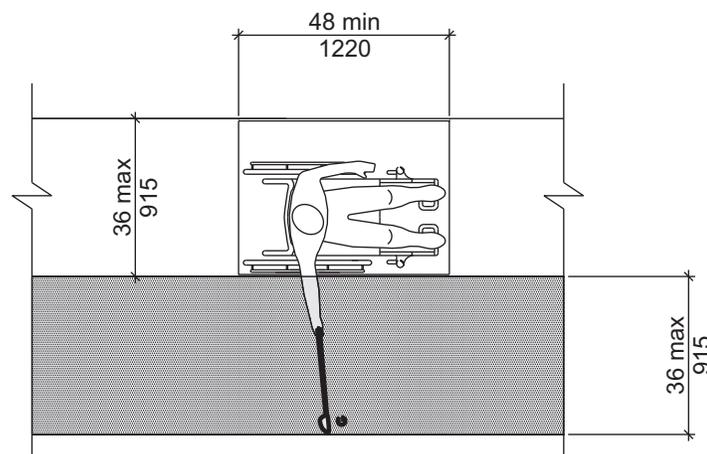
SECTION 1108 PLAY AREAS

1108.1 Scope. Play areas shall comply with 1108.

1108.2 Accessible routes for play areas. Play areas shall provide accessible routes in accordance with Section 1108.2. Accessible routes serving play areas shall comply with Chapter 4 except as modified by Section 1108.4.

1108.2.1 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 Section 1108.3.2.1 and elevated play components required to comply with Section 1108.3.2.2, including entry and exit points of the play components.

1108.2.2 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



Note: Running Slope of Clear Floor or Ground Space Not Steeper Than 1:20

FIGURE 1107.3.2
GOLF CLUB REACH RANGE AREA

RECREATIONAL FACILITIES

soft contained play structures, at least two entry points shall be on an accessible route.

1108.3 Age groups. Play areas for children ages 2 and over shall comply with Section 1108.3. Where separate play areas are provided within a site for specific age groups, each play area shall comply with Section 1108.3.

Exceptions:

1. Play areas located in family child care facilities where the proprietor actually resides shall not be required to comply with Section 1108.3.
2. 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 Section 1108.3.
3. Amusement attractions shall not be required to comply with Section 1108.3.
4. Where play components are altered and the ground surface is not altered, the ground surface shall not be required to comply with Section 1108.4.1.6 unless required by the authority having jurisdiction.

1108.3.1 Additions. Where play areas are designed and constructed in phases, the requirements of Section 1108.3 shall apply to each successive addition so that when the addition is completed, the entire play area complies with all the applicable requirements of Section 1108.3.

1108.3.2 Play components. Where provided, play components shall comply with Section 1108.3.2.

1108.3.2.1 Ground level play components. Ground level play components shall be provided in the number and types required by Section 1108.3.2.1. Ground level play components that are provided to comply with Section 1108.3.2.1.1 shall be permitted to satisfy the additional number required by Section 1108.3.2.1.2 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.

1108.3.2.1.1 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 Section 1108.4.3.

1108.3.2.1.2 Additional number and types. Where elevated play components are provided, ground level play components shall be provided in accordance with Table 1108.3.2.1.2 and shall comply with Section 1108.4.3.

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 Section 1108.3.2.1.2.

1108.3.2.2 Elevated play components. Where elevated play components are provided, at least 50 percent shall be on an accessible route and shall comply with Section 1108.4.3.

1108.4 Accessible routes within play areas. Play areas shall comply with Section 1108.4.

1108.4.1 Accessible routes. Accessible routes serving play areas shall comply with Chapter 4 and Section 1108.4.1 and shall be permitted to use the exceptions in Sections 1108.4.1.1 through 1108.4.1.3. Where accessible routes serve ground level play components, the vertical clearance shall be 80 inches (2030 mm) minimum in height.

1108.4.1.1 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 Section 1108.4.1.1.

