

A user guide to combined regulations of the
U. S. **FAIR HOUSING AMENDMENTS ACT of 1988**
and **CALIFORNIA DISABLED ACCESS REGULATIONS**
for multi-family housing and condominium dwelling units.



*Updated to 1995 California
Building Code Format*

**A
GUIDE
TO
*CALIFORNIA
MULTI-FAMILY
DISABLED
ACCESS
REGULATIONS**

Compiled & Edited by
California Building Officials

and

California Department of Housing & Community Development

January 1997



*** CALIFORNIA**

"CALIFORNIA MULTIFAMILY DISABLED ACCESS REGULATIONS" are applicable to privately-funded multifamily and condominium projects. For information or clarification of the regulations, contact:

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Disabled access regulations for public buildings and publicly-funded living accommodations, hotels and motels are promulgated under separate regulations. For information or clarification, contact:

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"A guide to California Multifamily Disabled Access Regulations"

**SECOND EDITION
January 1997**

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
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February 26, 1997

California Building Officials
2215 21st Street
Sacramento, California 95818

Dear Building Officials:

We have reviewed the 2nd Edition of your publication entitled:

"A Guide to *California Multi-Family Disabled Access Regulations"

The Guide is consistent with the proper implementation of our accessibility regulations published in the California Building Standards Code, Title 24, California Code of Regulations.

This Guide provides an explanation of the technical regulations and should assist designers, developers, and building officials in understanding the intent of California's multi-family disabled access regulations.

Sincerely,

A handwritten signature in black ink that reads "Bruce McKarley". The signature is written in a cursive, flowing style.

Bruce McKarley
Codes and Standards Administrator I
State Housing Law Program



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Preface

California Building Officials, in conjunction with California Department of Housing and Community Development, is proud to present the second edition of *"A Guide to California Multifamily Disabled Access Regulations"*.

This document, *"A Guide to California Multifamily Disabled Access Regulations,"* has been prepared as an explanation and illustration of state regulations that govern the design and construction of multifamily dwellings for individuals with mobility and sensory impairments. The users of this document should be aware that the contents and illustrations are a paraphrasing of the regulations and are intended only as an aid to understanding the regulations. California Department of Housing and Community Development, which promulgated these regulations, can provide further clarifications and assistance.

"A Guide to California Multifamily Disabled Access Regulations" would not have been possible without the expertise and assistance of California Building Officials, California Department of Housing and Community Development, California Department of Rehabilitation, California Building Industry Association, The American Institute of Architects California Council, and various support organizations for persons with disabilities. With special thanks to the following for their contributions in developing the 1st edition of this guide; M.E. (Ed) King, Chief, Housing Standards, Donald Clark, Pete Guisasola, Reggie Meigs, Neil G. Rains, AIA, Robert Raymer, CBIA, and Lillie Mozaffari. Their efforts are a tribute to the ability of diverse groups to jointly solve a common problem.

The CALBO Board of Directors would like to thank the Publications Committee for their invaluable efforts in developing the 2nd edition of *"A Guide to California Multifamily Disabled Access Regulations"*.

Donald Clark, Chairman, City of Kingsburg
Brad Remp, City of Chula Vista
Isam Hasenin, City of San Diego

With special thanks to Marvin F. Nunes, Designer, Computer Graphics, Fresno, for his outstanding efforts in producing the graphics and illustrations. Special thanks to Bruce McKarley and Gary Mann of the Department of Housing & Community Development.

Background and Purpose of the Adaptability/Accessibility Regulations

The adaptability/accessibility regulations were developed by the California Department of Housing and Community Development (HCD) in conjunction with the Department of Rehabilitation, California Building Officials (CALBO), California Building Industry Association (CBIA), American Institute of Architects California Council (AIACC), disabled access advocacy organizations and individuals in order to provide for the safety and welfare of persons with disabilities and visitors of apartment buildings, condominiums and time share units. The adopted state regulations require minimum adaptations for newly constructed, privately-funded apartment buildings having three or more units, condominium buildings containing four or more dwelling units and privately-funded shelters intended for occupancy as a residence for homeless persons. These regulations are published in California Building, Plumbing and Electrical Codes (Title 24, California Code of Regulations). The technical regulations are contained in the Appendix of this document.

An adaptable building is one that is accessible in terms of entry and circulation, and, therefore, can be adapted to meet specific needs of a disabled person for items such as grab bars, repositionable counter tops, etc. Rather than requiring only a small number of completely accessible units, the new regulations require multifamily buildings, unless specifically exempted, be adaptable to meet the needs of mobility and sensory impaired persons.

The first regulations governed newly constructed, privately-funded apartment houses only and became effective September 15, 1984 at the state level and effective at the local level (upon adoption) on or after September 15, 1984, or by default on September 15, 1985, unless a given project had received prior approval from the responsible local governmental agency and a permit to construct had been applied for prior to March 15, 1985. The regulations addressed apartment access and usability through barrier-free designs and adaptability of specific building elements unique to the special needs of persons with physical and sensory disabilities.

Meeting these needs is an appropriate acknowledgement of dramatic medical and social changes which have affected the disabled. The adaptability concept recognizes that able-bodied people may become severely disabled, either permanently or temporarily. This consideration is especially important for the elderly, for whom having an adaptable dwelling unit may mean the difference between staying in their familiar environment, or relocating and perhaps becoming institutionalized. Rental housing adaptability regulations help provide an important part of that independence. Today, through these many changes, individuals with mobility and sensory impairments have the opportunity to work and live independently.

History

In 1968, the Office of the State Architect was directed by legislation to adopt building regulations in hotels, motels and in certain public buildings to address the needs of the physically disabled community.

In 1978, the Commission of Housing and Community Development was approached by various members of the disabled community and was asked to adopt regulations for privately-funded buildings not covered by the prior legislation. After consultation with and cooperation from the building industry and various physically disabled groups, the Department of Housing and Community Development (HCD) submitted draft regulations to the Commission of Housing and Community Development in 1980.

The Commission of Housing and Community Development appointed an ad hoc committee to work with interest groups in reviewing the draft disabled adaptability regulations prepared by HCD. The committee held five meetings, solicited technical advice from local building officials, contractors, builders, the Department of Rehabilitation and representatives of the disabled constituency.

The Commission held seven public hearings in 1980, at which HCD staff presented cost data and technical information. After months of input, the draft regulations were refined and formally adopted by HCD on August 10, 1982.

On December 9, 1982, the State Building Standards Commission approved the adaptability and accessibility regulations for apartment houses (with a cost cap of \$1,000 per applicable unit). However, the Commission requested that HCD further study the issue of demand and need before considering application of the standards to condominiums.

In 1983, the California Building Industry Association formally requested the State Building Standards Commission to reconsider the approval of the regulations in order to address industry concerns relating to the cost of construction and the applicability requirements which were based on the number of persons with physical disabilities in California.

Numerous negotiating sessions were conducted between various representatives of the disabled community, the California Building Industry Association and the Director of the Department of Housing and Community Development. Due to the good faith efforts of these groups, the negotiating sessions resulted in amendments to the applicability of the regulations and were approved by the State Building Standards Commission on December 19, 1983.

- * the cost cap reduced from \$1,000 to \$600 per applicable unit;
- * an apartment house with three or four dwelling units located on a single lot was exempted.

The intention of the adaptability regulations is to provide safe and usable housing to individuals with a variety of disabling conditions and special needs. The regulations successfully fulfill this purpose by including standards that will benefit individuals with all types of mobility impairments and activity limitations. For example, the installation of backing of bathroom walls is required for future installation of grab bars. This requirement allows cane, crutch, and wheelchair users added support for transferring onto the water closet. The additional clear floor space in both the bathroom and kitchen allows for movement with wheelchairs. Visual alarms, text telephones, contrasting colors on signage and braille markings on elevators aid the sensory impaired.

In August 1986, due to the large amount of concern expressed by building officials, the building industry, and the disabled community on the proposed regulations, the Director of the Department of Housing and Community Development appointed a Disabled Access Advisory Committee. The Committee was asked to study the elements HCD had identified that appeared to be causing the concerns and provide input to HCD on the proposed amendments.

On January 20, 1989, the Building Standards Commission approved amendments to the regulations. These regulations were effective at the state level July 1, 1989 and effective at the local level January 1, 1990.

The major items approved by the Commission were:

1. The cost cap was repealed.
2. Five percent of all apartment dwellings on the building site were to comply fully with the access and adaptability regulations.
3. All other accessible units would be required to provide twelve (12) mandatory features.

On March 13, 1991, the housing provisions of the Federal Fair Housing Amendments Act of 1988 (HR1158), hereinafter referred to as the Act, became effective in all state, city and county jurisdictions that had not adopted regulations equal to or more stringent than the Act.

The California Building Industry Association petitioned HCD to adopt the Federal regulations and combine into one document the more stringent requirements with the existing State regulations. One comprehensive document would reduce the confusion that existed due to the myriad of documents on disabled access and the substantial monetary penalties that could be imposed on designers and developers.

In May 1991, the Director of HCD once again appointed a Disabled Access Advisory Committee to review and compile a document with regulations that incorporated both State and Federal requirements. The Committee was composed of representatives from the Department of Rehabilitation, Independent Housing Services, Inc., California Building Industry Association, California Council of American Institute of Architects and California Building Officials.

On August 29, 1991, the California Building Standards Commission (CBSC) approved emergency regulations with an effective date of January 1, 1992. However, California Building Officials petitioned the Department to postpone implementation of the regulations until July 1, 1992, to provide the local jurisdictions sufficient opportunity to train their personnel on the requirements of the emergency regulations. After due consideration, HCD concluded that it was appropriate to postpone the implementation until April 15, 1992.

On December 10, 1991, CSBC approved a repeal of the August 29, 1991 regulations and approved a new emergency regulation package with an effective date of April 15, 1992.

On October 30, 1992, following extensive testimony, CBSC tabled the formal regulation adoption and directed the Department to meet with interested parties in an attempt to resolve expressed concerns relating to "Accessible Route of Travel".

On November 12, 1992, Department representatives met with representatives of the disabled community, California Building Officials, California Building Industry Association, the design profession and California Building Standards Commission. An agreement was reached.

On December 9, 1992, CBSC approved the formal regulation adoption with an effective date of July 15, 1993.

The 1995 edition of the California Building Code (C.B.C.) incorporates by reference the 1994 edition of the Uniform Building Code, with certain California Amendments. There were no code changes from the July 15, 1993 regulations.

Part I

Effective use of the Guide

Introduction:

Part I will describe key aspects of a project and the order in which the user should review a proposed design. Applicability of the regulations is based on a clear delineation and understanding of these criteria.

Effective Use of the Guide

Introductory Note:

The regulations apply to newly constructed apartment buildings of **three** or more units, newly constructed condominium buildings of **four** or more units, dormitories, congregate residences, time-share units, and homeless shelters. They **do not apply** to multistory dwelling units such as townhouses, unless located within an "elevator building". It is important to note that many factors will affect the application of these regulations. Such factors include, the number and location of building entrances, whether or not the building has been provided with an elevator, the location and topography of the project site, the layout of buildings, parking areas and common use areas.

Effective use of this Guide requires that you follow the steps listed below to determine applicability of the regulations.

- 1. Determine the type of multifamily units -** Are the units single story or multi-story? Are they apartments, condominiums, dormitories, congregate residences, time-share units or homeless shelters?
- 2. Determine the number of units in each building -** Review for the minimum number of dwelling units needed to trigger application. Note, these regulations apply on a building by building basis.
- 3. Determine the type of building entrance (multiple or single) -** The type of building entrance will have an effect on the number of units to be made accessible and adaptable.
- 4. Does the building contain an elevator? -** Buildings with elevators will normally require accessibility to all dwelling units.
- 5. Locate all qualifying ground floors -** Units located on ground floors (Section 1102A.13) will generally be required to be accessible and adaptable. The location of all ground floors is critical in determining the amount of accessibility required. Buildings can have one or more ground floors.
- 6. Identify all common use areas and facilities -** Common use areas and facilities are required to be accessible.

7. Determine which units are required to be adaptable - The regulations will determine which units are required to be accessible and adaptable. This will vary on many different factors including, but not limited to, number of dwelling units, ground floors, elevators and special site conditions.

8. Review the site test / impracticality criteria - A determining factor for applicability is the location and topography of the building site.

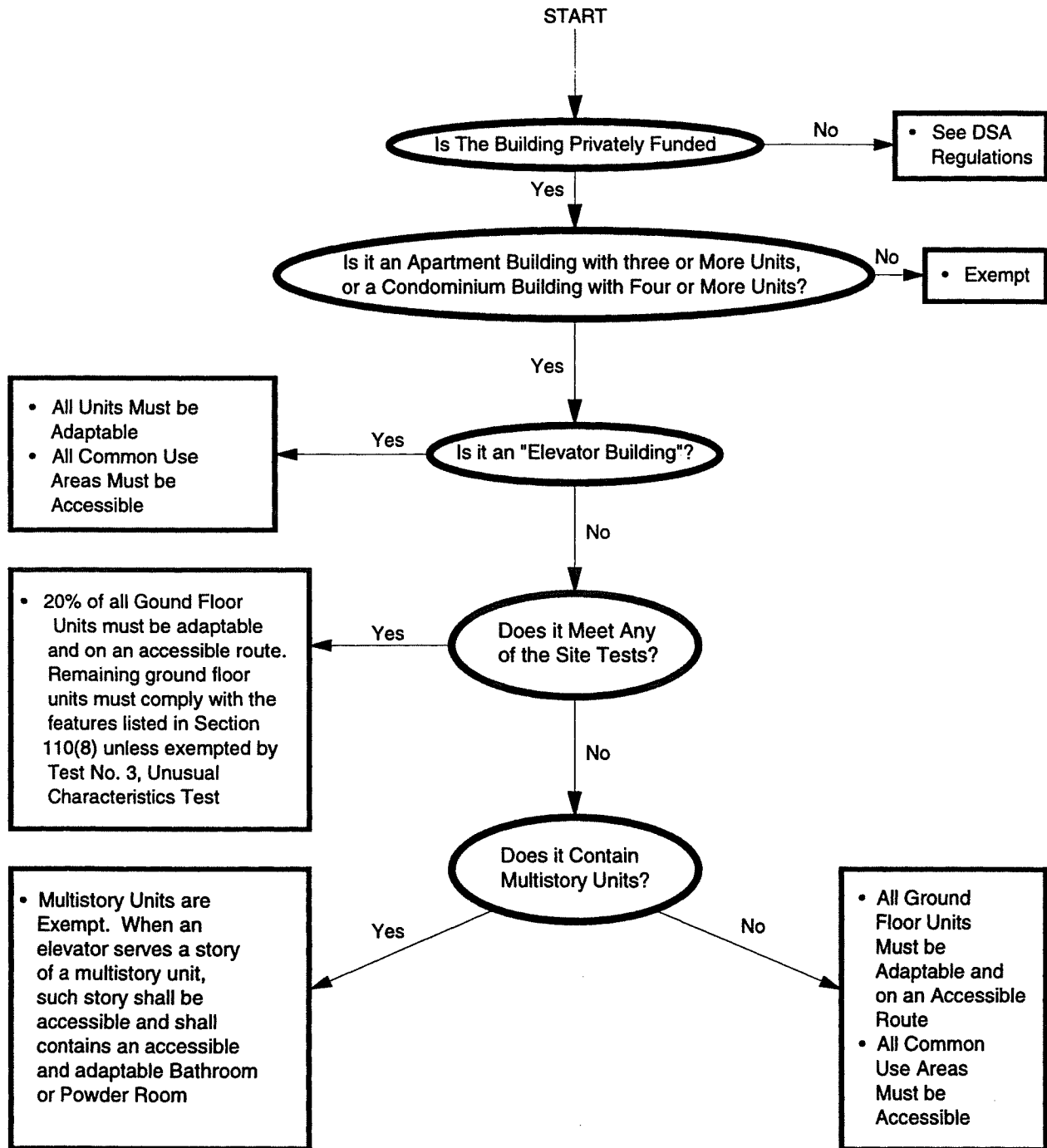
9. Determine all required accessible routes - Accessible routes are required to buildings, parking areas, common use areas, facilities, bus stops, and public ways.

10. Review the site improvements - common use areas and routes for detailed accessibility and signage requirements.

11. Review all buildings - for detailed accessibility requirements.

12. Review all adaptable dwelling units - for detailed accessibility requirements.

Applicability Flow Chart



Part II

Definitions

Introduction:

Part II contains definitions that are critical to understanding various aspects of the regulations. Many common words and phrases have special meanings pertaining to these regulations. It is important for the user to become familiar with the meaning of all key terms.

Definitions

- 1102A.1 **ACCESSIBLE** for covered multifamily dwellings is the public or common-use areas of the building that can be approached, entered and used by individuals with physical disabilities. The phrase "readily accessible to and usable by" is synonymous with accessible.
- 1102A.2 **ACCESSIBLE ROUTE OF TRAVEL** is a continuous unobstructed path connecting all accessible elements and spaces in an accessible building or facility that can be negotiated by a person with a severe disability using a wheelchair, and that is also safe for and usable by people with other disabilities.
- 1102A.3 **ACCESSIBILITY** is the combination of various elements in a building or area which allows access, circulation and the full use of the building and facilities by persons with physical disabilities.
- 1102A.4 **ADAPTABLE DWELLING UNIT** is a dwelling unit in a building with a building entrance on an accessible route designed in such a manner that the public and common-use areas are readily accessible to and usable by disabled persons, and all doors are designed sufficiently wide to allow passage into and within all premises by physically disabled persons in wheelchairs as required by this code.
- 202.19 **APARTMENT HOUSE** is any building or portion thereof which contains three or more apartment dwelling units, includes residential condominiums.
- APARTMENT** - See "Dwelling Unit".
- 1102A.5 **ASSISTIVE DEVICE** is an aid, tool or instrument used by a person with disabilities to assist in activities of daily living. Examples of assistive devices include tongs, knob-turners and oven-rack pusher/pullers.
- 1102A.6 **BATHROOM** is a room which includes a water closet (toilet), lavatory (sink), and bathtub or shower. It does not include single-fixture facilities or those with only a water closet and lavatory. It does include a compartmented bathroom. A compartmented bathroom is one in which the fixtures are distributed among interconnected rooms. A compartmented bathroom is considered a single unit and is subject to the requirements for bathrooms for disabled persons.

- 1102A.7 **BUILDING ENTRANCE ON AN ACCESSIBLE ROUTE** is an accessible entrance to a building that is connected by an accessible route to public transportation stops, to parking or passenger loading zones, or to public streets or sidewalks, if available.
- 204.3 **C.C.R.** means the California Code of Regulations.
- 1102A.8 **COMMON-USE AREAS** for covered multifamily dwellings are rooms, spaces or elements inside or outside of a building, that are made available for the use of residents of a building or the guests thereof. These area include, but are not limited to, hallways, lounges, lobbies, laundry rooms, refuse rooms, mail rooms, recreational areas and passageways between buildings.
- 1102A.9 **COVERED MULTIFAMILY DWELLINGS** are all dwelling units in buildings consisting of three or more privately-funded dwelling units, or condominiums consisting of four or more dwelling units, if such buildings have one or more elevators; and all ground-floor dwelling units in other buildings consisting of three or more dwelling units, or condominiums consisting of four or more dwelling units. Dwelling units within a single structure separated by firewalls do not constitute separate buildings.
- CROSS SLOPE** is a slope that is perpendicular to the direction of travel.
- 1102A.10 **CURB CUT** is an interruption of a curb, at a pedestrian way, which separates surfaces that are substantially at the same elevation.
- 1102A.11 **CURB RAMP** is a sloping pedestrian way, intended for pedestrian traffic, which provides access between a walk or sidewalk to a surface located above or below an adjacent curb face.
- 205.9 **DIRECTIONAL SIGN** is a publicly-displayed notice which indicates by use of words or symbols a recommended direction or route of travel.
- 1102A.12 **DWELLING UNIT** is a single unit of residence for a household of one or more persons. Examples of dwelling units covered by these regulations include condominiums, an apartment unit within an apartment building and other types of dwellings in which sleeping accommodations are provided but toilet or cooking facilities are shared by occupants of more than one room or portion of the dwelling. Examples of the latter include dormitory rooms and sleeping accommodations in shelters intended for occupancy as a residence for homeless persons.
- 101.17.9 **ENFORCING AGENCY** Local building department or the Department of Housing and Community Development.

- 207.2 **FACILITY** is a building, structure, room, site, complex, or any portion thereof, that is built, altered, improved or developed to serve a particular purpose.
- 208.4 **GRAB BAR** is a bar for the purpose of being grasped by the hand for support.
- 208.5 **GRADE (ADJACENT GROUND ELEVATION)** is the lowest point of elevation of the finished surface of the ground, paving or sidewalk within the area between the building and property line or, when the property line is more than 5 feet (1524mm) from the building and the line 5 feet (1524mm) from the building.
- 1102A.13 **GROUND FLOOR** is the floor of a building with a building entrance on an accessible route. A building may have one or more ground floors. Where the first floor containing dwelling units in a building is above grade, all units on that floor must be served by a building entrance on an accessible route. This floor will be considered to be a ground floor.
- 101.17.9 **HCD 1** Department of Housing and Community Development
Application - Hotels, motels, lodging houses, apartment houses, dwellings, employee housing and factory-built housing.
Authority Cited - Health and Safety Code Sections 17921, 50558 and 50559.
Reference - Health and Safety Code Sections 17000 through 17060, 17910 through 17990, 50558 and 50559.
- 210.3 **INTERNATIONAL SYMBOL OF ACCESSIBILITY** is that symbol adopted by Rehabilitation International's 11th World Congress for the purpose of indicating that buildings and facilities are accessible to persons with disabilities.
- 1102A.14 **KICK PLATE** is an abrasion-resistant plate affixed to the bottom portion of a door to prevent a trap condition and protect its surface.
- 213.1 **LEVEL AREA** is a specified surface that does not have a slope in any direction exceeding 1/4-inch in 1 foot (305mm) from the horizontal (2.083 percent gradient).
- 1102A.14.1 **LIFT, SPECIAL ACCESS** - See "Special Access Lifts".
- 213.8 **LIVING ACCOMMODATIONS** are any privately or publicly-funded building or portion thereof having three or more apartments as defined in this code.
- 1102A.15 **MULTISTORY DWELLING UNIT** is a dwelling unit with finished living space located on one floor and the floor or floors immediately above or below. *For the purposes of these regulations, an enclosed private garage serving the unit above (carriage units) may also be considered multistory.*

- 1102A.16 **NEWLY CONSTRUCTED** is a building that has never before been used or occupied for any purpose.
- 216.1 **OCCUPANCY** is the purpose for which a building, or part thereof, is used or intended to be used.
- 217.2 **PASSAGE DOOR** is a door other than an exit door through which persons may traverse.
- 217.3 **PASSENGER ELEVATOR** See definition of "Elevator", Chapter 30.
- 217.5 **PEDESTRIAN** is an individual who moves in walking areas with or without the use of walking-assistive devices such as crutches, leg braces, wheelchairs, etc.
- 217.7 **PEDESTRIAN RAMP** is a sloping path of travel intended for pedestrian traffic and as differentiated from a curb ramp.
- 1102A.17 **PERSON WITH DISABILITY** is an individual who has a physical impairment, including impaired sensory, manual or speaking abilities, that results in a functional limitation in gaining access to and using a building or facility.
- 1102A.18 **PERSONS WITH PHYSICAL DISABILITIES** means, with respect to a person, a physical or mental impairment which substantially limits one or more major life activities, a record of such an impairment, or being regarded as having such an impairment. This term does not include current, illegal use of or addiction to a controlled substance. For the purposes of these guidelines, an individual shall not be considered to have a physical disability solely because that individual is a transvestite. As used in this definition, "physical or mental impairment" includes:
- 1102a.18.1 Impairments which affect ambulation due to cerebral palsy, poliomyelitis, spinal cord injury, amputation, arthritis, cardiac and pulmonary conditions and other conditions or diseases which reduce mobility, including aging. Any physiological disorder or condition, cosmetic disfigurement, or anatomical loss affecting one or more of the following body systems; neurological; musculoskeletal; special sense organs; respiratory, including speech organs; cardiovascular; reproductive, digestive; genito-urinary; hemic and lymphatic; skin; and endocrine; or
- 1102a.18.2 Any mental or psychological disorder, such as mental retardation, organic brain syndrome, emotional or mental illness, and specific learning disabilities. The term "physical or mental impairment" includes, but is not limited to, such diseases and conditions as orthopedic, visual, speech and hearing impairments, cerebral palsy, autism, epilepsy, muscular dystrophy, multiple sclerosis, cancer, heart disease, diabetes, human immunodeficiency, virus infection, mental retardation, emotional illness, drug addiction (other

than addiction caused by current, illegal use of a controlled substance) and alcoholism. These guidelines are designed to make units accessible or adaptable for people with physical disabilities.

- 1102A.18.3 "Major life activities" means functions such as caring for one's self, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning and working.
- 1102A.18.4 "Has a record of such an impairment" means has a history of, or has been misclassified as having a mental or physical impairment that substantially limits one or more major life activities.
- 1102A.18.5 "Is regarded as having an impairment" means:
- The person has a physical or mental impairment that does not substantially limit one or more major life activities but that is treated by another person as constituting such a limitation; or
- The person has a physical or mental impairment that substantially limits one or more major life activities only as a result of the attitudes of others toward such impairment; or
- The person has none of the impairments defined in paragraph 1 of this definition but is treated by another person as having such impairment.
- 1102A.19 **POWDER ROOM** is a room containing only a water closet (toilet) and lavatory (sink).
- 1102A.20 **PRIMARY ENTRY** is the principle entrance through which most people enter the building, as designated by the building official.
- 1102A.21 **PRIMARY ENTRY LEVEL** is the floor or level of the building on which the primary entry is located.
- 1102A.22 **PUBLIC-USE AREAS** are interior or exterior rooms or spaces of a building that are made available to the general public. Public use may be provided at a building that is privately or publicly owned.
- 1102A.23 **RAMP** See "curb ramp" or "pedestrian ramp".
- 219.4 **RECOMMEND** does not require mandatory acceptance, but identifies a suggested action which shall be considered for the purpose of providing a greater degree of accessibility to the physically disabled.
- 219.10 **RISER** is that upright portion of a step in a stair.
- 220.1 **SANITARY FACILITY** is any single unit or a combination of water closets, urinals, lavatories, bathtubs or showers, together with the room or space in which they are housed.

- 220.9 **SHOULD** See "recommend".
- 1102A.24 **SLOPE** is, for the purpose of privately-funded covered multifamily buildings of three or more dwelling units, the relative steepness of the land between two points and is calculated as follows: The horizontal distance and elevation change between the two points (e.g., an entrance and a passenger loading zone) are determined from a topographical map. The difference in elevation is divided by the distance and the resulting fraction is multiplied by 100 to obtain the percentage. For example, if a principle entrance is 10 feet (3048mm) from a passenger loading zone, and the principle entrance is raised 1 foot (305mm) higher than the passenger loading zone, then the slope is $1/10 \times 100 = 10$ percent.
- 220.14 **SITE DEVELOPMENT** is "on-site" and "off-site" work, including, but not limited to, walks, sidewalks, ramps, curbs, curb ramps, parking facilities, stairs, planting areas, pools, exterior gathering or assembly areas and raised or depressed paved areas.
- 220.19 **SPECIAL ACCESS LIFT** is a hoisting and lowering mechanism equipped with a car, platform or support which serves two landings of a building or structure and is designed to carry a passenger or passengers and/or luggage or other material a vertical distance as may be allowed.
- 220.20 **STAIRWAY.** Two or more risers shall constitute a stairway.
- 221.9 **TREAD** is the horizontal surface of a step in a stair.
- 1102A.25 **TOWNHOUSE** See "multistory dwelling unit".
- 222.1 **U.B.C.** shall mean the 1994 Edition of the Uniform Building Code as published by the International Conference of Building Officials.
- 1102A.26 **VEHICULAR OR PEDESTRIAN ARRIVAL POINTS** are public or resident parking areas, public transportation stops, passenger loading zones and public streets or sidewalks.
- 224.2 **WALK** is a surfaced pedestrian way not located contiguous to a street used by the public.
- 1102A.27 **WHEELCHAIR** is a chair mounted on wheels to be propelled by its occupant manually or with the aid of electric power, of a size and configuration conforming to the recognized standard models of the trade.
- 1102A.28 **WHEELCHAIR OCCUPANT OR WHEELCHAIR USER** is an individual who, due to a physical impairment or disability, utilizes a wheelchair for mobility.

Applicability

Introduction:

Part III will guide the user through the "applicability maze" with clear descriptions and figures to aid in understanding. One of the most rigorous aspects of the regulations is in determining applicability.

Applicability of the Regulations

General

101.17.9 **General.** Access and adaptability requirements apply to **newly constructed**, privately funded, multifamily dwelling units including, but not limited to as follows:

1. Apartment buildings having three or more dwelling units.
2. Condominium buildings having four or more dwelling units.
3. Shelters for homeless persons.
4. Dormitories and other types of dwellings containing sleeping accommodations with common toilet or cooking facilities.
5. Congregate residences and time-share units.

Note: For hotels, motels, and publicly funded housing projects, refer to the Division of the State Architect.

Existing Multifamily Dwellings

101.17.9 **General.** Existing multifamily dwellings are exempt from the regulations. *However, existing buildings are not exempt from regulations which were in effect at time of permit issuance and construction.*

Additions, alterations, and repairs

101.17.9 **General.** The regulations do not apply to the repair, rehabilitation or additions to existing apartment houses, condominiums or time share units. The conversion of nonresidential buildings into multifamily housing **does not trigger compliance** with the regulations.

Exception Newly constructed multifamily units added to an existing facade shall comply with the regulations.

Exception Dwelling units added to existing units shall comply if the added unit triggers compliance by total number of units. Existing units remain exempt.

Scope

101.17.9

General. The regulations apply on a building by building basis. Each building containing the required number of dwelling units within a project must be evaluated individually. For buildings containing a mix of multistory and single story units, it is required to include all units when determining applicability (3 or more units for apartments and 4 or more units for condominiums). See Figure 3.1

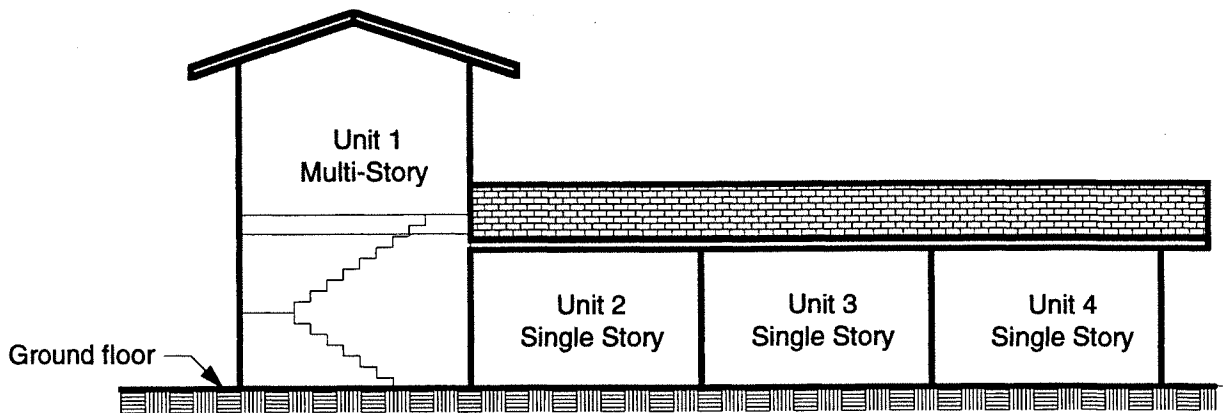


Fig. 3.1 In the above multifamily building, all four units must be included when determining applicability.

Ground Floors

1102A.13 def.
"ground floor"

General. The regulations apply to units on ground floors. Ground floors are any floors containing a building entrance on an accessible route. Buildings can have one or more ground floors. The first floor above grade, containing dwelling units is always a ground floor unless specifically exempted. In an elevator building, all units on floors served by such elevators shall be subject to the regulations (see definition of "ground floor"). See Figures 3.2, 3.3 and 3.4

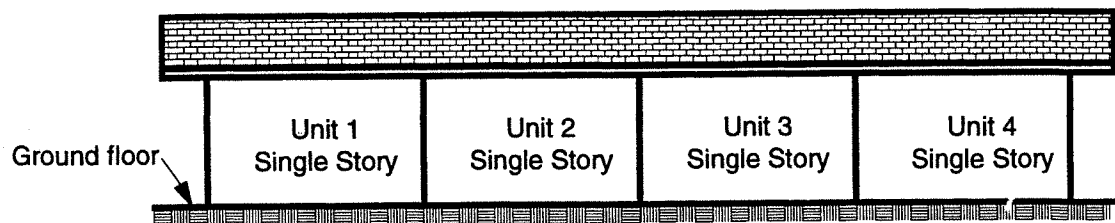


Fig. 3.2 Covered single story multifamily units at grade must comply.

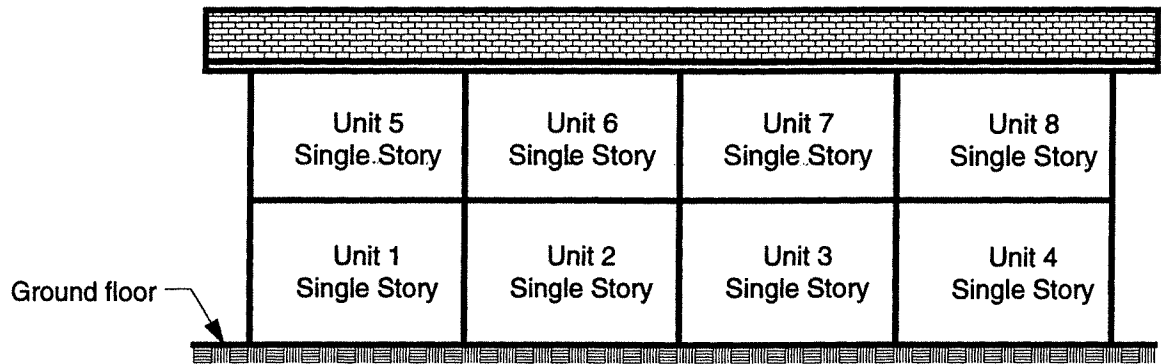


Fig. 3.3 Units 1, 2, 3 and 4 are considered ground floor units and shall be accessible and adaptable. Units 5, 6, 7 and 8 are not considered ground floor units and are exempt from the regulations.

