
RULES AND REGULATIONS OF THE ARCHITECTURAL ACCESS BOARD



THE COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF PUBLIC SAFETY

ARCHITECTURAL ACCESS BOARD

ROOM 1310

ONE ASHBURTON PLACE

BOSTON, MASSACHUSETTS 02108

617 - 727 - 0660, voice or TDD

or

1 - 800 - 828 - 7222

Deborah A. Ryan, Executive Director

The original illustrations and printing of the Rules and Regulations of the Architectural Access Board were developed by the Massachusetts Easter Seal Society with the cooperation of the Massachusetts Rehabilitation Commission and Independence Associates of Lakeville, Massachusetts.

The graphics were prepared by Leonard Markir, Architect, under a sub-contract with the Massachusetts Easter Seal Society subject to the supervision and review of the Architectural Access Board.

This reprinting of the Rules and Regulations of the Architectural Access Board was produced by the Adaptive Environments Center for use in *Design for Access: A Guidebook for Designing Barrier Free State and County Buildings*. The guidebook was developed for the Division of Capital Planning and Operations under contract #5887, Massachusetts State Project DCP 86-7.

Reprinted July, 1988.



The Commonwealth of Massachusetts
SECRETARY OF STATE

REGULATION FILING AND PUBLICATION

1. REGULATION CHAPTER NUMBER AND HEADING:

521 CMR

2. NAME OF AGENCY:

ARCHITECTURAL ACCESS BOARD

3. THIS DOCUMENT IS REPRINTED FROM THE CODE OF MASSACHUSETTS REGULATIONS AND CONTAINS THE FOLLOWING:

521 CMR ALL THE REGULATIONS OF THE BOARD

UNDER THE PROVISIONS OF MASSACHUSETTS GENERAL LAWS, CHAPTER 30A, SECTION 6 AND CHAPTER 233, SECTION 75 THIS DOCUMENT MAY BE USED AS EVIDENCE OF THE ORIGINAL DOCUMENTS ON FILE WITH THE STATE SECRETARY.

*Includes 1990 and 1992 amendments as inserts
see sections 18 and 30.5.4 and 35.9*

COMPILED AS IN FULL FORCE AND EFFECT

7/10/87

A TRUE COPY, ATTEST

Michael Joseph Connolly
MICHAEL JOSEPH CONNOLLY,

SECRETARY OF STATE

TABLE OF CONTENTS

PART A	ADMINISTRATIVE	
SECTION		PAGE
1	AUTHORITY	1
2	PURPOSE AND SCOPE	1
3	BUILDINGS UNDER JURISDICTION	2
4	APPEAL AND VARIANCE	3
5	DEFINITIONS	5
PART B	SPECIFIC BUILDINGS AND FACILITIES	
6	SHOPPING CENTERS	9
7	HOTELS, MOTELS AND INNS	10
8	LODGING OR RESIDENTIAL FACILITIES	10
9	RESIDENTIAL CONDOMINIUMS	11
10	COMMERCIAL CONDOMINIUMS	11
11	COMMERCIAL BUILDINGS	12
12	EDUCATIONAL INSTITUTIONS	12
13	HEALTH INSTITUTIONS OR FACILITIES	12
14	PLACES OF ASSEMBLY	13
15	DETENTION FACILITIES	15
16	HOUSES OF WORSHIP	15
17	RESTAURANTS	16
18	TRANSPORTATION TERMINALS	17
19	RECREATIONAL FACILITIES	18

PART C SITE DESIGN REQUIREMENTS

SECTION		PAGE
20	SITE ACCESS	21
21	CURB CUTS	22
22	WALKS AND OVERPASSES	25
23	PARKING LOTS AND GARAGES	26
24	EXTERIOR SIGNAGE	28

PART D ARCHITECTURAL DESIGN REQUIREMENTS

25	RAMPS	29
26	ENTRANCES	33
27	DOORS AND DOORWAYS	35
28	STAIRS	37
29	FLOORS	38
30	PUBLIC TOILET ROOMS	39
31	SHOWER ROOMS	45
32	RESIDENTIAL BATHROOMS	46
33	KITCHENS	49
34	BEDROOMS	53
35	ELEVATORS	54
36	DRINKING FOUNTAINS	57
37	PUBLIC TELEPHONES	59
38	CONTROLS	60
39	SIGNS, NUMBERS AND GRAPHICS	61
40	SYMBOL OF ACCESSIBILITY	62
	APPENDIX	63

PART A
administrative

AUTHORITY

1

- 1.1 These Rules and Regulations are promulgated by the Architectural Barriers Board pursuant to authority granted by General Laws, Chapter 22, Section 13A (see Appendix).
- 1.2 Under the provisions of Chapter 528 of the Acts of 1974, Section 2, all orders, rules and regulations duly made and all licenses, permits, certificates and approvals duly granted by the Board to Facilitate the Use of Public Buildings by the Physically Handicapped, which were in force immediately prior to the effective date of said chapter, shall continue to be in force, and the provisions thereof to be enforced until superseded, revised, rescinded or cancelled in accordance with the law by the Architectural Barriers Board.
- 1.3 These Rules and Regulations supersede and revise the Rules and Regulations of the Architectural Barriers Board, Form 16-1, filed with the Secretary of the Commonwealth on March 3, 1977, designated as 521 CMR, 1.00 et. seq.

PURPOSE AND SCOPE

2

- 2.1 These Rules and Regulations are designed to make public buildings accessible to, functional for, and safe for use by physically handicapped persons.
- 2.2 It is the intent of these Rules and Regulations to provide physically handicapped persons full and free use of all buildings and facilities so that all such persons may have the educational, employment, living and recreational opportunities necessary to be as self-sufficient as possible and to assume full responsibilities as citizens.
- 2.3 These Rules and Regulations are deemed to be a specialized code under Section 19 of Chapter 23B of the General Laws (see Appendix), the violation of which shall be subject to the provisions of Section 17 of said Chapter, shall constitute gross negligence for the purposes of clause (d) of Section 60G of Chapter 112 of the General Laws, and shall be subject to the additional powers granted to the Board by Section 13A of Chapter 22 of the General Laws.

3 BUILDINGS UNDER JURISDICTION

- 3.1 All construction, reconstruction, alteration, remodeling and changes of use of public buildings or other facilities open to the public shall conform to these Regulations.
- 3.2 The performance of any work which is governed by Section 21 (Curb Cuts) of these Regulations shall be considered construction and, therefore, must fully comply with these Regulations, except that Section 3.3 shall not apply.
- 3.3 The following formula shall apply and govern all construction (except construction of curb cuts under Section 21 of these Regulations), reconstruction and changes of use as defined in these Regulations:
- A. If the work being performed amounts to less than twenty-five percent (25%) of the one-hundred percent (100%) equalized assessed value of the building, and
 - 1. the cost of the work is less than \$50,000, only that portion of the work being performed shall comply with these Regulations;
 - 2. the cost of the work is \$50,000 or more, then that portion of the work being performed shall comply with these Regulations, and an accessible entrance and toilet usable by a person in a wheelchair also shall be provided.
 - B. If the work being performed amounts to more than twenty-five percent (25%) of the one-hundred percent (100%) equalized assessed value of the building, the entire facility shall comply with these Regulations.
- 3.4 The formula contained in Regulation 3.3 also shall apply to all remodeling and alteration as defined in these Regulations, provided that the work being performed amounts to more than five percent (5%) of the one-hundred percent (100%) equalized assessed value of the building, or a building permit is needed, or work is determined to be an alteration by a state or local building inspector.
- 3.5 When the work performed on a building is divided into separate phases or projects or under separate building permits, the total cost of such work in any twenty-four (24) month period shall be added together in applying the formula in this Regulation.
- 3.6 When a building is occupied by two (2) or more different uses, the Regulations applicable to each use shall apply to such parts of the building within that use; and if there are conflicting provisions, the Regulations securing greater accessibility shall apply.
- 3.7 Buildings owned, controlled or operated by private clubs are exempt from these Regulations. (See Section 5.15)
- 3.8 For registered historical buildings or districts, owned or protected by the government, the Board may allow alternate accessibility.