Exceptions:

1. Transfer systems complying with Section 1108.4.2 shall be permitted to connect elevated play components except where 20 or

**TABLE 1108.3.2.1.2
NUMBER AND TYPES OF GROUND LEVEL PLAY COMPONENTS REQUIRED TO BE ON ACCESSIBLE ROUTES**

NUMBER OF ELEVATED PLAY COMPONENTS PROVIDED	MINIMUM NUMBER OF GROUND LEVEL PLAY COMPONENTS REQUIRED TO BE ON AN ACCESSIBLE ROUTE	MINIMUM NUMBER OF GROUND LEVEL PLAY COMPONENTS REQUIRED TO BE ON AN ACCESSIBLE ROUTE
1	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
22 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

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.

2. 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.

1108.4.1.2 Soft contained play structures. Accessible routes serving soft contained play structures shall be permitted to use the exception in Section 1108.4.1.2.

Exception: Transfer systems complying with Section 1108.4.2 shall be permitted to be used as part of an accessible route.

1108.4.1.3 Water play components. Accessible routes serving water play components shall be permitted to use the exceptions in Section 1108.4.1.3.

Exceptions:

1. Where the surface of the accessible route, clear floor spaces, or turning spaces serving water play components is submerged, complying with Sections 302, 403.3, 405.2, 405.3, and 1108.4.1.6 shall not be required.
2. Transfer systems complying with Section 1108.4.2 shall be permitted to connect elevated play components in water.

1108.4.1.4 Clear width. Accessible routes connecting play components shall provide a clear width complying with Section 1108.4.1.4.

1108.4.1.4.1 Ground level. At ground level, the clear width of accessible routes shall be 60 inches (1525 mm) minimum.

Exceptions:

1. 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 Section 304.3 is provided where the restricted accessible route exceeds 30 feet (9145 mm) in length.
2. 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) minimum in width and 60 inches (1525 mm) minimum in length.

1108.4.1.4.2 Elevated. The clear width of accessible routes connecting elevated play components shall be 36 inches (915 mm) minimum.

Exceptions:

1. 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) minimum in length and 36 inches (915 mm) minimum in width.

2. The clear width of transfer systems connecting elevated play components shall be permitted to be 24 inches (610 mm) minimum.

1108.4.1.5 Ramps. Within play areas, ramps connecting ground level play components and ramps connecting elevated play components shall comply with Section 1108.4.1.5.

1108.4.1.5.1 Ground level. Ramp runs connecting ground level play components shall have a running slope not steeper than 1:16.

1108.4.1.5.2 Elevated. The rise for any ramp run connecting elevated play components shall be 12 inches (305 mm) maximum.

1108.4.1.5.3 Handrails. Where required on ramps serving play components, the handrails shall comply with Section 505 except as modified by Section 1108.4.1.5.3.

Exceptions:

1. Handrails shall not be required on ramps located within ground level use zones.
2. Handrail extensions shall not be required.

1108.4.1.5.3.1 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 noncircular, the handrail shall provide an equivalent gripping surface.

1108.4.1.5.3.2 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.

1108.4.1.6 Ground surfaces. Ground surfaces on accessible routes, clear floor spaces, and turning spaces shall comply with Section 1108.4.1.6.

1108.4.1.6.1 Surface condition. Ground surfaces shall be stable, firm and slip resistant. Ground surfaces shall be inspected and maintained regularly and frequently to ensure continued compliance with this requirement.

1108.4.1.6.2 Use zones. Ground surfaces located within use zones shall comply with ASTM F 1292 listed in Sections 105.2.8 or 105.2.9.

1108.4.2 Transfer systems. Where transfer systems are provided to connect to elevated play components, the transfer systems shall comply with Section 1108.4.2.

1108.4.2.1 Transfer platforms. Transfer platforms shall be provided where transfer is intended from

wheelchairs or other mobility aids. Transfer platforms shall comply with Section 1108.4.2.1.

1108.4.2.1.1 Size. Transfer platforms shall have level surfaces 14 inches (355 mm) minimum in depth and 24 inches (610 mm) minimum in width.

1108.4.2.1.2 Height. The top of the transfer platforms shall be 11 inches (280 mm) minimum and 18 inches (455 mm) maximum in height above the floor.