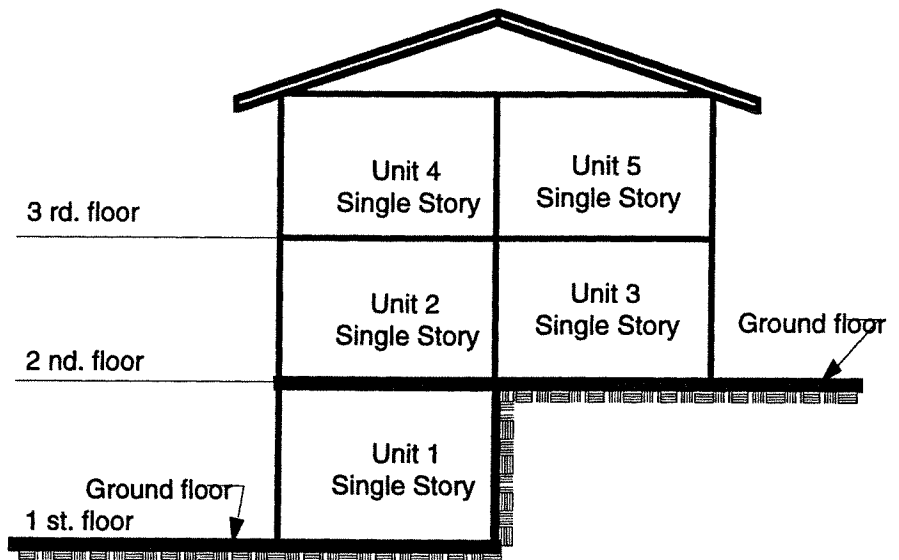


Fig. 3.4 Buildings may have one or more ground floors. In this example, units 1, 2 & 3 are considered ground floor units and shall be accessible and adaptable. Units 4 & 5 are not considered ground floor units and are exempt from the regulations.

Units with Firewall Separations

1102A.9 def.
"covered multi-family building"

General. Attached units, row housing or units within a single structure which are separated by required fire-resistive construction, do not constitute separate buildings for the purposes of the regulations. See Figure 3.5

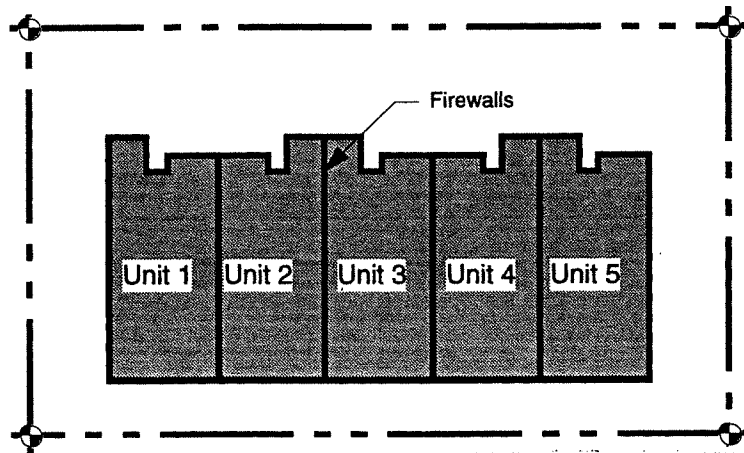


Fig. 3.5 Dwelling units within a single structure separated by firewalls do not constitute separate buildings.

Multistory Dwelling Units

1105A
Exception

General. The regulations do not apply to multi-story dwelling units such as Townhouses. Multi-story dwelling units are units that contain finished living space above or below a floor (see definition of "multistory dwelling unit"). See Figure 3.6

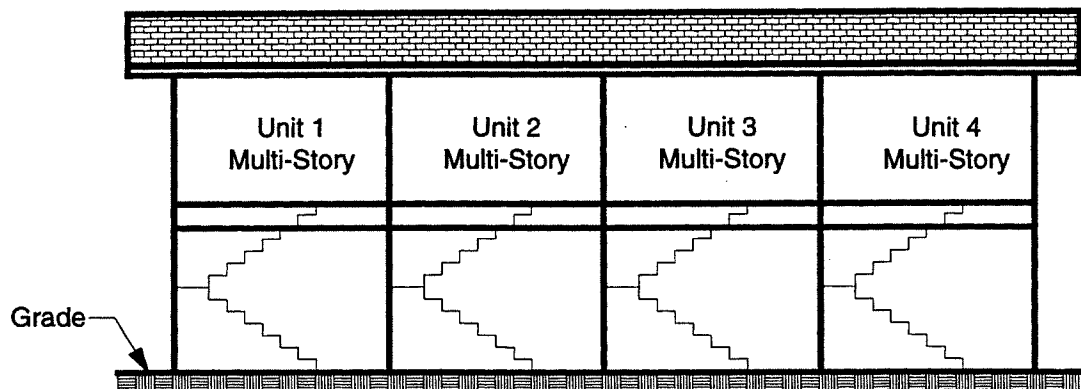


Fig. 3.6 In the above multifamily building, all four units are exempt from the regulations because they are multi story or "townhouse" units.

Units with Basements/Attics

1102A.15
"multistory
dwelling unit"

General. If a basement or attic is part of the finished living space within a dwelling unit, it shall be considered as a multistory dwelling unit. See Figure 3.7

Exception

If the basement or attic space is not finished, the dwelling unit will not be considered a multistory dwelling unit, however, the unfinished space would not be required to comply with the regulations.

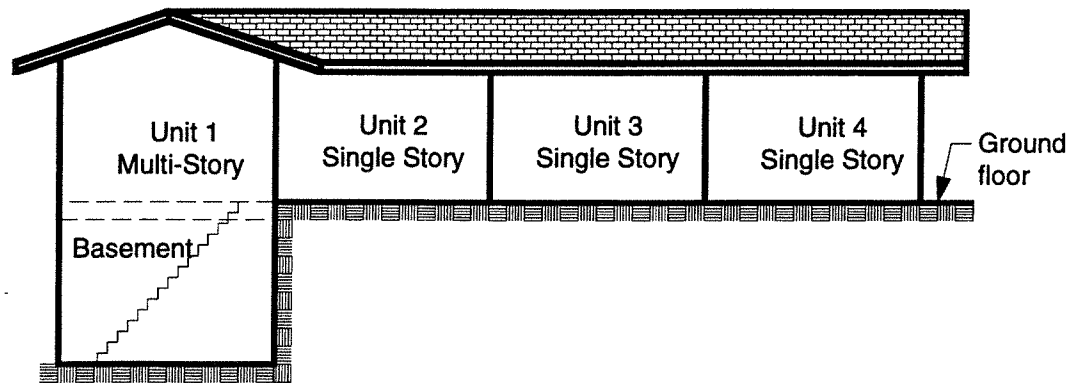


Fig. 3.7 In the above 4-unit multifamily building, units 2, 3 and 4 are required to be accessible and adaptable. Unit 1 is an exempt multistory unit provided the basement is finished. If the basement is unfinished, then unit 1 would be considered a single story unit and would have to be accessible and adaptable.

Floors above Grade

1102A.13 def.
"ground floor"

Ground floor. When the first floor containing dwelling units is a floor above grade, all units on that floor are considered ground floor units and shall be accessible and adaptable. See Figures 3.8 through 3.12 on pages 18, 19 and 20.

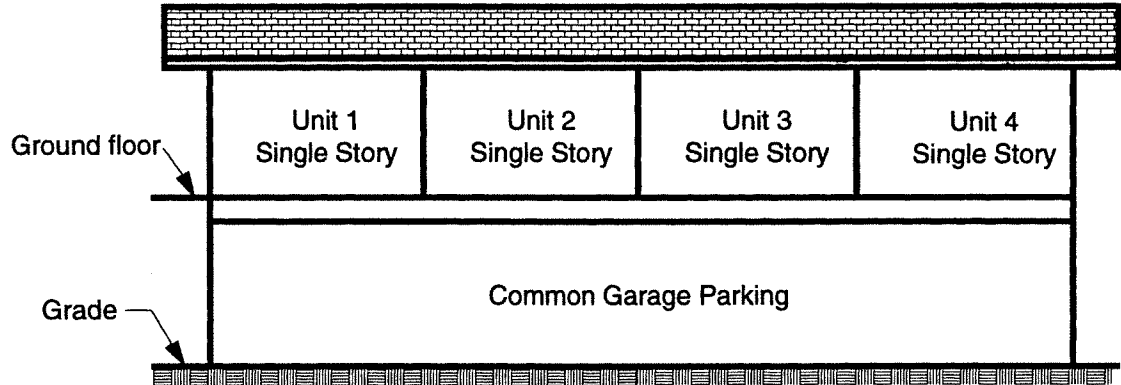


Fig. 3.8 In this example, units 1, 2, 3 & 4 are considered ground floor units and shall be accessible and adaptable.

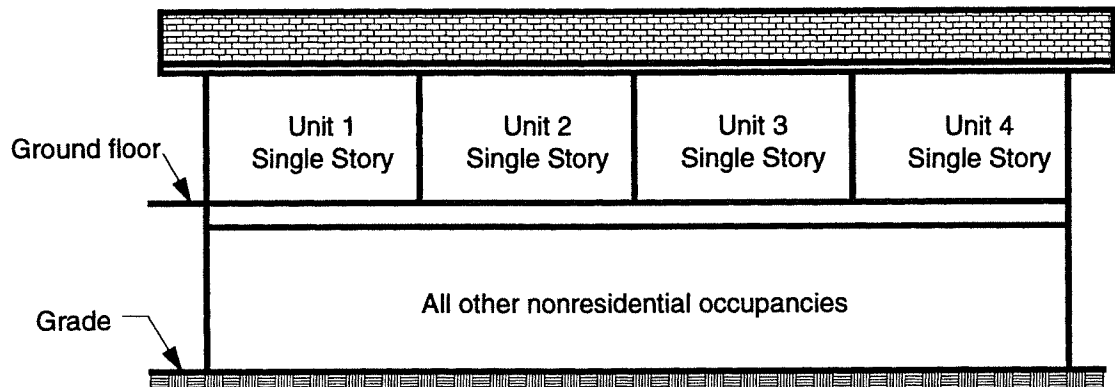


Fig. 3.9 In this example, units 1, 2, 3 & 4 are considered ground floor units and shall be accessible and adaptable.

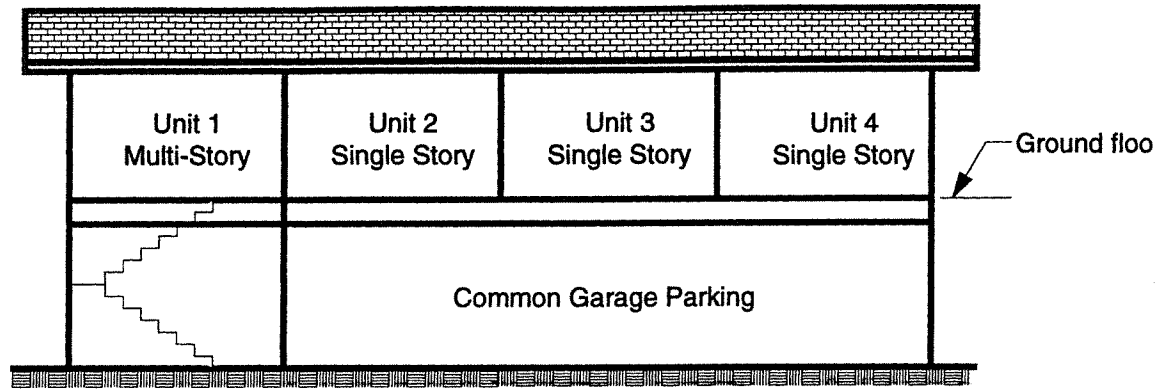


Fig. 3.10 In this example, the exempt multi-story unit does not establish the ground floor. Therefore, units 2, 3 & 4 are considered ground floor units and would be required to be accessible and adaptable.

FIGURE 3.10 AND FIGURE 3.11

These examples are under review by HUD for a current legal opinion.

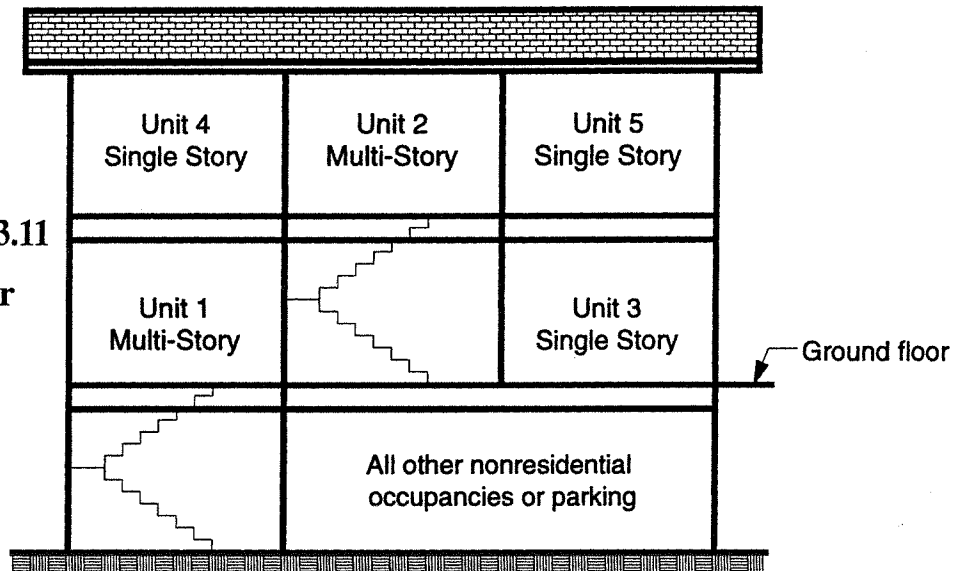


Fig. 3.11 In this example, the exempt multi-story unit 1 does not establish the ground floor. Therefore, only unit 3 would be required to be accessible and adaptable.

NOTE:

When a dwelling unit is located above a private garage serving the unit, the dwelling unit is considered multistory. See figure 3.12.

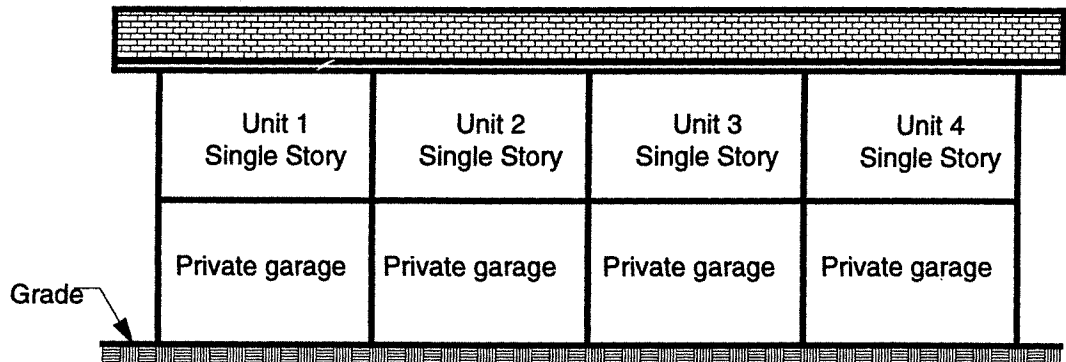


Fig. 3.12 Units 1,2,3, & 4 are considered multi-story units (carriage units) and are not required to be accessible and adaptable.

Buildings with Elevators

1107A.14

General. All floors and units within buildings containing elevators shall be accessible and adaptable (See Figure 3.13). Buildings containing elevators shall be designed to provide at least one accessible entrance regardless of the terrain or unusual characteristics of the site.

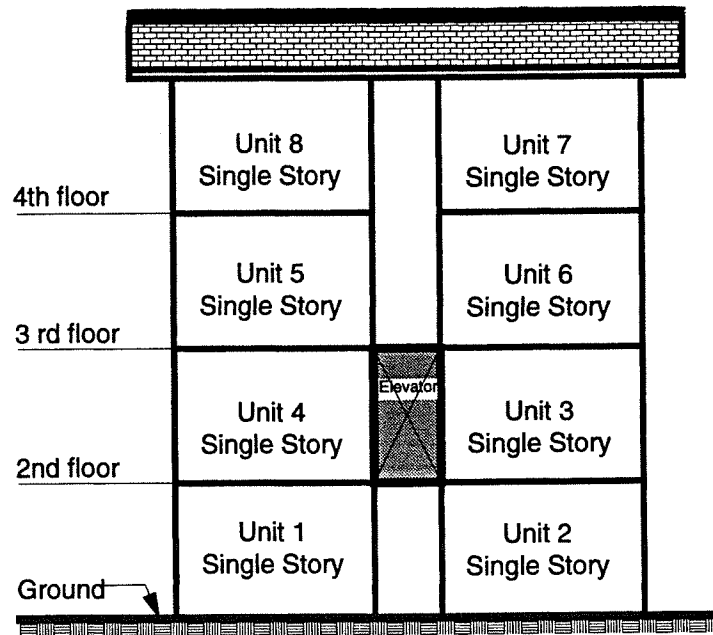


Fig. 3.13 Within elevator buildings, all dwelling units shall be accessible and adaptable. The elevator building is required to have at least one accessible entrance.

Elevator connecting parking area to ground floor. When an elevator is provided only as a means to create an accessible route to a ground floor from common area parking, only those units and common area on the ground floor are subject to the regulations regardless of site considerations. See Figures 3.14 and 3.15

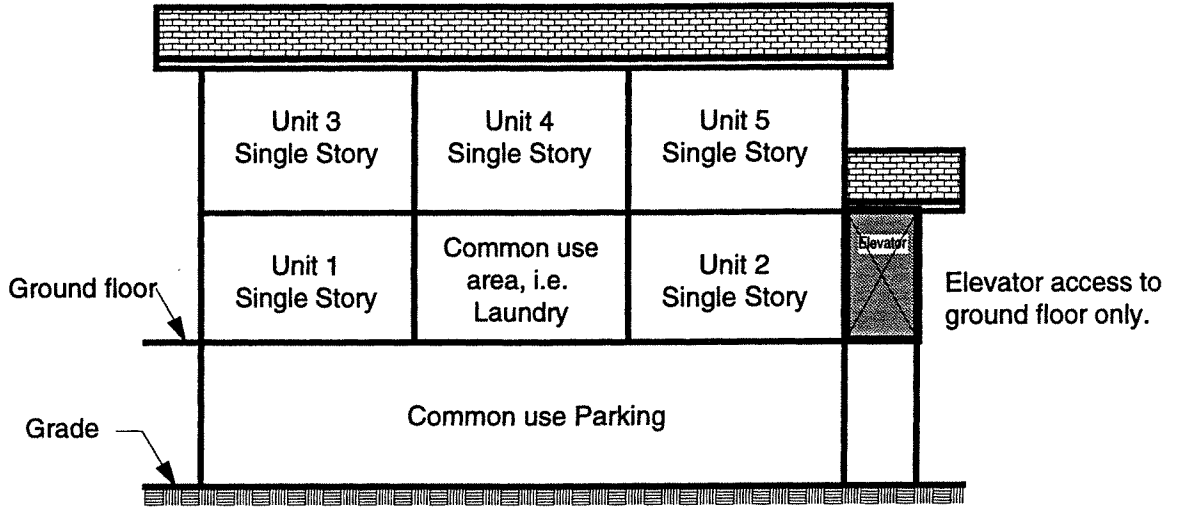


Fig. 3.14 Units 1,2 and the common use area shall be accessible and adaptable when the elevator only provides access to the ground floor. Units 3,4 & 5 are exempt.

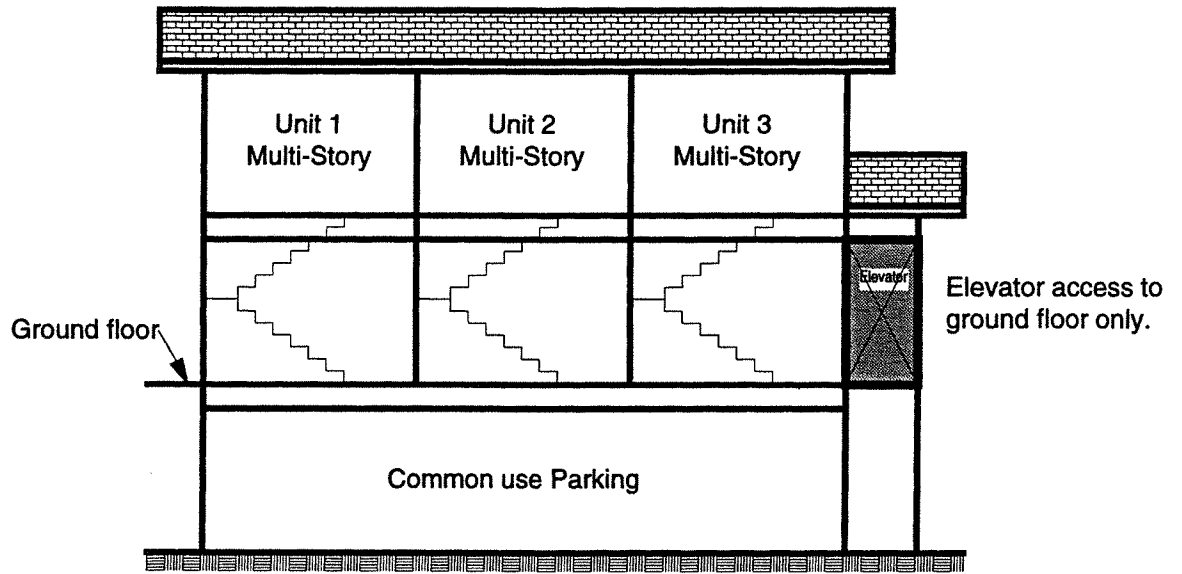


Fig. 3.15 In this example, the elevator provides access from a common use parking area for tenants and guests to the ground floor. This is not considered an elevator building and the townhouses are exempt from accessible bathroom or powder room requirements.

1107A.6
Exception

Multistory dwelling units in elevator buildings. When multistory dwelling units are located in buildings with elevators, the story or stories of the unit served by the elevator shall be accessible and is required to have at least one bathroom or powder room usable to a person in a wheelchair. See Figure 3.16

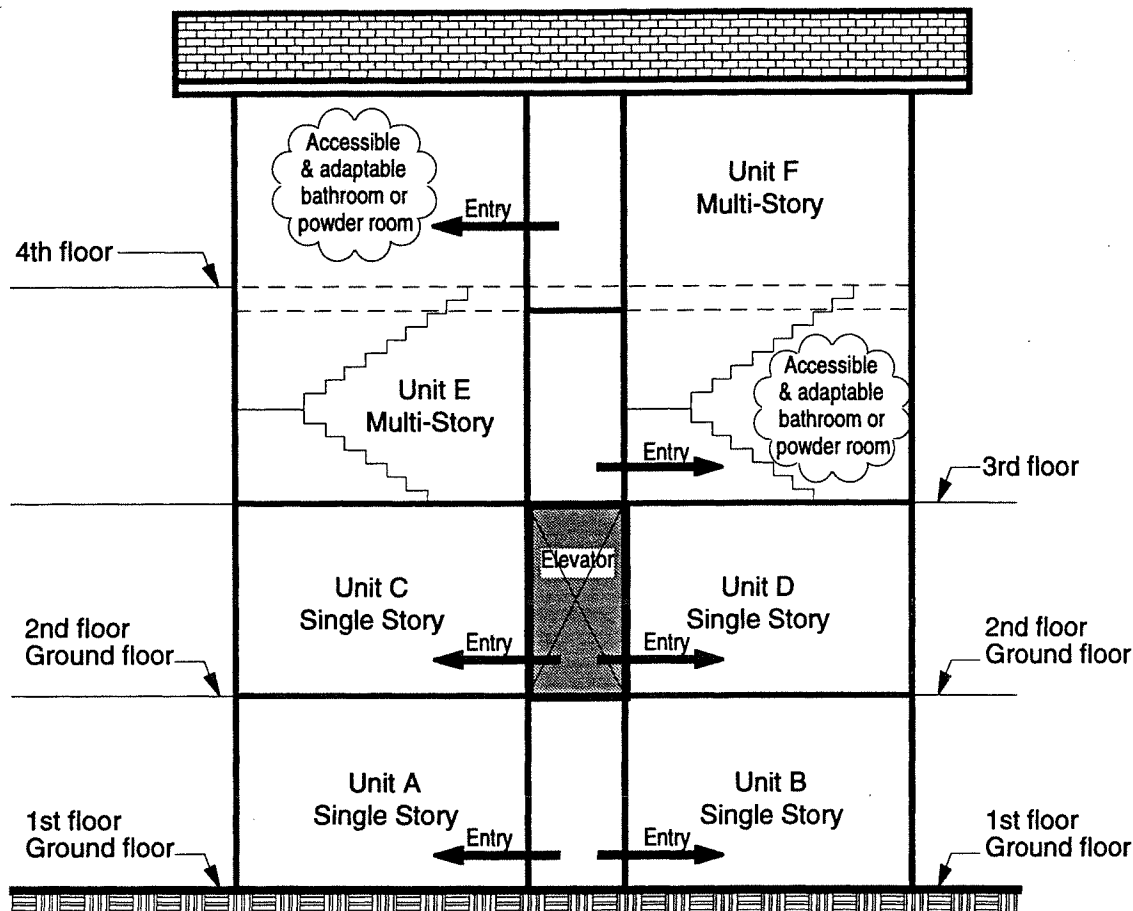


Fig. 3.16 In this example, the elevator serves all ground floors. The single story units A,B,C & D are required to be fully accessible and adaptable. Multistory unit E is shown to have elevator access to the primary entrance located on the upper floor and would require an accessible and adaptable bathroom or powder room on that floor. Multistory unit F is shown to have elevator access to the primary entrance located on the lower floor and would also require an accessible and adaptable bathroom or powder room on that floor.

Multistory dwelling units in elevator buildings (continued). Shown below in figure 3.17 is one of many types of configurations which may be designed.

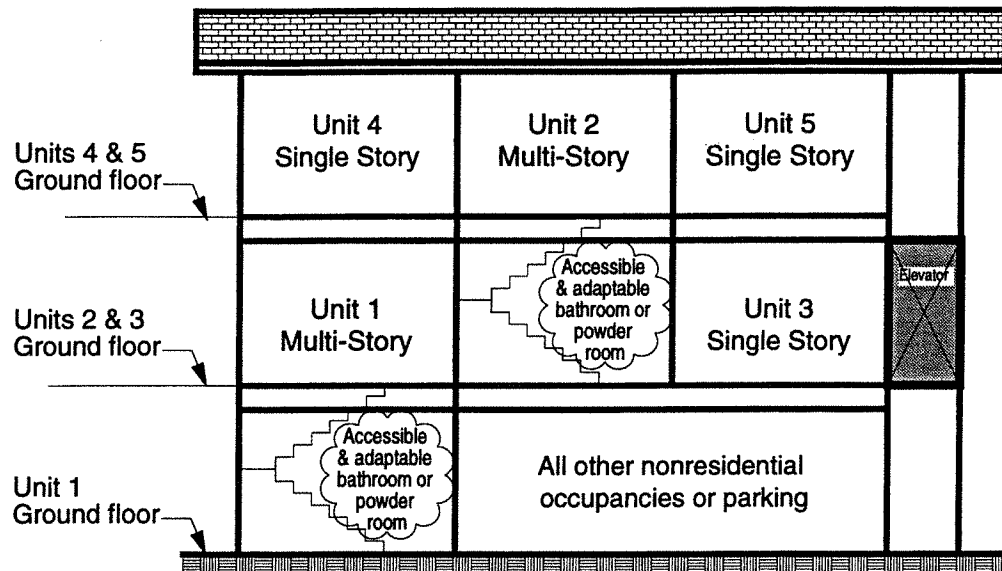


Fig. 3.17 In this example of an elevator building, all single story units and the entry level of the multistory units are covered. Units 3,4 & 5 are required to be fully accessible and adaptable. The multistory units 1 & 2 are required to have an accessible and adaptable bathroom or powder room on the accessible entry floor.

Non-Elevator Buildings

101.17.9

General. The percentage of ground floor units in non-elevator buildings that are required to be accessible and adaptable is determined by using Section 1119A (see page 102). To effectively use this section, determine if the building has a common entrance or multiple entrances.

Section 1119A

A. For buildings with a common (lobby) entrance, all ground floor units must be accessible and adaptable unless the exemptions of site tests 1 or 3 are applicable (see Figures 4.3 and 4.5, Site Tests on pages 30 & 34). Then, at least 20% of the exempted ground floor units shall be adaptable, and all remaining ground floor units shall comply with the features listed below and in section 101.17.9, unless further exempted by site test 3. (See figure 4.1 on page 27)

B. For all other buildings, including buildings with multiple entrances, all ground floor units shall be accessible and adaptable unless the exemptions of site tests 1, 2 or 3 are applicable (see Figures 4.3, 4.4, 4.5 on pages 30,32 & 34 and Section 1119A on page 102, site tests). Then, at least 20% of all ground floor units shall be accessible and adaptable, and all remaining ground floor units shall comply with the features listed below and in section 101.17.9, unless further exempted by site test 3. (See figure 4.2 on page 28)

Features:

1. *Grab bar reinforcement*
2. *32-inch clear door and interior opening width*
3. *Lever hardware*
4. *Door signal devices*
5. *Clear space by doors*
6. *Minimum 15-inch water closet seat height*
7. *Electrical receptacle outlet height*
8. *Lighting and environmental control height*
9. *Faucet controls*
10. *Water closet, bathtub and lavatory space requirements*
11. *Removable cabinets under kitchen sink counter area*

Elevated Walkways

1107A.17

General. When an elevated walkway connects a building entrance with a vehicular or pedestrian arrival point, and that walkway has a slope not exceeding 10%, then the building is subject to the regulations regardless of the site condition. See figure 3.18.

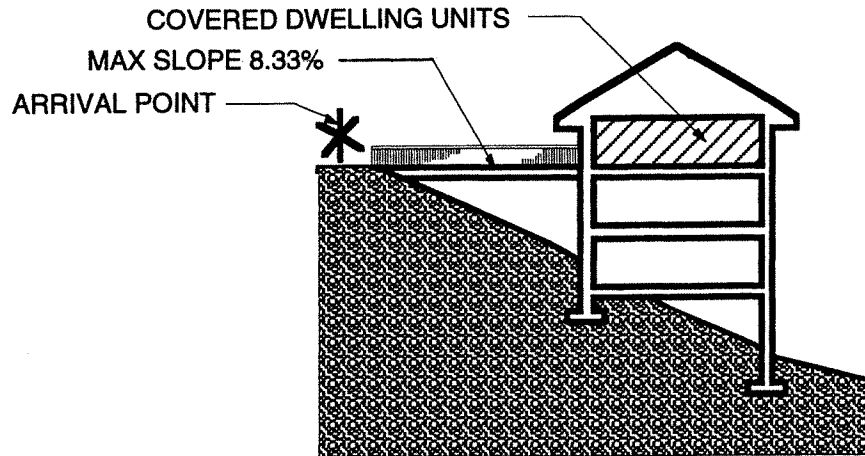


Fig. 3.18 Elevated walkways

Common Areas with Sloping Terrain

1107A.18

General. When the slope of the finished grade between dwelling units and the public or common use areas exceeds 1:12, or where other physical barriers or legal constraints exist which are outside the control of the owner, an acceptable alternative for providing access is via a vehicular route. Accessible parking spaces shall be provided as necessary at such facilities.

Private Garages

1104A

Exception

General. Private garages serving adaptable dwelling units that are accessible from the dwelling units shall be accessible. The garage car entrance door may be used. *CCR, Title 24 does not specifically address minimum interior garage widths, however, federal guidelines reference minimum 14'-2" widths with a minimum 10' wide vehicular door.*

Public or Common Use Areas

1105A

General. All public and common use areas that serve adaptable dwelling units shall be accessible. This includes recreation buildings, pools, trails, walks, playgrounds, parking areas and other amenities.

Site Impracticality

Introduction:

Part IV describes how site conditions affect the project design. Difficult sites such as sloping terrain, flood zones and coastal high hazard areas may be eligible for certain exemptions. Included are samples of "Site Test" evaluations.

Site Impracticality Requirements

General

1119A **General.** The type of building entrance will determine the appropriate site test to apply.

Multifamily Buildings without Elevators

1119A **Single Building With Common (Lobby) Entrance:** All ground-floor units in non-elevator buildings must be adaptable and on an accessible route unless an accessible route is not required by SITE TEST NO. 1 or SITE TEST NO. 3. Then, twenty percent (20%) of the ground-floor dwelling units that are not required to have an accessible route shall be adaptable. Remaining ground-floor units shall comply with the features listed in Section 101.17.9 unless exempted by SITE TEST NO.3 (See Figure 4.1)

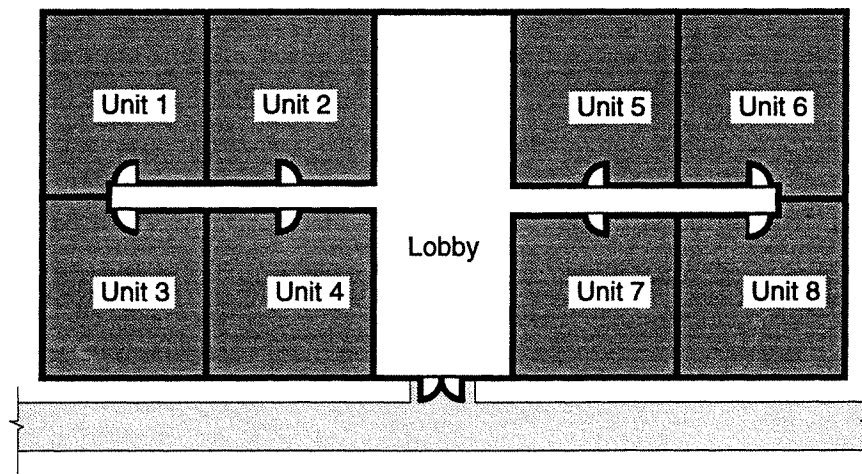


Fig. 4.1 Example of a single building with a common or lobby entrance.