4.1 Commencement of Proceedings:

4.1.1 Variances: an owner, or his representative, (hereinafter referred to as "applicant"), who believes that full compliance with these Regulations is impracticable, may apply to the Board for a variance from such Regulations. Application for a variance shall be made upon a form provided by the Board for this purpose, shall contain such information as is required by the Board, and shall be signed by the applicant. Upon receipt of an application for variance, the Board:

4.1.1.1 Shall investigate the matter.

4.1.1.2 May grant the application with or without whatever conditions it deems appropriate or deny the application without a hearing. Any person aggrieved by the Board's action under this Regulation may request an adjudicatory hearing within 30 days of the decision.

4.1.1.3 May schedule a conference to consider the simplification or clarification of the issues; the possibility of an agreement disposing of all or any matters as may aid in the disposition of an adjudicatory proceeding. Those matters agreed upon by the parties shall be electronically recorded and/or reduced to writing and shall be signed by the parties, and shall thereafter constitute a part of the record.

4.1.1.4 May commence an adjudicatory hearing in accordance with the provisions of M.G.L. c. 30A and the Standard Adjudicatory Rules of Practice and Procedure, 801 CMR 1.01 or 1.02.

4.1.2 Complaints: Any person (hereinafter referred to as "complainant"), who has knowledge or evidence that any other person has not complied or is not complying with any of these Regulations, may complain in writing to the Board. Upon receipt of a complaint, the Board:

4.1.2.1 Shall investigate the complaint.

4.1.2.2 May schedule a conference to consider the simplification or clarification of the issues; the possibility of obtaining stipulations and agreements; the possibility of an agreement disposing of all or any issues in dispute; and any other matters as may aid in the disposition of an adjudicatory proceeding. Those matters agreed upon by the parties shall be electronically recorded and/or reduced to writing and shall be signed by the parties, and shall thereafter constitute a part of the record.

4.1.2.3 May commence an adjudicatory hearing in accordance with the provisions of M.G.L. c. 30A and the Standard Adjudicatory Rules of Practice and Procedure, 801 CMR 1.01 or 1.02.

4.1.2.4 May dismiss a complaint at any time.

4.2 Hearings: All adjudicatory hearings shall be conducted in accordance with the provisions of M.G.L. c. 30A and the Standard Adjudicatory Rules of Practice and Procedure, 801 CMR 1.01 or 1.02.

4.2.1 Hearings will be scheduled within 60 days of receipt of a request for an adjudicatory hearing unless the Board in its discretion extends such time for good cause shown. The Board will schedule hearings on two weeks notice unless it deems a shorter period necessary.

4.2.2 In proceedings under CMR 1.02, the Board may provide for mandatory discovery.

4.2.3 The Board will issue a decision within 21 days after the hearing unless the Board in its discretion extends such time.

4.2.4 When the Board deems it necessary and subject to appropriation, the services of an independent expert may be sought.

4.3 Reopening Hearing, Motion for Reconsideration

4.3.1 The Board on its own motion, or on motion of any applicant, complainant or aggrieved person, may reopen the hearing in order to receive additional evidence which was not reasonably

available at the time of the hearing. The request for reopening shall indicate what new evidence will be presented.

4.3.2 Notice of a decision by the Board to reopen a hearing in order to take further testimony or to receive further evidence shall be given by the Board to all persons who appeared at the hearing.

4.3.3 An applicant, complainant or aggrieved person may file a motion for reconsideration, setting forth the grounds or statutory provisions relied upon to sustain the motion, within 10 days from the date the final decision is mailed by the Board to the applicant or complainant.

4.4 Appeal: Any party aggrieved by a final decision of the Board may appeal such decision in accordance with the provisions of M.G.L. c. 30A, s. 14.

4.5 Advisory Opinions: The Board may issue advisory opinions concerning the interpretation or applicability of these Rules and Regulations upon the written request of an owner, or his representative. Advisory opinions issued by the Board may be relied upon the persons requesting them, as well as by any agency, or official of a city, town or region.

4.6 Petition for Adoption of Regulations;

4.6.1 Any interested person or his attorney may at any time petition the Board to adopt, amend or repeal any regulation. The petition shall be addressed to the Board and sent by mail or delivered in person during normal business hours. All petitions shall be signed by the petitioner or his attorney, contain his address or the address of his attorney, and set forth clearly and concisely the text of the proposed regulation. The petition may be accompanied by any supporting data, views, or arguments. A member of the Board may make a written recommendation that a regulation be adopted, amended or repealed.

4.6.2 Initial Procedure: Within sixty (60) days of the receipt of a petition or recommendation, the Board shall hold a meeting to determine whether to schedule the petition or recommendation for further proceedings in accordance with M.G.L. c. 30A. If the regulation has been presented by petition the Board shall notify the petitioner within ten (10) days after making such determination.

4.6.3 Procedure for the Adoption, Amendment or Repeal of Regulations:

4.6.3.1 The procedures for the adoption, amendment or repeal of any regulation shall comply with M.G.L. c. 30A.

4.6.3.2 Where no public hearing is required, the Board may afford any interested person or his duly authorized representative, or both, an opportunity to present data, views or arguments orally before the Board during the meeting at which the proposed action is to be considered. If the Board finds that such oral presentation is unnecessary or impracticable, it may require written presentation.

4.6.3.3 Where a public hearing is required, the Board shall afford any interested person or his duly authorized representative, or both, an opportunity to present orally, statements and arguments. In its discretion, the Board may limit the length of oral presentation.

4.6.4 Filing of Regulation: Upon the adoption of a regulation, an attested copy shall be filed with the Secretary of State together with a citation of the statutory authority under which the regulation has been promulgated. The regulation shall take effect upon filing unless a later date is required by law or is specified by the Board in the regulation.

- 5.1 As used in these Regulations, the following words shall have the meaning set forth in this Section unless the context otherwise requires.
- 5.2 "ACCESSIBLE": The state of a site, building, facility, or portion thereof that complies with the section and any rules or regulations promulgated hereunder and that can be approached, entered and used by physically handicapped persons.
- 5.3 "ACCESSIBLE ROUTE/PATH OF TRAVEL": A continuous, unobstructed path connecting all accessible elements and spaces within or between buildings, facilities or walks, that can be negotiated by a disabled person using a wheelchair, and which also is safe and usable by people with other disabilities.
- 5.4 "ALTERATION": External or internal rehabilitation or renovation for which a building permit is needed or for which the cost of such rehabilitation or renovation equals or exceeds five percent (5%) of the full and fair cash value of the building, or any work determined to be alteration by a state or local building inspector.
- 5.5 "BOARD": The "Architectural Access Board" within the Executive Office of Public Safety.
- 5.6 "BUILDING": A structure enclosed within exterior walls or fire walls, built of a combination of any materials, whether portable or fixed, to form a structure for the shelter of persons, animals or property. The word "building" shall be construed where the context requires as though followed by the words "or part or parts thereof."
- 5.7 "CHANGE OF USE": Varying the use of a building from a private use to one that is open to and used by the public.
- 5.8 "CONSTRUCTION": Work for which a building permit is required, work determined to be construction by a state or local building inspector, or work for which a certificate of occupancy is necessary upon completion.
- 5.9 "FINAL DECISION": Determination of the Board, arrived at after consideration of the facts brought to its attention in accordance with these Regulations, which determination disposes of the issues before the Board in the pending action on their merits.
- 5.10 "FULL AND FAIR CASH VALUE OF THE BUILDING": The assessed valuation of the building as recorded in the Assessor's Office of the municipality as equalized at one-hundred percent (100%) valuation; or, if no assessed value exists, either the fair market value, or for buildings constructed by the Commonwealth or any political subdivision thereof, the replacement cost of the building.
- 5.10.1 The one-hundred percent (100%) equalized assessed value shall be based upon Massachusetts Department of Corporations and Taxation's most recent determination of the particular city's or town's assessment ratio.