1108.4.2.1.3 Transfer space. A transfer space complying with Sections 305.2 and 305.3 shall be provided adjacent to the transfer platform. The 48-inch (1220 mm) minimum length dimension of the transfer space shall be centered on and parallel to the 24-inch (610 mm) minimum length side of the transfer platform. The side of the transfer platform serving the transfer space shall be unobstructed.

1108.4.2.1.4 Transfer supports. At least one means of support for transferring shall be provided.

1108.4.2.2 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 Section 1108.4.2.2.

1108.4.2.2.1 Size. Transfer steps shall have level surfaces 14 inches (355 mm) minimum in depth and 24 inches (610 mm) minimum in width.

1108.4.2.2.2 Height. Each transfer step shall be 8 inches (205 mm) maximum in height.

1108.4.2.2.3 Transfer supports. At least one means of support for transferring shall be provided.

1108.4.3 Play components. Ground level play components on accessible routes and elevated play components connected by ramps shall comply with Section 1108.4.3.

1108.4.3.1 Turning space. At least one turning space complying with Section 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.

1108.4.3.2 Clear floor space. Clear floor space complying with Sections 305.2 and 305.3 shall be provided at play components.

1108.4.3.3 Play tables. Where play tables are provided, knee clearance 24 inches (610 mm) minimum in height, 17 inches (430 mm) minimum in depth, and 30 inches (760 mm) minimum in width shall be provided. The tops of rims, curbs, or other obstructions shall be 31 inches (785 mm) maximum in height.

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 space required by Section 1108.4.3.2 is arranged for a parallel approach.

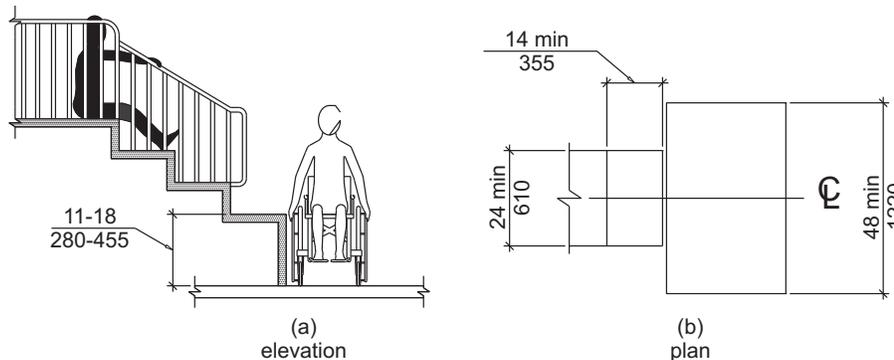


FIGURE 1108.4.2.1
TRANSFER PLATFORMS

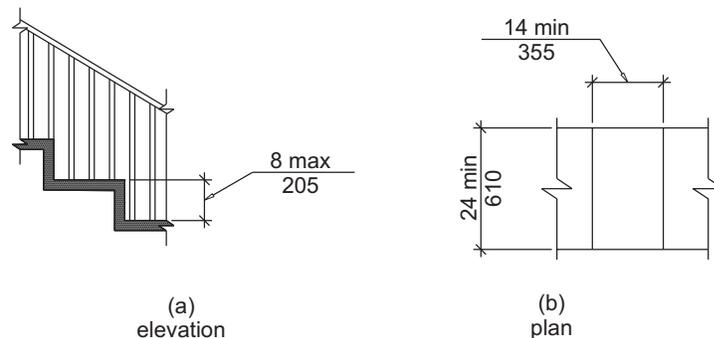


FIGURE 1108.4.2.2
TRANSFER STEPS

1108.4.3.4 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 space.

Exception: Entry points of slides shall not be required to comply with Section 1108.4.3.4.

1108.4.3.5 Transfer supports. Where play components require transfer to entry points or seats, at least one means of support for transferring shall be provided.