All Other Sites Including Single Building or Buildings With Multiple Entrances: All ground-floor units in non-elevator buildings must be adaptable and on an accessible route(s) unless an accessible route(s) is not required as determined by SITE TEST NO.1, SITE TEST NO. 2, or SITE TEST NO. 3. Then, a minimum of twenty percent (20%) of the ground-floor dwelling units are required to have an accessible route and shall be adaptable. Remaining ground-floor dwelling units shall comply with the features listed in Section 101.17.9 unless exempted by SITE TEST NO. 3. (See Figure 4.2)

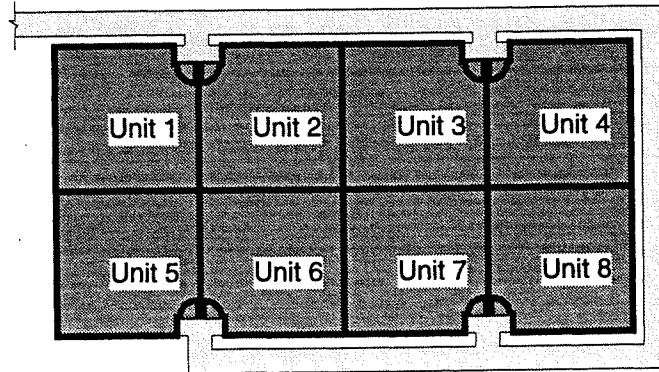


Fig. 4.2 Example of a single building with multiple entrances (garden apartment).

Multifamily Buildings with Elevators

1107A.14 **General.** Multifamily buildings with elevators shall be designed and constructed on an accessible route regardless of terrain or unusual site conditions.

Building Entrances and Accessible Routes

1107A.12 **Separate Ground-Floor Entrances.** When a ground-floor unit of a building has a separate entrance or entrances, each such ground-floor unit shall be served by an accessible route and entrance.

Exception **A unit or units where the terrain or unusual characteristics of the site prohibit the provision of an accessible route to the entrance of that unit need not be provided with an accessible route or entrance. (See Site Tests)**

1107A.13

Multiple Building Entrances. In a building containing multiple entrances, only one entrance is required to be accessible to any one ground floor.

Exception

When an individual dwelling unit has a separate exterior entrance, or where the building contains clusters of dwelling units with each cluster sharing a different exterior entrance, more than one entrance may be required to be accessible, as determined by an analysis of the site. In every case, the accessible entrance shall be on an accessible route to the covered dwelling units it serves. (See figure 4.2)

Site Tests

1119A

General. Certain multifamily dwelling projects may be partially exempt from the regulations due to steeply sloping terrain, or because of unusual site characteristics. These "Site Test" exemptions apply only to nonelevator buildings, unless the elevator is provided only as a means of creating an accessible route to a ground floor.

SITE TEST NO. 1 (Individual Building Test)

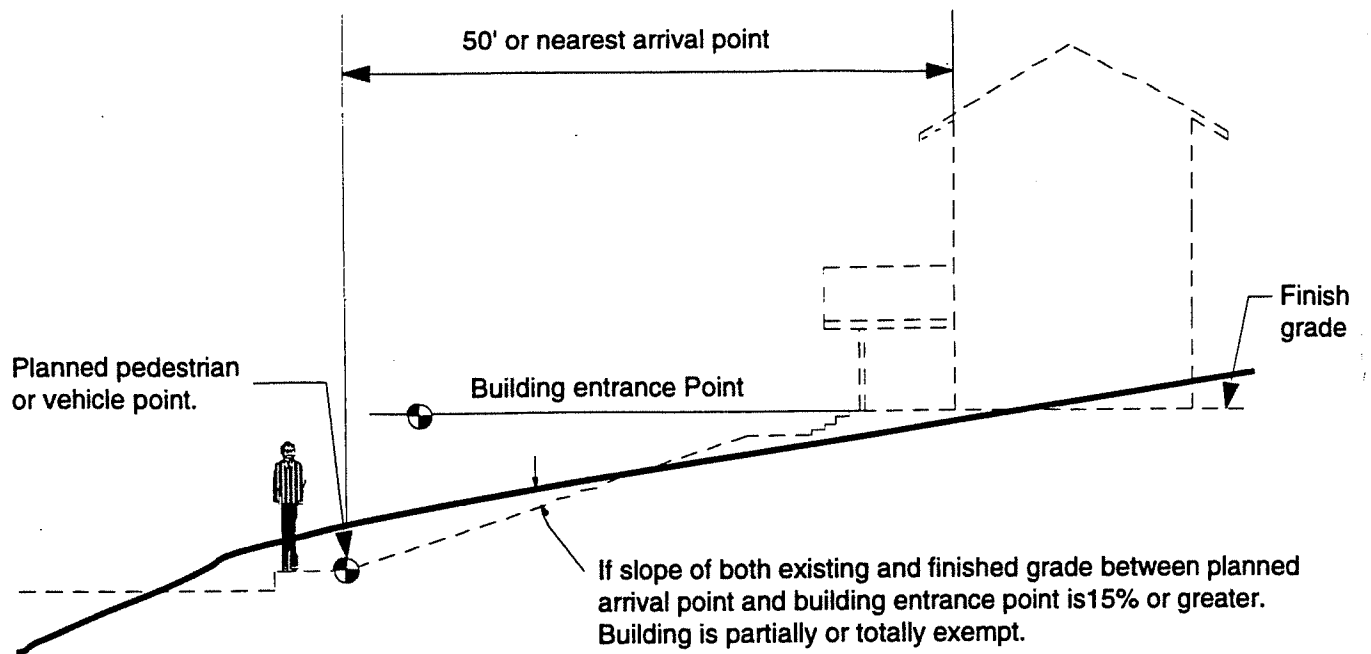
Use this test when the terrain of the site slopes more than 15% between vehicular or pedestrian arrival points and the building entrance. This test applies to both the undisturbed, and finished grade. (See figure 4.3)

SITE TEST NO. 2 (Site Analysis Test)

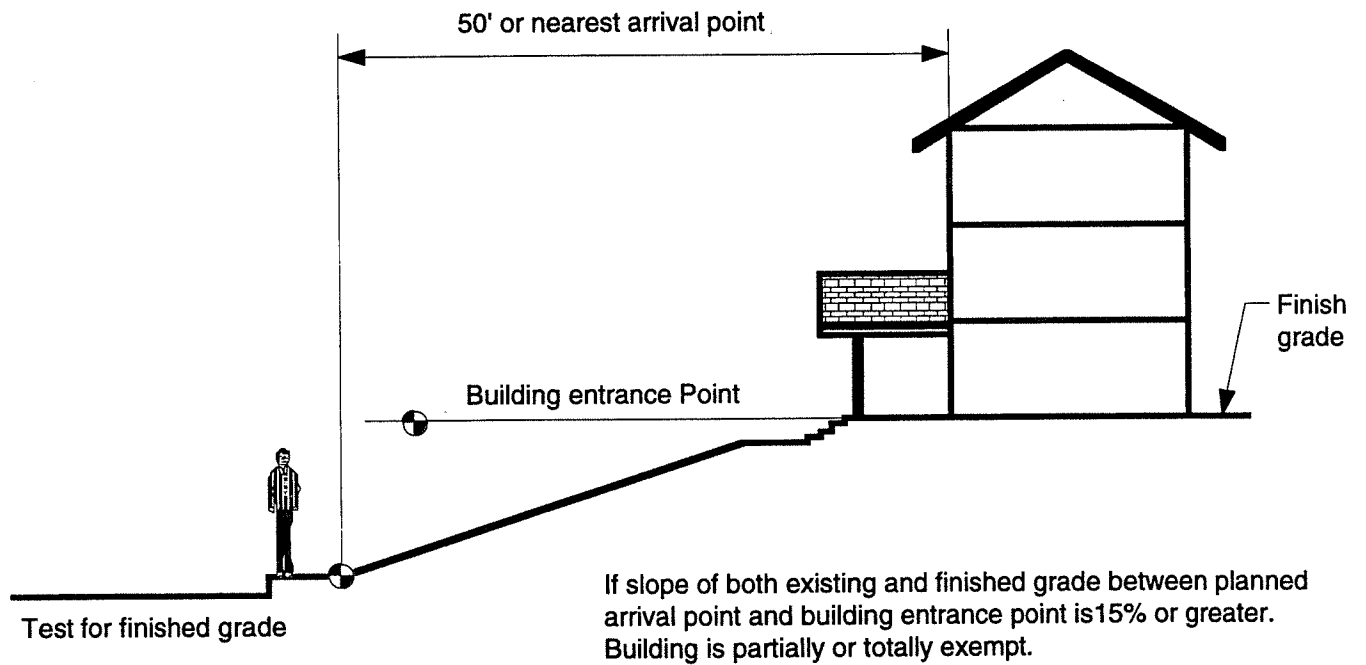
Use this test when the undisturbed site slopes more than 10%. The number of ground floor units required to be accessible is based on the percentage of the site that does not exceed the slope criteria. **Note: Buildings with a common lobby entrance cannot use this test. (See figure 4.4)**

SITE TEST NO. 3 (Unusual Characteristics Test)

Use this test for sites located in a Federally Designated Flood Plain or Coastal High-Hazard area and sites subject to other similar requirements of law. (See figure 4.5)



Test for natural grade



Test for finished grade

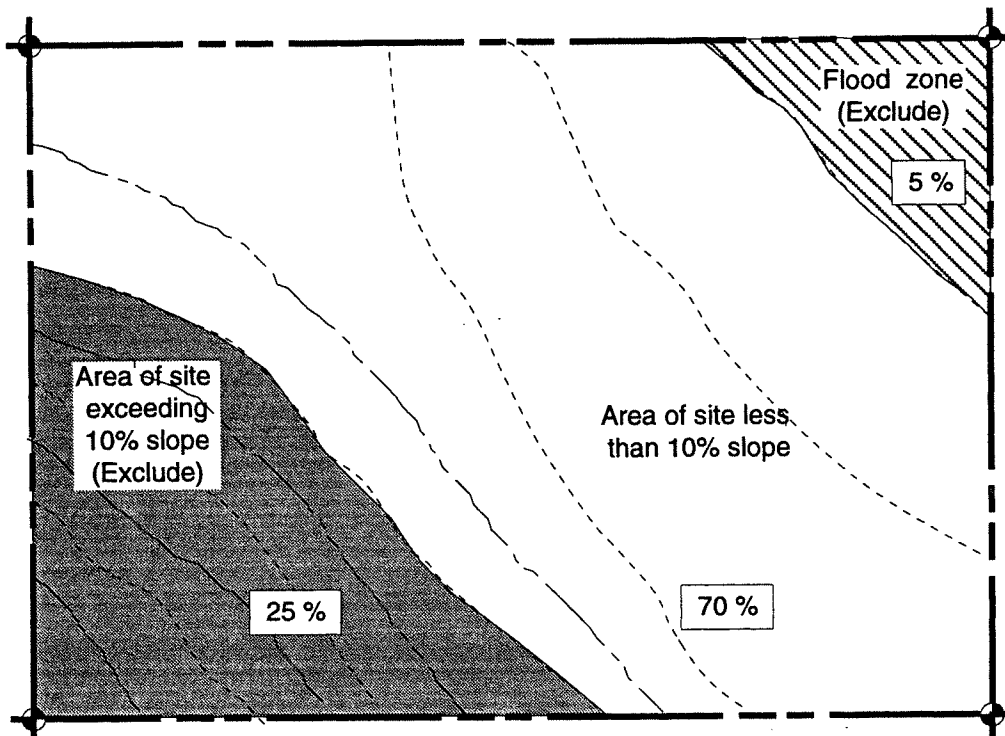
Figure 4.3 SITE TEST NO. 1 - Individual Building Test

NOTES:

1. **TERRAIN SLOPE:** Use Site Test 1 only if the site has terrain over fifteen percent (15%) slope.
 2. If there are no vehicular or pedestrian arrival points within 50' of the planned entrance, the slope for purposes of test no. 1 will be measured to the closest vehicular or pedestrian arrival point.
-

3. For purposes of the regulations, vehicular or pedestrian arrival points include public or resident parking areas; public transportation stops; passenger loading zones; and public streets or sidewalks. To determine site impracticality, the slope would be measured at ground level from the point of the planned entrance on a straight line to (i) each vehicular or pedestrian arrival point that is within 50 feet of the planned entrance, or (ii) if there are no vehicular or pedestrian arrival points within the specified area, the vehicular or pedestrian arrival point closest to the planned entrance. In the case of sidewalks, the closest point to the entrance will be where a public sidewalk entering the site intersects with the walk to the entrance. In the case of resident parking areas, the closest point to the planned entrance will be measured from the entry point to the parking area that is located closest to the planned entrance.
4. **SINGLE BUILDING WITH COMMON (LOBBY) ENTRANCE:** If the multifamily building is a single building with a common (lobby) entrance, at least twenty percent (20%) of the ground-floor dwelling units must be adaptable even though the building is not required to be on an accessible route. Furthermore, the remaining eighty percent (80%) of ground-floor units must comply with the features listed in Section 101.17.9 of the regulations (see page 19) unless the building is exempted by Site Test 3, Unusual Characteristics Test.
5. **SINGLE BUILDING WITH MULTIPLE ENTRANCES AND ALL OTHER SITES:** Unless exempted by Site Test 1, Site Test 2, or Site Test 3, all ground-floor units in non-elevator buildings must be adaptable and on an accessible route. A minimum of twenty percent (20%) of ground-floor dwelling units, however, are required to have an accessible route and shall be adaptable regardless of Site Test 1 results. Furthermore, the remaining eighty percent (80%) of ground-floor units must comply with the features listed in Section 101.17.9 of the regulations (see page 19) unless the building is exempted by Site Test 3, Unusual Characteristics Test.
6. **ELEVATOR CONNECTING PARKING AREA WITH DWELLING UNITS ON THE GROUND FLOOR:** Regardless of Site Test results, an accessible entrance on an accessible route is practical when there is an elevator connecting the parking area with the dwelling units on a ground floor. In this case, those dwelling units on the ground floor served by an elevator, and at least one of each type of public-and common-use areas, would be subject to the requirements.
7. **ELEVATED WALKWAYS:** When an elevated walkway connects a building entrance with a vehicular or pedestrian arrival point, and that walkway has a slope not exceeding ten percent (10%), then the building is subject to the regulations regardless of site conditions.
8. **COMMON AREAS WITH SLOPING TERRAIN:** When the slope of the finished grade between the dwelling units and the public or common use area exceeds 1:12, or where other physical barriers or legal constraints exist which are outside the control of the owner, an acceptable alternative for providing access is via a vehicular route. Accessible parking spaces shall be provided as necessary at such facilities.
9. **ELEVATOR TO GROUND FLOOR ONLY:** Where a building elevator is provided only as a means of creating an accessible route to dwelling units on a ground floor, the building is not considered an elevator building for purposes of the regulations; hence, only the ground-floor dwelling units would be covered.
10. **ELEVATOR BUILDINGS:** Notes 1 through 9 above apply to non-elevator buildings. Covered multifamily dwellings with elevators shall be designed and constructed to provide at least one accessible entrance on an accessible route, regardless of terrain or unusual characteristics of the site.

NOTE: Items 5 through 10 above are applicable to all Site Tests



In the above example, the total buildable site (excluding flood zone & excessive slope area) is equal to 70%. Therefore 70% of the total dwelling units shall be accessible.

Figure 4.4 SITE TEST NO. 2 - Site Analysis Test

NOTES:

1. **TERRAIN SLOPE:** Use Site Test 2 only if the site has terrain over ten percent (10%) slope. Do not use this test if the building has a common lobby entrance.
2. **REQUIRED TOPOGRAPHIC ANALYSIS:** Use of Site Test 2 requires a topographic survey with 2' contour intervals and certified by a licensed architect, civil engineer or structural engineer, surveyor, or landscape architect.

3. **MULTIPLE BUILDINGS SITE OR A SITE WITH A SINGLE BUILDING WITH MULTIPLE ENTRANCES:** These sites are not required to have an accessible route under the following conditions:

- (A) Calculate the percentage of the total buildable area of the undisturbed site with natural grade less than 10 percent slope. The analysis of the existing slope (before grading) shall be done on a topographic survey with 2-foot contour intervals with slope determination made between each successive interval. The accuracy of the slope analysis shall be certified by a licensed engineer, landscape architect, architect or surveyor.
- (B) Determine the requirement of providing an accessible route to planned multifamily dwellings based on the topography of the existing natural terrain. The minimum percentage of ground-floor units required on an accessible route shall equal the percentage of the total buildable area (not restricted-use areas) of the undisturbed site with an existing natural grade of less than 10 percent slope.
- (C) In addition to the percentage established in paragraph (B), all ground-floor units in a building, or ground-floor units served by a particular entrance, shall be made accessible if the entrance to the units is on an accessible route with a slope between the planned entrance and a pedestrian or vehicular arrival point not exceeding 8.33 percent.

Unless exempted by Site Test 1, Site Test 2 or Site Test 3, all ground-floor units in non-elevator buildings shall be adaptable and on an accessible route. A minimum of twenty percent (20%) of ground-floor dwelling units, however, are required to have an accessible route and shall be adaptable regardless of Site Test 2 results.

- 4. **ELEVATED WALKWAYS:** When an elevated walkway connects a building entrance with a vehicular or pedestrian arrival point, and that walkway has a slope not exceeding ten percent (10%), then the building is subject to the regulations regardless of site condition.
- 5. **COMMON AREAS WITH SLOPING TERRAIN:** When the slope of the finished grade between the dwelling units and the public or common-use areas exceeds 1:12, or when other physical barriers or legal constraints exist which are outside the control of the owner, an acceptable alternative for providing access is via a vehicular route. Accessible parking spaces shall be provided as necessary at such facilities.
- 6. **ELEVATOR TO GROUND FLOOR ONLY:** Where a building elevator is provided only as a means of creating an accessible route to dwelling units on a ground floor, the building is not considered an elevator building for purposes of the regulations; hence, only the ground-floor dwelling units would be covered.
- 7. **ELEVATOR BUILDINGS:** The above notes apply to non-elevator buildings. Covered multifamily dwellings with elevators shall be designed and constructed to provide at least one accessible entrance on an accessible route, regardless of terrain or unusual characteristics of the site.

NOTE: See additional notes 5 through 10 on Site 1 (see page 31)

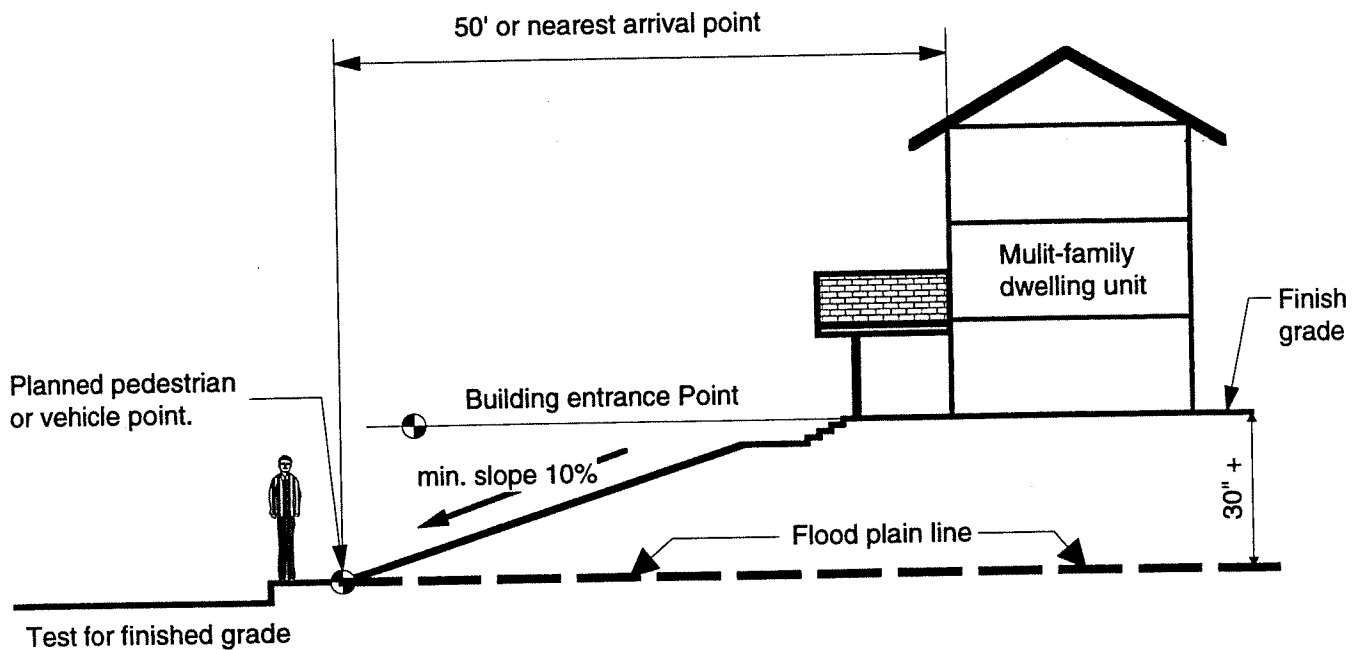


Figure 4.5 SITE TEST NO. 3 - Unusual Characteristics Test

NOTES:

1. **TERRAIN SLOPE AND BUILDING CONFIGURATION:** Use Site Test 3 for sites located in federally designated flood plains or coastal high-hazard areas and/or sites subject to other similar requirements of law or code that the lowest floor must be raised to a specified level at or above the base flood elevation.
2. An accessible route to a building entrance is impractical due to unusual characteristics of the site when:
 - (A) The original site characteristics result in a difference in finished grade elevation exceeding thirty inches (30") and ten percent (10%) measured between an entrance and all vehicular or pedestrian arrival points within 50' of the planned entrance; or
 - (B) If there are no vehicular or pedestrian arrival points within 50' of the planned entrance, the unusual characteristics result in a difference in finished grade elevation exceeding 30" and 10% measured between an entrance and the closest vehicular or pedestrian arrival point.

NOTE: See additional notes 4 through 10 on Site Test 1 (see page 31)

Part V

Site Development Requirements

Introduction:

Part V will focus on the requirements for specific areas and features located outside the multifamily building. This will consist primarily of site related issues and includes; parking areas, accessible routes of travel, recreation and common use areas, and ramps.

Outside the Multifamily Building

General

1105A **General.** When multifamily and condominium buildings are required to be accessible or adaptable, site facilities shall also be accessible including, but not limited to:

- Street curb ramps
- Parking facilities and parking structures
- Route of travel from public way to the building(s)
- Walks and sidewalks
- Building entrances
- Swimming pools, spas and hot tubs
- Recreational facilities
- Public use areas
- Route or routes of travel between buildings

Site Impracticality

1107A.18 If the slope of the finished grade between covered multifamily dwellings and a public-or common-use facility (including parking) exceeds 1 unit vertical in 12 units horizontal (8.33% slope), or where other physical barriers (natural or artificial) or legal restrictions, all of which are outside the control of the owner, prevent the installation of an accessible pedestrian route, an acceptable alternative is to provide access via a vehicular route, provided necessary site provisions such as parking spaces and curb ramps are provided at the public- or common-use facility.

Curb Ramps

1117A.4.1 **General.** Curb ramps shall be constructed at each corner of street intersections and where a pedestrian way crosses a curb. The preferred and recommended location for curb ramps is in the center of the crosswalk of each street corner. Where it is necessary to locate a curb ramp in the center of the curb return and the street surfaces are marked to identify pedestrian crosswalks, the lower end of the curb ramp shall terminate with such crosswalk areas.

1117A.4.2 **Width of Curb Ramps.** Curb ramps shall be a minimum of 4 feet in width and shall lie, generally, in a single-sloped plane, with a minimum of surface warping and cross slope.

- 1117A.4.3 **Slope of Curb Ramps.** The slope of curb ramps shall not exceed 1 vertical to 12 horizontal (8.33 percent). Transitions from ramps to walks, gutters, or streets shall be flush and free of abrupt changes, except that curb ramps shall comply with Section 1117A.4.5. The slope of the fanned or flared sides of curb ramps shall not exceed 1 vertical to 8 horizontal (12 percent). If a curb ramp is located where pedestrians must walk across the ramp, then it shall have flared sides; the maximum slope of the flare shall be 1:10 (10 percent). Curb ramps may be used where pedestrians would not normally walk across the ramp.
- 1117A.4.4 **Level Landing.** A level 4 feet deep landing shall be provided at the upper end of each curb ramp over its full width to permit safe egress from the ramp surface, or the slope of the fanned or flared sides of the curb ramp shall not exceed 1 vertical to 12 horizontal (8.33 percent).
- 1117A.4.5 **Beveled Lip.** The lower end of each curb ramp shall have a 1/2-inch lip beveled at 45 degrees.
- 1117A.4.6 **Finish.** The surface of each curb ramp and its flared sides shall be stable, firm and slip resistant and shall be of contrasting finish from that of the adjacent sidewalk.
- 1117A.4.7 **Detectable Warnings.** A curb ramp shall have a detectable warning that extends the full width and depth of the curb ramp when the ramp slope is less than 1 vertical to 15 horizontal (6.66 percent). Detectable warnings shall consist of raised truncated domes with a diameter of nominal 0.9 inches, a height of nominal 0.2 inches and a center-to-center spacing of nominal 2.35 inches and shall contrast visually with adjoining surfaces, either light-on-dark or dark-on-light. Warning surfaces shall be of the color yellow conforming to Federal Color No.33538, as shown in Table V of Standard No. 595A. Where the color value contrast between the yellow warning and the main walking surface is less than 70 percent, a 1-inch wide black strip shall separate the yellow warning from the main walking surface. Contrast shall be determined by:
- Contrast= $[(B1-B2/B1) \times 100\%]$ where B1 = light reflectance value (LRV) of the lighter area and B2 = light reflectance value (LRV) of the darker area]. The material used to provide contrast shall be an integral part of the walking surface. The domes may be constructed in a variety of methods, including cast in place, stamped or may be part of a prefabricated surface treatment.
- 1117A.4.8 **Obstructions.** Curb ramps shall be located or protected to prevent their obstruction by parked cars. Built-up curb ramps shall be located so that they do not project into vehicular traffic lanes.

1117A.4.9

Diagonal Curb Ramps. If diagonal (or corner type) curb ramps have returned curbs or other well-defined edges, such edges shall be parallel to the direction of pedestrian flow. The bottom of diagonal curb ramps shall have 48 inches minimum clear space. If diagonal curb ramps are provided at marked crossings, the 48-inch clear space shall be within the markings. If diagonal curb ramps have flared sides, they shall also have at least a 24-inch-long segment of straight curb located on each side of the curb ramp and within the marked crossing.

Parking Facilities

1118A.1

Accessible Parking Required. Accessible parking spaces shall be located on the shortest possible accessible route of travel to an accessible building entrance. In facilities with multiple accessible building entrances with adjacent parking, accessible parking spaces shall be dispersed and located near the accessible entrances. When practical, the accessible route of travel shall not cross lanes for vehicular traffic. When crossing vehicle traffic lanes is necessary, the route of travel shall be designated and marked as a crosswalk.

Each lot or parking structure where parking is provided for clients, guests, employees or residents shall provide accessible parking as required by this Section. In separate parking structures or lots that do not serve a particular building, parking spaces for physically disabled people shall be located on the shortest possible circulation route to an accessible pedestrian entrance of the parking facility.

If assigned parking is provided at privately-funded building sites, designated accessible parking at the dwelling unit shall be provided on request of residents with physical disabilities on the same terms and with the full range of choices (e.g., surface parking or garage) provided for other residents, with accessible parking on a route accessible to wheelchairs for at least 2 percent of the covered dwelling units. **Signage is not required.** When visitor parking is provided, a minimum of 5 percent parking shall provide access to grade-level entrances of multifamily dwellings and accessible parking facilities (e.g., swimming pools) that serve accessible buildings. Visitor parking spaces shall be provided with signage. Such sign shall not be blocked from view by a vehicle parked in the space.

1118A.2

Parking Structures. All entrances to and vertical clearances within parking structures shall have a minimum vertical clearance of 8 feet 2 inches where required for accessibility to parking spaces for persons with physical disabilities.

1118A.2
Exception

Private garages are exempt from the 8-foot 2-inch minimum height requirement. Covered parking spaces and parking spaces in common areas shall provide a minimum of 8 feet 2 inches clearance.

- 1118A.2.1 Passenger parking spaces shall not be considered to be passenger loading zones.
- 1118A.5 **Signs.** Every parking space required by this Section shall be identified by a sign. The center of the sign shall be between 3 feet and 5 feet above the parking surface, at the head of the parking space. The sign shall include the international symbol of accessibility and state RESERVED, or equivalent language.
- An additional sign shall also be posted in a conspicuous place at each entrance to off-street parking facilities, or immediately adjacent to and visible from each stall or space. The sign shall not be less than 17 inches by 22 inches in size with lettering not less than 1 inch in height, which clearly and conspicuously states the following:
- "Unauthorized vehicles parked in designated handicapped spaces not displaying distinguishing placards or license plates issued for physically disabled persons may be towed away at owner's expense. Towed vehicles may be reclaimed at ----- or by telephoning -----."**
- In addition to the above requirements, the surface of each accessible parking space or stall shall have a surface identification duplicating either of the following schemes:
- 1118A.5.1 By outlining or painting the stall or space in blue and outlining on the ground in the stall or space in white or suitable contrasting color a profile view depicting a wheelchair with occupant; or,
- 1118A.5.2 By outlining a profile view of a wheelchair with occupant in white on blue background. The profile view shall be located so that it is visible to a traffic enforcement officer when a vehicle is properly parked in the space and shall be 36 inches high by 36 inches wide.
- 1118A.3 **Design and Construction.** Parking spaces shall be designed and constructed in accordance with this Section.
- 1118A.4 **Parking Space Size.** Parking spaces for persons with physical disabilities shall be located on the shortest possible route to an accessible entrance and shall be sized as follows:
- 1118A.4.1 Where single spaces are provided, they shall be 14 feet wide and outlined to provide a 9-foot parking area and a 5-foot loading and unloading access aisle on the passenger side of the vehicle. When more than one space is provided in lieu of providing a 14-foot wide space for each parking space, two spaces can be provided within a 23-foot wide area lined to provide a 9-foot parking area on each side of a 5-foot loading and unloading access aisle in the center. The minimum length of each parking space shall be 18 feet. (See figure 5.1)

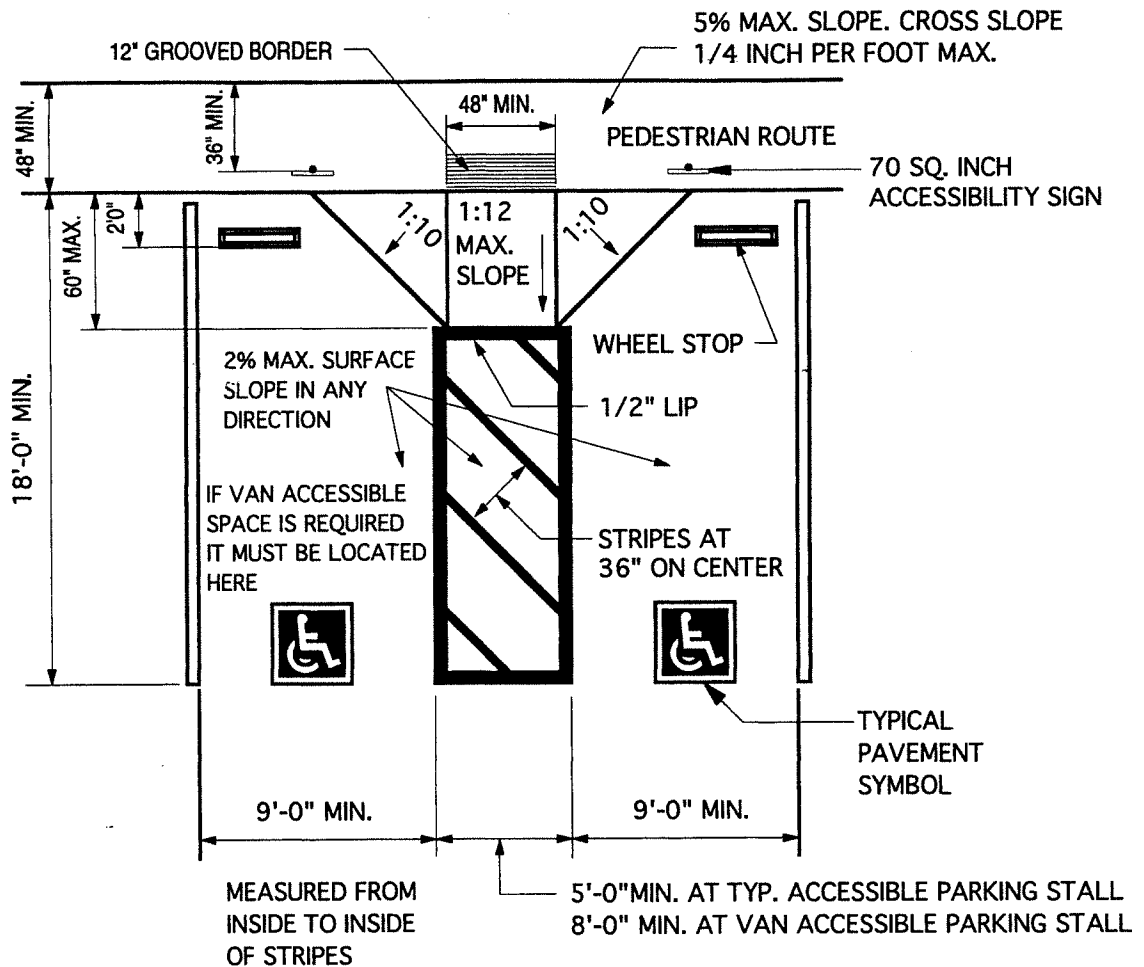


Fig. 5.1 Two space parking

1118A.4.2

One in every eight accessible spaces, but not less than one, shall be served by an access aisle 96 inches wide minimum, and shall be designated van accessible as required by Section 1118A.4.1. All such spaces may be grouped on one level of a parking structure.