Example: Town X has an assessment ratio of forty percent (40%), the particular building in question is assessed at \$200,000.00; to determine the equalized assessed value of this building, divide \$200,000.00 by .40. The equalized assessed value equals \$500,000.00.

- 5.10.2 When part of a building is subject to these Regulations, the full and fair cash value shall be based on the percentage of the full and fair cash value of the whole which equals the ratio of the square footage of the part of the building to the square footage of the whole building; provided that if the Board determines the application of this formula to cause an inequitable result, the Board may otherwise calculate the full and fair cash value of the part of a building at issue.

Example: Where the whole building is 100,000 square feet, the part in question is 10,000 square feet, and the equalized value of the whole is \$1,000,000.00, the full and fair cash value of the part is \$100,000.00.

- 5.11 "IMPRACTICABILITY: a) Compliance with the Regulations would be technologically unfeasible, or b) compliance with the Regulations would result in excessive and unreasonable costs without any substantial benefit to physically handicapped persons.
- 5.12 "MEANS OF EGRESS" : A continuous and unobstructed path of travel from any point in a building or facility to a public space. A means of egress comprises the vertical and horizontal means of travel and shall include sidewalks, walkways, sidewalk ramps, intervening room spaces, doors, hallways, corridors, passageways, balconies, ramps, stairs, enclosures, lobbies, escalators, horizontal exits, courts and yards. Such means of egress shall be in no instance less than thirty-six (36) inches wide, except as provided in these Regulations.
- 5.13 "NON-SLIP": A condition in which a rubber heel, cane tip or crutch tip will not slip when pressure is applied at an angle of seventy (70) degrees on a level wet surface.
- 5.14 "PHYSICALLY HANDICAPPED PERSONS": Any person who has a disability that substantially limits one or more major life activities, including but not limited to, such functions as performing manual tasks, walking, seeing, hearing, speaking, breathing, learning, and working. Physically handicapped persons shall include, but not be limited to, persons who have an inability to walk, difficulty walking, hearing disabilities, lack of coordination, reaching and manipulation disabilities, lack of stamina, difficulty interpreting and reacting to sensory information and extremes in physical size.

5.15 "PRIVATE CLUB": A voluntary association (incorporated, or unincorporated) of private individuals, as distinct from the public generally, for common purposes of a social, literary, investment, political fellowship, religious, athletic or like nature, or the promotion of such common purposes, which association is jointly supported and the membership to which is conferred and carries the privilege of use of club facilities. For the purposes of these Regulations, a club is not "private" if its membership or if any of its facilities are open to, or are made available to the public.

5.16 "PUBLIC BUILDING": The following shall be under the jurisdiction of these Rules and Regulations.

5.16.1 A BUILDING CONSTRUCTED BY THE COMMONWEALTH OR ANY OR ANY POLITICAL SUBDIVISION THEREOF WITH PUBLIC FUNDS AND OPEN TO PUBLIC USE, INCLUDING BUT NOT LIMITED TO THOSE CONSTRUCTED BY:

5.16.1.1 public housing authorities

5.16.1.2 the Massachusetts Port Authority

5.16.1.3 the Massachusetts Parking Authority

5.16.1.4 the Massachusetts Turnpike Authority

5.16.1.5 the Massachusetts Bay Transportation Authority

5.16.1.6 building authorities of any public educational institution or their successors

5.16.2 PRIVATELY AND PUBLICALLY FINANCED BUILDINGS THAT ARE OPEN TO AND USED BY THE PUBLIC. PRIVATELY AND PUBLICALLY FINANCED BUILDINGS SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:

5.16.2.1 transportation terminals

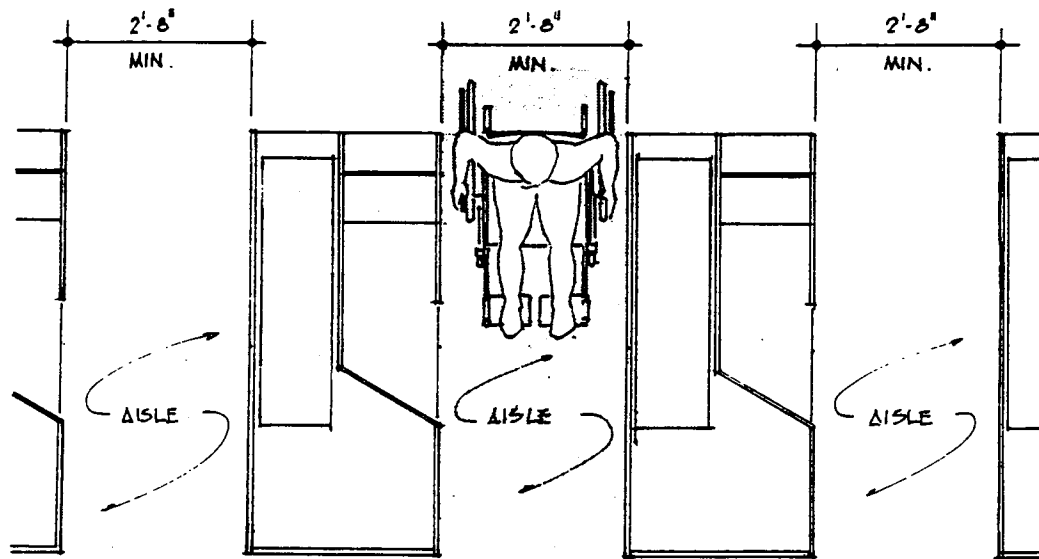
5.16.2.2 institutional buildings

- 5.16.2.3 commercial buildings
 - 5.16.2.4 buildings having places of assembly with a capacity of more than one-hundred-fifty (150) persons
 - 5.16.2.5 hotels
 - 5.16.2.6 motels
 - 5.16.2.7 dormitories
 - 5.16.2.8 public parking areas or lots with a capacity of twenty-five (25) or more automobiles
 - 5.16.2.9 public sidewalks and ways
 - 5.16.2.10 public areas of apartment buildings and condominiums containing twelve (12) or more units
 - 5.16.2.11 public areas of funeral homes
 - 5.16.2.12 public rest rooms and public areas of shopping centers and restaurants
- 5.17 "RECONSTRUCTION": The tearing down, removal, demolition, or replacement of a public building or part of a public building.
- 5.18 "REMODELING": Modification beyond an interior decoration or involving any structural change, or the redecorating of a public building for which the cost of such refurbishing, updating or redecorating equals or exceeds five percent (5%) of the full and fair cash value of the building.
- 5.19 "SIDEWALK": A prepared walk within a street right of way.
- 5.20 "TACTILE WARNING": A surface texture applied to or built into walking surfaces or other elements to warn visually impaired persons of hazards in the path of travel.
- 5.21 "USE": Purpose for which the building is designed or intended.
- 5.22 "WALK (WALKWAY)": An exterior or interior pathway with a prepared surface intended for pedestrian use, including general pedestrian areas such as plazas and courts.
- 5.23 "VARIANCE": Modification of or substitution for a Rule or Regulation.