**SECTION 1109
SWIMMING POOLS, WADING POOLS,
HOT TUBS AND SPAS**

1109.1 General. Swimming pools, wading pools, hot tubs and spas shall comply with Section 1109.

1109.1.1 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 Section 1109.2; sloped entries complying with Section 1109.3; transfer walls complying with Section 1109.4; transfer systems complying with Section 1109.5; and pool stairs complying with Section 1109.6. At least one accessible means of entry provided shall comply with Section 1109.2 or 1109.3

Exceptions:

1. 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.
2. 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 Section 1109.2, a sloped entry complying with Section 1109.3, or a transfer system complying with Section 1109.5.
3. Catch pools shall not be required to provide an accessible means of entry provided that the catch pool edge is on an accessible route.

1109.1.2 Wading pools. At least one sloped entry complying with Section 1109.3 shall be provided in wading pools.

1109.1.3 Hot tubs and spas. At least one accessible means of entry shall be provided for hot tubs and spas. Accessible means of entry shall comply with swimming pool lifts complying with Section 1109.2; transfer walls complying with Section 1109.4; or transfer systems complying with Section 1109.5.

Exception: Where hot tubs or spas are provided in a cluster, no more than 5 percent, but not less than one hot tub or spa in each cluster shall be required to comply with Section 1109.1.3.

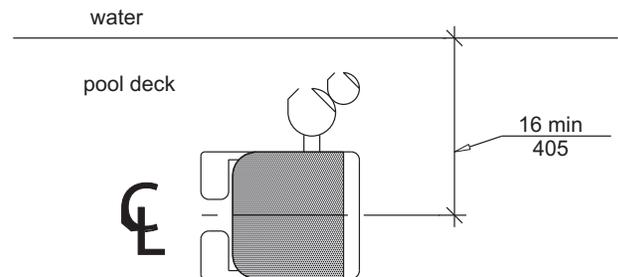
1109.2 Pool lifts. Pool lifts shall comply with Section 1109.2.

1109.2.1 Pool lift location. Pool lifts shall be located where the water level does not exceed 48 inches (1220 mm).

Exceptions:

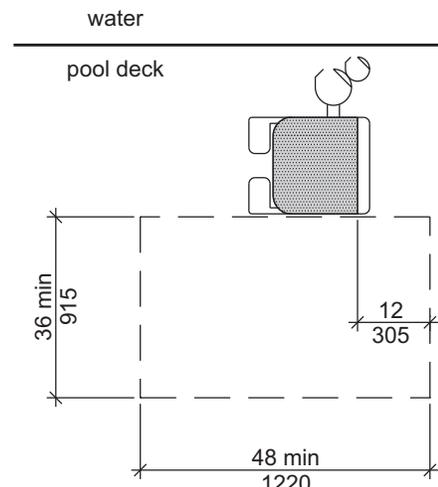
1. Where the entire pool depth is greater than 48 inches (1220 mm), compliance with Section 1109.2.1 shall not be required.
2. Where multiple pool lift locations are provided, no more than one pool lift shall be required to be located in an area where the water level is 48 inches (1220 mm) maximum.

1109.2.2 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 1109.2.2
POOL LIFT SEAT LOCATION**

1109.2.3 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) minimum in width 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 1109.2.3
CLEAR DECK SPACE AT POOL LIFTS**

1109.2.4 Seat height. The height of the lift seat shall be designed to allow a stop at 16 inches (405 mm) minimum and 19 inches (485 mm) maximum measured from the deck to the top of the seat surface when in the raised (load) position.

1109.2.5 Seat. The seat shall be 16 inches (405 mm) minimum in width, provide a back rest, and be of a firm and stable design.

1109.2.6 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.

1109.2.7 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 Section 309.4.

1109.2.8 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.

1109.2.9 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.

1109.3 Sloped entries. Sloped entries shall comply with Section 1109.3.

1109.3.1 Sloped entry route. Sloped entries shall comply with Chapter 4 except as modified by Sections 1109.3.1 through 1109.3.3.

Exception: Where sloped entries are provided, the surfaces shall not be required to be slip resistant.

1109.3.2 Submerged depth. Sloped entries for swimming pools shall comply with Section 1109.3.2.1. Sloped entries for wading pools shall comply with Section 1109.3.2.2.

1109.3.2.1 Swimming pools. Sloped entries for swimming pools 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 Section 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.