1118A.4.3

Arrangement of Parking Spaces. In each parking area, a bumper or curb shall be provided and located to prevent encroachment of cars over the required walkways. Also, the space shall be so located that people with physical disabilities are not compelled to wheel or walk behind parked cars other than their own. Pedestrian ways which are accessible to people with physical disabilities shall be provided from each such [parking space to related facilities, including curb cuts or ramps as needed. Ramps shall not encroach into any parking space.

1118A.4.3
Exception 1

Ramps located at the front of parking spaces for people with physical disabilities may encroach into the length of such spaces when such encroachment does not limit a person with physical disabilities capability to leave or enter their vehicle, thus providing equivalent facilitation.

1118A.4.3
Exception 2

Parking spaces may be provided which would require a person with physical disabilities to wheel or walk behind other than accessible parking spaces when the enforcing agency determines that compliance with these regulations or providing equivalent facilitation would create an unreasonable hardship.

1118A.4.4

Slope of Parking Spaces. Surface slopes of accessible parking spaces shall be the minimum possible and shall not exceed 1/4 inch per foot (2.083 percent gradient) in any direction.

Private Garages

1104A
Exception

Private garages which serve a privately-funded single-dwelling unit is an accessible garage if the person with a disability can exit the dwelling unit's accessible entry door and enter the garage from the driveway.

Signs

1117A.3

At every primary public entrance and at every major junction along or leading to an accessible route of travel, there shall be a sign displaying the international symbol of accessibility. Signs shall indicate the direction to accessible building entrances and facilities.

Accessible Route of Travel

1117A.1

General. When more than one building or facility is located on a site, accessible routes of travel shall be provided between buildings and accessible site facilities. The accessible route of travel shall be the most practical direct route between accessible building entrances, accessible site facilities, and the accessible entrance to the site.

1107A.2.1

When a building, or portion of a building is required to be accessible or adaptable, an accessible route of travel must be provided to all portions of the building, to accessible building entrances and between the building and the public way.

1107A.2.1

Except within an individual dwelling unit, an accessible route of travel shall not pass through kitchens, storage rooms, rest rooms, closets or other spaces used for similar purposes.

1107A.2.1

At least one accessible route within the boundary of the site shall be provided from public transportation stops, accessible parking and accessible passenger loading zones, and public streets or sidewalks to the accessible building entrance they serve. The accessible route shall, to the maximum extent feasible, coincide with the route for the general public.

- 1107A.2.1 At least one accessible route shall connect accessible buildings, facilities, elements and spaces that are on the same site. At least one accessible route shall connect accessible building or facility entrances with all accessible spaces and elements and with all accessible dwelling units within the building or facility.
- 1107A.2.1 An accessible route shall connect at least one accessible entrance of each accessible dwelling unit with those exterior and interior spaces and facilities that serve the accessible dwelling unit.
- 1105A **Group R Occupancies.** Public-use and common-use areas serving adaptable dwelling units shall be accessible.
- 1113A **Swimming Pools.** Swimming pools required to be accessible to persons with physical disabilities shall comply with the provisions of Chapter 11B
- 1107A.3 Where more than one route of travel is provided, all routes shall be accessible.
- 1107A.3 **Where more than one elevator is provided, all elevators shall be accessible.**
Exception
- 1107A.4 All walks and other spaces that are part of an accessible route shall provide a minimum clear width of 48 inches, except at doors.
- 1107A.4 **Privately-funded covered multifamily dwelling units shall provide a minimum clear width of 36 inches, except at doors.**
Exception
- 1107A.6 When the first floor containing dwelling units is a floor above grade, all units on that floor must be served by an accessible route.
- 1107A.6 **In multistory dwelling units, i.e., townhouse-type construction, access is not required for buildings without elevators. In multistory dwelling units in buildings with elevators, the story of the unit that is served by the building elevator is the primary entry to the unit. The primary floor must contain a bathroom or powder room usable to a person in a wheelchair.**
Exception
- 1107A.7 Access must be provided to elements listed in Section 1104B.4.3, participation areas.
- 1107A.8 Walks, halls, corridors, passageways, aisles, or other circulation spaces shall have 80 inches minimum clear headroom. If vertical clearance of an area adjoining an accessible route is reduced to less than 80 inches (2032mm) nominal dimension, a guardrail or other barrier having its leading edge at or below 27 inches (686mm) above the finished floor shall be provided. See Figure 5.2

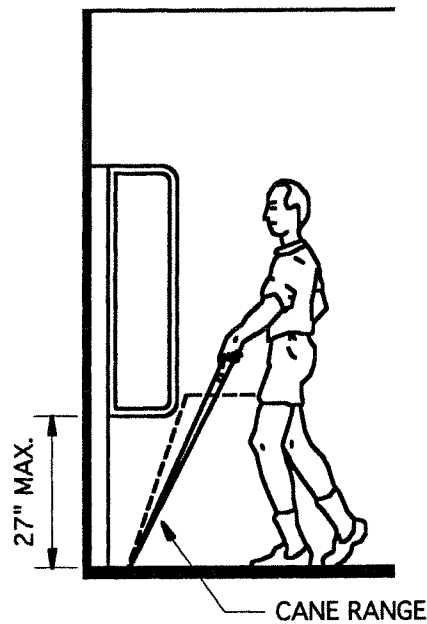
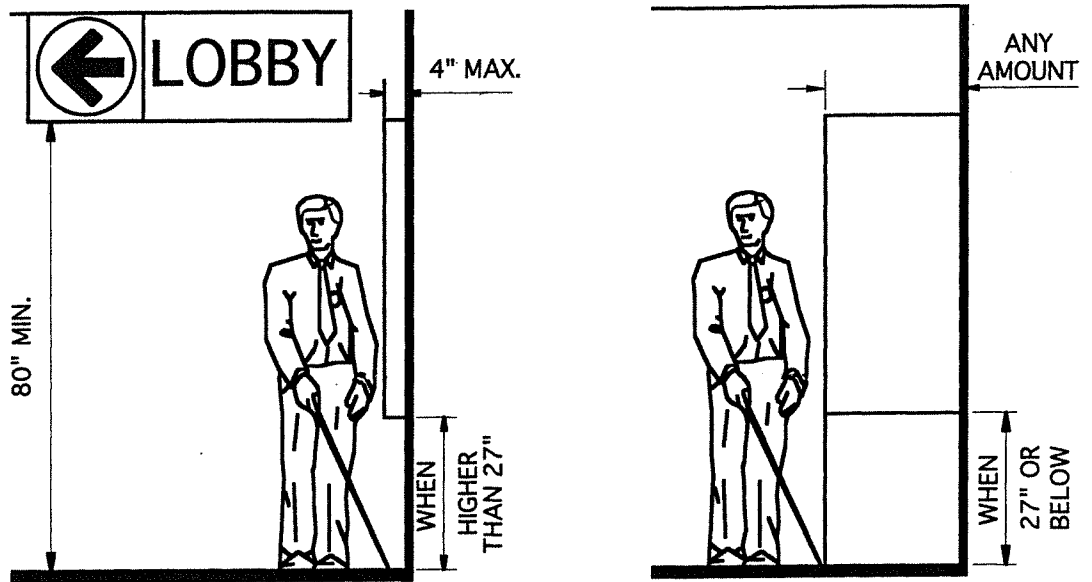


Fig. 5.2 Protruding Objects

1107A.9

If an accessible route has changes in level greater than 1/2 inch, then a curb ramp, ramp, elevator, or platform lift shall be provided. Stairs shall not be considered a part of an accessible route.

1107A.10

Accessible routes serving any accessible space or element shall also serve as a means of egress for emergencies or connect to an accessible place of refuge. Such accessible routes and places of refuge shall comply with the requirements established by the enforcement authority having jurisdiction.

Walks and Sidewalks

1023.1

Continuous Surface. An abrupt change in elevation, or an obstacle protruding into a walk or sidewalk can be an insurmountable barrier for the disabled. Accessible walks and sidewalks must have a continuous common surface, uninterrupted by steps or abrupt changes in level over 1/2 inch. The walks must be at least 48 inches wide. But if right-of-way restrictions, natural barriers, or other existing conditions make compliance with the 48-inch requirement an unreasonable hardship, the enforcement agency may reduce the walk's width to a minimum of 36 inches. See Figure 5.3

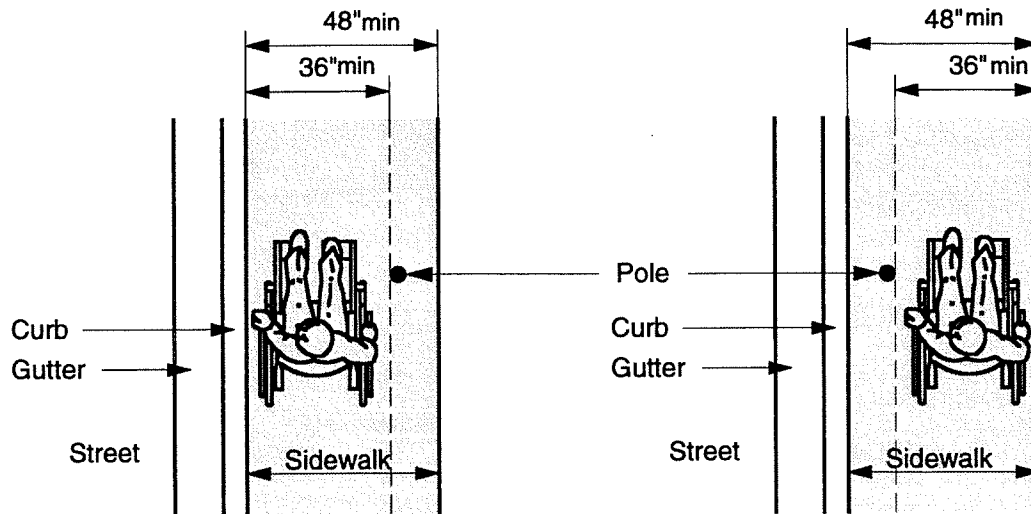


Fig. 5.3 Walkway width

1023.1.3

Exception 2

Sidewalks serving individual dwelling units in privately-funded covered multifamily buildings may be reduced to 36 inches in clear width. All other sidewalks shall be a minimum of 48 inches in clear width.

1023.1.1

If the slope of a sidewalk is less than 6 percent, the surface must be at least as slip resistant as a medium-salted finish.

1023.1.2

When the slope is 6 percent or greater, the surface shall be slip resistant.

1023.1.3

Surface cross slopes (slopes in a direction other than the direction of travel) are not to exceed 1/4-inch per foot except when the enforcing agency finds that local conditions make the requirement an unreasonable hardship. In that case, the cross slope may be increased to a maximum of 1/2-inch per foot for distances not over 20 feet.

1023.2

Walks, sidewalks, and pedestrian ways shall be free of gratings whenever possible. If there are gratings, grid openings are to be no more than 1/2 inch in the direction of traffic flow.

- 1023.3 When the slope in the direction of travel of any walk exceeds 5 percent, it must comply with the provisions of pedestrian ramps.
- 1023.4 Level changes not exceeding 1/4 inch can be vertical. Greater level changes are to be beveled with a slope of no more than 50 percent.
- 1023.5 Walks to a covered multifamily building must provide a level area not less than 60 inches by 60 inches where a door or gate swings toward the walk, and not less than 48 inches wide by 44 deep where a door or gate swings away from the walk. These areas must extend 24 inches beyond the side of the strike edge of a door or gate that swings toward the walk.
- 1023.6 All walks with continuous slopes may not extend over 400 feet without providing a level area 5 feet in length.
- 1024.1 Except between a walk or sidewalk and an adjacent street or driveway, abrupt changes in level, exceeding 4 inches in a vertical dimension, (such as at planters or fountains located in or adjacent to walks, sidewalks, or other pedestrian ways) are to be identified by warning curbs projecting at least 6 inches above the walk or sidewalk.
- No curb is required if: (1) the slope of the walk is 5 percent or less; (2) a handrail is provided; or (3) no adjacent hazard exists such as a drop-off.
- 1024.2 The bottom of an obstruction overhanging a pedestrian way must be at least 80 inches above the walkway.

Ramps

- 1007.1a Any path of travel is considered a ramp if its slope is greater than 5 percent (1:20). The slope of a ramp cannot exceed 8.33 percent (1:12).
- 1007.3.2a Outdoor ramps and their approaches shall be designed and constructed so that water will not accumulate on walking surfaces.
- 1023.1.1 Surfaces of ramps with a slope of less than 6 percent shall be at least
1023.1.2 as slip resistant as a medium-salted finish. Surfaces with a slope of 6 percent or greater must be slip resistant.
- 1007.5a Continuous, full-length handrails are to be placed on each side of the ramp if the slope exceeds 6.66 percent (1:15). The handrails are to extend in the direction of the ramp not less than 12 inches beyond the top and bottom of the ramp, and the ends are to be returned. The handrails must be 30 to 34 inches above the ramp surface. The size and spacing requirements for ramp handrails are the same for stairway handrails.

1007.5a
Exception 5

Multifamily buildings that are required to provide ramps for persons with physical disabilities, must have handrails if the slope exceeds 1-foot rise in 20 feet of horizontal run (1:20).

Note:

See Section 1007.5a for handrail dimensions.

1007.5a
Exception 2

Ramps that require handrails and that serve one individual dwelling unit may have one handrail on the open side if the ramp is open on one side only.

1007.4.9a

If the side of the ramp surface has a vertical drop exceeding 4 inches that is not bounded by a wall or fence, there shall be a curb at least 2 inches high, or a wheelguide rail 2 to 4 inches high on each side of the ramp. See figure 5.4

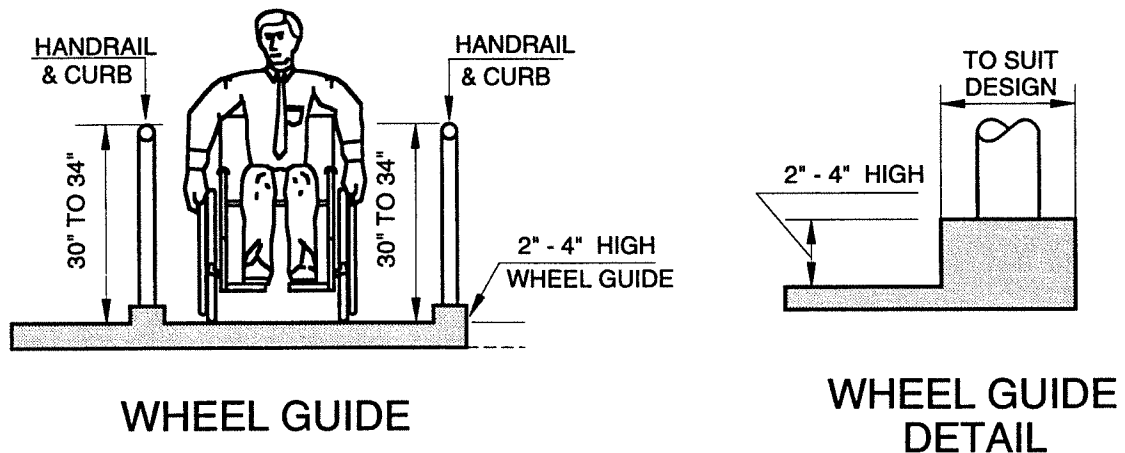


Fig. 5.4 Wheel Guide

1007.2a

Ramp width must be at least as wide as stairways.

1007.2.2a

Pedestrian ramps leading to primary apartment entrances serving 300 or more occupants need a minimum clear width of 60 inches. If the building serves 51 to 299 occupants, the minimum clear width is 48 inches. If the building serves 50 occupants or less, ramps serving the primary entrance are to have a minimum clear width of 36 inches.

1007.4.1a

Landings are to be provided at the top and bottom of each ramp. Intermediate landings are to be provided at intervals not exceeding 30 inches of vertical rise, and at each change of direction. Landings are not considered in determining the maximum horizontal distance of each ramp.

1007.4.2a
Exception

In privately-funded multifamily buildings, the top landings must be not less than 60 inches wide and shall have a length of not less than 44 inches in the direction of ramp run. The top landing width shall extend a minimum of 24 inches past the strike edge of the door.

1007.4.3a
1007.4.4a

If a door or gate swings onto a landing, it cannot reduce the length of the landing in the direction the ramp runs to less than 42 inches and shall not reduce the required width by more than 3 inches when doors are fully opened. The required width of the landing must extend 24 inches past the strike edge of the door or gate for exterior ramps and 18 inches for interior ramps.

1007.4.6a

Bottom and intermediate landings at a change of direction over 30 degrees must be at least 72 inches as measured in the direction of the ramp to accommodate the handrail extension.

1007.4.7a

Intermediate landings are to be at least 60 inches, measured in the direction of the ramp.

Examples of Ramp Dimensions		
Slope	Maximum Rise (inches)	Maximum Horizontal Projection (feet)
1:12	30	30
1:15	30	37.5
1:16	30	40
1:20	30	50

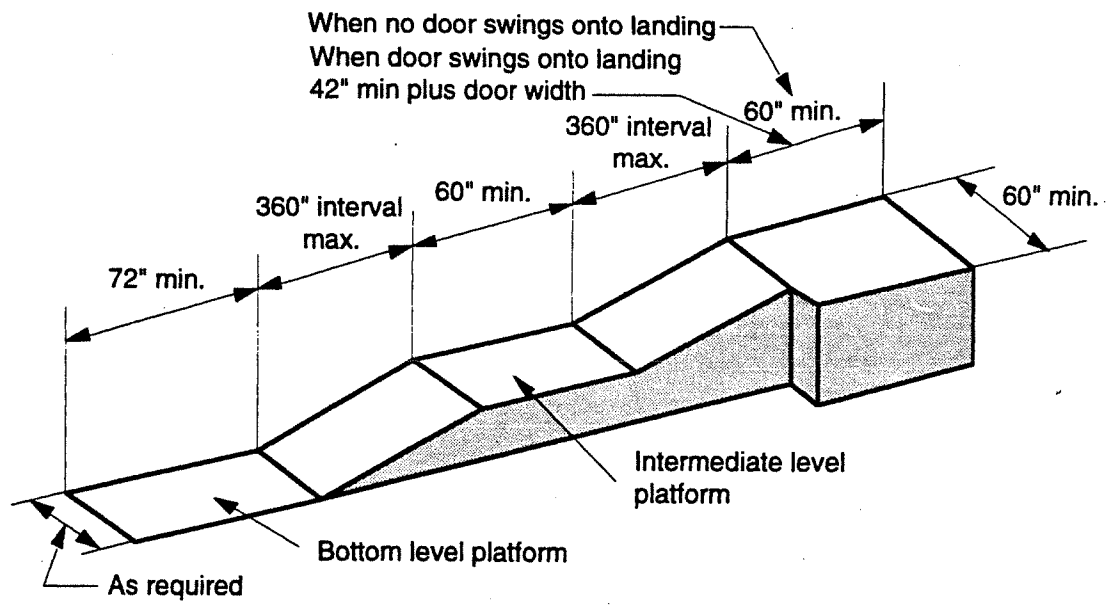


Fig. 5.5 Straight ramp run

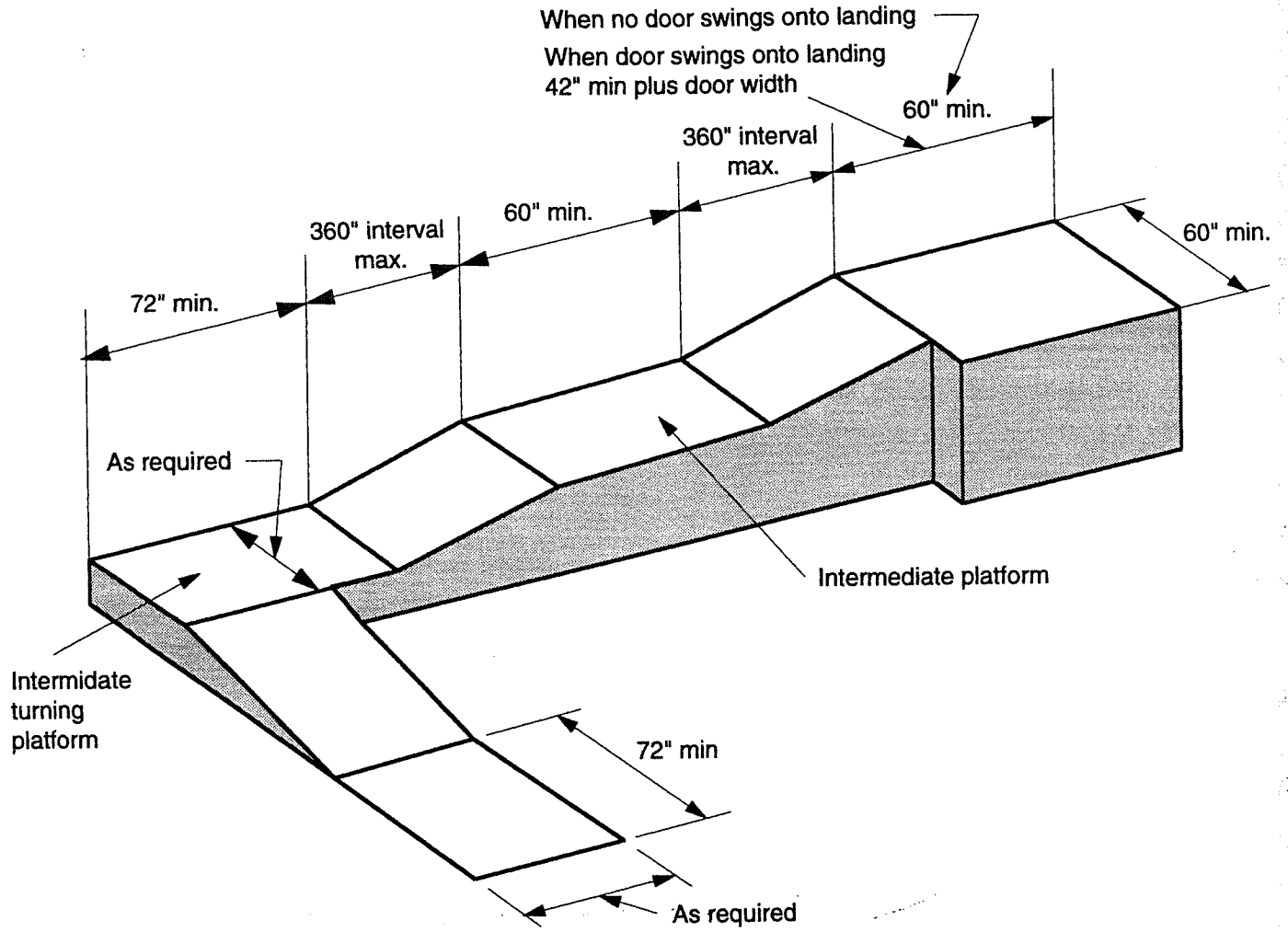


Fig. 5.6 Ramp with change of direction

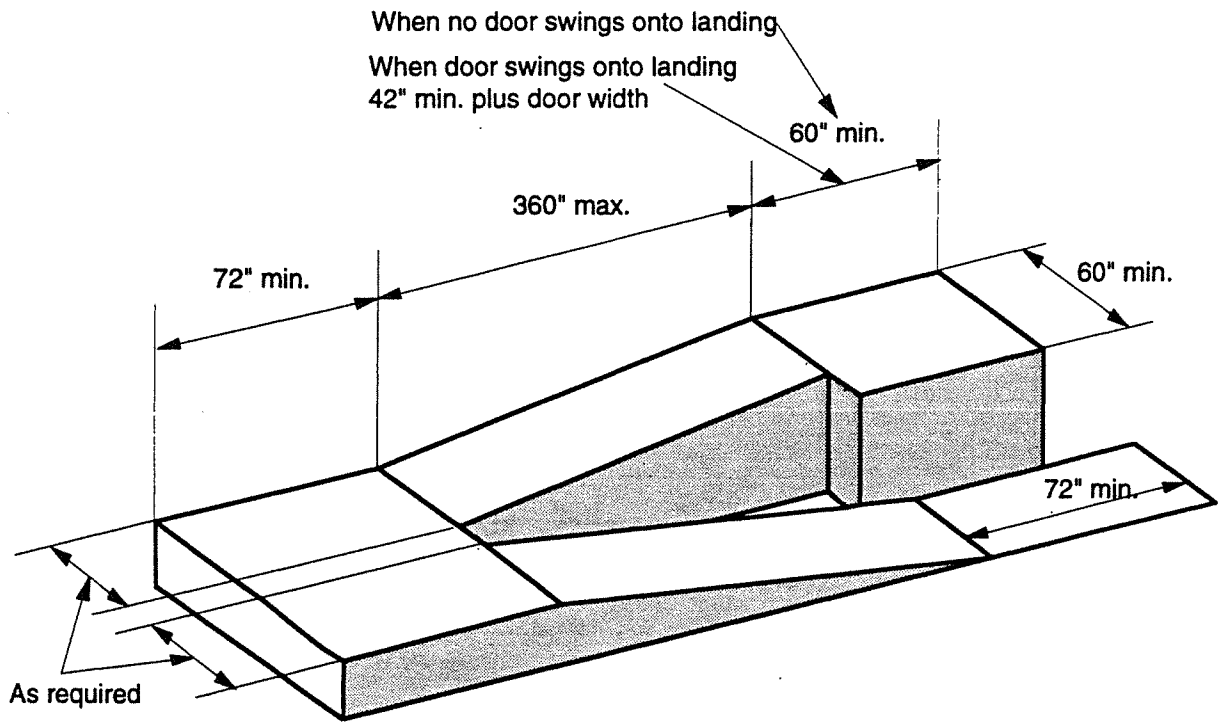


Fig. 5.7 Ramp with intermediate switch-back platform

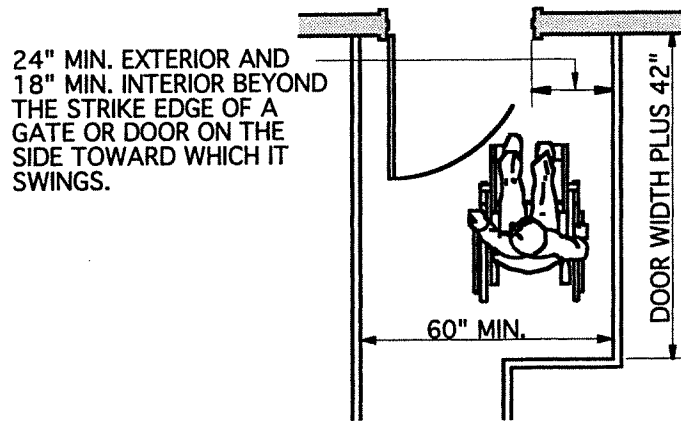


Fig. 5.8 Ramp landing at doorway

Stairways

- 1006.16.1 Stairway treads must be slip resistant with smooth, rounded or beveled edges, and no abrupt edges at the nose. The upper approach and the lower tread to each stairway and all stairway treads outside a building are to be marked by a strip of clearly contrasting color, at least 2 inches wide (a painted strip is acceptable). The strip is to be placed parallel to and not more than one inch from the nose of the step or landing. The strip material must be at least as slip resistant as the other stair treads.
- 1006.16.2.2 The nosing should not project more than 1-1/2 inches past the face of the riser below, and the risers must be solid.
- 1006.16.3 **In covered multifamily buildings, open risers are not permitted on accessible routes.**
Exception 3
- 1006.9.1a **Stairways must have handrails on both sides. Private stairways 30 inches or less in height may have handrails on one side only.**
Exception 3
- 1006.9.1a **Stairways serving one dwelling unit in a multifamily building are allowed to have only one handrail; but if the stairway is open on one or both sides, handrails are to be provided on the open side(s).**
Exception 2
- 1006.9.1.2 Other stairways must have handrails on both sides. A stairway more than 88 inches wide must have at least one intermediate handrail for each 88 inches of required width. Intermediate handrails shall be spaced at approximately equal intervals within the width of the stairway and continuous for the entire length.
- 1006.9.2a Handrails must be continuous for the full length of the stairway. The handrail must be 34 to 38 inches above the nosing of the treads, and must extend in the direction of the stair run for at least 12 inches beyond the top nosing and 12 inches plus the tread width beyond the bottom nosing. The handrail must be returned or end in newel posts or safety terminals. If the extension of the handrail in the direction of the stair run creates a hazard, the extension must be made at right angles to the face of the returning wall. Where the stairs are continuous from landing to landing, the inner rail must be continuous, but need not extend into the landing.
- 1006.9.2.5a **In covered multifamily buildings, the clear space between the handrail and the wall shall be 1-1/2 inches. Handrails may be located in a recess if the recess is a maximum of 3 inches deep and extends at least 18 inches above the top of the rail (See Figure 5.9 page 50).**
Exception

1006.9.2.6a
Exception 3

The rail's handgrip must be between 1-1/4 to 1-1/2 inches wide or the shape must provide an equivalent smooth gripping surface (See Figure 5.10)

1006.9.2.6a
Exception 4

Surfaces of handrails and walls adjacent to the handrail must be free of any sharp or abrasive elements. Edges must have a minimum radius of 1/8 inch.

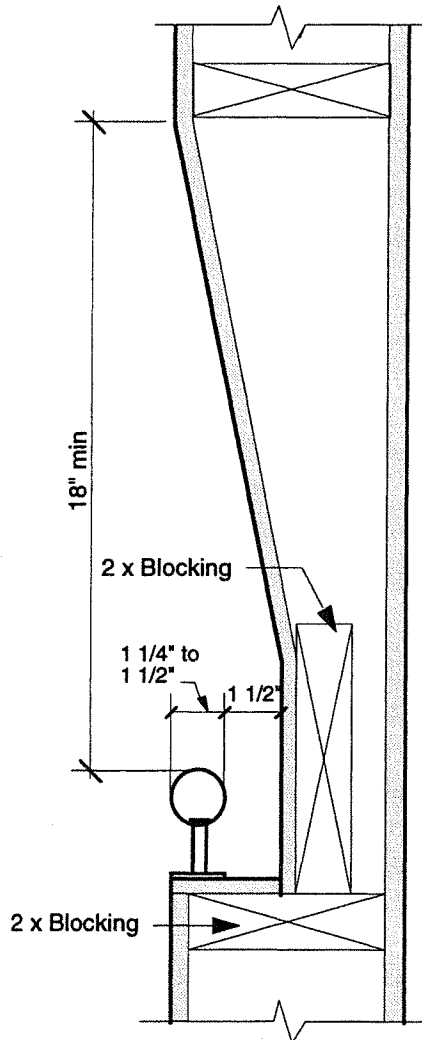


Fig. 5.9 Recessed handrail

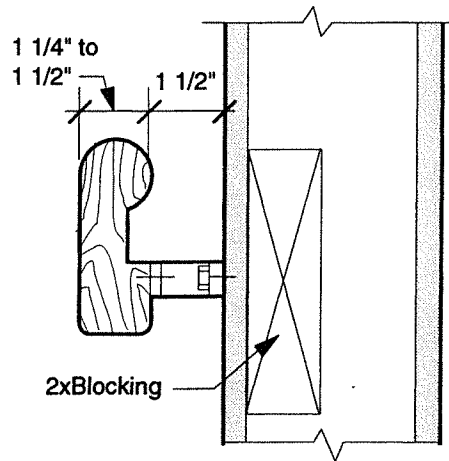


Fig. 5.10 Size and space of handrails

Primary Entry Access

- 1001.9.1
1001.9.2 Applicable primary entrances to buildings are to be accessible to the physically disabled. If the primary entrances are temporarily not accessible to the disabled or their use is restricted, the entrances which are being substituted must be made accessible to and usable by people with physical disabilities.
- 1105A
Exception **Multistory dwelling units in nonelevator buildings are not subject to these requirements because, in such cases, there is no ground-floor dwelling unit.**
- 1107A.12 **Separate Ground-Floor Entrances.** When a ground-floor unit of a building has a separate entrance, each such ground-floor unit shall be served by an accessible route, except for any unit where the terrain or unusual characteristics of the site prohibit the provision of an accessible route to the entrance of that unit.
- 1107A.13 **Multiple Entrances.** Only one entrance to privately-funded multifamily buildings is required to be accessible to any one ground floor of a building, except in cases where an individual dwelling unit has a separate exterior entrance, or where the building contains clusters of dwelling units, with each cluster sharing a different exterior entrance. In these cases, more than one entrance may be required to be accessible, as determined by analysis of the site. In every case, the accessible entrance shall be on an accessible route to the covered dwelling units it serves.
- 1107A.14 **Site Impracticality.** Covered multifamily dwellings with elevators shall be designed and constructed to provide at least one accessible entrance on an accessible route, regardless of terrain or unusual characteristics of the site. Covered multifamily dwellings without elevators shall be designed and constructed to provide at least one accessible entrance on an accessible route unless terrain or unusual characteristics of the site prevent an accessible route based on the conditions listed below.
- 1107A.15 Regardless of site considerations described in Section 1119A, an accessible entrance on an accessible route is practical when there is an elevator connecting the parking area with the dwelling units on a ground floor. (in this case, those dwelling units on the ground floor served by an elevator, and at least one of each type of public- and common-use areas, would be subject to these requirements.)
- 1107A.16 If the building elevator is provided as a means of access to dwelling units other than dwelling units on a ground floor, then the building is an elevator building which is a covered multifamily dwelling, and the elevator in that building must provide accessibility to all dwelling units in the building, regardless of the slope of the natural terrain; or

- 1107A.17 An elevated walkway is planned between a building entrance and a vehicular or pedestrian arrival point and the planned walkway has a slope no greater than 10 percent (1:10).
- 1107A.18 If the slope of the finished grade between covered multifamily dwellings and a public- or common-use facility (including parking) exceeds 1:12, or where other physical barriers (natural or manmade) or legal restrictions, all of which are outside the control of the owner, prevent the installation of an accessible pedestrian route, an acceptable alternative is to provide access via a vehicular route, when necessary site provisions such as parking spaces and curb ramps are provided at the public- or common-use facility.
- 1106A **Door Signal Devices.** Every primary entrance to a dwelling unit, in buildings containing three or more dwelling units, shall be provided with a door buzzer, bell, chime, or equivalent installation mounted a maximum of 48 inches above the floor, connected to permanent wiring.
- 1104.9.1a
Exception 2 **At the primary entry door to dwelling units in covered multifamily buildings, with direct exterior access, outside landing surfaces constructed of impervious materials such as concrete, brick or flagstone, shall be no more than 1/2 inch below the floor level of the dwelling unit.**
- 1004.9.2.1.2a
Exception 2 **The floor or landing immediately outside the entry may be sloped up to 1/8-inch per foot (12 inches), in the direction away from the primary entrance of the dwelling unit for drainage.**

Wheelchair Obstacles

- 1001.9.3 Recessed doormats must be adequately anchored to prevent interference with wheelchair traffic. See Figure 5.11, page 54
- 1004.6 Every required exit must be large enough to permit the installation of a door at least 3-feet wide and 6-feet 8-inches high. Exit doors shall open at least 90 degrees and provide a clear width of at least 32 inches.