PART B

**specific buildings:
in addition to parts C and D
of these regulations, the
following rules and regulations
shall apply:**

- 6.1 Public areas of shopping centers shall include, but shall not be limited to, areas where the service or product of the establishment is offered to the public, public toilet rooms provided for clientele in said areas, walks, stairs, elevators, primary entrances, and parking facilities.
- 6.2 Stores in shopping centers shall provide the following:
- 6.2.1 Aisles shall have a minimum clear width of thirty-six (36) inches.
- 6.2.2 All check-out lanes shall have a minimum clear width of thirty-two (32) inches.



PLAN - CHECK OUT LANES

- 6.2.3 Wherever a turnstile is provided, an adjacent, alternate unlocked gate or door shall be provided, having a minimum width of thirty-six (36) inches.
- 6.2.4 Wherever dressing rooms are provided, at least one such room shall be at least five (5) feet by six (6) feet, and shall have a thirty-four (34) inch clear opening and shall contain a seat. An unobstructed path of travel shall lead to any such dressing room.
- 6.2.5 Public toilet rooms shall be accessible.
- 6.2.6 Shopping cart barriers are not allowed.

7 HOTELS, MOTELS, INNS

- 7.1 In hotels, motels or inns containing twenty (20) or more units, at least five percent (5%) of the units and the public areas shall be accessible.
- 7.2 In applying the five percent (5%) rule contained in Section 7.1 to hotels, motels and inns which consist of more than one building, all of the units in the entire complex or project shall be added together.
- 7.3 The public areas in hotels, motels and inns are the general public function areas, recreation areas, health facilities, pools, meeting areas, restaurants, public toilet rooms, walks, elevators, primary entrances as well as the stairs and corridors leading to accessible units.
- 7.4 At least one of each of the services provided in each location in said hotel, motel or inn, such as vending areas, laundry rooms, public telephones, etc., shall be accessible.
- 7.5 Units designed for the handicapped shall be proportionally distributed as to size, quality and price as all other units in the facility.

8 LODGING, RESIDENTIAL FACILITIES

- 8.1 In apartment buildings, lodging and residential facilities for rent, hire or lease, containing twenty (20) or more units, at least five percent (5%) of the units and the public areas shall be made accessible.
- 8.2 In applying the five percent (5%) rule contained in Section 8.1 to apartment buildings, lodging or residential facilities which consist of more than one building, all of the units in the entire complex or project shall be added together.
- 8.3 Units designed for handicapped persons shall be proportionally distributed as to the number of bedrooms, size, quality and price as all other units in the facility.
- 8.4 The public areas in apartment buildings, lodging and residential facilities are the general public function areas, recreation areas, health facilities, pools, meeting areas, community facilities, restaurants, public toilet rooms, laundry areas, trash areas, storage areas and mailboxes, walks, elevators, primary entrances as well as the stairs and corridors leading to accessible units.

- 8.5 The public areas of apartment buildings, lodging and residential facilities containing twelve(12) or more units shall comply with these Regulations. They shall include walks, primary entrances, vestibules, lobbies and foyers, if they are open to the public.
- 8.6 In housing for the elderly or in a building which is predominantly used to house elderly persons, Section 27.9 of these Regulations shall apply to all units.

RESIDENTIAL CONDOMINIUMS 9

- 9.1 The public areas of privately-owned condominiums containing twelve (12) or more units shall comply with these Regulations. They shall include walks, primary entrances, front vestibules, lobbies and foyers, if they are open to the public.

COMMERCIAL CONDOMINIUMS 10

- 10.1 Those spaces in commercial condominiums where the service or product is offered to the public, and those premises in which a member of the public may enter in a commercial condominium shall comply with these regulations. For further definition of commercial condominiums, see Section 11 of these Regulations.

11 COMMERCIAL BUILDINGS

- 11.1 Commercial buildings and commercial condominiums are public buildings within the means of these regulations and shall include buildings classified in Use Group B, Businesses, and Use Group M, Mercantile (as defined in Sections 204 and 208 in the Massachusetts State Building Code, 780 CMR) which are not otherwise subject to these Regulations, where the service or product is offered to the public and those premises in which a member of the public may enter. Commercial buildings and commercial condominiums shall comply with these regulations.
- 11.2 In commercial buildings and commercial condominiums classified in Use Group B, which consist of 5,000 gross square feet or less, vertical access is not required provided that the main level of the building is fully accessible to physically handicapped persons; provided further, however, that this subsection shall not apply to new construction.
- 11.3 Commercial buildings and commercial condominiums shall be subject to all applicable provisions of Section 6 of these Regulations.
- 11.4 Subsection 11.2 of these Regulations shall expire on January 1, 1989.

12 EDUCATIONAL INSTITUTIONS

- 12.1 Educational institutions are public buildings within the meaning of these Regulations, and shall include, but not be limited to, libraries, public and private schools, pre-schools, day care facilities, colleges and universities, and training facilities.
- 12.2 Dormitories and administrative offices of educational institutions shall comply with these Regulations.
- 12.3 Amphitheaters and lecture halls of educational institutions shall also comply with Section 14 with the exception of capacity.
- 12.4 Library aisles between fixed stacks shall have a minimum clear width of thirty-six (36) inches and preferably forty-two (42) inches.

13 HEALTH INSTITUTIONS/FACILITIES

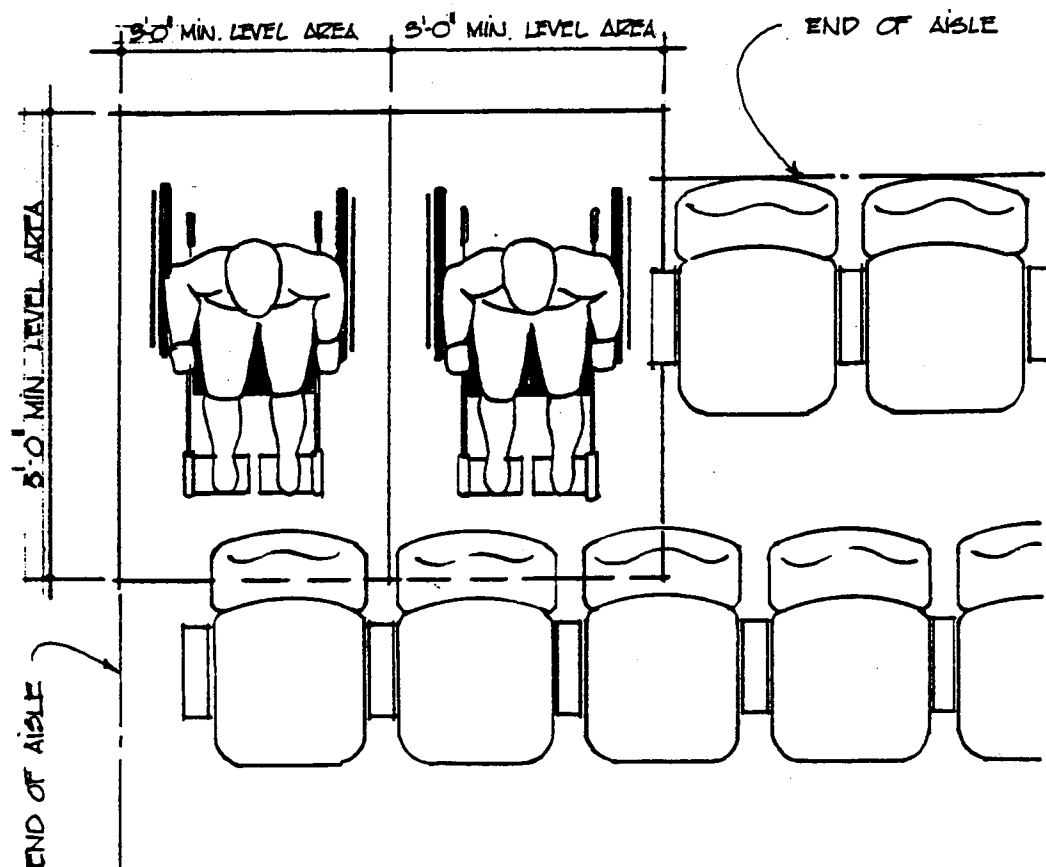
- 13.1 Health institutions or facilities are buildings in which medical service or treatment is provided, and shall include, but not be limited to, hospitals, clinics, dental offices, sanatoriums, alcohol and drug detoxification centers, and buildings in which one or more doctors provide health services similar to those provided by any of the above.