1109.3.2.2 Wading pools. In wading pools, the sloped entry shall extend to the deepest part of the wading pool.

1109.3.3 Handrails. At least two handrails complying with Section 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:

1. Handrail extensions specified by Section 505.10.1 shall not be required at the bottom landing serving a sloped entry.
2. 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 Section 1109.3.3.
3. Sloped entries in wading pools shall not be required to provide handrails complying with Section 1109.3.3. If provided, handrails on sloped entries in wading pools shall not be required to comply with Section 505.

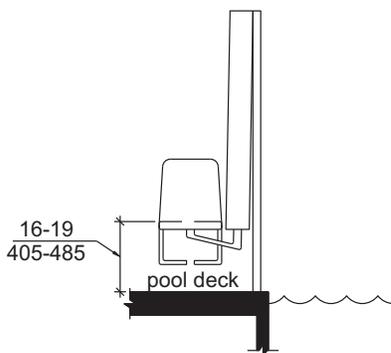


FIGURE 1109.2.4
POOL LIFT SEAT HEIGHT

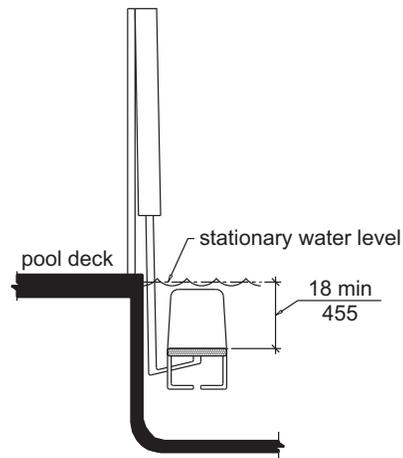


FIGURE 1109.2.8
POOL LIFT SUBMERGED DEPTH

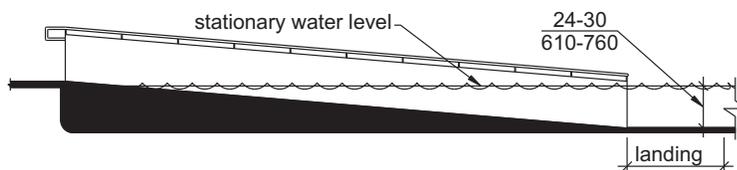


FIGURE 1109.3.2
SLOPED ENTRY SUBMERGED DEPTH

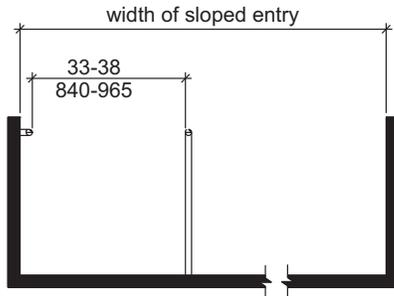


FIGURE 1109.3.3
HANDRAILS FOR SLOPED ENTRY

1109.4 Transfer walls. Transfer walls shall comply with Section 1109.4.

1109.4.1 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.

1109.4.2 Height. The height of the transfer wall shall be 16 inches (405 mm) minimum and 19 inches (485 mm) maximum measured from the deck.

1109.4.3 Wall depth and length. The transfer wall shall be 12 inches (305 mm) minimum and 16 inches (405 mm) maximum in depth. The transfer wall shall be 60 inches

(1525 mm) minimum in length and shall be centered on the clear deck space.

1109.4.4 Surface. Surfaces of transfer walls shall not be sharp and shall have rounded edges.

1109.4.5 Grab bars. At least one grab bar complying with Sections 609.1 through 609.3 and 609.5 through 609.8 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 the transfer wall. 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.

1109.5 Transfer systems. Transfer systems shall comply with Section 1109.5.

1109.5.1 Transfer platform. A transfer platform shall be provided at the head of each transfer system. Transfer platforms shall provide a clear depth of 19 inches (485 mm) minimum and a clear width of 24 inches (610 mm) minimum.

1109.5.2 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. The transfer space 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.