Level Floor or Landing

- 1004.9.2.1.2a A level, clear area is to be created on each side of an exit door. The area should be at least 60 inches in the direction of the door swing, and 44 inches in the opposite direction of the door swing, as measured at right angles to the door in its closed position. See Figure 5.12
- 1004.9.2.2a The width of the level area on the side to which the door swings shall extend 24 inches past the strike edge of the door for exterior doors and 18 inches past the strike edge for interior doors. See Figure 5.12

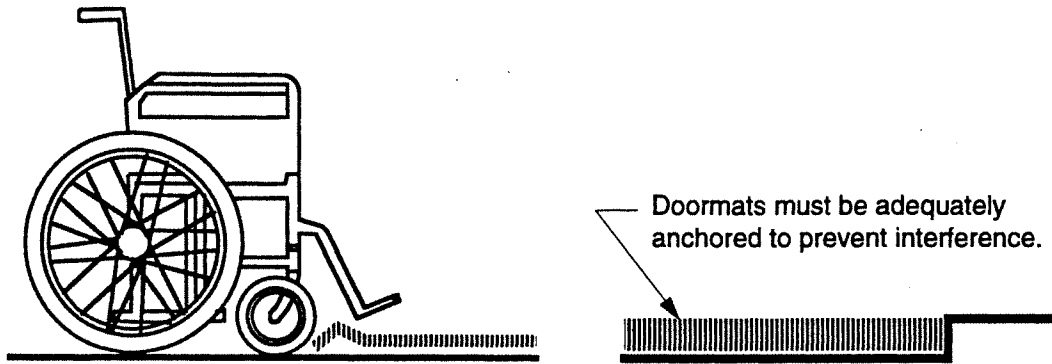


Fig. 5.11 Wheelchair obstacles

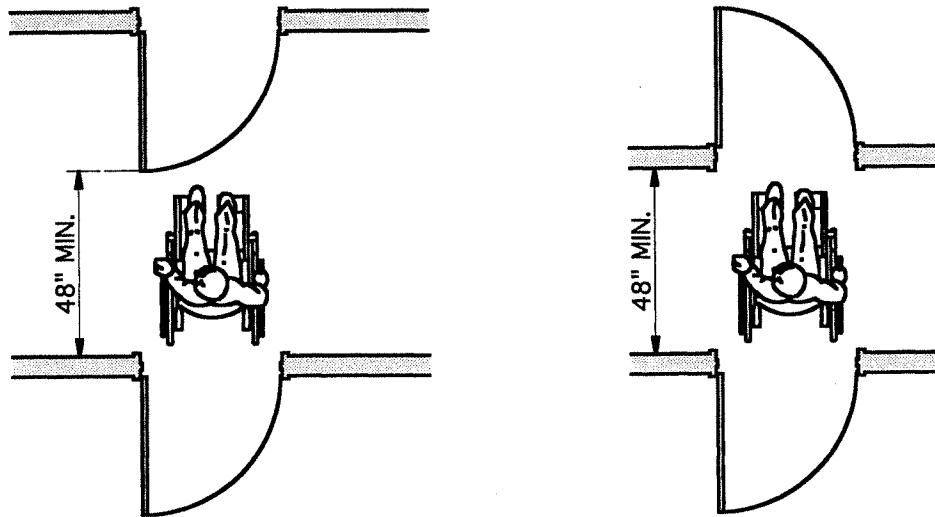


Fig. 5.12 Door swing

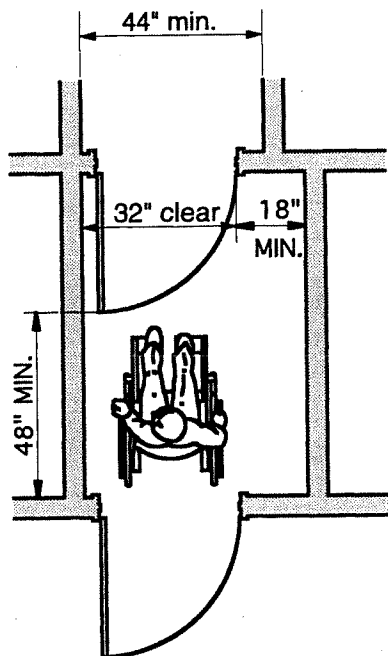


Fig. 5.13 Vestibule

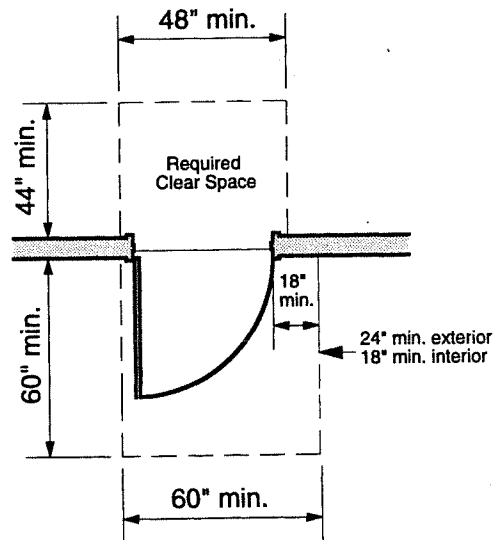


Fig. 5.14 Door clearances

- 1004.9.2.1a
Exceptions 2 and 3 In covered multifamily-dwelling units, private garages and sheds, where a door opens over a landing, the landing should be as long as the door width. Screen doors and storm doors may swing over stairs. The landing does not have to be as long as the screen doors and storm doors, but should be as long as the door width.
- 1004.9.2.1.2a
Exception 1 **In each covered unit of multifamily buildings, the level area must be 44 inches long both in the direction and opposite the direction, of the door swing, as measured perpendicular to the door in its closed position.**
- 1004.9.2.3a The space between two consecutive door openings in a vestibule, serving other than a required exit stairway, must have at least 48 inches of clear space from any door opening into the vestibule when the door is positioned at 90 degrees from its closed position. (See Figure 5.13 on page 54). Doors in a series must swing either in the same direction or away from the space between the doors. See Figure 5.14 on pg 54

Type of Lock or Latch

- 1004.3 Exit doors must open from the inside without a key or any special knowledge or effort. **Exit doors from buildings or rooms serving 10 or fewer occupants may have a night latch, dead bolt, or security chain, as long as the doors can still be opened from the inside without a key, special knowledge or effort. In addition, these devices are not to be mounted more than 48 inches above the floor.** Manually operated edge bolts, surface-mounted flush bolts and surface bolts are prohibited. When exit doors are used in pairs and automatic flush bolts are used, the door leaf with the flush bolt must have no doorknob or surface-mounted hardware. The unlatching of any leaf must not require more than one operation.
- 1004.3
Exception 2
- 1004.14 Hand activated door opening hardware is to be between 30 and 44 inches above the floor. Latching and locking doors that are hand activated and in a path of travel shall have lever-type hardware, panic bars, push-pull activating bars, or other hardware that provides passage without grasping the hardware. Doors to individual units must operate similarly, except that when the bolt and unlatching operation is performed with a key from the corridor or exterior side of the door, large bow keys (2-inch full bow or 1-1/4-inch half bow) must be provided instead of lever-type hardware on the corridor side. Separate dead-lock activation on the room side of corridor doors must have a level handle or large thumb turn in an easily reached location.

Hardware

- 1004.4 Exit door hardware needs to be an approved type tested in accordance with the requirements of U.B.C. Standard No. 33-4.
- 1004.13 Maximum effort to operate doors must not exceed 8.5 pounds for exterior doors and 5 pounds for interior doors. This maximum effort is measured as the amount of push or pull applied at right angles to hinged doors and at the center plane of sliding or folding doors. Compensating devices or automatic door openers may be used to meet these standards. When fire doors are required, the maximum effort to operate the door may be increased up to 15 pounds.

Construction

- 1004.15 The bottom 10 inches of all doors, except automatic and sliding doors, must have a smooth, uninterrupted surface to allow the door to be opened by a wheelchair footrest without catching on or trapping the wheelchair (See Figure 5.15)

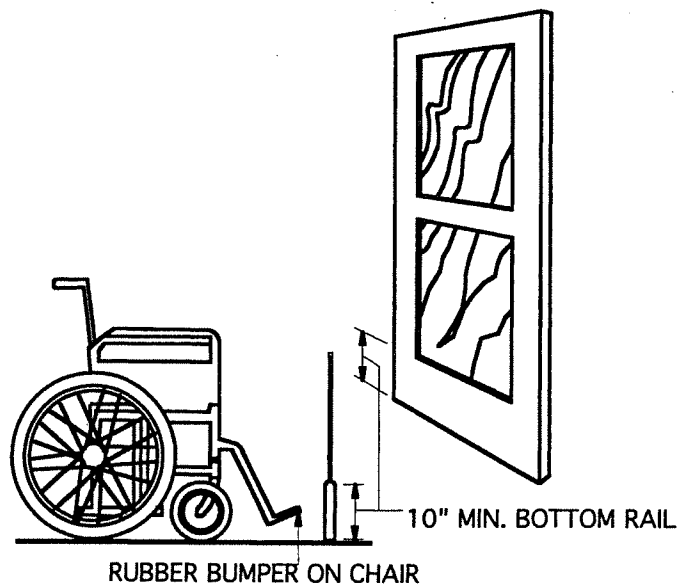


Fig. 5.15 Door construction

Part VI

Inside the Building

Introduction:

Part VI will describe the required features needed in relation to the building that houses multifamily dwelling units. Included are requirements for elevators, water fountains and telephones.

Inside the Building

Corridors

1005.2 Every corridor serving 10 or more occupants must be at least 44 inches wide. See Figure 6.1 on page 59

1005.2.2.4a **Exception 3** All corridors within privately-funded multifamily dwelling units are to be at least 36 inches wide.

1005.2.2a Corridors over 200 feet long require:

- A. A minimum clear width of 60 inches (See Figure 6.2); or
- B. At a central location, a wheelchair turning or passing alcove that is at least 60 inches by 60 inches (See Figure 6.3); or
- C. At a central location, an intervening cross or tee corridor, at least 44 inches wide (See Figure 6.4); or
- D. An openable door at a central location.

Note: See Figures 6.1, 6.2, 6.3, and 6.4 on page 59

Elevators

If elevators are installed in privately-funded multifamily buildings, they must comply with the requirements of Chapter 30 of this building code as amended.

Water Fountains

1105.4.1 On any floor where water fountains are provided, at least one fountain shall be accessible. Drinking fountains shall comply with the provisions of Section 407.3, California Plumbing Code, Title 24, California Code of Regulations.

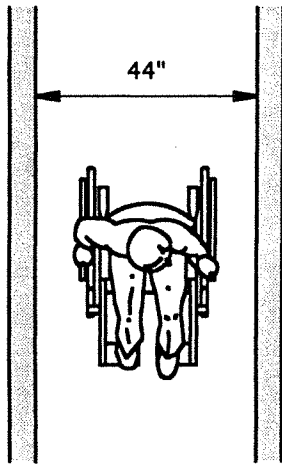


Fig. 6.1 Corridor

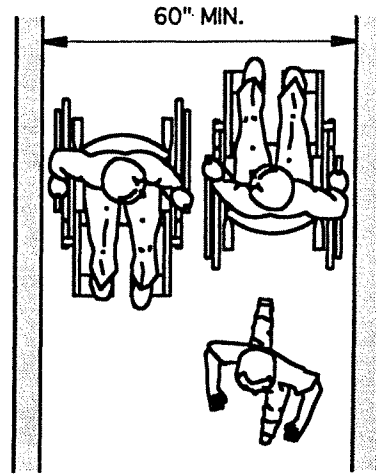


Fig. 6.2 Corridor over 200 feet

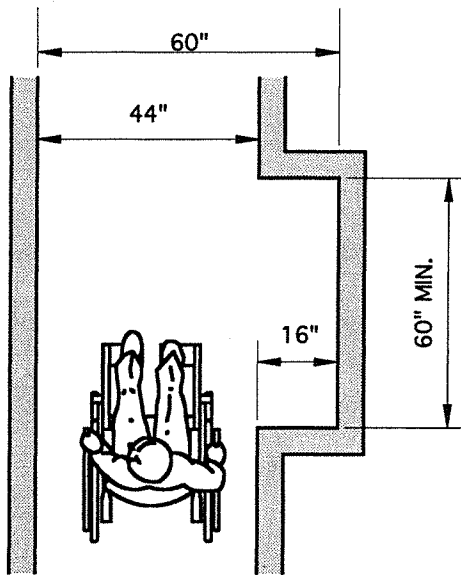


Fig. 6.3 Passing alcove

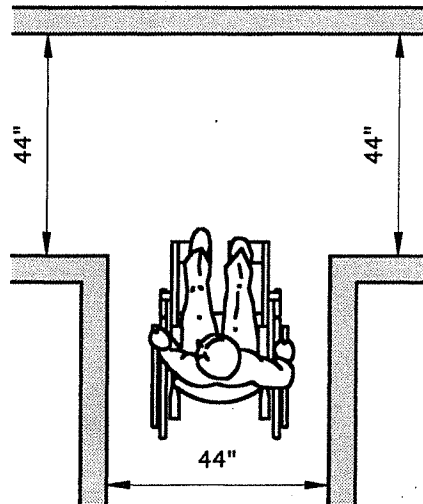


Fig. 6.4 Intervening cross

1507.1a
Ca. Plumbing Code

If provided in covered multifamily buildings, drinking fountains and water coolers shall be on an accessible route. Wall-mounted and post-mounted cantilevered drinking fountains and water coolers shall have a clear knee space a minimum of 30 inches in width and shall also have a minimum clear floor space 30 inches by 48 inches to allow a person in a wheelchair to approach the unit facing forward (See Figure 6.5)

1507.2a

The spout shall provide a flow of water at least 4 inches high so as to allow the insertion of a cup or glass under the flow of water. The force required to activate controls shall be no greater than 5lbf (22.2N).

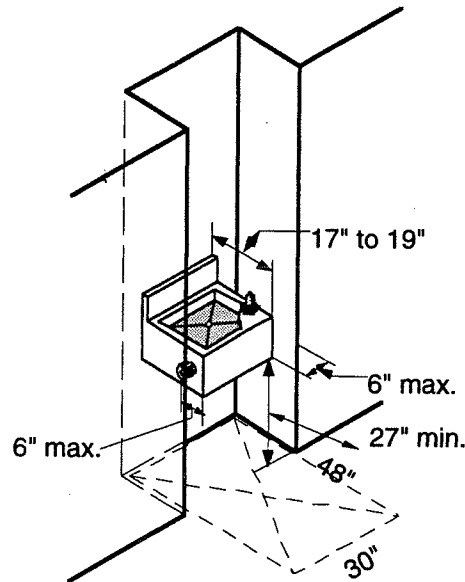


Fig. 6.5 Alcove installation

Telephones

1111A

On floors where public telephones are provided, at least one telephone shall be accessible. On any floor where two or more banks of multiple telephones are provided, at least one telephone in each bank shall be accessible.

1111A.1

General. If public telephone are provided, they shall comply with this section.

1111A.2

Clear Floor Ground Space. A clear floor or ground space at least 30 inches x 48 inches that allows either a forward or parallel approach by a person using a wheelchair shall be provide at telephones.

- 1111A.3 **Size and Approach.** The minimum clear floor ground space required to accommodate a single, stationary wheelchair and occupant is 30 inches by 48 inches. The minimum clear floor or ground space for wheelchairs may be positioned for forward or parallel approach to an object. Clear floor or ground space for wheelchairs may be part of the knee space required under some objects.
- 1111A.4 **Relationship of Maneuvering Clearances to Wheelchair Spaces.** One full unobstructed side of the clear floor or ground space for a wheelchair shall adjoin another wheelchair clear floor space. If a clear floor space is located in an alcove or otherwise confined on all or part of three sides, additional maneuvering clearances shall be provided.
- 1111A.5 **Floor Surfaces of Wheelchair Spaces.** Floor surfaces of wheelchair spaces shall conform to Figure 6.6. Bases, enclosures and fixed seats shall not impede approaches to telephones by people who use wheelchairs.
- 1111A.6 **Mounting Height.** The highest operable part of the telephone shall be within the reach ranges specified in Figure 6.6. Telephones mounted diagonally in a corner that require wheelchair users to reach diagonally shall have the highest operable part no higher than 54 inches above the floor.

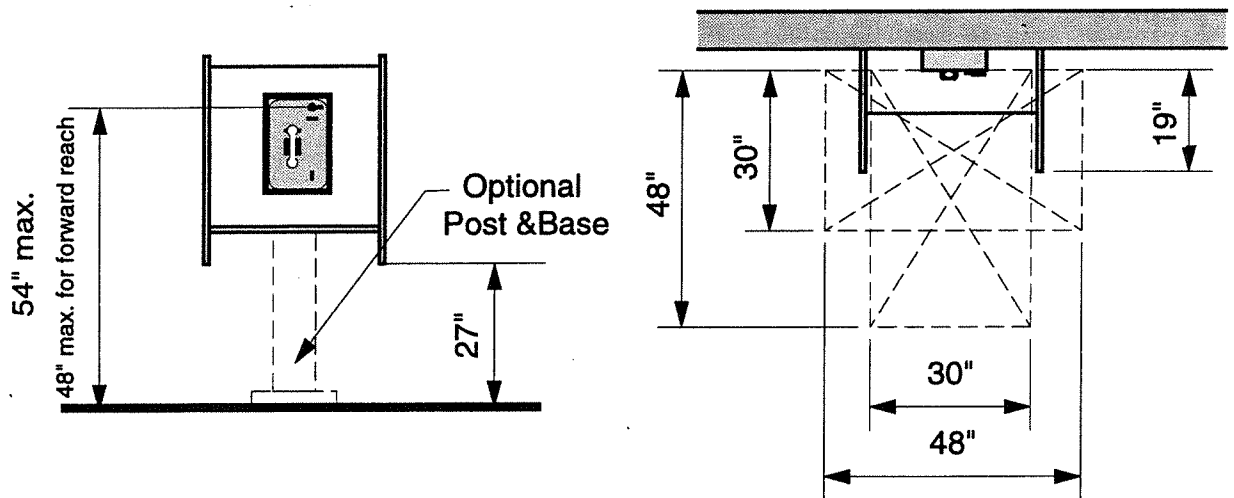


Fig. 6.6 Telephone

- 1111A.7 **Enclosures.** If telephone enclosures are provided, they may overhang the clear floor space required in subsections B, C, and D with the following limits:
- 1111A.7.1 **Side Reach Possible.** The overhang shall be no greater than 19 inches. The height of the lowest overhanging part shall be equal to or greater than 27 inches. See Figure 6.6 on page 61
- 1111A.7.2 **Full-Height Enclosures.** Entrances to full-height enclosures shall be 30 inches minimum.
- 1111A.7.3 **Forward Reach Required.** If the overhang is greater than 12 inches, then the clear width of the enclosure shall be 30 inches minimum; if the clear width of the enclosure is less than 30 inches, then the height of the lowest overhanging part shall be equal to or greater than 27 inches. See Figure 6.6 on page 61
- 1111A.8 **Equipment for Hearing Impaired People.** Telephones shall be equipped with a receiver that generates a magnetic field in the area of the receiver cap. A reasonable number of the public telephones provided, but always at least one on each floor or in each bank, whichever is more, in a building or facility, shall be equipped with a volume control. Such telephones shall be capable of a minimum of 12 dba and a maximum of 18 dba above normal. If an automatic reset is provided, 18 dba may be exceeded. Public telephones with volume control shall be hearing aid compatible and shall be identified by a sign containing a depiction of a telephone handset with radiating sound waves.
- 1111A.9 **Text Telephones.** If a total of four or more public pay telephones are provided at the interior and exterior of a site, and if at least one of the total is in an interior location, then at least one interior public text telephone shall be provided.
- 1111A.10 **Controls.** Telephones shall have push-button controls where service for such equipment is available.
- 1111A.11 **Cord Length.** The cord from the telephone to the handset shall be at least 29 inches long.
- 1111A.12 **Telephone Books.** If telephone books are provided, they shall be located in a position that complies with reach ranges in Figures in Chapter 11B.

Laundry Rooms

- 1115A If clothes washing machines and clothes dryers are provided in covered multifamily buildings or dwelling units, at least one of each type of appliance shall be provided in each laundry area, except that laundry rooms serving multifamily dwellings are not required to have front-loading clothes washers. Where front loading clothes washers are not provided, management shall provide assistive devices, on request, if necessary to permit a resident to use a top-loading clothes washer.

Signs

- 1114A All accessible toilet and bathing facilities, except within an adaptable dwelling unit or within an accessible patient or guest room, shall be identified by the international symbol of accessibility.

Inside the Dwelling Unit

Introduction:

Part VII will describe the features within the multifamily unit. Included are requirements for accessible entrances, kitchens, bathrooms and hallways. The user will gain a clear understanding of "adaptability" versus full accessibility. Also covered are plumbing and electrical requirements.

Inside the Dwelling Unit

General

- 1109A.1 **General.** When buildings are required to be accessible, building facilities (telephones, drinking fountains, bathrooms, kitchens, etc.) must be accessible to persons with physical disabilities. Where specific floors of a building are required to be accessible, the requirements shall apply only to the facilities located on accessible floors.
- 1107A.20 **Dwelling units shall be considered adaptable when they comply with the appropriate provisions of adaptability contained in Section 1109A and Chapter 10.**

Doors

- 1109A.1
Exception **Every entry, opening or passage door of the covered dwelling unit must provide a minimum of 32 inches nominal clear space between the face of the door and the stop, when the door is in the 90 degree open position. A 34-inch door is acceptable. A standard 6-foot sliding patio door assembly is acceptable.**
- 1007.4.4a **Interior Doors.** All interior doors shall have a level area on the side to which the door swings, extending 18 inches past the strike edge of the door.
- 1004.14 Interior passage doors shall have hardware centered, between 30 inches and 44 inches, above the floor and shall be operable with a single effort by lever type hardware.
- 1004.10
Exception **Landings at the Interior Passage Doors.** Interior passage doors shall have landings on each side of the door. The length of landings shall be a minimum of 36 inches in the direction of travel. The minimum width of landings shall be not less than the width of the door plus the required strike side clearance.

Hallways

- 1107A.4
Exception **General.** Hallways within dwelling units shall be a minimum of 36 inches in width.

Flooring

1116A

If carpet or carpet tile is used in a common-use area on a ground floor surface, it shall have firm backing or no backing. The maximum pile height shall be 1/2 inch. Exposed edges of carpet shall be fastened to floor surfaces and have trim along the entire length of the exposed edge. Carpet edge trim shall comply with the requirements for changes in level (1107A.9).

Switches

380-8(c.1)

The center of the grip of the operating handle of switches used to control light switches, thermostats and other environmental controls shall be located no higher than 48 inches, and no lower than 15 inches, above the floor. If the reach is over an obstruction (for example, a kitchen base cabinet) between 20 and 25 inches in depth, the maximum height is reduced to 44 inches for forward approach, or 46 inches for side approach, provided the obstruction is no more than 24 inches in depth. Obstruction may not extend more than 25 inches from the wall beneath a control.

Other controls are acceptable provided that comparable controls that perform the same function are provided within the same area and are accessible.

Electrical Outlets

210-7

The center of 15-, 20-, and 30-ampere electrical outlets must be installed no higher than 48 inches, and no lower than 15 inches above the floor. This requirement does not apply to electrical outlets installed as a part of permanently install baseboard heaters, outlets required in areas adjacent to sliding panels or walls, or other electrical convenience floor outlets. The requirement also does not apply to baseboard electrical outlets used in movable partitions, or in walls with windows.

If the reach is over an obstruction (for example, a kitchen base cabinet) between 20 and 25 inches in depth, the maximum height is reduced to 44 inches for forward approach, or 46 inches for side approach, provided the obstruction is no more than 24 inches in depth. Obstructions may not extend more than 25 inches from the wall beneath the receptacle.

Other outlets are acceptable provided that comparable outlets, that perform the same functions, are provided within the same area and are accessible.

Kitchens

- 1112A Kitchens within adaptable dwelling units shall be accessible. See figures 7.1 & 7.2 on page 68
- 1112A
Exception **In privately-funded multifamily dwelling units, U-shaped kitchens with cabinets, appliances or fixtures on three walls shall be designed and constructed to provide a minimum clear space of 60 inches between cabinet fronts, appliances or fixtures to allow a parallel approach, or base cabinets shall be removable at that location, to a height of 27 inches above the floor to permit a forward approach. Base cabinets directly under the kitchen sink counter area, including toeboard and shelving, must be removable without special knowledge or tools, to provide clearance for a wheelchair. Flooring must be installed beneath such countertop. A minimum clear space of 48 inches must be provided for all other kitchen designs.**
- 1112A.4 **Base Cabinets.** In dwelling units required to be accessible, base cabinets directly under the kitchen sink counter area, including toeboard and shelving, shall be removable without the use of specialized tools or specialized knowledge to provide clearance for a wheelchair. Finished flooring shall be provided on the floor beneath the countertop.
- 1112A A clear floor space at least 30 inches by 48 inches must be provided that allows a parallel approach by a person in a wheelchair at the range or cooktop and either a parallel or forward approach at the oven, dishwasher, refrigerator/freezer and trash compactor.
- 1112A.3 **Lower Shelving.** Lower shelving and/or drawer space must be provided in the kitchen at a height of no more than 48 inches.
- 1112A.2 **Countertops.** At least 30 inches of countertop must be provided for the kitchen sink. At least 30 inches shall be provided for a work space. Both the sink and work space counter areas shall be designed to enable repositioning to a minimum height of 28 inches. The sink and work surface counter area may be a single integral unit or separate components.
- The sides and back of adjacent cabinets, which may become exposed to moisture or food handling when a countertop is lowered, are to be constructed of durable, nonabsorbent materials appropriate for such uses. Install finished flooring on the floor beneath such countertop.
- Note: Plumbing shall be installed in a manner to permit repositioning of the sink and countertop.

1112A.2
Exception 1

Five percent (5%) of the privately-funded apartment house dwelling units required to be accessible, must comply with the requirements for repositionable countertops. All other privately-funded covered multifamily dwelling units are exempt.

1112A.2
Exception 2

Stone, cultured stone, and tiled countertops may be used without meeting the repositioning requirements.

1112A.2
Exception 3

In privately-funded apartment house dwelling units, two 15-inch minimum width breadboards may be provided in lieu of the required 30 inches of countertop work surface.

1508

Kitchen sink faucet controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist. The force required to activate controls shall be no greater than 5 lbf. Lever-operated, push-type, and electronically-controlled mechanisms are examples of acceptable designs. Self-closing valves are allowed if the faucet remains open for at least 10 seconds.

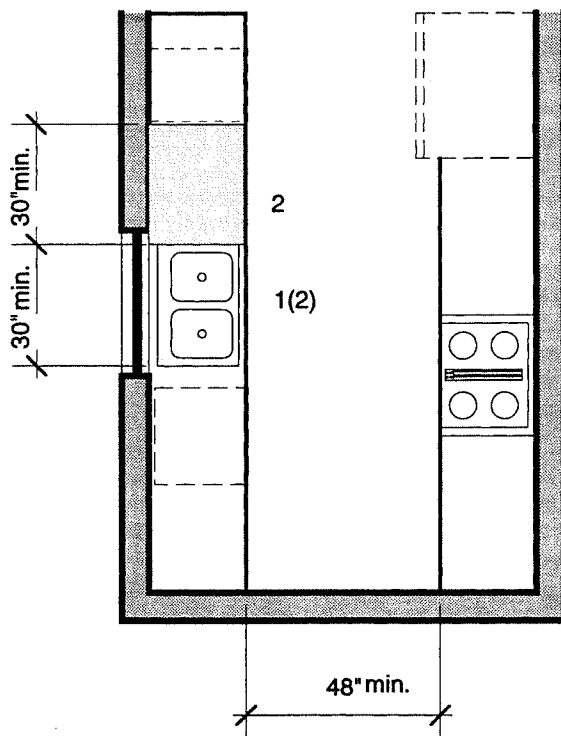


Fig. 7.1 Typical Kitchen
1. Removable base cabinet with finish flooring beneath.
2. 30" wide repositionable counter top work space and sink.

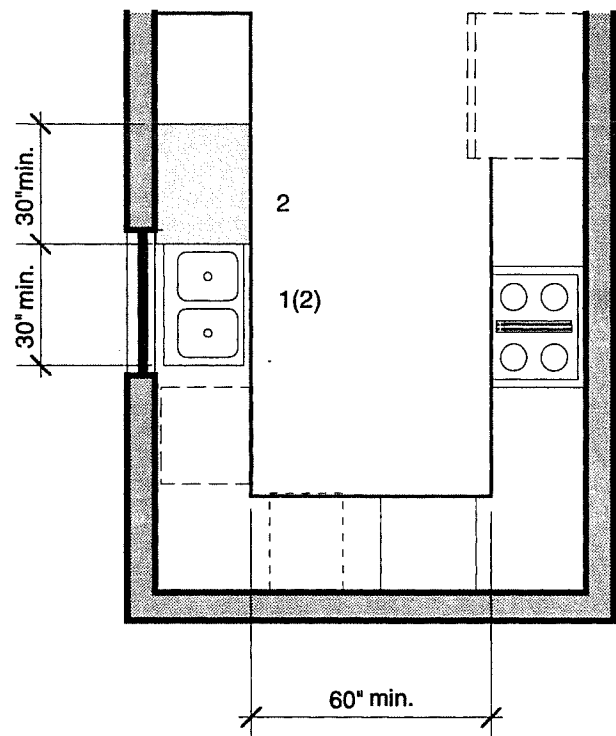
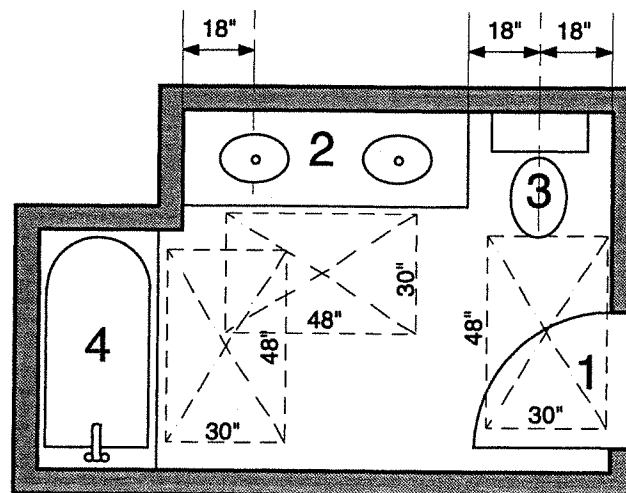


Fig. 7.2 U Shaped Kitchen
1. Removable base cabinet with finish flooring beneath.
2. 30" wide repositionable counter top work space and sink.

Bathrooms

- 1109A.2.1 **Bathing Facilities.** See Tables 1109A.2-1 and 1109A.2-21 for complying bathrooms. (See figure 7.3)
- 1109A.2.2 Only one bathroom in privately-funded accessible dwelling units need comply with the requirements for the physically disabled.
- 1109A.2.3 If a developer desires to provide requirements for the physically disabled in all bathrooms, use Table 1109A.2-1.
- 1109A.2.4 If a developer desires to provide requirements for the physically disabled in only one bathroom, use Table 1109A.2-2.
- Note: See figures 7.4, 7.5, and 7.6 for knee space below the vanity.
- 1504(b) Hot water and drain pipes under lavatories shall be insulated or otherwise covered. There shall be no sharp or abrasive surfaces under lavatories.
- 1504(c) Lavatory faucet controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist. The force required to activate controls shall be no greater than 5 lbf. Lever-operated, push-type, and electronically-controlled mechanisms are examples of acceptable designs. Self-closing valves are allowed if the faucet remains open for at least 10 seconds.



Provide 30" x 48" clear space in front of:
1. Door 2. Lav. 3. Water Closet 4. Tub

Fig. 7.3 Typical Bathroom

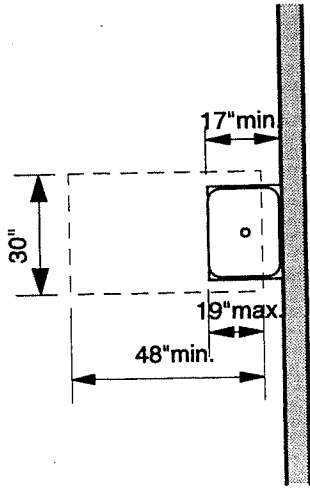


Fig. 7.4 Lavatory with knee space.

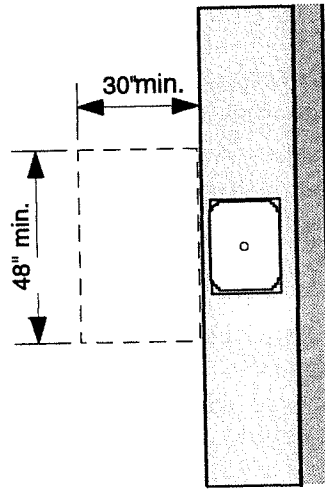


Fig. 7.5 Lavatory without knee space.