- 13.2 Where in-patient medical care is provided, all bedrooms and bathrooms shall have clear door openings of at least thirty-four (34) inches. At least five percent (5%), or a minimum of two (2) per floor, whichever is greater, of patient bedrooms with bathrooms shall have bathrooms fully accessible in accordance with Section 30 or 32.
- 13.3 Where toilet rooms are provided, at least one water closet and one lavatory must be accessible.
- 13.4 Where showers or tubs are provided, at least one per floor must be accessible.
- 13.5 All examination and treatment rooms, and waiting or visiting areas must comply with these Regulations.

PLACES OF ASSEMBLY

14

- 14.1 Places of assembly with a capacity of more than one hundred and fifty (150) persons shall include but not be limited to theaters, auditoriums, armories, lecture halls, arenas, stadiums, etc., and shall comply with these Regulations. Appurtenant areas, including but not limited to lobbies, ticket offices, seating, stages, backstage areas, dressing rooms, showers and green rooms shall also be accessible.
- 14.2 NUMBER: The minimum number of spectator spaces that shall be accessible shall be computed in accordance with the table in Section 23.4 of these Regulations.
- 14.3 SPACE: Each wheelchair space shall be level and shall be sixty (60) inches long and thirty-six (36) inches wide. In lieu of clear space, sections of fixed seating which can be readily unfastened and removed may be provided.



PLAN - ASSEMBLY SEATING

14.4

LOCATION: Seat locations of wheelchair spaces shall be proportionally distributed as to price ranges and locations. Such designated spaces shall in no way interfere with the required exit facilities. The location of wheelchair spaces shall also have an unobstructed path of travel leading to such spaces.

DETENTION FACILITIES

15

- 15.1 Such facilities shall include, but not be limited to, police stations, and buildings designated for the detention, incarceration, and/or treatment of juveniles and/or adults committed by court or voluntary process.
- 15.1.1 Areas for visitation and consultation shall be accessible and shall have an accessible path of travel leading to such areas from the entrance to the facility.
- 15.1.2 Public areas of such facilities, and areas for visitation and consultation shall comply with Parts C and D of these Regulations.
- 15.1.3 Most secure areas are exempt from these regulations, provided that some portion of the living, work, program and recreational areas are accessible to physically handicapped inmates, patients and detainees.

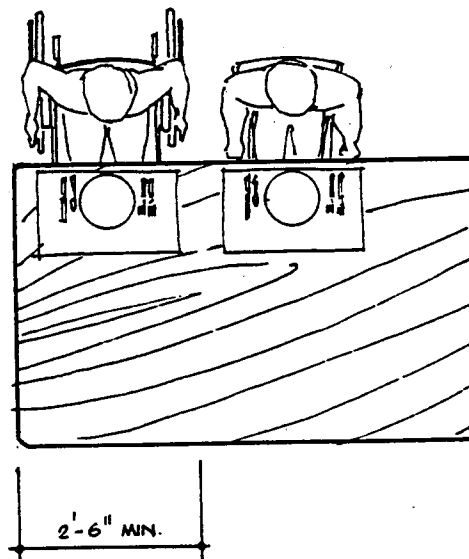
HOUSES OF WORSHIP

16

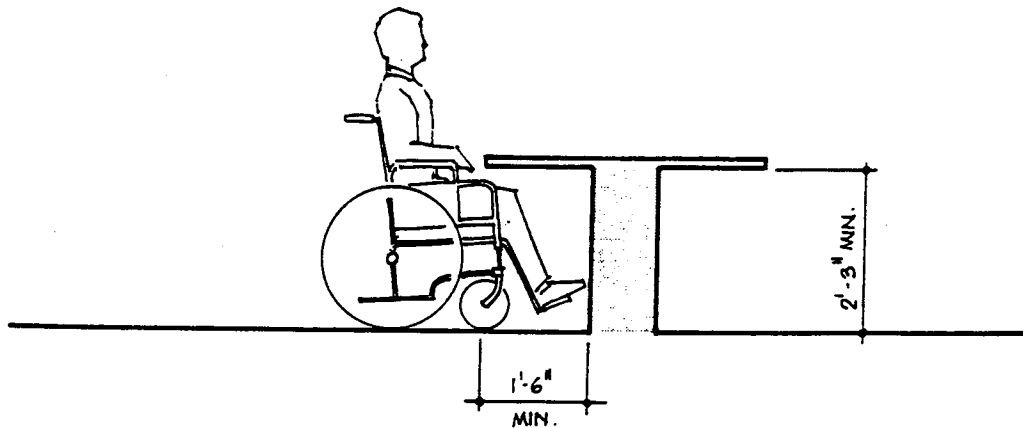
- 16.1 Houses of Worship, including but not limited to churches, chapels, synagogues, administrative offices, and religious meeting halls, shall comply with the following:
- 16.2 Section 14.2, 14.3 and 14.4 (except for provisions concerning price ranges) shall apply to Houses of Worship.
- 16.3 Where toilets are provided, an accessible toilet or private lavatory shall be provided on each accessible level.

17 RESTAURANTS

- 17.1 Restaurants shall include, but not be limited to, cafeterias, lounges, bars, and other places open to the public where food or beverages are served.
- 17.2 Each floor shall be of a common level or be connected by ramps.
- 17.3 There shall be an accessible path of travel through the dining areas at least thirty-six (36) inches wide.
- 17.4 Cafeterias:
- 17.4.1 Food selection aisles shall provide a minimum clear width of thirty-six (36) inches, including exit and entrance.
- 17.4.2 Cutlery and food display racks shall be visible and within reach of persons seated in wheelchairs.
- 17.5 Tables shall provide clear space under the table top not less than thirty (30) inches wide per seating space, and not less than twenty-seven (27) inches clear height to a depth of eighteen (18) inches from the edge of the table.



PLAN



ELEVATION - TABLE

- 17.6 Where seating is fixed, the number of accessible tables shall be computed by the formula contained in Section 23.4 and shall be proportionally distributed.