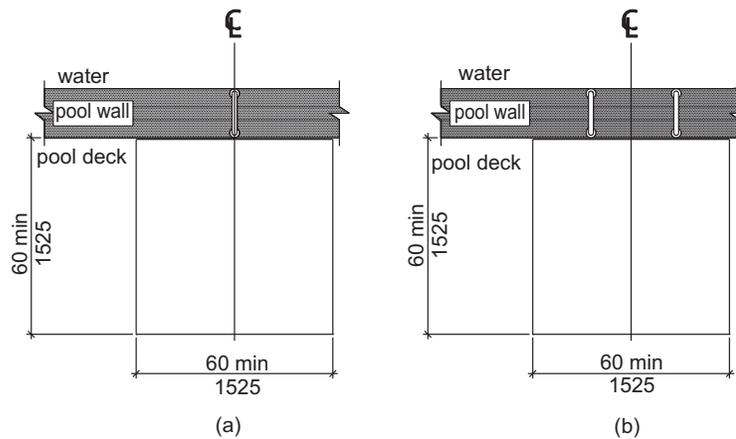


FIGURE 1109.4.1
CLEAR DECK SPACE AT TRANSFER WALLS

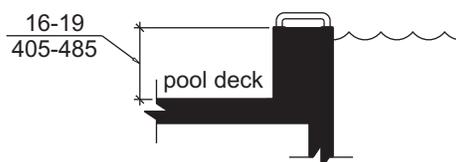


FIGURE 1109.4.2
TRANSFER WALL HEIGHT

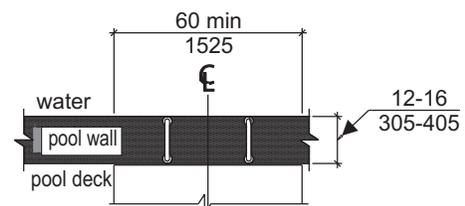


FIGURE 1109.4.3
DEPTH AND LENGTH OF TRANSFER WALLS

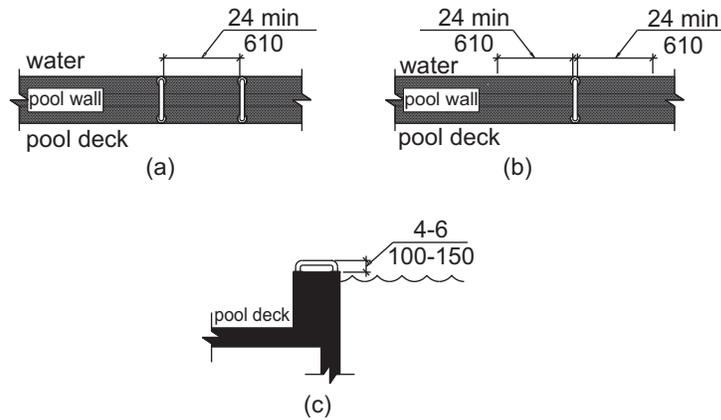


FIGURE 1109.4.5
GRAB BARS FOR TRANSFER WALLS

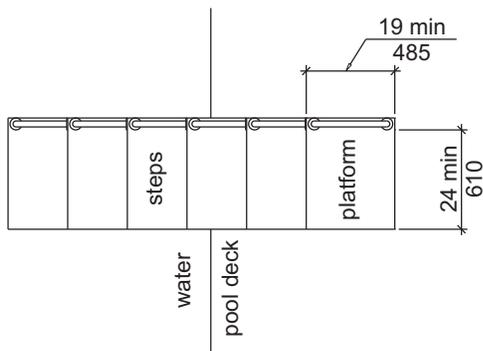


FIGURE 1109.5.1
SIZE OF TRANSFER PLATFORM

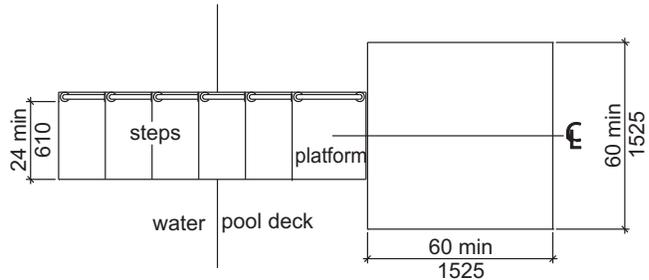


FIGURE 1109.5.2
CLEAR DECK SPACE AT TRANSFER PLATFORM

1109.5.3 Height. The height of the transfer platform shall comply with Section 1109.4.2.

1109.5.4 Transfer steps. Transfer steps shall be 8 inches (205 mm) maximum in height. The surface of the bottom tread shall extend to a water depth of 18 inches (455 mm) minimum below the stationary water level.