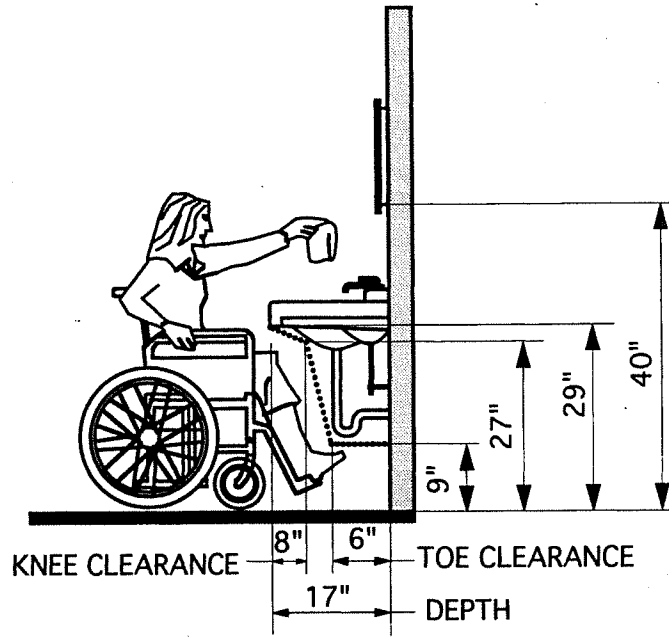


Fig. 7.6 Open Lavatory Clearance

Toilet Facilities

1109A.3

Water closets in bathrooms required to be accessible shall conform to the provisions of Section 1502, California Plumbing Code, Title 24, California Code of Regulations. The water closet can be located in a space 36 inches in clear width, as long as 48 inches of clear space is provided in front of the water closet. This space may include the maneuverable area under the lavatory. Water closet seats must be at least 15 inches above the floor (See Figure 7.7).

1109A.3
Exception

In privately-funded multifamily dwelling units, the water closet may be located in a space 48 inches in clear width with 36 inches of clear space provided in front of the water closet.

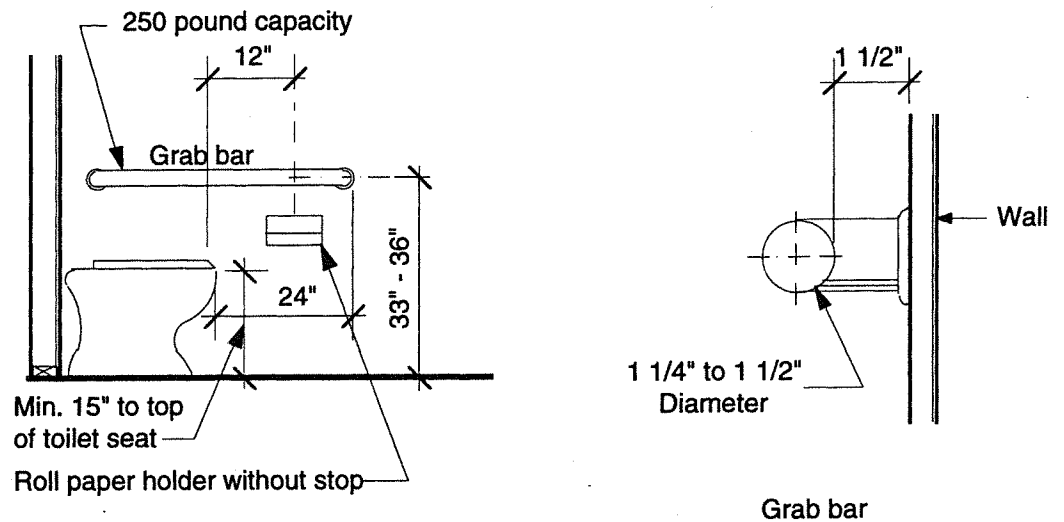


Fig. 7.7 Toilet facilities

Lavatories, Mirrors and Towel Fixtures

1109A.5 At least one accessible lavatory shall be provided within any toilet facility. Where mirrors and towel fixtures are provided, at least one of each shall be accessible.

Grab Bars

1109A.5 **Fixtures in Adaptable Dwelling Units.** Grab bars need not be installed in either a bathing or toilet facility within an adaptable dwelling unit provided all structural reinforcements for future installation of grab bars are provided in the appropriate locations in the adjoining walls. The reinforcement shall be of sufficient length to permit the installation of grab bars as specified. The reinforced wall shall be capable of supporting a load of at least 250 pounds in conformance with this Section.

The structural strength of grab bars, tub and shower seats, fasteners, and mounting devices must withstand at least a 250-pound load.

3105(b.1)2.H(3)e Grab bars cannot rotate within their fittings.

3105(b.1)2.H(4) A grab bar and any wall or surface adjacent to it must be free of any sharp or abrasive elements. Edges must have a minimum radius of 1/8 inch. Grab bar height shall be between 33 - 36 inches above the finished floor.

Note: See Figures 7.8, 7.9, and 7.10 on page 73

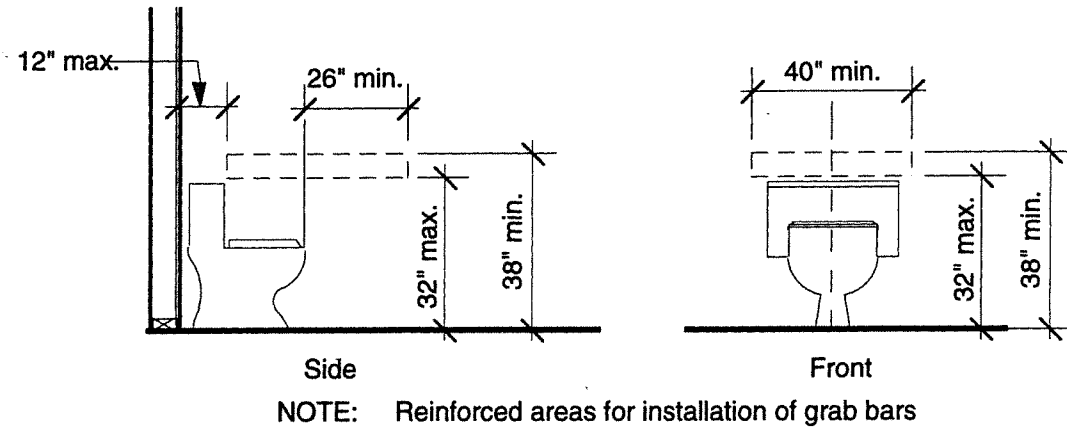


Fig. 7.8 Water closets in adaptable bathrooms

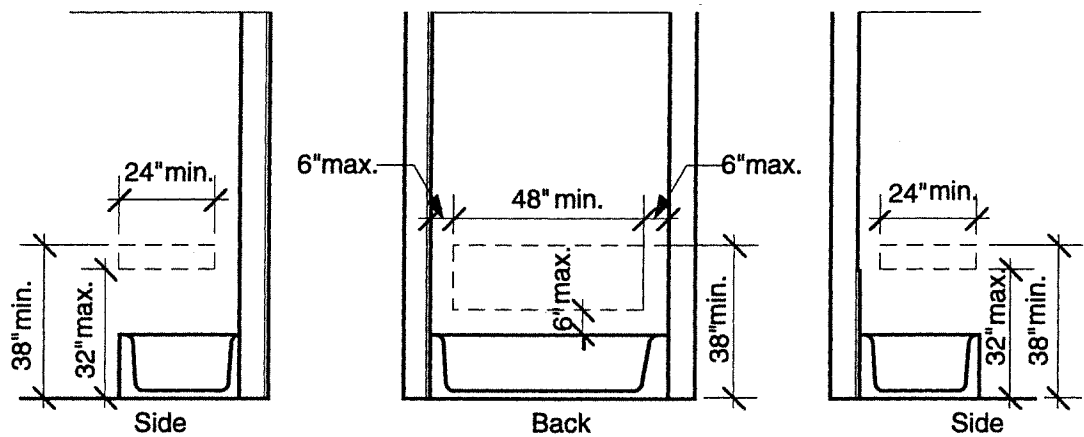


Fig. 7.9 Location of grab bar reinforcements for adaptable bathtubs

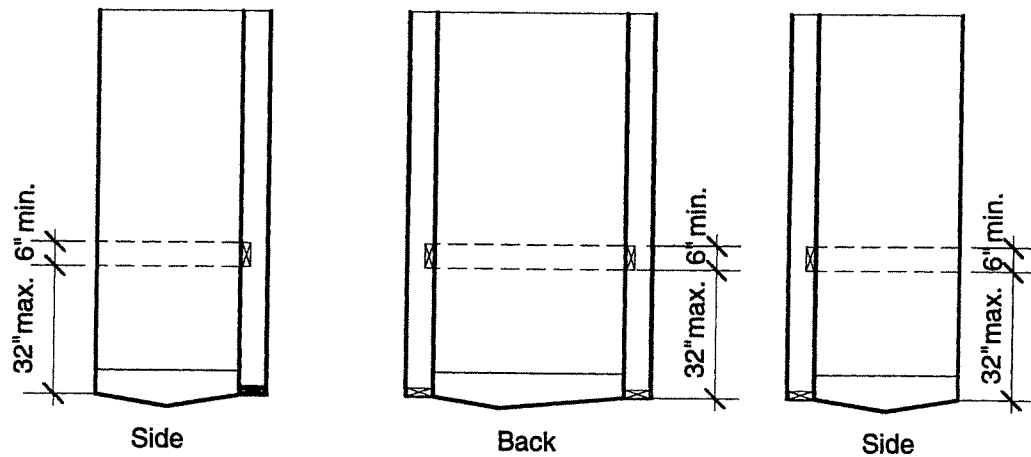


Fig. 7.10 Location of grab bar reinforcement for adaptable showers

1109A.6

Toilet. Where the toilet is not placed adjacent to a side wall, the bathroom shall have provisions for installation of floor-mounted, foldaway or similar alternative grab bars. Where the powder room (a room with a toilet and sink) is the only toilet facility located on an accessible level of a multistory dwelling unit, it shall comply with the requirement for reinforced walls for grab bars.

Where the toilet is placed adjacent to a side wall, reinforcement shall be installed on both sides or one side and the back. If reinforcement is installed at the back, it shall be installed between 32 inches and 38 inches above the floor. The grab bar reinforcement shall be a minimum of 6 inches nominal in height. The backing at the rear of the water closet shall be a minimum of 40 inches in length.

Reinforcement installed at the side of the toilet shall be installed 32 inches to 38 inches above the floor. The reinforcement shall be installed a maximum of 12 inches from the rear wall and shall extend a minimum of 26 inches in front of the water closet stool. The grab bar reinforcement shall be a minimum of 6 inches nominal in height.

1109A.7

Bathtub. A bathtub may be installed without surrounding walls provided reinforced area are provided for installation of floor-mounted grab bars.

Where a tub is installed with surrounding walls, grab bar reinforcement shall be installed on each end of the bathtub, 32 inches to 38 inches above the floor, extending a minimum of 24 inches aligned with the front edge of the bathtub toward the back wall of the bathtub. The grab bar reinforcement shall be a minimum of 6 inches nominal in height.

Grab bar reinforcement shall be installed on the back wall of the bathtub commencing a maximum of 6 inches above the bathtub rim and extending upward to a point a minimum of 38 inches above the floor. The grab bar backing shall be installed horizontally a length to permit the installation of a 48-inch grab bar with each end a maximum of 6 inches from the end walls of the bathtub. The grab bar reinforcement shall be a minimum of 6 inches nominal in height.

1109A.8

Shower Stalls. Glass-walled shower stalls shall provide reinforcement for installation of floor-mounted grab bars. Reinforcement for installation of ceiling-mounted grab bars is permitted.

Grab bar reinforcement shall be installed continuous in the walls of adaptable showers 32 inches to 38 inches above the floor. The grab bar reinforcement shall be a minimum of 6 inches in height.

Part VIII

Appendix

Introduction:

Part VIII includes a reprint of the text of the regulations as adopted by the California Building Standards Commission. The user is advised to reference this part often when reviewing any design. Any questions regarding interpretation of the regulations should be directed to the local Building Official and the Department of Housing and Community Development.

Appendix

Regulations on Access and Adaptability for Persons with Physical Disabilities

From Title 24, California Code of Regulations

Chapter 1 ADMINISTRATION

SECTION 101.17.9 HCD 1 - DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

Application - Hotels, motels, lodging houses, apartment houses, dwellings, employee housing and factory-built housing.

Access and adaptability requirements for the physically disabled shall apply to all newly constructed privately funded covered multifamily dwelling units in buildings having three or more dwelling units and privately funded shelters intended for occupancy as residences for homeless persons. These regulations do not apply to buildings containing less than four condominium dwelling units. These regulations also do not apply to the repair of, rehabilitation of or additions to privately funded apartment houses, condominiums or time-share units.

Each building on a building site shall be considered separately when determining applicability of these regulations.

The percentage of ground-floor dwelling units in nonelevator buildings required to be adaptable and on an accessible route shall be determined by the use of Chapter 11A. All other ground-floor dwelling units in nonelevator buildings shall be made to comply with the following requirements:

1. Grab bar reinforcement (Chapter 11A)
2. Thirty-two-inch (813mm) clear door interior opening width (Chapter 11A)
3. Lever hardware (Chapter 10)
4. Door signal devices (Chapter 11A)
5. Clear space by doors (Chapters 10 and 11A)
6. Minimum 15-inch (381mm) water closet seat height (Chapter 11A)
7. Electrical receptacle outlet height [Article 210-7(g.1), California Electrical Code, Title 24, Part 3]
8. Lighting and environmental control height [Article 380-8 (c.1), California Electrical Code, Title 24, Part 3]
9. Faucet controls, California Plumbing Code, Title 24, Part 5
10. Water closet, bathtub and lavatory minimum space requirements (Chapter 11A)
11. Removable cabinets under the kitchen sink counter area (Chapter 11A)

Enforcing Agency - Local building department or the Department of Housing and Community Development.

Authority Cited - Health and Safety Code Sections 17921, 50558 and 50559.

Reference - Health and Safety Code Sec. 17000 through 17060, 17910 through 17990, 50558 and 50559

Chapter 10 MEANS OF EGRESS

1001.9 ENTRANCES

1001.9.1 Entrances. All primary entrances to buildings and facilities shall be made accessible to people with physical disabilities.

1001.9.2 Temporary Restrictions. During periods of partial or restricted use of a building or facility, the entrances used for primary access shall be accessible to and usable by physically handicapped persons/people with physical disabilities.

1001.9.3 Recessed Doormats. Recessed doormats shall be adequately anchored to prevent interference with wheelchair traffic.

1004 DOORS

1004.3 Type of Lock or Latch. Exit doors shall be openable from the inside without the use of a key or any special knowledge or effort.

EXCEPTION 2. Exit doors from buildings or rooms, individual dwelling units; Group R, Division 3 congregate residences; and guest rooms of Group R Occupancies having an occupant load of 10 or less may be provided with a night latch, dead bolt or security chain, provided such devices are openable from the inside without the use of a key or tool, special knowledge or effort and mounted at a height not to exceed 48 inches (1219mm) above the finished floor.

1004.6 Width and Height of Door Size. Every required exit doorway shall be of a size as to permit the installation of a door not less than 3 feet (914mm) in width and 6 feet, 8 inches (2032mm) in height. When installed in exit doorways, exit doors shall be capable of opening at least 90 degrees and shall be so mounted that the clear width of the exit-way is not less than 32 inches (813mm). In computing the exit width, the net dimension of the exit-way shall be used.

1004.6.1 Hinged doors. For hinged doors, the opening width shall be measured with the door positioned at an angle of 90 degrees from its closed position.

1004.6.2 Pair of doors. When a pair of doors is utilized, at least one of the doors shall provide a clear, unobstructed opening width of 32 inches (813mm) with the leaf positioned at an angle of 90 degrees from its closed position.

1004.6.3 Automatic doors. When an automatic door operator is utilized to operate a pair of doors, at least one of the doors shall provide a clear, unobstructed opening width of 32 inches (813mm) with the door positioned at an angle of 90 degrees from its closed position.

1004.6.4 Revolving doors. Revolving doors shall not be used as a required entrance for persons with disabilities.

1004.9 FLOOR LEVEL AT DOORS

1004.9.1a Thresholds. The floor or landing shall not be more than 1/2 inch (13mm) lower than the threshold of the doorway.

Change in level between 1/4 inch (6mm) and 1/2 inch (13mm) shall be beveled with a slope no greater than 1 unit vertical to 2 units horizontal (50% slope). Changes in level greater than 1/2 inch (13mm) shall be accomplished by means of a ramp.

Note: See Section 1007.1.

EXCEPTION 2. At the primary entry door to dwelling units in covered multifamily buildings, with direct exterior access, outside landing surfaces constructed of impervious materials such as concrete, brick or flagstone, shall be no more than 1/2 inch (13mm) below the floor level of the interior of the dwelling unit.

1004.9.2.1a Level Floor or Landing. There shall be a level and clear area on each side of an exit door and 44 inches (1118mm) where the door swings away from the level and clear area. The level area shall have a length of at least 60 inches (1524mm) in the direction of door swing as measured at right angles to the plane of the door in its closed position.

EXCEPTION 1. In Group R, Division 3 Occupancies and within individual units of Group R, Division 1 Occupancies, a door may open on the top step of a flight of stairs or an exterior landing, provided the door does not swing over the top step or exterior landing and the landing is not more than 7 1/2 inches (190mm) below the floor level.

EXCEPTION 2. In Group R, Division 3 Occupancies, and private garages and sheds where a door opens over stairs or steps.

EXCEPTION 3. In Group R, Division 3 Occupancies and private garage and sheds where a door opens over a landing, the landing shall have a length equal to the width of the door.

1004.9.2.1.2a MANEUVERING CLEARANCES AT DOORS. The floor or landing on each side of an exit door shall be level. The level area shall have a length in the direction of door swing of at least 60 inches (1524mm) and the length opposite the direction of door swing of 44 inches (1118mm) as measured at right angles to the plane of the door in its closed position.

EXCEPTION 1. In Group R Occupancies, the level area shall have a length both in the direction of door swing and opposite the direction of door swing of 44 inches (1118mm) as measured at right angles to the plane of the door in its closed position.

EXCEPTION 2. In buildings containing covered multifamily dwelling units, the floor or landing immediately outside the entry may be sloped up to 1/8 inch per foot (12 inches) (305mm) in the direction away from the primary entrance of the dwelling unit for drainage.

1004.9.2.2a The width of the level area on the side to which the door swings shall extend 24 inches (610mm) past the strike edge of the door for exterior doors and 18 inches (457mm) past the strike edge for interior doors.

Notes:

1. Twenty-four inches (610mm) is preferred for strike-side clearance.
2. See Tables 1109A.2-1 and 1109A.2-2 for bathrooms that are required to be accessible.

1004.9.2.3a The space between two consecutive door opens in a vestibule, servings other than a required exit stairway shall provide a minimum of 48 inches (1219mm) of clear space from any door opening into such vestibule when the door is positioned at an angle of 90 degrees from its closed position. Doors in a series shall swing either in this same direction or away from the space between the doors.

1004.13 Hardware - Effort to operate doors. Maximum effort to operate doors shall not exceed 8 1/2 pounds (38N) for exterior doors and 5 pounds (22N) for interior doors, such pull or push effort being applied at right angles to hinged doors and at the center plane of sliding or folding doors. Compensating devices or automatic door operators may be utilized to meet the above standards. When fire doors are required, the maximum effort to operate the door may be increased not to exceed 15 pounds (66.72N).

1004.14 Hand-activated door-opening hardware shall be centered between 30 inches (762mm) and 44 inches (1118mm) above the floor. Latching and locking doors that are hand activated and which are in a path of travel, shall be operable with a single effort by lever-type hardware, panic bars, push-pull activating bars, or other hardware designed to provide passage without requiring the ability to grasp the opening hardware. Locked exit doors shall operate as above in egress direction. Doors to individual hotel or motel units shall operate similarly, except that when bolt and unlatching operation is key operated from corridor or exterior side of unit door, large bow keys 2 inches (51mm) (full bow) or 1 1/4 inches (32mm) (half bow) shall be provided in lieu of lever-type hardware on the corridor side. Separate dead-lock activation on room side of corridor doors in hotels or motels shall have handle or large thumb turn in an easily reached location.

1004.15 Construction. The bottom 10 inches (254mm) of all doors except automatic and sliding shall have a smooth, uninterrupted surface to allow the door to be opened by a wheelchair footrest without creating a trap or hazardous condition. Where narrow frame doors are used, a 10-inch-high (254mm) smooth panel shall be installed on the push side of the door, which will allow the door to be opened by a wheelchair footrest without creating a trap or hazardous condition.

1005 CORRIDORS

1005.2.1a Corridor widths. Every corridor serving an occupant load of 10 or more shall not be less than 44 inches (1118mm) in width. Corridors serving an occupant load of less than 10 shall not be less than 36 inches (914mm) in width.

1005.2.2a Corridors over 200 feet (60960mm). Corridors that exceed 200 feet (60960mm) in length shall:

1005.2.2.1a Have minimum clear width of 60 inches (1524mm); or

1005.2.2.2a Have, at a central location, a 60-inch by 60-inch (1524mm by 1524mm) minimum wheelchair turning space or passing alcove; or

1005.2.2.3a Have, at a central location, an intervening cross or tee corridor a minimum of 44 inches (1118mm) in width; or

1005.2.2.4a Have, at a central location an openable door.

1005.2.2.4a EXCEPTION 3. All corridors within privately-funded multifamily dwelling units shall be at least 36 inches (914mm) wide.

1005.6 Changes in Elevation. When a corridor or exterior exit balcony is accessible to the handicapped, changes in elevation of the floor shall be made by means of a ramp, except as provided for door by Section 1004.9.

EXCEPTION 1. Changes in elevation in covered multifamily dwellings shall comply with this provision. Except as provided at the primary entrance, thresholds at exterior doors, including sliding door tracks, shall be no higher than 3/4 inch (19mm). Thresholds and changes in level at these locations shall be beveled with a slope no greater than 1 unit vertical to 2 units horizontal (50%).

EXCEPTION 2. Exterior deck, patio, or balcony surfaces shall be no more than 4 inches (102mm) below the floor level of the interior of the dwelling unit. Change in level greater than 1/2 inch (13mm) shall be accomplished by means of a ramp.

1006.9a HANDRAILS

1006.9.1a Required handrails. Stairways shall have handrails on each side, and every stairway required to be more than 88 inches (2235mm) in width shall be provided with not less than one intermediate handrail for each 88 inches (2235mm) of required width. Intermediate handrails shall be spaced approximately equally across with the entire width of the stairway.

Exceptions: 1. Stairways 44 inches (1118mm) or less in width may have one handrail except that such stairways open on one or both sides shall have handrails provided on the open side or sides.

2. Stairways serving one individual dwelling unit in Group R, Division 1 or 3 Occupancies may have on handrail, except that stairways open on one or both sides shall have handrails on the open side or sides.

3. Private stairways 30 inches (762mm) or less in height may have handrails on one side only.

4. Stairways having three riser or less and stairways giving access to portable work stands less than 30 inches (762mm) high are not required to have handrails.

5. Stairways less than 30 inches (762mm) in width are permitted to have single rails.

6. The provisions of Section 1006.9.1a shall not apply to existing, privately-funded covered multifamily buildings.

1006.9.2.1a Handrail configuration. Handrails shall be 34 to 34 inches (864 to 965mm) above the nosing of the treads.

1006.9.2.2a Handrails shall extend a minimum of 12 inches (305mm) beyond the top nosing and 12 inches (305mm), plus the tread width, beyond the bottom nosing.

1006.9.2.3a Ends shall be returned or shall terminate in newel posts or safety terminals.

1006.9.2.4a Where the extension of the handrail in the direction of the stair run would create a hazard, the termination of the extension shall be made wither rounded or returned smoothly to floor, wall or post. Where the stairs are continuous from landing to landing, the inner rail shall be continuous and need not extend out into the landing.

1006.9.2.5a Handrails projecting from a wall shall have a space of not less then 1/2 inches (13mm) between the wall and the handrail.

Handrails may be located in a recess if the recess is a maximum of 3 inches (76mm) deep and extends at least 18 inches (457mm) above the top of the rail.

1006.9.2.6a The handgrip portion of handrails shall not be less than 1-1/4 inches (32mm) or more than 1 1/2 inches (38mm) in cross-sectional dimension or the shape shall provide an equivalent gripping surface. The handgrip portion of handrails shall have a smooth surface with no sharp comers. Any wall or other surface adjacent to the handrail shall be free of sharp or abrasive elements. Edges shall have a minimum radius of 1/8 inch (3mm).

1006.16 STAIRWAYS

1006.16.1 Striping for the Visually impaired. *The upper approach and the lower tread of each stair shall be marked by a strip of clearly contrasting color at least 2 inches (51mm) wide placed parallel to and not more than 1 inch (25mm) from the nose of the step or landing alert the visually impaired. The strip shall be of material that is at least as slip resistant as the other treads of the stair.*

Where stairways occur outside a building, the upper approach and all treads shall be marked by a strip of clearly contrasting color at least 2 inches (51mm) wide and placed parallel to and not more than 1 inch (25mm) from the nose of the step or landing to alert the visually impaired. The strip shall be of a material that is at least as resistant as the other treads of stair. A painted strip shall be acceptable.

1006.16.2.1 Treads. *All tread surfaces shall be slip resistant.*

1006.16.2.1.1 *All tread surfaces shall be slip resistant. Treads shall have smooth, rounded or chamfered exposed edges, and no abrupt edges at the nosing (lower front edge).*

1006.16.2.2 Nosing. *Nosing shall not project more than 1-1/2 inches (38mm) past the face of the riser below.*

1006.16.3 Risers. *Open risers are not permitted.*

EXCEPTION 3. *In covered multifamily buildings, open risers are not permitted on accessible routes.*

1007 RAMPS

1007.2a Ramp Width. *The width of ramps shall be as required for stairways and exits.*

1007.2.1a Widths as for exits. *The width of ramps shall be as required for stairways and exits.*

1007.2.2a Primary entrance and special occupancy. *Pedestrian ramps serving primary entrances to buildings having an occupant load of 300 or more shall have a minimum clear width of 60 inches (1524mm). Ramps serving Group R Occupancies may be 36 inches (914mm) clear width when the occupant load is 50 or less. All other pedestrian ramps shall have a minimum width of 48 inches (1219mm).*

1007.3a *The maximum slope of a ramp that serves any exit-way, provides access for persons with physical disabilities or is in the path of travel shall be 1-foot (305mm) rise in 12 feet (3658mm) of horizontal run.*

1007.3.1a *The cross slope of ramp surfaces shall be no greater than 1 unit vertical in 50 units horizontal (2% slope).*

1007.3.2a *Outdoor ramps and their approaches shall be designed and constructed so that water will not accumulate on walking surfaces.*

1007.4 LANDINGS

1007.4a Landings. *Ramp landing shall be installed as follows:*

1007.4.1a Location of Landings. *Landings shall be provided at the top and bottom of each ramp. Intermediate landings shall be provided at intervals not exceeding 30 inches (762mm) of vertical rise and at each change of direction. Landings are not considered in determining the maximum horizontal distance of each ramp.*

1007.4.2a Size of Top Landings. Top landings shall be not less than 60 inches (1524mm) wide and shall have a length of not less than 60 inches (1524mm) in the direction of ramp run.

EXCEPTION: In privately-funded multifamily buildings, the top landings shall not be less than 60 inches (1524mm) wide and shall have a length of not less than 44 inches (1118mm) in the direction of the ramp run. The top landing width shall extend a minimum of 24 inches (610mm) past the strike edge of the door.

1007.4.3a Encroachment of Doors. Doors in any position shall not reduce the minimum dimension of the ramp landing to less than 42 inches (1067mm) and shall not reduce the required width by more than 3 inches (76mm) when fully open.

1007.4.4a Strike Edge Extension. The width of the landing shall extend 24 inches (610mm) past the strike edge of any door or gate for exterior ramps and 18 inches (457mm) past the strike edge for interior ramps.

1007.4.5a Landing Width. At bottom and intermediate landings, the width shall be at least the same as required for ramps

1007.4.6a Change of Direction. Intermediate and bottom landings at a change of direction in excess of 30 degrees shall have a dimension in the direction of ramp run of not less than 72 inches (1829mm) to accommodate the handrail extension.

1007.4.7a Other Intermediate Landings. Other intermediate landings shall have a dimension in the direction of ramp run of not less than 60 inches (1524mm).

1007.4.8a For existing ramps or ramps not covered by Section 1007.4 landings shall be provided as set forth in Section 1007.4.

1007.4.9a Hazards. Required ramps shall have a curb at least 2 inches (51mm) high, or a wheel guide rail 2 to 4 inches (51 to 102mm) high on each side of the ramp landing that has a vertical drop exceeding 4 inches (102mm) and that is not bounded by a wall or fence.

1007.5a Handrails. Handrails are required on ramps that provide handicap/physically disabled access if slope exceeds 1-foot (305mm) rise in 20 feet (6096) of horizontal. Handrails shall be placed on each side of each ramp, shall be continuous the full length of the ramp, shall be 34 inches to 38 inches (864 to 965mm) above the ramp surface, shall extend a minimum of 1 foot (305mm) beyond the top and bottom of the ramp, and the ends shall be returned. Handrails projecting from a wall shall have a space of not less than 1-1/2 inches (38mm) between the wall and the handrail. Handrails may be located in a recess if the recess is a maximum of 3 inches (76mm) deep and extends at least 18 inches (457mm) above the top of the rail. The grip portion shall not less than 1-1/4 inches (32mm) or more than 1 1/2 inches (38mm), or the shape shall provide an equivalent gripping surface and all surfaces shall be smooth with no sharp corners. Handrails shall not rotate within their fittings. Any wall or other surface adjacent to the handrail shall be free of sharp or abrasive elements. Edges shall have a minimum radius of 1/8 inch (3mm).

EXCEPTION 2. Ramps that require handrails and that serve one individual dwelling unit in Group R, Division 1 or 3 Occupancies may have one handrail except that such ramps open on one or both sides shall have handrails provided on the open side or sides.

EXCEPTION 5. Multifamily buildings that are required to provide ramps from persons with physical disabilities shall have handrails if the slope exceeds 1 foot (305mm) of rise in 20 feet (6096mm) of horizontal run.

1007.10 Wheel Guides. Where the ramp surface is not bounded by a wall or fence and the ramp exceeds 10 feet (3048mm) in length, the ramp shall comply with one of the following requirements:

1007.10.1 A guide curb a minimum of 2 inches (51mm) in height shall be provided at each side of the ramp;
or

1007.10.2 A wheel guide rail shall be provided, centered 3 inches (76mm) plus or minus 1 inch (25mm) above the surface of the ramp.

1007.11 Ramps more than 30 inches (762mm) above the adjacent ground or floor shall be provided with guardrails as required in Section 705, and handrails as required in Section 1007.5. Such guardrails shall be continuous from the top of the ramp to the bottom of the ramp.

1023 WALKS AND SIDEWALKS

1023.1 Walks and Sidewalks - Continuous Surface. Walks and sidewalks subject to these regulations shall have a continuous common surface, not interrupted by steps or by abrupt changes in level exceeding 1/2 inch (13mm) (see Section 1023.2 below), and shall be a minimum of 48 inches (1219mm) in width. Surfaces shall be slip resistant as follows:

1023.1.1 Slopes less than 6 percent. Surfaces with a slope of less than 6 percent gradient shall be at least as slip resistant as that described as a medium salted finish.

1023.1.2 Slopes 6 percent or greater. Surfaces with a slope of 6 percent gradient shall be slip resistant.

1023.1.3 Surface cross slopes. Surface cross slopes shall not exceed 1/4 inch (6mm) per foot except when the enforcing agency finds that due to locate conditions it creates unreasonable hardship, the cross slope shall be increased to a maximum of 1/2 inch (13mm) per foot for distances not to exceed 20 feet (6096).

EXCEPTION 2. Sidewalks serving individual dwelling units in privately-funded covered multifamily buildings may be reduced to 36 inches (914mm) in clear width. All other sidewalk shall be a minimum of 48 inches (1219mm) in clear width.

1023.2 Gratings. Walks, sidewalks and pedestrian ways shall be free of gratings whenever possible. For gratings located in the surface of any of these areas, grid openings in gratings shall be limited to 1/2 inch (13mm) in the direction of traffic flow.

Exceptions: 1. Where the enforcing agency determines that compliance with this action would create an unreasonable hardship, an exception may be granted when equivalent facilitation is provided.

2. This section shall not apply in those conditions where, due to legal or physical constraints, the site of the project will not allow compliance with these buildings standards or equivalent facilitation without creating an unreasonable hardship. See Section 101.17.11, Item 4.

1023.3 Five Percent Gradient. When the slope in the direction of travel of any walk exceeds 1 vertical to 20 horizontal (5% gradient) it shall comply with the provisions of Section 1007, Ramps.

1023.4 Changes in Level. Abrupt changes in level along any accessible route shall not exceed 1/2 inch (13mm). When changes in level do occur, they shall be beveled with a slope no greater than 1 unit vertical to 2 units horizontal (50% slope), except that level changes not exceeding 1/4 inch (6mm) may be vertical.

When changes in levels greater than 1/2 inch (13mm) are necessary, they shall comply with the requirements for curb ramps.

NOTE: See Chapters 11A and 11B.

1023.5 Level Areas. Walks shall be provided with a level area not less than 60 inches by 60 inches (1524mm by 1524mm) at a door or gate that swings toward the walk, and not less than 48 inches wide by 44 inches (1219mm by 1118mm) deep at a door or gate that swings away from the walk. Such walks shall extend 24 inches (610mm) to the side of the strike edge of a door or gate that swings toward the walk. (For example, see Figure no. 10-2)

1023.6 Walks with Continuous Gradients. All walks with continuous gradients shall have level areas at least 5 feet (1524mm) in length at intervals of at least every 400 feet (121920mm).

1024.1 Warning Curbs. Abrupt changes in level, except between a walk or sidewalk and an adjacent street or driveway, exceeding 4 inches (102mm) in a vertical dimension, such as at planters or fountains located in or adjacent to walks, sidewalks or other pedestrian ways, shall be identified by curbs projecting at least 6 inches (152mm) in height above the walk or sidewalk surface to warn the blind of a potential drop-off.

When a guardrail or handrail is provide, no curb is required when a guide rail is provide centered 3 inches (76mm) plus or minus 1 inch (25mm) above the surface of the walk or sidewalk, the walk is 5 percent or less gradient or no adjacent hazard exists.

1024.2 Overhanging Obstructions. Any obstruction that overhangs a pedestrian's way shall be a minimum of 80 inches (2032mm) above the walking surface as measured from the bottom of the obstruction. Where a guy support is used parallel to a path of travel, including, but not limited to, sidewalks, a guy brace, sidewalk guy or similar device shall be used to prevent an overhanging obstruction as defined (see Figure No. 10-4).