TRANSPORTATION TERMINALS 18

- 18.1 Transportation terminals shall include, but not be limited to, airports, bus and train stations, subway stops, commuter rail and rapid transit stations.
- 18.2 Overhead protection and/or snow melting provisions shall be incorporated in the immediate exterior area of the terminal entrances.
- 18.3 To facilitate access to subway cars, airplanes, buses, trains, and other means of public transportation, the following shall be provided:
- 18.3.1 The distance between platform and vehicle at boarding platforms shall not exceed four (4) inches in the horizontal plane and two (2) inches in the vertical plane
- 18.3.2 The edge of the platforms shall have a band of a different texture and color of at least eighteen (18) inches in width, warning of a danger zone.

- 18.4 Where provided, ancillary facilities such as public toilets, public telephones, etc., shall comply with these regulations, and such facilities shall be identified as accessible.
- 18.5 At least one fare transaction area and entry/exit gate shall be accessible to the handicapped and shall be a minimum of thirty-six (36) inches wide.
- 18.6 To facilitate access to commuter rail vehicles, the following shall be provided.

- 18.6.1 At newly constructed stations serving commuter rail coaches, access shall be provided to all passengers and to all coaches of the train by means of a raised platform. Such platforms shall be at least five feet (5') in clear width and shall have overhead shelter from rain and snow along a total of at least one hundred and fifty feet (150') of their length and at all access ramps.

For the purposes of this section, a newly constructed station is defined as any station stop where passenger service has not heretofore been provided or where no regularly scheduled passenger service has been provided for five (5) or more years.

- 18.6.2 Any reconstructed, altered or remodeled stations serving commuter rail coaches shall afford access to at least two coaches of a train by means of a raised access platform. Such platforms shall be at least forty-five feet (45') in length and at least five feet (5') in clear width and shall, along their full length and at all access ramps provide overhead shelter from rain and snow. For the purposes of this section, "reconstructed" shall have the definition of "reconstruction" in 521 C.M.R. Section 5.17, "altered" shall have the definition of "alteration" in 521 C.M.R. Section 5.4, and "remodeled" shall have the definition of "remodeling" in 521 C.M.R. Section 5.18.
- 18.6.3 The distance between the raised platforms described in 18.6.1 or the raised access platform described in 18.6.2 and the floor of the entrance to the rail coach shall not exceed four inches (4") in the horizontal plane and two inches (2") in the vertical plane. Where construction constraints result in platform to vehicle gaps that exceed these standards, a bridge plate designed to eliminate such gaps shall be made available at every door of the vehicle where passengers are boarding or disembarking.
- 18.6.4 The edge of all platforms at newly constructed, reconstructed, altered or remodeled stations shall have a yellow band of a different texture, distinguishable underfoot, and at least twenty-four inches (24") in width, warning of a danger zone.
- 18.6.5 At all newly constructed, reconstructed, altered or remodeled stations, an unobstructed continuous path of travel shall connect all terminal buildings or station houses, platforms, parking areas designated for use by handicapped persons and street entrances.
- 18.6.6 Within the station there shall be seating at intervals not to exceed two hundred fifty (250) feet.

19 RECREATIONAL FACILITIES

19.1 Recreational facilities shall include, but not limited to, courts, rinks, swimming pools, gymnasiums, stadiums, health and sports clubs, playgrounds, zoos, fairgrounds, beaches, piers, parks and campsites.

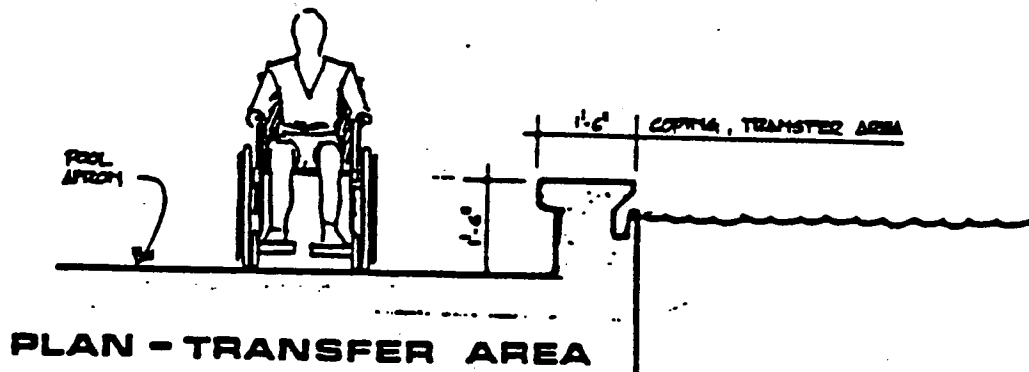
19.2 Swimming pools in all locations subject to these Regulations shall be accessible.

19.2.1 Accessibility to such pools shall be by means of any of the following:

19.2.1.1 A thirty-four (34) inch wide ramp with a non-slip surface extending into the shallow end of the pool. Such ramps shall have a slope not exceeding one-in-six (1:6), and shall have handrails on both sides, or;

19.2.1.2 A lifting device, or;

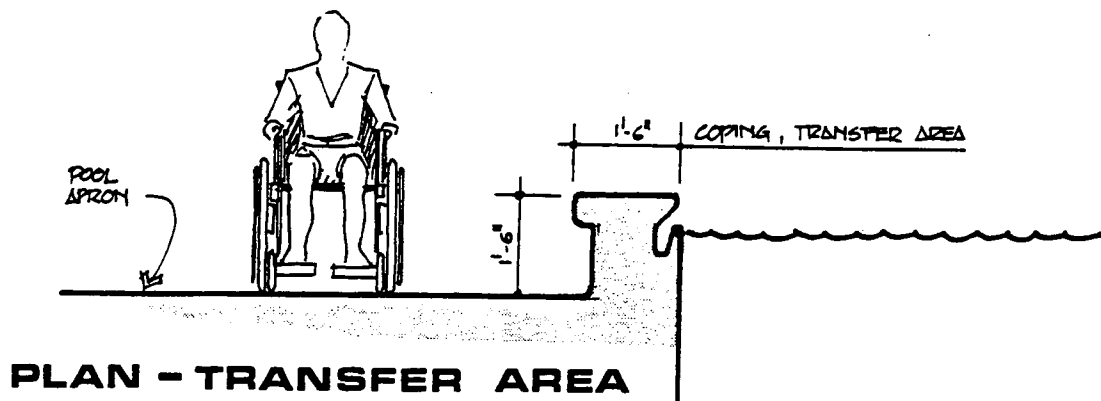
19.2.1.3 When the water level of the pool is above the level of the path of travel, which forms a raised coping, the coping may be utilized as a transfer area, if it is constructed eighteen (18) inches above the path of travel and is eighteen (18) inches wide minimum.



19.2.2 There shall be an unobstructed path of travel not less than forty-eight (48) inches wide around such pools. These paths shall have a surface that is non-slip.

19.3 Bowling alleys shall provide an accessible path of travel to at least two (2) adjacent lanes.

19.4 Locker rooms, shower facilities, and spectator areas in recreational facilities shall comply with these Regulations.