1109.5.5 Surface. The surface of the transfer system shall not be sharp and shall have rounded edges.

1109.5.6 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.

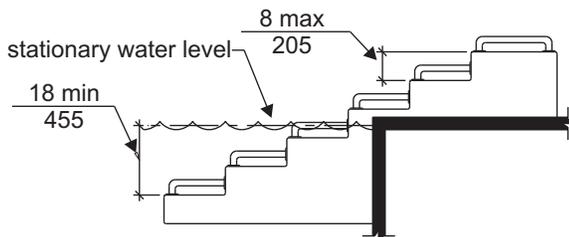


FIGURE 1109.5.4
TRANSFER STEPS

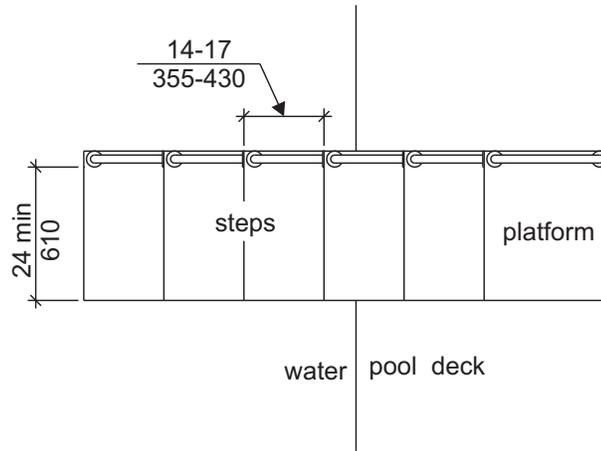
1109.5.7 Grab bars. At least one grab bar on each transfer step and the transfer platform or a continuous grab bar serving each transfer step and the transfer platform shall be provided. Where a grab bar is provided on each step, the tops of gripping surfaces shall be 4 inches (100 mm) minimum and 6 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 Sections 609.1 through 609.3 and 609.5 through 609.8 and be located on at least one side of the transfer system. The grab bar located at the transfer platform shall not obstruct transfer.

1109.6 Pool stairs. Pool stairs shall comply with Section 1109.6.

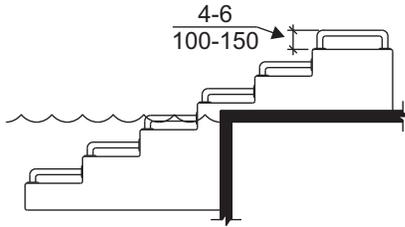
1109.6.1 Pool stairs. Pool stairs shall comply with Section 504.

Exception: Pool step risers shall not be required to be 4 inches (100 mm) minimum and 7 inches (180 mm) maximum in height provided that riser heights are uniform.

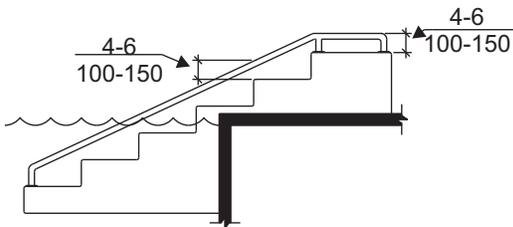
1109.6.2 Handrails. The width between handrails shall be 20 inches (510 mm) minimum and 24 inches (610 mm) maximum. Handrail extensions required by 505.10.3 shall not be required on pool stairs.



**FIGURE 1109.5.6
SIZE OF TRANSFER STEPS**



(a)
individual grab bars



(b)
continuous grab bars

**FIGURE 1109.5.7
GRAB BARS**

SECTION 1110

SHOOTING FACILITIES WITH FIRING POSITIONS

1110.1 Turning space. A circular turning space complying with Section 304.3.1 with slopes not steeper than 1:48 shall be provided at shooting facility firing positions.