Chapter 11A

ACCESSIBILITY FOR PRIVATELY FUNDED HOUSING

SECTION 1101A [FOR HCD 1] - SCOPE

1101A.1 General. Buildings or portions of buildings shall be accessible to persons with disabilities as required by this chapter.

SECTION 1102A [FOR HCD 1] - DEFINITIONS

For the purpose of this chapter, certain terms are defined as follows:

1102A.1 ACCESSIBLE for covered multifamily dwellings is the public or common use areas of the building that can be approached, entered and used by individuals with physical disabilities. The phrase "readily accessible to and usable by" is synonymous with accessible.

1102A.2 ACCESSIBLE ROUTE OF TRAVEL is a continuous unobstructed path connecting all accessible elements and spaces in an accessible building or facility that can be negotiated by a person with a severe disability using a wheelchair and that is also safe for and usable by persons with other disabilities.

1102A.3 ACCESSIBILITY is the combination of various elements in a building or area which allows access, circulation and the full use of the building and facilities by persons with physical disabilities.

1102A.4 ADAPTABLE DWELLING UNIT is a dwelling unit in a building with a building entrance on an accessible route designed in such a manner that the public and common use areas are readily accessible to and usable by disabled persons, and all doors are designed sufficiently wide to allow passage into and within all premises by physically disabled persons in wheelchairs as required by this code.

1102A.5 ASSISTIVE DEVICE is an aid, tool or instrument used by persons with disabilities to assist in activities of daily living. Examples of assistive devices include tongs, knob-turners and oven-rack pusher/pullers.

1102A.6 BATHROOM is, for the purposes of this chapter, a room which includes a water closet (toilet), lavatory (sink), and bathtub or shower. It does not include single-fixture facilities or those with only a water closet and lavatory. It does include a compartmented bathroom. A compartmented bathroom is one in which the fixtures are distributed among interconnected rooms. A compartmented bathroom is considered a single unit and is subject to the requirements for bathrooms for disabled persons.

1102A.7 BUILDING ENTRANCE ON AN ACCESSIBLE ROUTE is an accessible entrance to a building that is connected by an accessible route to public transportation stops, to parking or passenger loading zones, or to public streets or sidewalks, if available.

1102A.8 COMMON-USE AREAS for covered multifamily dwellings are rooms, spaces or elements inside or outside of a building that are made available for the use of residents of a building or the guests thereof. These areas include, but are not limited to, hallways, lounges, lobbies, laundry rooms, refuse rooms, mail rooms, recreational areas and passageways between buildings.

1102A.9 COVERED MULTIFAMILY DWELLINGS are all dwelling units in buildings consisting of three or more privately funded dwelling units if such buildings have one or more elevators; and all ground-floor dwelling units in other buildings consisting of three or more dwelling units. Dwelling units within a single structure separated by firewalls do not constitute separate buildings.

1102A.10 CURB CUT is an interruption of a curb at a pedestrian way, which separates surfaces that are substantially at the same elevation.

1102A.11 CURB RAMP is a sloping pedestrian way, intended for pedestrian traffic, which provides access between a walk or sidewalk to a surface located above or below an adjacent curb face.

1102A.12 DWELLING UNIT is a single unit of residence for a household of one or more persons. Examples of dwelling units covered by these regulations include condominiums, an apartment unit within an apartment building, and other types of dwellings in which sleeping accommodations are provided but toileting or cooking facilities are shared by occupants of more than one room or portion of the dwelling. Examples of the latter include dormitory rooms and sleeping accommodations in shelters intended for occupancy as residences for homeless persons.

1102A.13 GROUND FLOOR is the floor of a building with a building entrance on an accessible route. A building may have one or more ground floors. Where the first floor containing dwelling units in a building is above grade, all units on that floor must be served by a building entrance on an accessible route. This floor will be considered to be a ground floor.

1102A.14 KICK PLATE is an abrasion-resistant plate affixed to the bottom portion of a door to prevent a trap condition and protect its surface.

1102A.14.1 [For HCD 1] LIFT, SPECIAL ACCESS. See "special access lifts."

1102A.15 MULTISTORY DWELLING UNIT is a dwelling unit with finished living space located on one floor and the floor or floors immediately above or below it.

1102A.16 NEWLY CONSTRUCTED is a building that has never before been used or occupied for any purpose.

1102A.17 PERSON WITH DISABILITY is an individual who has a physical impairment including impaired sensory, manual or speaking abilities, that results in a functional limitation in gaining access to and using a building or facility.

1102A.18 PERSONS WITH PHYSICAL DISABILITIES means, as with respect to a person, a physical or mental impairment which substantially limits one or more major life activities, a record of such an impairment, or being regarded as having such an impairment. This term does not include current, illegal use of or addiction to a controlled substance. For purposes of these guidelines, an individual shall not be considered to have a physical disability solely because that individual is a transvestite. As used in this definition "physical or mental impairment" includes:

1102A.18.1 Impairments which affect ambulation due to cerebral palsy, poliomyelitis, spinal cord injury, amputation, arthritis, cardiac and pulmonary conditions, and other conditions or diseases which reduce mobility, including aging. Any physiological disorder or condition, cosmetic disfigurement, or anatomical loss affecting one or more of the following body systems: neurological, musculoskeletal, special sense organs, respiratory, including speech organs; cardiovascular, reproductive, digestive; genito-urinary, hemic and lymphatic; skin, and endocrine; or

1102A.18.2 Any mental or psychological disorder, such as mental retardation, organic brain syndrome, emotional or mental illness, and specific learning disabilities. The term "physical or mental impairment" includes, but is not limited to, such diseases and conditions as orthopedic, visual, speech and hearing impairments; cerebral palsy, autism; epilepsy; muscular dystrophy, multiple sclerosis; cancer, heart disease; diabetes; human immunodeficiency virus infection; mental retardation; emotional illness; drug addiction (other than addiction caused by current, illegal use of a controlled substance) and alcoholism. These guidelines are designed to make units

accessible or adaptable for people with physical disabilities.

1102A.18.3 "Major life activities" means functions such as caring for one's self, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning and working.

1102A.18.4 "Has a record of such an impairment" means the person has a history of, or has been misclassified as having, a mental or physical impairment that substantially limits one or more major life activities.

1102A.18.5 "Is regarded as having an impairment" means:

The person has a physical or mental impairment that does not substantially limit one or more major life activities but that is treated by another person as constituting such a limitation:

The person has a physical or mental impairment that substantially limits one or more major life activities only as a result of the attitudes of others toward such impairment, or

The person has none of the impairments defined in Section 1102A.18.1 of this definition but is treated by another person as having such impairment.

1102A.19 POWDER ROOM is a room containing only a water closet (toilet) and lavatory (sink).

1102A.20 PRIMARY ENTRY is the principal entrance through which most people enter the building, as designated by the building official.

1102A.21 PRIMARY ENTRY LEVEL is the floor or level of the building on which the primary entry is located.

1102A.22 PUBLIC-USE AREAS are interior or exterior rooms or spaces of a building that are made available to the general public. Public use may be provided at a building that is privately or publicly owned.

1102A.23 RAMP. See "curb ramp."

1102A.24 SLOPE is, for the purpose of privately funded covered multifamily buildings of three or more dwelling units, the relative steepness of the land between two points and is calculated as follows: The horizontal distance and elevation change between the two points (e.g., an entrance and a passenger loading zone) are determined from a topographical map. The difference in elevation is divided by the distance and the resulting fraction is multiplied by 100 to obtain the percentage. For example, if a principal entrance is 10 feet (3048 mm) from a passenger loading zone, and the principal entrance is raised foot (305 mm) higher than the passenger loading zone, then the slope is $1/10 \times 100 = 10$ percent.

1102A.25 TOWNHOUSE is a multistory dwelling unit.

1102A.26 VEHICULAR OR PEDESTRIAN ARRIVAL POINTS are public or resident parking areas, public transportation stops, passenger loading zones, and public streets or sidewalks.

1102A.27 WHEELCHAIR is a chair mounted on wheels to be propelled by its occupant manually or with the aid of electric power of a size and configuration conforming to the recognized standard models of the trade.

1102A.28 WHEELCHAIR OCCUPANT OR WHEEL CHAIR USER is a individual who due to a physical impairment or disability, utilizes a wheel chair for mobility.

SECTION 1103A [FOR HCD 1] - BUILDING ACCESSIBILITY

1103A.1 Where Required.

1103A.1.1 General. Accessibility to buildings or portions of buildings shall be provided for all occupancy classifications except as modified by this chapter

SECTION 1104A [FOR HCD 1] - GROUP U OCCUPANCIES

Group U, Division I private garages which are accessory to dwelling units required to be adaptable shall be accessible.

EXCEPTION: A private garage which serves a privately funded single dwelling unit is an accessible garage if a person with a disability can exit the dwelling unit's accessible entry door and enter the garage from the driveway.

SECTION 1105A [FOR HCD 1] - GROUP R OCCUPANCIES

In California, Group R Occupancies shall be accessible as provided in this chapter. Public-use and common-use areas serving adaptable dwelling units shall be accessible.

EXCEPTION: Multistory dwelling units in nonelevator buildings are not subject to these requirements because, in such cases, there is no ground-floor unit.

SECTION 1106A [FOR HCD 1] - DOOR SIGNAL DEVICES

Every primary entrance to a dwelling unit in buildings containing three or more dwelling units shall be provided with a door buzzer, bell, chime or equivalent installation, mounted a maximum of 48 inches (1219 mm) above the floor, connected to permanent wiring.

SECTION 1107A [FOR HCD 1] - DESIGN AND CONSTRUCTION

1107A.1 General. In California, when accessibility is required, it shall be designed and constructed as provided in Chapters 11A and 30 of this building code with California amendments.

1107A.2 Accessible Route of Travel.

1107A.2.1 When a building, or portion of a building, is required to be accessible or adaptable, an accessible route of travel shall be provided to all portions of the building, to accessible building entrances and between the building and the public way. Except within an individual dwelling unit, an accessible route of travel shall not pass through kitchens, storage rooms, restrooms, closets or other spaces used for similar purposes. At least one accessible route within the boundary of the site shall be provided from public transportation stops, accessible parking and accessible passenger loading zones, and public streets or sidewalks to the accessible building entrance they serve. The accessible route shall, to the maximum extent feasible, coincide with the route for the general public. At least one accessible route shall connect accessible buildings facilities, elements and spaces that are on the same site. At least one accessible route shall connect accessible building or facility entrances with all accessible spaces and elements and with all accessible dwelling units within the building or facility. An accessible route shall connect at least one accessible entrance of each accessible dwelling unit with those exterior and interior spaces and facilities that serve the accessible dwelling unit.

1107A.3 Where more than one route of travel is provided, all routes shall be accessible.

EXCEPTION: Where an elevator is provided for vertical access, only one elevator is required. Where more than one elevator is provided, all elevators shall be accessible.

1107A.4 All walks, halls, corridors, aisles and other spaces that are part of an accessible route shall provide a minimum clear width of 48 inches (1219 mm), except at doors.

EXCEPTION: Privately funded covered multifamily dwelling units shall provide a minimum clear width of 36 inches (914 mm), except at doors.

1107A.5 Sidewalks shall be a minimum of 48 inches (1219 mm) in clear width.

EXCEPTION: For sidewalks serving individual dwelling units in privately funded covered multifamily buildings, see Section 1024.1.

1107A.6 When the first floor containing dwelling units is a floor above grade, all units must be served by an accessible route.

EXCEPTION: In multistory dwelling units, i.e., townhouse-type construction, access is not required for buildings without elevators. In multistory dwelling units in buildings with elevators, the story of the unit that is served by the building elevator is the primary entry to the unit. The primary floor shall contain a bathroom or powder room usable to a person in a wheelchair.

1107A.7 Access shall be provided to elements listed in Section 303.11, participation areas.

1107A.8 Walks, halls, corridors, passageways, aisles or other circulation spaces shall have 80 inches (2032 mm) minimum clear headroom. If vertical clearance of an area adjoining an accessible route is reduced to less than 80 inches (2032 mm) nominal dimension, a guardrail or other barrier having its leading edge at or below 27 inches (686 mm) above the finished floor shall be provided.

1107A.9 If an accessible route has changed in level greater than 1/2 inch (13 mm), then a curb ramp, ramp, elevator or platform lift shall be provided. Stairs shall not be part of an accessible route.

1107A.10 Accessible routes serving any accessible space or element shall also serve as a means of egress for emergencies or connect to an accessible place of refuge. Such accessible routes and places of refuge shall comply with the requirements established by the enforcement authority having jurisdiction.

1107A.11 Primary Entry Access. Covered multifamily buildings shall comply with Section 1119A.

1107A.12 Separate Ground-floor Unit Entrances. When a ground floor unit of a building has a separate entrance, each such ground-floor unit shall be served by an accessible route, except for any unit where the terrain or unusual characteristics of the site prohibit the provision of an accessible route to the entrance of that unit.

1107A.13 Multiple entrances. Only one entrance to privately funded multifamily buildings is required to be accessible to any one ground floor of a building, except in cases where an individual dwelling unit has a separate exterior entrance or where the building contains clusters of dwelling units with each cluster sharing a different exterior entrance. In these cases, more than one entrance may be required to be accessible, as determined by analysis of the site. In every case, the accessible entrance shall be on an accessible route to the covered dwelling units it serves.

1107A.14 Site Impracticality. Covered multifamily dwellings with elevators shall be designed and constructed to provide at least one accessible entrance on an accessible route, regardless of terrain or unusual characteristics of the site. Covered multifamily dwellings without elevators shall be designed and constructed to provide at least one accessible entrance on an accessible route unless terrain or unusual

characteristics of the site prevent an accessible route based on the conditions listed below.

1107A.15 Regardless of site considerations described in Section 1119A, an accessible entrance on an accessible route is practical when there is an elevator connecting the parking area with the dwelling units on a ground floor. (In this case, those dwelling units on the ground floor served by an elevator, and at least one of each type of public- and common-use areas, would be subject to these requirements.)

1107A.16 If the building elevator is provided as a means of access to dwelling units other than dwelling units on a ground floor, then the building is an elevator building which is a covered multifamily dwelling, and the elevator in that building must provide accessibility to all dwelling units in the building, regardless of the slope of the natural terrain; or

1107A.17 An elevated walkway is planned between a building entrance and a vehicular or pedestrian arrival point, and the planned walkway has a slope no greater than 10 percent (1 unit vertical in 10 units horizontal).

1107A.18 If the slope of the finished grade between covered multifamily dwellings and a public- or common-use facility (including parking) exceeds 1 unit vertical in 12 units horizontal (8.33% slope), or where other physical barriers (natural or artificial) or legal restrictions, all of which are outside the control of the owner, prevent the installation of an accessible pedestrian route, an acceptable alternative is to provide access via a vehicular route, provided necessary site provisions such as parking spaces and curb ramps are provided at the public- or common-use facility.

1107A.19 Signs. See Section 1117A.3.

1107A.20 Adaptable Dwelling Units. Dwelling units shall be considered adaptable when they comply with the appropriate provisions of adaptability contained in Section 1109A and Chapter 10.

SECTION 1108A [FOR SFM] - EGRESS AND AREAS OF REFUGE

1108A.1 Means of Egress.

1108A.1.1 General. All required accessible spaces shall be provided with not less than one accessible means of egress. When more than one exit is required from any accessible space, each accessible portion of the space shall be served by not less than two accessible means of egress. The maximum travel distance from any accessible space to an area of refuge shall not exceed the travel distance set forth in Chapter 10.

Each accessible means of egress shall be continuous from each required accessible occupied area to a public way and shall include accessible routes, ramps, exit stairs, elevators, horizontal exits or smoke barriers.

EXCEPTIONS: 1. Areas for evacuation assistance are not required in buildings or facilities having a supervised automatic sprinkler system.

2. Areas for evacuation assistance are not required in alterations of existing buildings.

NOTE: This section is also adopted by the Division of the State Architect, Access Compliance, for buildings not required by the state fire marshal.

1108A.2 Emergency Warning Systems/Accessibility Requirements. Emergency warning systems as part of the fire-protective signaling system shall be designed and installed in accordance with NFPA 72 and 72G as amended in Chapter 35.

SECTION 1109A [FOR HCD 1] - FACILITY ACCESSIBILITY

1109A.1 General. *When buildings are required to be accessible, building facilities shall be accessible as provided in this section. Where specific floors of a building are required to be accessible, the requirements shall apply only to the facilities located on accessible floors. Doors and openings shall comply with the requirements of Chapter 10.*

EXCEPTION: *In privately funded covered multifamily dwelling units, except for primary entrance and required exits, doors and openings within units shall provide a minimum of 32 inches (813 mm) nominal clear space, measured between the face of the door and the stop, when the door is in the 90-degree open position to permit the passage of a disabled person in a wheelchair. A 34-inch (864 mm) door is acceptable. The nominal 32-inch (813 mm) clear opening provided by a standard 6-foot (1829 mm) sliding patio door assembly is acceptable. Site access to the primary entry shall be as provided for in this section.*

1109A.2 Bathing and Toilet Facilities.

1109A.2.1 Bathing facilities. *See Tables 1109A.2-1 and 1109A.2-2 for complying bathrooms.*

1109A.2.2 *Only one bathroom in privately funded accessible dwelling units need comply with the requirements for the physically disabled.*

1109A.2.3 *If a developer desires to provide requirements for the physically disabled in all bathrooms, use Table 1109A.2-1.*

1109A.2.4 *If a developer desires to provide requirements for the physically disabled in only one bathroom use Table 1109A.2-2.*

TABLE 1109A.2-1

Use this table when all bathrooms are complying bathrooms.

<p>1. Bathroom entrance doorways shall have an 18-inch (457 mm) clear space to the side of the strike edge of the door on the swing side of the door.</p>
<p>2. Sufficient maneuvering space shall be provided for a person using a wheelchair or other mobility aid to enter and close the door, use the fixtures, reopen the door and exit. Doors may swing into the clear space at any fixture if the maneuvering space is provided. Maneuvering spaces may include any kneespace or toespace available below bathroom fixtures.</p>
<p>3. Where the door swings into the bathroom, there shall be a clear space approximately 30 inches by 48 inches (762 mm by 1219 mm) within the room to position a wheelchair or other mobility aid clear of the path of the door as it is closed and to permit use of fixtures.</p>
<p>4. There shall be a minimum clear space 48 inches parallel by 30 inches perpendicular (1219 mm by 762 mm) to the side of a bathtub or bathtub-shower combination (measured from the foot of the bathtub) to provide for the maneuvering of a wheelchair and transfer to and from the bathing facilities, which may include the maneuverable area under the lavatory.</p> <p>EXCEPTION. Prior to July 1, 1994, condominium dwelling units may provide a minimum clear space 30 inches parallel by 48 inches perpendicular (762 mm by 1219 mm) to the side of a bathtub or bathtub-shower combination.</p>
<p>4.1. A shower spray unit is not required in bathtubs.</p>
<p>5. When a shower stall is provided in a privately funded accessible dwelling unit, at least one shower stall shall measure at least 42 inches wide by 48 inches (1067 mm by 1219 mm) deep with an entrance opening of at least 36 inches (914 mm). When a threshold (a recessed drop) is used, it shall be a maximum of 1/2 inch (13 mm) in height and have a beveled or sloped angle not exceeding 45 degrees from the horizontal. Maximum slope of the shower floor shall be 1/2 inch (13 mm) per foot in any direction and shall slope toward the rear to a drain located within 6 inches (152 mm) of the rear wall. The floor surfaces shall be of Carborundum or grit-faced tile or of material providing equivalent slip resistance. Doors and panels of shower and bathtub enclosures shall be substantially constructed from approved, shatter-resistant materials. Hinged shower doors shall open outward. Glazing used in doors and panels of shower and bathtub enclosures shall be fully tempered, laminated safety glass or approved plastic. When glass is used, it shall have minimum thickness of not less than 1/8 inch (3 mm) when fully tempered, or 1/4 inch (6 mm) when laminated, and shall pass the test requirement of U.B.C Standard 24-2. Plastics used in doors and panels of showers and bathtub enclosures shall be of a shatter-resistant type.</p>
<p>6. Walls must be reinforced to support grab bars as required by Section 1109A.5.</p>
<p>7. Space requirements for the installation of water closets shall be as specified in Section 1109A.3.</p>
<p>8. Structural reinforcements for future grab bar installation shall be as specified in Section 1109A.5.</p>

If Table 1109A.2-2 is used, all other bathrooms and powder rooms within the dwelling unit shall be on an accessible route with usable entry doors.

TABLE 1109A.2-2

Use this table when only one complying bathroom is provided.

<p>1. Bathroom entrance doorways shall have an 18-inch (457 mm) clear space to the side of the strike edge of the door on the swing side of the door.</p>
<p>2. Sufficient maneuvering space shall be provided for a person using a wheelchair or other mobility aid to enter and close the door, use the fixtures, reopen the door and exit. Doors may swing into the clear space at any fixture if the maneuvering space is provided. Maneuvering spaces may include any kneespace or toespace available below bathroom fixtures.</p>
<p>3. Where the door swings into the bathroom, there shall be a clear space [approximately 30 inches by 48 inches (762 mm by 1219 mm)] within the room to position a wheelchair or other mobility aid clear of the path of the door as it is closed and to permit use of fixtures.</p>
<p>4. Where the door swings out, a clear space is provided within the bathroom for a person using a wheelchair or other mobility aid to position the wheelchair such that the person is allowed use of fixtures. There also shall be clear space to allow persons using wheelchairs to reopen the door to exit.</p>
<p>5. There shall be a minimum clear space 48 inches parallel by 30 inches perpendicular (1219 mm by 762 mm) to the side of a bathtub or bathtub-shower combination (measured from the foot of the bathtub) to provide for the maneuvering of a wheelchair and transfer to and from the bathing facilities, which may include the maneuverable area under the lavatory.</p>
<p>5.1. A shower spray unit is not required in bathtubs.</p>
<p>6. When a shower stall is provided in a privately funded accessible dwelling unit, at least one shower stall shall measure at least 42 inches wide by 48 inches deep (1067 mm by 1219 mm) with an entrance opening of at least 36 inches (914 mm). When a threshold (a recessed drop) is used, it shall be a maximum of 1/2 inch (13 mm) in height and have a beveled or sloped angle not exceeding 45 percent from the horizontal. Maximum slope of the shower floor shall be 1/2 inch (13 mm) per foot in any direction and shall slope toward the rear to a drain located within 6 inches (152 mm) of the rear wall. The floor surfaces shall be of Carborundum or grit-faced tile or of material providing equivalent slip resistance. Doors and panels of shower and bathtub enclosures shall be substantially constructed from approved, shatter-resistant materials. Hinged shower doors shall open outward. Glazing used in doors and panels of shower and bathtub enclosures shall be fully tempered, laminated safety glass or approved plastic. When glass is used, it shall have minimum thickness of not less than 1/8 inch (3 mm) when fully tempered, or 1/4 inch (6 mm) when laminated, and shall pass the test requirements of U.B.C Standard 24-2. Plastics used in doors and panels of showers and bathtub enclosures shall be of a shatter-resistant type.</p>
<p>7. Walls must be reinforced to support grab bars as required by Section 1109A.5.</p>
<p>8. Space requirements for the installation of water closets shall be as specified in Section 1109A.3.</p>
<p>9. Structural reinforcements for future grab bar installation shall be as specified in Section 1109A.5.</p>
<p>10. When both tub and shower fixtures are provided in the bathroom, at least one shall be made accessible. When two or more lavatories in a bathroom are provided, at least one shall be made accessible.</p>
<p>11. Toilets shall be located within bathrooms in a manner that permits a grab bar to be installed on one side of the fixture. In locations where toilets are adjacent to walls or bathtubs, the center line of the fixture shall be a minimum of 1 foot 6 inches (457 mm) from the obstacle. The other (nongrab bar) side of the toilet fixture shall be a minimum of 1 foot 6 inches (457 mm) from the finished surface of adjoining walls, vanities or from the edge of a lavatory.</p>

12. Vanities and lavatories shall be installed with the center line of the fixture a minimum of 1 foot 6 inches (457 mm) horizontally from an adjoining wall or fixture. The top of the fixture rim shall be a maximum of 2 feet 10 inches (864 mm) above the finished floor. If kneespace is provided below the vanity, the bottom floor of the apron shall be at least 2 feet 5 inches (737 mm) above the floor. If provided, full kneespace shall be at least 1 foot 5 inches (432 mm) deep.

Cabinets under lavatories are acceptable provided the bathroom has space to allow a parallel approach by a person in a wheelchair. If parallel approach is not possible within the space, any cabinets provided would have to be removable to afford the necessary knee clearance for forward approach.

1109A.3 Water Closets. Water closets in bathrooms required to be accessible shall conform to the provisions of section 1502, California Plumbing Code, Title 24, Part 5, California Code of regulations. The water closet shall be located in a space a minimum of 36 inches (914 mm) in clear width with 48 inches (1219 mm) minimum clear space provided in front of the water closet. This space may include maneuverable space under a lavatory, if provided, arranged so as not to impede access. The minimum height of water closet seats shall be 15 inches (381 mm) above the floor.

EXCEPTION: In privately funded multifamily dwelling units, the water closet may be located in a space 48 inches (1219 mm) in clear width with 36 inches (914 mm) of clear space provided in front of the water closet.

1109A.4 Lavatories, Mirrors and Towel Fixtures. At least one accessible lavatory shall be provided within any toilet facility. Where mirrors and towel fixtures are provided at least one of each shall be accessible.

1109A.5 Fixtures in Adaptable Dwelling Units. Grab bars need not be installed in either a bathing or toilet facility within an adaptable dwelling unit provided all structural reinforcements for future grab bar installation are provided in the appropriate locations in the adjoining walls. The reinforcement shall be of sufficient length to permit the installation of grab bars as specified. The reinforced wall shall be capable of supporting a load of at least 250 pounds (1112 N).

1109A.6 Toilet. Where the toilet is not placed adjacent to a side wall, the bathroom shall have provisions for installation of floor-mounted, foldaway or similar alternative grabbars. Where the powder room (a room with a toilet and sink) is the only toilet facility located on an accessible level of a multistory dwelling unit, it shall comply with the requirement for reinforced walls for grab bars.

Where the toilet is placed adjacent to a side wall, reinforcement shall be installed on both sides or one side and the back. If reinforcement is installed at the back it shall be installed between 32 inches (813 mm) and 38 inches (965 mm) above the floor. The grab bar reinforcement shall be a minimum of 6 inches (152 mm) nominal in height. The backing shall be a minimum of 40 inches (1016 mm) in length.

Reinforcement installed at the side of the toilet shall be installed 32 inches to 38 inches (813 mm to 965 mm) above the floor. The reinforcement shall be installed a maximum of 12 inches (305 mm) from the rear wall and shall extend a minimum of 26 inches (660 mm) in front of the water closet stool. The grab bar reinforcement shall be a minimum of 6 inches (152 mm) nominal in height.

1109A.7 Bathtub. A bathtub may be installed without surrounding walls provided reinforced areas are provided for installation of floor-mounted grab bars.

Where a tub is installed with surrounding walls, grab bar reinforcement shall be installed on each end of the bathtub, 32 inches to 38 inches (813 mm to 965 mm) above the floor, extending a minimum of 24 inches (610 mm) aligned with the front edge of the bathtub toward the back wall of the bathtub. The grab bar reinforcement shall be a minimum of 6 inches (152 mm) nominal in height.

Grab bar reinforcement shall be installed on the back wall of the bathtub commencing a maximum of 6 inches (152 mm) above the bathtub rim and extending upward to a point a minimum of 38 inches (965 mm) above the floor. The grab bar backing shall be installed horizontally a length to permit the installation of a 48-inch (1219 mm) grab bar with each end a maximum of 6 inches (152 mm) from the end walls of the bathtub. The grab bar reinforcement shall be a minimum of 6 inches (152 mm) nominal in height.

1109A.8 Shower stalls. Glass-walled shower stalls shall provide reinforcement for installation of floor-mounted grab bars. Reinforcement for installation of ceiling-mounted grab bars is permitted.

Grab bar reinforcement shall be installed continuous in the walls of adaptable showers 32 inches to 38 inches (813 mm to 965 mm) above the floor. The grab bar reinforcement shall be a minimum of 6 inches (152 mm) nominal in height.

SECTION 1110A [FOR HCD 1] - ELEVATORS

Elevators shall be accessible.

EXCEPTION: Private elevators serving only one dwelling unit.

Elevators required to be accessible shall be designed and constructed to comply with Section 3003.4.17.

SECTION 1111A [FOR HCD 1] - TELEPHONES

On floors where public telephones are provided, at least one telephone shall be accessible. On any floor where two or more banks of multiple telephones are provided, at least one telephone in each bank shall be accessible.

1111A.1 General. If public telephones are provided, they shall comply with this section.

1111A.2 Clear Floor Ground Space. A clear floor or ground space at least 30 inches by 48 inches (762 mm by 1219 mm) that allows either a forward or parallel approach by a person using a wheelchair shall be provided at telephones.

1111A.3 Size and approach. The minimum clear floor ground space required to accommodate a single, stationary wheelchair and occupant is 30 inches by 48 inches (762 mm by 1219 mm). The minimum clear floor or ground space for wheelchairs may be positioned for forward or parallel approach to an object. Clear floor or ground space for wheelchairs may be part of the knee space required under some objects.

1111A.4 Relationship of Maneuvering Clearances to Wheelchair Spaces. One fully unobstructed side of the clear floor or ground space for a wheelchair shall adjoin another wheelchair clear floor space. If a clear floor space is located in an alcove or otherwise confined on all or part of three sides, additional maneuvering clearances shall be provided.

1111A.5 Floor Surfaces of Wheelchair Spaces. Floor surfaces of wheelchair spaces shall conform to the figures in Chapter 11B. Bases, enclosures and fixed seats shall not impede approaches to telephones by

people who use wheelchairs.

1111A.6 Mounting height. The highest operable part of the telephone shall be within the reach ranges specified in the figures in Chapter 11B. Telephones mounted diagonally in a corner that require wheelchair users to reach diagonally shall have the highest operable part no higher than 54 inches (1372 mm) above the floor.

1111A.7 Enclosures. If telephone enclosures are provided, they may overhang the clear floor space required in Sections 1111A.2, 1111A.3 and 1111A.4 with the following limits:

1111A.7.1 Side reach possible. The overhang shall be no greater than 19 inches (483 mm). The height of the lowest overhanging part shall be equal to or greater than 27 inches (686 mm).

1111A.7.2 Full-height enclosures. Entrances to full-height enclosures shall be 30 inches (762 mm) minimum.

1111A.7.3 Forward reach required. If the overhang is greater than 12 inches (305 mm), then the clear width of the enclosure shall be 30 inches (762 mm) minimum; if the clear width of the enclosure is less than 30 inches (762 mm), then the height of the lowest overhanging part shall be equal to or greater than 27 inches (686 mm).

1111A.8 Equipment for Hearing Impaired People. Telephones shall be equipped with a receiver that generates a magnetic field in the area of the receiver cap. A reasonable number of the public telephones provided, but always at least one on each floor or in each bank, whichever is more, in a building or facility, shall be equipped with a volume control. Such telephones shall be capable of a minimum of 12 dBA and a maximum of 18 dBA above normal. If an automatic reset is provided, 18 dBA may be exceeded. Public telephones with volume control shall be hearing aid compatible and shall be identified by a sign containing a depiction of a telephone handset with radiating sound waves.

1111A.9 Text telephones. If a total of four or more public pay telephones are provided at the interior and exterior of a site, and if at least one of the total is in an interior location, then at least one interior public text telephone shall be provided.

1111A.10 Controls. Telephones shall have push-button controls where service for such equipment is available.

1111A.11 Cord Length. The cord from the telephone to the handset shall be at least 29 inches (737 mm) long.

1111A.12 Telephone Books. If telephone books are provided, they shall be located in a position that complies with the reach ranges in the figures in Chapter 11B.

SECTION 1112A [FOR HCD 1] - KITCHENS

Kitchens within adaptable dwelling units shall be accessible. Kitchens in covered multifamily dwelling units that are required to provide access to persons with physical disabilities shall have a clear floor space at least 30 inches by 48 inches (762 mm by 1219 mm) that allows a parallel approach by a person in a wheelchair at the range or cooktop and either a parallel or forward approach at the oven, dishwasher, refrigerator/freezer and trash compactor.

EXCEPTION: In privately funded multifamily dwelling units containing U-shaped kitchens with a range or cook top at the base of the U, a 60-inch (1524 mm) clear width between cabinet fronts, appliances or fixtures shall be provided to allow a parallel approach, or base cabinets shall be removable at that location to a height of 27 inches (686 mm) above the floor to allow knee space

for a forward approach. Base cabinets directly under kitchen sink counter area, including toe board and shelving, shall be removable, without the use of special tools or knowledge, to provide clearance for a wheelchair. Finished flooring shall be installed on the floor beneath such countertop. A minimum clear space of 48 inches (1219 mm) shall be provided for all other kitchen designs.

1112A.1 Kitchen Sink Faucet Controls. Kitchen sink faucet controls shall comply with the provisions of section 1508, California Plumbing Code, Title 24, Part 5, California Code of Regulations.

1112A.2 Countertops. A minimum linear length of 30 inches (762 mm) of countertop shall be provided for the kitchen sink, and a minimum linear length of 30 inches (762 mm) of countertop shall be provided for a work surface, both of which shall be designed to enable repositioning to a minimum height of 28 inches (711 mm). The sink and work surface may be a single integral unit, or be separate components. The base cabinets directly under sink and work surface counter areas which are designed for repositioning shall be removable to provide clearance for a wheelchair.

EXCEPTIONS: 1. Only 5 percent of privately funded apartment house dwelling units that are required to be accessible are required to comply with the requirements for repositionable countertops. All other privately funded covered multifamily dwelling units are exempt.

2. Stone, cultured stone and tiled countertops may be used without meeting the repositioning requirements.

3. In privately funded apartment houses, two 15-inch (381 mm) minimum width breadboards may be provided in lieu of the required 30 inches (762 mm) of countertop work surface.

The sides and back of adjacent cabinets, which may become exposed to moisture or food handling when a countertop is lowered, shall be constructed of durable, nonabsorbent materials appropriate for such uses. Finished flooring shall be installed on the floor beneath such countertop.