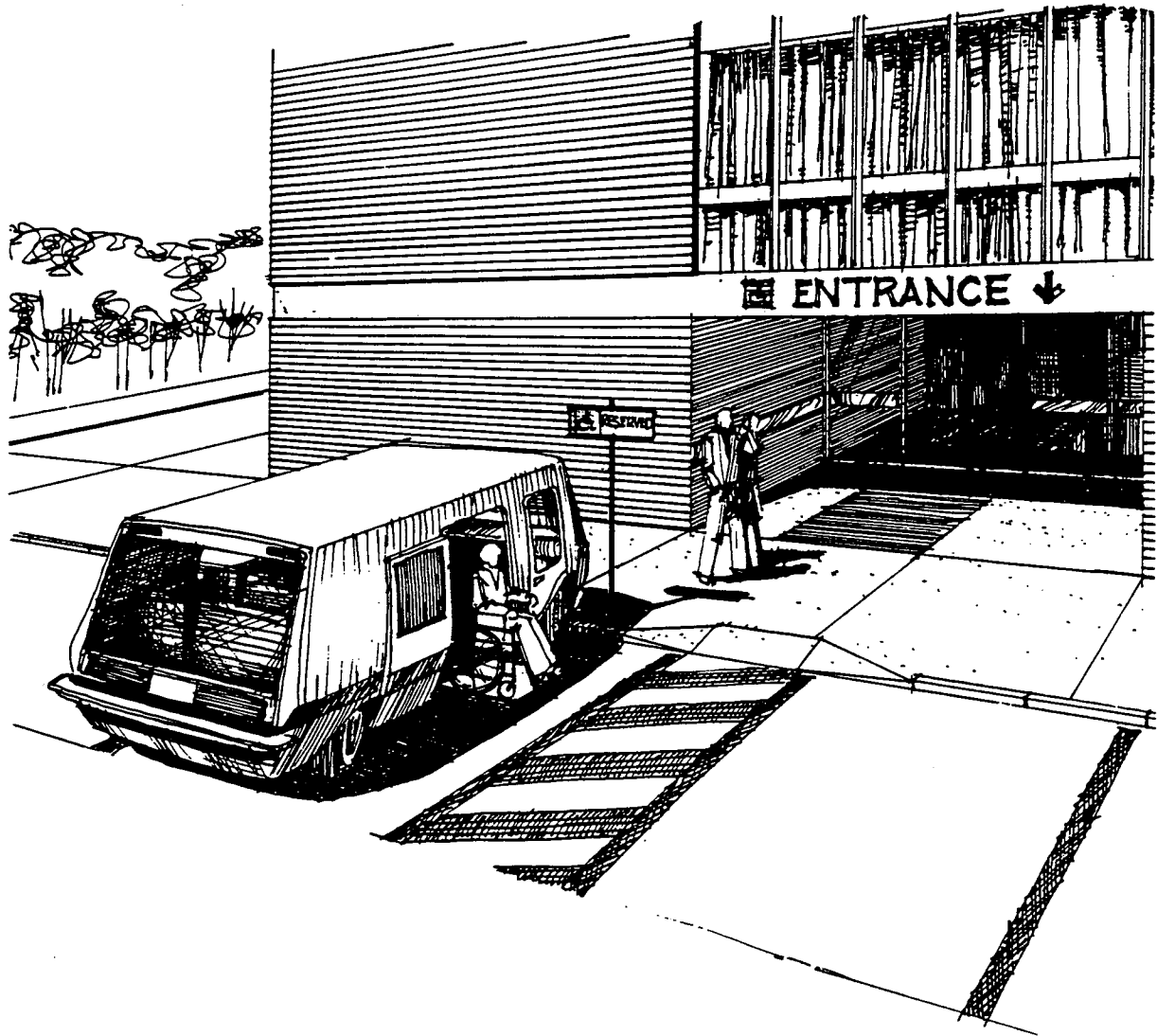
19.2.2 There shall be an unobstructed path of travel not less than forty-eight (48) inches wide around such pools. These paths shall have a surface that is non-slip.

- 19.3 Bowling alleys shall provide an accessible path of travel to at least two (2) adjacent lanes.
- 19.4 Locker rooms, shower facilities, and spectator areas in recreational facilities shall comply with these Regulations.

PART C

site design requirements

- 20.1 Wherever a passenger loading zone or parking area is provided, an accessible path of travel to an accessible entrance is required.
- 20.2 Disembarking areas for vehicles shall be provided at an accessible entrance.



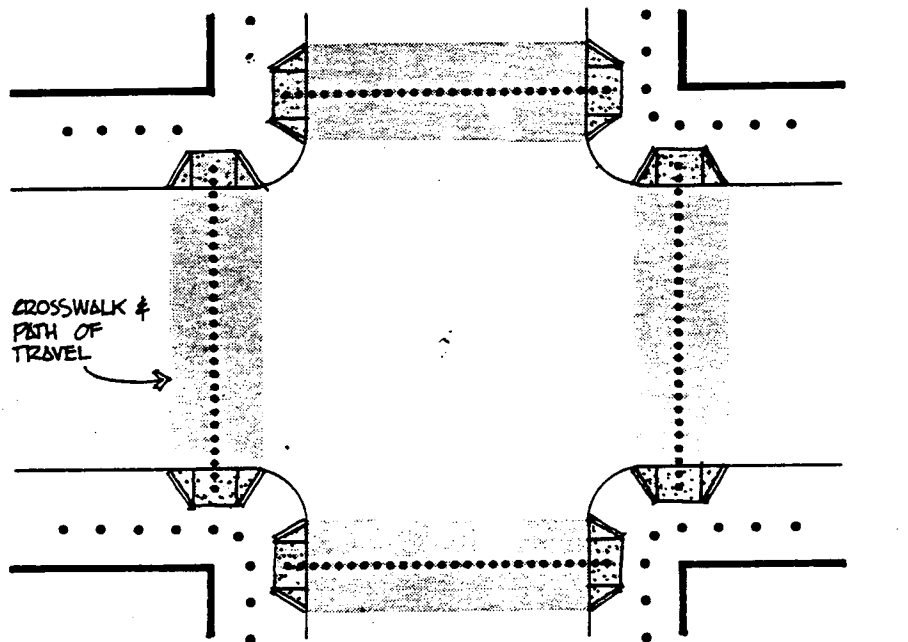
- 20.3 Topography or grounds shall be graded so as to attain a level area (pitched to drain) at each entrance, and shall be paved or hard packed.
- 20.4 Site grading and drainage of topography shall be designed so as to minimize pooling of water or accumulation of ice or flow of water across sidewalks and driveways.

21 CURB CUTS

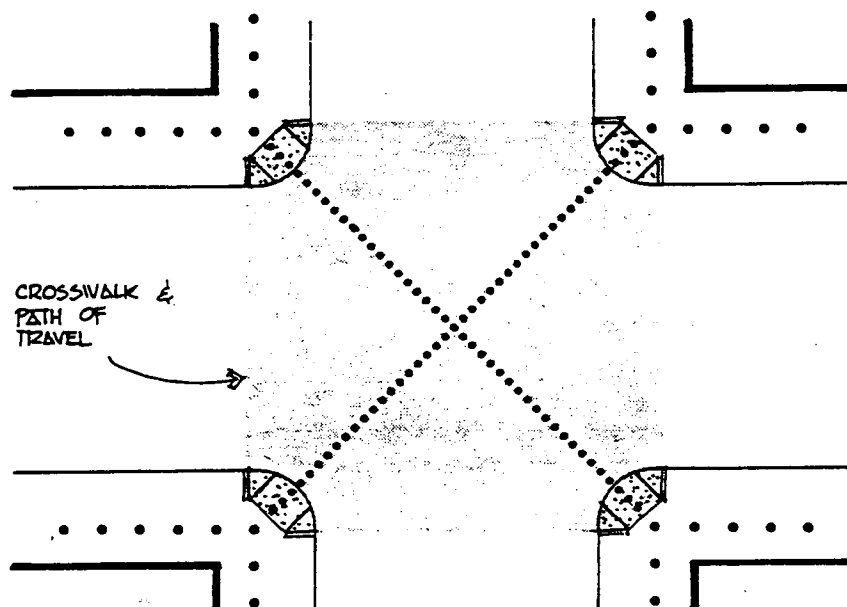
21.1

Curb cuts (sidewalk ramps): Whenever sidewalks or curbs on streets and ways are constructed, reconstructed or repaired, curb cuts are required. Curb cuts shall comply with the following:

21.1.1 Location: There shall be curb cuts at each corner of each intersection, located within the crosswalk and/or the pedestrian path of travel.