1112A.3 Lower Shelving. Lower shelving and /or drawer space shall be provided in the kitchen at a height of no more than 48 inches (1219 mm).

1112A.4 Base cabinets. In dwelling units required to be accessible, base cabinets directly under kitchen sink counter area, including toeboard and shelving, shall be removable without the use of specialized tools or specialized knowledge to provide clearance for a wheelchair. Finished flooring shall be provided on the floor beneath the countertop.

SECTION 1113A [FOR HCD 1] - SWIMMING POOLS

Swimming pools required to be accessible to persons with physical disabilities shall comply with the provisions of Chapter 11B.

SECTION 1114A [FOR HCD 1] - SIGNS

All accessible toilet and bathing facilities shall be identified by the international symbol of accessibility. Signs need not be provided for facilities within an adaptable dwelling unit, or within an accessible patient or guest room.

SECTION 1115A [FOR HCD 1] - LAUNDRY ROOMS

If clothes-washing machines and clothes dryers are provided in covered multifamily buildings or dwelling units, at least one of each type of appliance shall be provided in each laundry area, except that laundry rooms serving multifamily dwellings are not required to have front-loading clothes washers. Where front-loading clothes washers are not provided, management shall provide assistive devices, on request, if

necessary to permit a resident to use a top-loading clothes washer.

SECTION 1116A [FOR HCD 1] - FLOORING

If carpet or carpet tile is used in a common-use area on a ground or floor surface, it shall have firm backing or no backing. The maximum pile height shall be 1/2 inch (13 mm). Exposed edges of carpet shall be fastened to floor surfaces and have trim along the entire length of the exposed edge. Carpet edge trim shall comply with the requirements for changes in level.

SECTION 1117A [FOR HCD 1] - EXTERIOR ROUTES OF TRAVEL

1117A.1 General. *When more than one building or facility is located on a site, accessible routes of travel shall be provided between buildings and accessible site facilities. The accessible route of travel shall be the most practical direct route between accessible building entrances, accessible site and the accessible entrance to the site.*

1117A.2 Design and Construction. *Use the provisions of this chapter and Chapter 10.*

1117A.3 Signs. *At every primary public entrance and at every major junction a long or leading to an accessible route of travel, there shall be a sign displaying the international symbol of accessibility. Signs shall indicate the direction to accessible building entrances and facilities.*

1117A.4 Curb Ramps.

1117A.4.1 General. *Curb ramps shall be constructed at each corner of street intersections and where a pedestrian way crosses a curb. The preferred and recommended location for curb ramps is in the center of the crosswalk of each street corner. Where it is necessary to locate a curb ramp in the center of the curb return and the street surfaces are marked to identify pedestrian crosswalks, the lower end of the curb ramp shall terminate within such crosswalk areas. Curb ramps do not require handrails.*

1117A.4.2 Width of curb ramps. *Curb ramps shall be a minimum of 4 feet (1219 mm) in width and shall lie, generally, in a single sloped plane, with a minimum of surface warping and cross slope.*

1117A.4.3 Slope of curb ramps. *The slope of curb ramps shall not exceed 1 unit vertical to 12 units horizontal (8.33% slope). Transitions from ramps to walks, gutters or streets shall be flush of abrupt changes, except that curb ramps shall comply with Section 1117A.4.5. The slope of the fanned or flared sides of curb ramps shall not exceed 1 unit vertical to 8 units horizontal (12.5% slope). If a curb ramp is located where pedestrians must walk across the ramp, then it shall have flared sides; the maximum slope of the flare shall be 1 unit vertical in 10 units horizontal (10% slope). Curb ramps with returned curbs may be used where pedestrians would not normally walk across the ramp.*

1117A.4.4 Level Landing. *A level landing 4 feet (1219 mm) deep shall be provided at the upper end over its full width to permit safe egress from the ramp surface, or the slope of the fanned or flared sides of the curb ramp shall not exceed 1 unit vertical to 12 units horizontal (8.33% slope).*

1117A.4.5 Beveled lip. *The lower end of each curb ramp shall have a 1/2-inch (13 mm) lip beveled at 45 degrees.*

1117A.4.6 Finish. *The surface of each curb ramp and its flared sides shall be stable, firm and slip resistant and shall be of contrasting finish from that of the adjacent sidewalk.*

1117A.4.7 Detectable warnings. *A curb ramp shall have a detectable warning that extends the full width and depth of the curb ramp when the ramp slope is less than 1 unit vertical in 15 units horizontal (6.7% slope). Detectable warnings shall consist of raised truncated domes with a diameter of nominal 0.9 inch*

(22.86 mm), a height of nominal 0.2 inch (5.08 mm) and a center-to-center spacing of nominal 2.35 inches (59.7 mm) and shall contrast visually with adjoining surfaces, either light-on-dark or dark-on-light. Warning surfaces shall be of the color yellow conforming to Federal Color No. 33538, as shown in Table V of Standard No. 595A. Where the color value contrast between the yellow warning and the main walking surface is less than 70 percent, a 1-inch-wide (25 mm) black strip shall separate the yellow warning from the main walking surface. Contrast shall be determined by:

Contrast = $[(B1-B2/B1) \times 100\%]$ where $B1$ = light reflectance value (LRV) of the lighter area and $B2$ = light reflectance value (LRV) of the darker area]. The material used to provide contrast shall be an integral part of the walking surface. The domes may be constructed in a variety of methods, including cast in place or stamped, or they may be part of a prefabricated surface treatment.

1117A.4.8 Obstructions. Curb ramps shall be located or protected to prevent their obstruction by parked cars. Built-up curb ramps shall be located so that they do not project into vehicular traffic lanes.

1117A.4.9 Diagonal curb ramps. If diagonal (or corner-type) curb ramps have returned curbs or other well-defined edges, such edges shall be parallel to the direction of pedestrian flow. The bottom of diagonal curb ramps shall have 48 inches (1219 mm) minimum clear space as shown in the figures in Chapter 11B. If diagonal curb ramps are provided at marked crossings, the 48-inch (1219 mm) clear space shall be within the markings (see figures in Chapter 11B). If diagonal curb ramps have flared sides, they shall also have at least a 24-inch-long (610 mm) segment of straight curb located on each side of the curb ramp and within the marked crossing (see figures in Chapter 11B).

SECTION 1118A [FOR HCD 1] - PARKING FACILITIES

1118A.1 Accessible Parking Required. Accessible parking spaces shall be located on the shortest possible accessible route of travel to an accessible building entrance. In facilities with multiple accessible building entrances with adjacent parking, accessible parking spaces shall be dispersed and located near the accessible entrances. When practical, the accessible route of travel shall not cross lanes for vehicular traffic. When crossing vehicle traffic lanes is necessary, the route of travel shall be designated and marked as a crosswalk.

Each lot or parking structure where parking is provided for clients, guests, employees or residents shall provide accessible parking as required by this section. In separate parking structures or lots that do not serve a particular building, parking spaces for physically disabled people shall be located on the shortest possible circulation route to an accessible pedestrian entrance of the parking facility.

If assigned parking is provided at privately funded multifamily building sites, designated accessible parking at the dwelling unit shall be provided on request of residents with physical disabilities on the same terms and with the full range of choices (e.g., surface parking or garage) provided for other residents, with accessible parking on a route accessible to wheelchairs for at least 2 percent of the covered dwelling units. Signage is not required. When visitor parking is provided, a minimum of 5 percent of parking shall provide access to grade-level entrances of multifamily dwellings and accessible parking at facilities (e.g., swimming pools) that serve accessible buildings. Visitor parking spaces shall be provided with signage. Such sign shall not be blocked from view by a vehicle parked in the space.

1118A.2 Parking Structures. All entrances to and vertical clearances within parking structures shall have a minimum vertical clearance of 8 feet 2 inches (2489 mm) where required for accessibility to parking spaces for persons with physical disabilities.

EXCEPTION: Privately funded garages are exempt from the 8-foot 2-inch (2489 mm) minimum height requirement. Covered parking spaces and parking spaces in common areas shall provide a minimum of 8 feet 2 inches (2489 mm) vertical clearance.

1118A.2.1 *Passenger parking spaces shall not be considered to be passenger loading zones.*

1118A.3 Design and Construction. *When accessible parking spaces are required by this section, they shall be designed and constructed in accordance with the U.B.C.*

1118A.4 Parking Space Size. *Parking spaces for persons with physical disabilities shall be located on the shortest possible route to an accessible entrance and shall be sized as follows:*

1118A.4.1 *Where single spaces are provided, they shall be 14 feet (4267 mm) wide and outlined to provide a 9-foot (2743 mm) parking area and a 5-foot (1524 mm) loading and unloading access aisle on the passenger side of the vehicle. When more than one space is provided in lieu of providing a 14-foot-wide (4267 mm) space for each parking space, two spaces can be provided within a 23-foot-wide (7010 mm) area lined to provide a 9-foot (2743 mm) parking area on each side of a 5-foot (1524 mm) loading and unloading access aisle in the center. The minimum length of each parking space shall be 18 feet (5486 mm).*

NOTE: *See figures in Chapter 11B.*

1118A.4.2 *One in every eight accessible spaces, but not less than one, shall be served by an access aisle 96 inches (2438 mm) wide minimum, and shall be designated van accessible as required by Section 1118A.4.1. All such spaces may be grouped on one level of a parking structure.*

1118A.4.3 Arrangement of parking spaces. *In each parking area, a bumper or curb shall be provided and located to prevent encroachment of cars over the required width of walkways. Also, the space shall be so located that people with physical disabilities are not compelled to wheel or walk behind parked cars other than their own. Pedestrian ways which are accessible to people with physical disabilities shall be provided from each such parking space to related facilities, including curb cuts or ramps as needed. Ramps shall not encroach into any parking space.*

EXCEPTIONS: *1. Ramps located at the front of parking spaces for people with physical disabilities may encroach into the length of such spaces when such encroachment does not limit a person with physical disabilities' capability to leave or enter their vehicle, thus providing equivalent facilitation.*

NOTE: *See figures in Chapter 11B.*

2. Parking spaces may be provided which would require a person with physical disabilities to wheel or walk behind other than accessible parking spaces when the enforcing agency determines that compliance with these regulations or providing equivalent facilitation would create an unreasonable hardship.

1118A.4.4 Slope of parking spaces. *Surface slopes of accessible parking spaces shall be the minimum possible and shall not exceed 1/4 inch (6 mm) per foot (2.083% gradient) in any direction.*

1118A.5 Signs. *Every parking space required by this section shall be identified by a sign, centered between 3 feet (914 mm) and 5 feet (1524 mm) above the parking surface, at the head of the parking space. The sign shall include the international symbol of accessibility and state RESERVED, or equivalent language*

NOTE: *For parking spaces at privately funded covered multifamily buildings, use Sec. 1118A.1.*

An additional sign shall also be posted in a conspicuous place at each entrance to off-street parking facilities or immediately adjacent to and visible from each stall or space. The sign shall not be less than 17 inches (432 mm) by 22 inches (559 mm) in size with lettering not less than 1 inch (25 mm) in height,

which clearly and conspicuously states the following:

Unauthorized vehicles parked in designated handicapped spaces not displaying distinguishing placards or license plates issued for physically disabled persons may be towed away at the owner's expense. Towed vehicles may be reclaimed at _____ or by telephoning _____.

In addition to the above requirements, the surface of each accessible parking space or stall shall have a surface identification duplicating either of the following schemes:

1118A.5.1 By outlining or painting the stall or space in blue and outlining on the ground in the stall or space in white or suitable contrasting color a profile view depicting a wheelchair with occupant; or,

1118A.5.2 By outlining a profile view of a wheelchair with occupant in white on blue background. The profile view shall be located so that it is visible to a traffic enforcement officer when a vehicle is properly parked in the space and shall be 36 inches high by 36 inches wide (914 mm by 914 mm).

NOTE: See figures in Chapter 11B.

SECTION 1119A [FOR HCD 1] - REQUIREMENTS FOR ACCESSIBLE ROUTES IN COVERED BUILDINGS WITHOUT AN ELEVATOR

(Provisions below do not apply to multi-story dwelling units in privately funded nonelevator buildings, i.e., townhouses.)

<p>IF SINGLE BUILDING WITH COMMON (LOBBY) ENTRANCE Use only the following steps for determining required access to adaptable units:</p>
<p>1. All ground-floor units in nonelevator buildings must be adaptable and on an accessible route to comply with the requirements unless an accessible route is not required as determined by Test No. 1, Individual Building Test, or Test No. 3, Unusual Characteristics Test as described below: Twenty percent of the ground-floor dwelling units that are not required to have an accessible route shall be adaptable. The remaining ground-floor dwelling units must comply with the features listed in Section 101.17 unless exempted by Test No. 3, Unusual Characteristics Test.</p> <p>2. You may use Individual Building Test No. 1 below only if site has terrain over 15 percent slope.</p> <p>3. You may use Unusual Characteristics Test No. 3 if applicable. See the test.</p>
<p>ALL OTHER SITES, INCLUDING SINGLE BUILDING WITH MULTIPLE ENTRANCES Use only the following steps for determining required access to adaptable units:</p>
<p>1. All ground-floor units in non-elevator buildings must be adaptable and on an accessible route to comply with the requirements unless an accessible route is not required as determined by Test No. 1, Individual Building Test, or Test No. 2, Site Analysis Test, or Test No. 3, Unusual Characteristics Test as described below. A minimum of 20 percent of the ground-floor dwelling units are required to have an accessible route and shall be adaptable. The remaining ground-floor dwelling units must comply with the features listed in Section 101.17 unless exempted by Test No. 3, Unusual Characteristics Test.</p> <p>2. Use Individual Building Test No. 1 below only if site has terrain over 15 percent slope.</p> <p>3. Use Site Analysis Test No. 2 only if site has terrain over 10 percent slope.</p> <p>4. Use Unusual Characteristics Test No. 3 if applicable. See the rest.</p>

Provisions to Test Nos. 1 and 2. Where a building elevator is provided only as means of creating an accessible route to dwelling units on a ground floor, the building is not considered to be an elevator building for purposes of this code; hence, only the ground-floor dwelling units would be covered.

TEST NO. 1 - INDIVIDUAL BUILDING TEST

It is not required by this code to provide an accessible route when the terrain of the site is such that:

(1) The slopes of the undisturbed site measured between the planned entrance and all vehicular or pedestrian arrival points within 50 feet (15240 mm) of the planned entrance exceed 15 percent and

(2) The slopes of the planned finished grade measured between the entrance and all vehicular or pedestrian arrival points within 50 feet (15240 mm) of the planned entrance also exceed 15 percent.

If there are no vehicular or pedestrian arrival points within 50 feet (15240 mm) of the planned entrance, the slope for the purposes of Test No. 1 will be measured to the closest vehicular or pedestrian arrival point.

For purposes of these requirements, vehicular or pedestrian arrival points include public or resident parking areas, public transportation stops, passenger loading zones, and public streets or sidewalks. To determine site impracticality, the slope would be measured at ground level from the point of the planned entrance on a straight line to (i) each vehicular or pedestrian arrival point that is within 50 feet (15240 mm) of the planned entrance, or (ii) if there are no vehicular or pedestrian arrival points within the specified area, the vehicular or pedestrian arrival point closest to the planned entrance. In the case of sidewalks, the closest point to the entrance will be where a public sidewalk entering the site intersects with the walk to the entrance. In the case of resident parking areas, the closest point to the planned entrance will be measured from the entry point to the parking area that is located closest to the planned entrance.

TEST NO. 2-SITE ANALYSIS TEST

For a site having multiple buildings, or a site with a single building with multiple entrances, it is not required to provide an accessible route under the following conditions:

(1) Calculate the percentage of the total buildable area of the undisturbed site with a natural grade less than 10 percent slope. The analysis of the existing slope (before grading) shall be done on a topographic survey with 2-foot (610 mm) contour intervals with slope determination made between each successive interval. The accuracy of the slope analysis shall be certified by a licensed engineer, landscape architect, architect or surveyor.

(2) Determine the requirement of providing an accessible route to planned multifamily dwellings based on the topography of the existing natural terrain. The minimum percentage of ground-floor units required on an accessible route shall equal the percentage of the total buildable area (not restricted-use areas) of the undisturbed site with an existing natural grade of less than 10 percent slope.

(3) In addition to the percentage established in paragraph (2), all ground-floor units in a building, or ground-floor units served by a particular entrance, shall be made accessible if the entrance to the units is on an accessible route with a slope between the planned entrance and a pedestrian or vehicular arrival point not exceeding 8.33 percent.

TEST NO. 3-UNUSUAL CHARACTERISTICS TEST

Unusual characteristics include sites located in a federally designated floodplain or coastal high-hazard area and sites subject to other similar requirements of law or code that the lowest floor or the lowest structural member of the lowest floor must be raised to a specified level at or above the base flood elevation. An accessible route to a building entrance is impractical due to unusual characteristics of the site when:

(1) The original site characteristics result in a difference in finished grade elevation exceeding 30 inches (762 mm) and 10 percent measured between an entrance and all vehicular or pedestrian arrival points within 50 feet (15240 mm) of the planned entrance; or

(2) If there are no vehicular or pedestrian arrival points within 50 feet (15240 mm) of the planned entrance, the unusual characteristics result in a difference in finished grade elevation exceeding 30 inches (762 mm) and 10 percent measured between an entrance and the closest vehicular or pedestrian arrival point.

Chapter 30

ELEVATORS, DUMBWAITERS, ESCALATORS AND MOVING WALKS

The following California section replaces the corresponding model code section for applications specified by law for the Department of Housing and Community Development and Division of the State Architect/Access Compliance.

3003.4.1a [For HCD 1, DSA/AC] General - Size of Cab and Control Locations and Requirements for Accommodation of People with Disabilities. In buildings two or more stories in height, served by an elevator, or a building served by an elevator required by Table 10-A, or a building served by an elevator required for accessibility by Section 101.17, all elevators provided shall accommodate a wheelchair.

EXCEPTIONS: 1. When the enforcing agency determines that compliance with any regulation under this section would create an unreasonable hardship, an exception to such regulation shall be granted when equivalent facilitation is provided, and where it can be demonstrated that a person using a wheelchair can enter and operate the elevator.

2. These provisions shall not apply to existing buildings when legal or physical constraints will not allow compliance with these regulations or equivalent facilitation without creating an unreasonable hardship. See Section 101.17.

3003.4.2 Operation and Leveling. The elevator shall be automatic and be provided with a self-leveling feature that will automatically bring the car to the floor landings within a tolerance of plus or minus 1/2 inch under normal loading and unloading conditions. This self-leveling shall, within its zone, be entirely automatic and independent of the operation device and shall correct the overtravel or undertravel. The car shall also be maintained approximately level with the landing, irrespective of load. [For HCD 1, DSA/AC] The clearance between the car platform sill and the edge of the hoistway landing shall be no greater than 1 1/4 inches (32mm).

3003.4.3 Door Operation. Power-operated horizontally sliding car and hoistway doors open and closed by automatic means shall be provided.

3003.4.4 Door Size. Minimum clear width for elevator doors shall be 36 inches.

EXCEPTION: When approved by the building official, the minimum door width may be reduced to 32 inches (813mm) for car with dimensions as permitted by the exception to Section 3003.4.7.

3003.4.7a [For HCD 1, DAS/AC] Car Inside. The car inside shall allow for the turning of a wheelchair. The minimum clear distance between walls or between wall and door, excluding return panels, shall not be less than 80 inches by 54 inches (2032mm by 1372mm) for center-opening doors, and 68 inches by 54 inches (1727mm by 1372mm) for side-slide opening doors. See figure 30-A. The minimum distance from wall to return panel shall not be less than 51 inches (1295mm).

Elevator floor buttons shall be within 4 feet 6 inches (1372mm) above the finish floor for side approach and 48 inches (1219mm) for front approach. Except for photoelectric tube bypass switches, the emergency controls, including the emergency stop and alarm shall be grouped in or adjacent to the bottom of the panel and shall be no lower than 2 feet 11 inches (889mm) from the floor. For multiple controls only, one set must comply with these height requirements. Floor buttons shall be provided with visual indicators to show when each call is registered. The visual indicators shall be extinguished when each call is answered. The emergency telephone handset shall be positioned no higher than 4 feet (1219mm) above the floor, and the handset cord shall be a minimum of 2 feet 5 inches (737mm) in length. If the telephone system is located in a closed compartment, the compartment door hardware shall be lever type conforming to the

provisions of Section 1004.3, type of lock or latch. Emergency intercommunication shall not require voice communication.

NOTE: Where possible, a 48-inch (1219mm) maximum height for elevator floor buttons is preferred.

3003.4.8a [For HCD 1, DAS/AC] Car controls. Identification for the visually impaired shall be as follows:

Passenger elevator car controls shall have a minimum dimension of 3/4 inch (19.1mm) and shall be raised 1/8 inch (3.2mm) plus or minus 1/32 inch (0.8mm) above the surrounding surface. Control buttons shall be illuminated, shall have square shoulders, and shall be activated by a mechanical motion that is detectable.

All control buttons shall be designated by 5/8-inch-minimum (15.9), Arabic numeral, standard alphabet character, or standard symbol immediately to the left of the control button. A Braille symbol shall be located immediately below the numeral, character or symbol. A minimum clear space of 3/8 inch (9.5mm) or other suitable means of separation shall be provided between rows of control buttons.

NOTE: See figure No. 30-B.

The raised characters shall be white on black background. Controls and emergency equipment identified by raised symbols shall include, but not be limited to, door open, door close, alarm bell, emergency stop and telephone. The call button for the main entry floor shall be designated by a raised star at the left of the floor designation.

3003.4.9a [For HCD 1, DSA/AC] Car position indicator signal. Call operation buttons shall be within 3 feet 6 inches (1067mm) of the floor. Buttons shall be a minimum of 3/4 inch (19.1mm) in size and shall be raised 1/8 inch (3.2mm) plus or minus 1/32 inch (0.8mm) above the surrounding surface. Visual indication shall be provided to show each call registered and extinguished when answered. Objects adjacent to, and below, hall call buttons shall not project more than 4 inches (102mm) from the wall.

3003.4.12 Handrails. A handrail shall be provided on one wall of the car, preferably the rear. The rails shall be smooth and the inside surface at least 1 1/2-inches (38mm) clear of the walls at a nominal height of 32 inches (813mm) from the floor.

Nominal = \pm 1 inch.

NOTE: Thirty-two inches (813mm) required to reduce interference with car controls where lowest button is centered at 35 inches (889mm) above floor.

3003.4.13 Minimum illumination. The minimum illumination at the car controls [for HCD 1, DSA/AC], threshold and the landing when the car and landing doors are open shall not be less than 5 footcandles (54 lx).

3003.4.15a Hall lantern. A visual and audible signal shall be provided at each hoistway entrance indicating to the prospective passenger the car answering the call and its direction of travel as follows:

The visual signal for each direction shall be minimum of 2 1/2 inches (64mm) high by 2 1/2 inches (64mm) wide, and visible from the proximity of the hall call button.

The audible signal shall sound once for the up direction and twice for the down direction or of a configuration which distinguishes between up and down elevator travel.

The center line of the fixture shall be located a minimum of 6 feet (1829mm) in height from the lobby floor.

The use of in-car lanterns, located in or on the car doorjams, visible from the proximity of the hall call buttons and conforming to the above requirements shall or will be acceptable.

The use of arrow shapes are preferred for visible signals.

3003.4.16a Doorjamb marking. *Passenger elevator landing jambs on all elevator floors shall have the number of the floor on which the jamb is located designated by raised Arabic numerals which are a minimum of 2 inches (51mm) in height and raised Braille symbols which conform to Section 1117B.5.2 located approximately 5 feet (1524mm) above the floor on the jamb panels on both sides of the door so that they are visible from within the elevator. Raised Braille symbols shall be placed directly to the left of the corresponding raised Arabic numerals. The raised characters shall be on a contrasting background. See Figure 30-B.*

3003.4.17 [For HCD 1, DSA/AC] Location. *Passenger elevators shall be located near a major path of travel and provisions shall be made to assure that they remain accessible and usable at all times the building is occupied.*

3008 [For HCD 1, DSA/AC] Special Elevators

3008.1 Special Access (Wheelchair) Lifts. *Special access wheelchair lifts may be provided between levels, in lieu of passenger elevator, when the vertical distance between landings, structural design and safeguards is as allowed by the State of California, Division of the State Architect, Access Compliance Section, the Department of Industrial Relations, Division of Occupational Safety and Health, and any applicable safety regulations of other administrative authorities having jurisdiction. If lifts are provided, they shall be designed and constructed to facilitate unassisted entry, operation and exit from the lift, and shall comply with Chapters 11 and 11B, and ASME A17.1, Safety Code for Elevators and Escalators, Section XX, 1990. Additionally, lifts may be provided as part of an accessible route only for the following conditions.*

3008.1.1 *To provide an accessible route to a performing area in an assembly occupancy.*

3008.1.2 *To comply with the wheelchair viewing position line-of-sight and dispersion requirements of Chapter 11B.*

3008.1.3 *To provide access to incidental occupiable spaces and rooms which are not open to the general public and which house no more than five persons, including, but not limited to, equipment control rooms and projection booths.*

3008.1.4 *To provide access where existing site constraints or other constraints make use of a ramp or an elevator infeasible.*

EXCEPTIONS: **1.** *The provisions of this section shall not apply to existing buildings when physical constraints will not allow compliance with these regulations or equivalent facilitation without creating an unreasonable hardship. **Note:** See Section 101.17.*

2. *When the enforcing agency determines that compliance with any regulation under this section would create an unreasonable hardship, an exception to such regulation shall be granted when equivalent facilitation is provided.*

3. *The installation of lifts as part of an accessible route for additions or alterations is not limited to the four conditions required by Section 3008.*

3008.1.4.1 *The lift platform or support shall be of sufficient size to accommodate large motorized wheelchairs, per Chapter 11B, and shall have a rated capacity of not less than as required by ASME A17.1, 1990.*

3008.1.4.2 *The rated speed of the platform shall not exceed 20 feet per minute (0.1 m/s) and the operating control shall be the constant pressure type designed so that it can be easily operated by a*

handicapped person with a disability. A push bar control designated for use by persons with disabilities or a control that provides equal usability shall be provided.

3008.1.4.3 The lift assembly shall be securely supported to maintain the platform in a level position and to prevent the loosening or displacement of any portion of the unit. All portions of the lift machinery shall be protected from intrusion of water.

3008.1.4.4 Solid, smooth enclosures provided as per ASME A17.1 shall be provided for the platform lift, which provides a reasonable degree of safety for persons with disabilities using the lift and others exposed to the lift, except as provided in Section 3008.1.4.7. Provide installation with safety devices that may be required per Sections 3008.1.4.5 through 3008.1.4.7.

3008.1.4.5 The top landing shall be equipped with a device, door or gate 42 inches (1067mm) in height. Each door or gate shall be equipped with both mechanical and electrical contacts which prevent operation of the platform unless they are properly closed.

3008.1.4.6 "Call-send" controls shall be provided at each landing in compliance with Chapter 11B. Where platform lifts are used to provide barrier-free path of travel requirements, they shall facilitate unassisted entry, operation and exit from the lift.

3008.1.4.7 When the enclosure required in Section 3008.1.4 is not provided because the lift serves only two landings, the underside of the lifting platform shall be equipped with a safety pan cover which will automatically shut off the lifting device should any obstruction under the platform interfere with its downward travel. The platform shall be provided with a 42-inch high (1067mm) solid gate at the bottom landing entrance. A smooth, vertical wall or fascia shall be provided from the sill of the top landing to the bottom landing level.

3008.1.4.8 A pit shall be provided to permit the platform to stop flush with the bottom landing level [which shall be protected by a runway enclosure that extends a minimum of 42 inches (1067mm) above the top landing level], or in lieu of a pit, a ramp shall be provided which does not exceed 1 unit vertical in 12 units horizontal (8.33%) run. The surface of the ramp shall have a nonskid surface. **Note:** See Chapter 11B.

EXCEPTION: If the horizontal run of the ramp does not exceed 15 inches (381mm), the maximum rise may be 2 1/2 inches (64mm), and shall in any case not exceed 2 units vertical in 12 units horizontal (16.7% slope).

3008.1.4.9 When the lift is hydraulically operated or is of the electric-hydraulic type, releveling switches shall be provided to keep the platform level with the landing at which it has been parked.

3008.1.4.10 Lift access landings. There shall be a level and clear floor area or landing at each floor or level served by special-access lifts to allow safe access to and exiting from the lift platform.

3008.1.4.10.1 Landing Size. In new construction, the minimum size of landings specified in this section shall be 60 inches by 60 inches (1524mm by 1524mm). Other dimensions may be substituted where it can be demonstrated that a person using a wheelchair measuring 30 inches by 48 inches (762mm by 1219mm) can enter and operate the lift safely.

3008.1.4.10.2 Relationship to the path of travel. Level and clear floor areas or landings as specified in this section shall be part of "accessible route of travel" requirements. See Section 217.4.

PLUMBING CODE

[For HCD 1] - Department of Housing and Community Development.

Application - Hotels, motels, lodging houses, apartment houses, dwellings, employee housing and factory-built housing.

Access and adaptability requirements for the physically disabled shall apply to all newly constructed privately-funded covered multifamily dwelling units in buildings having three or more dwelling units and privately-funded shelters intended for occupancy as a residence for homeless persons. These regulations do not apply to buildings containing less than four condominium dwelling units. These regulations do not apply to the repair, rehabilitation or additions to apartment houses, condominiums or time share units.

Enforcing Agency - Local Building Department or the Department of Housing and Community Development.

Authority Cited - Health and Safety Code Sections 17921, 50558 and 50559.

Reference - Health and Safety Code Sections 17000 through 17060, 17910 through 17990, 50558 and 50559.

Chapter 15 PLUMBING REQUIREMENTS FOR DESIGN SAFETY FOR ACCESSIBILITY

1501 General. This chapter contains building standards of the Division of the State Architect/Access Compliance and the Department of Housing and Community Development applicable to all buildings and facilities required to be accessible to and usable by persons with disabilities.

1504 Lavatories

1504.1 Lavatories adjacent to a wall shall be mounted with a minimum distance of 18 inches (457mm) to the center line of the fixture. All accessible lavatories shall be mounted with the rim or counter surface no higher than 34 inches (864mm) above the finish floor and with a clearance of at least 29 inches (737mm) from the floor to the bottom of the apron with knee clearance under the front lip extending a minimum of 30 inches (762mm) in width with 8 inches (203mm) minimum depth at the top. The clearance shall be the same width and shall be a minimum of 9 inches (229mm) high from the floor and a minimum of 17 inches (432mm) deep from the front of the lavatory.

EXCEPTION: In privately funded apartment houses, the space under the lavatory may be omitted provided the door swing does not encroach on clear spaces in front of the lavatory, water closet and bathtub-shower in the the accessible bathroom.

1504.2 Hot water and drain pipes accessible under lavatories shall be insulated or otherwise covered. There shall be no sharp or abrasive surfaces under lavatories.

1504.3 Faucet controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist.

The force required to activate controls shall be no greater than 5 lbf (22.2N). Lever operated, push-type and electronically controlled mechanisms are examples of acceptable designs. Self-closing valves are allowed if the faucet remains open for at least 10 seconds.

1507 Drinking fountains

1507.1a [For HCD 1] *If provided in covered multifamily buildings, drinking fountains and water coolers shall be on an accessible route. Wall-mounted and post-mounted cantilevered drinking fountains and water coolers shall have a clear knee space a minimum of 30 inches (762mm) in width and shall also have a minimum clear floor space 30 inches by 48 inches (762mm by 1219mm) to allow a person in a wheelchair to approach the unit facing forward.*

1507.2a *The spout shall provide a flow of water at least 4 inches high so as to allow the insertion of a cup or glass under the flow of water. The force required to activate controls shall be no greater than 5 lbf (22.2N).*

1508 Kitchen sinks

Faucet controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist. The force required to activate controls shall be no greater than 5 lbf (22.2N). Lever operated, push-type and electronically controlled mechanisms are examples of acceptable designs. Self-closing valves are allowed if the faucet remains open for at least 10 seconds.

ELECTRICAL CODE

089-7.9 [For HCD 1] - Department of Housing and Community Development.

Application - Hotels, motels, lodging houses, apartment houses, dwellings, employee housing and factory-built housing.

Access and adaptability requirements for the physically disabled shall apply to all newly constructed privately-funded covered multifamily dwelling units in buildings having three or more dwelling units and privately-funded shelters intended for occupancy as a residence for homeless persons. These regulations do not apply to buildings containing less than four condominium dwelling units. These regulations also do not apply to the repair, rehabilitation or additions to apartment houses, condominiums or time share units.

Enforcing Agency - Local Building Department or the Department of Housing and Community Development.

Authority Cited - Health and Safety code Sections 17921 and 50558.

Reference - Health and Safety Code Sections 17000 through 17060, 17910 through 17990, 50558 and 50559.

210-7(g.1) *When access for persons with physical disabilities is required in covered multifamily dwelling units, the center of receptacle outlets on branch circuit of 30 amperes or less shall be located no higher than 48 inches (1219mm), and no lower than 15 inches (381mm), above the floor. If the reach is over an obstruction (for example, a kitchen base cabinet) between 20 and 25 inches (508mm and 635mm) in depth, the maximum height is reduced to 44 inches (1118mm) for forward approach, or 46 inches (1168mm) for side approach, provided the obstruction is no more than 24 inches (610mm) in depth. Obstructions shall not extend more than 25 inches (635mm) from the wall beneath the receptacle.*

Outlets that do not satisfy these specifications are acceptable provided that comparable outlets, that perform the same functions, are provided within the same area and accessible.

380-8(c.1) *When access for people with physical disabilities is required in covered multifamily dwelling units, light switches, thermostats and other environmental controls shall be located no higher than 48 inches(1219mm), and no lower than 15 inches (381mm), above the floor. If the reach is over an obstruction (for example, a kitchen base cabinet) between 20 and 25 inches (508mm and 635mm) in depth, the maximum height is reduced to 44 inches (1118mm) for forward approach, or 46 inches (1168mm) for side approach, provided the obstruction is no more than 24 inches (610mm) in depth. Obstructions shall not extend more than 25 inches (635mm) from the wall beneath a control.*

Controls that do not satisfy these specifications are acceptable provided that comparable controls or outlets, that perform the same functions, are provided within the same area and are accessible.

Notes