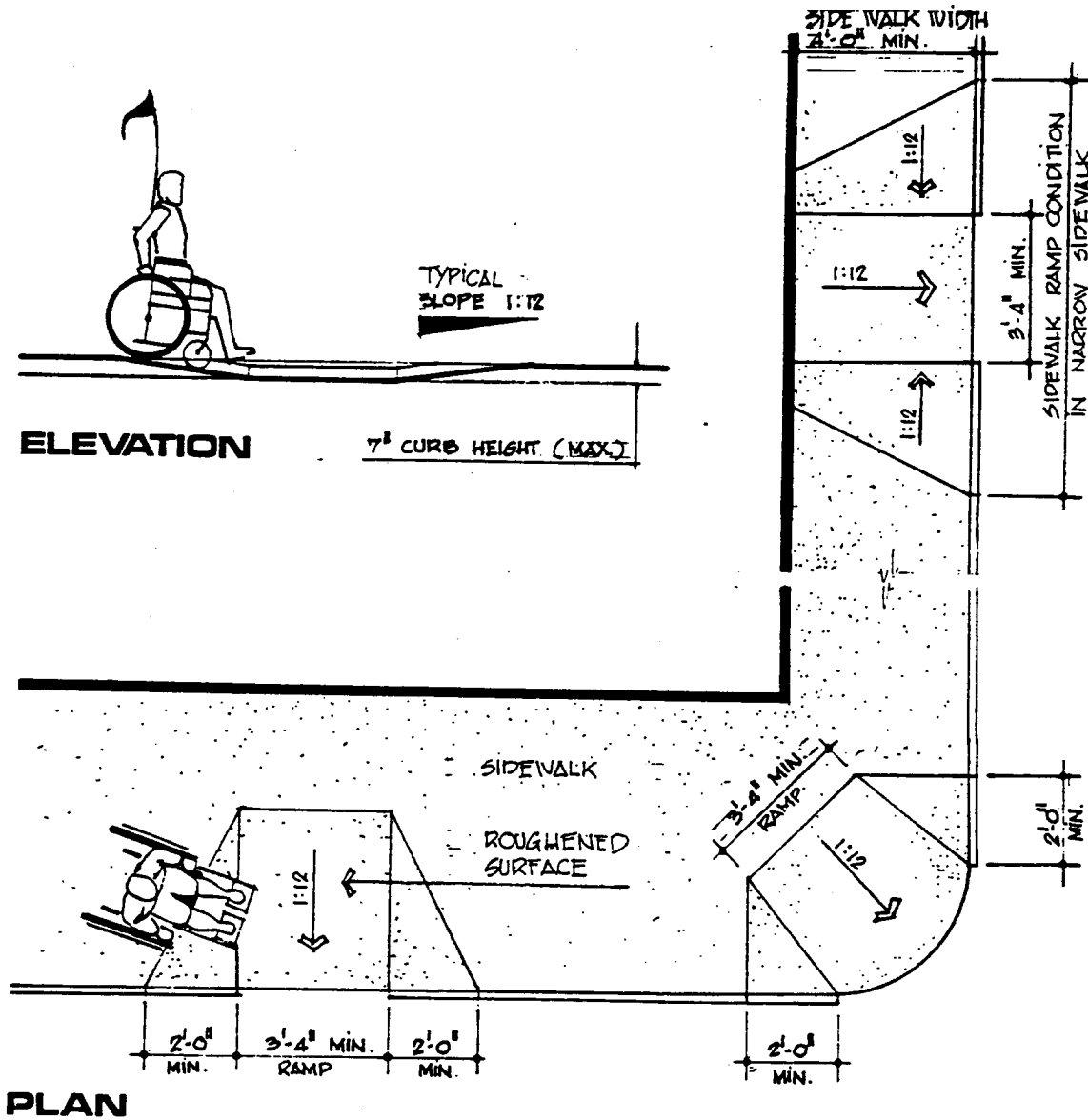


PLAN - CROSSWALK



PLAN - PATH OF TRAVEL

- 21.1.2 When curbs or sidewalks are constructed or reconstructed on one side of the street, curb cuts shall also be installed on the opposite sides of the street, where there is a pedestrian path of travel.

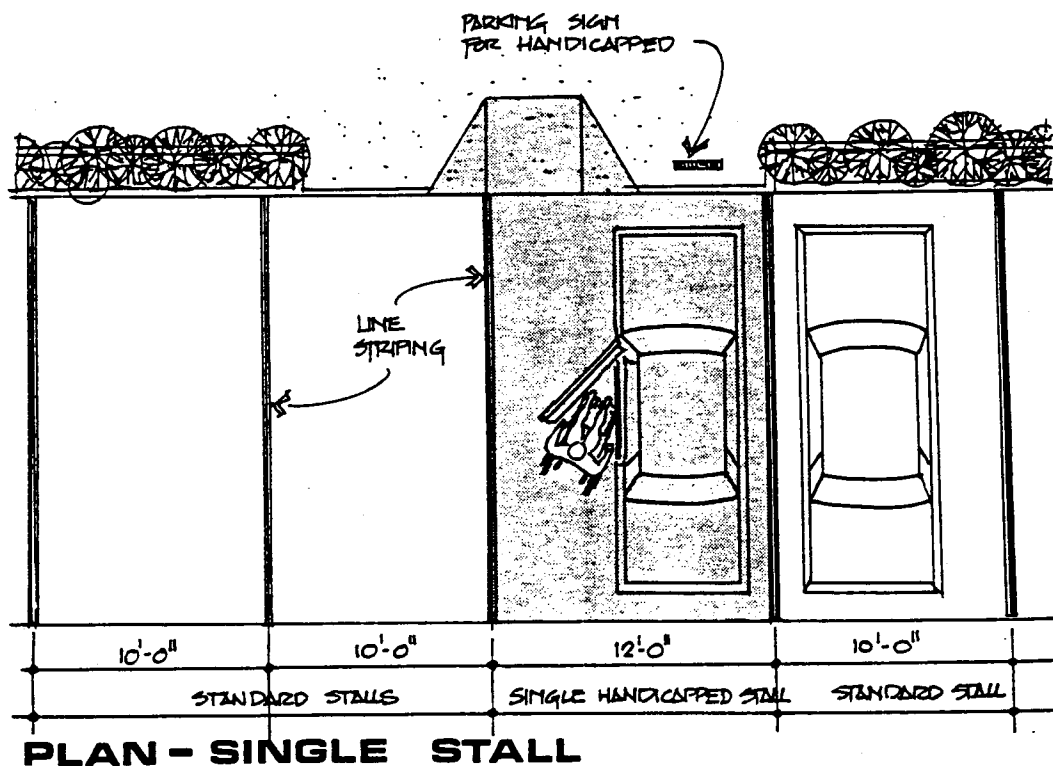


- 21.1.3 If driveways intersecting sidewalks have side curbs, curb cuts shall also be provided therein.
- 21.1.4 Slope of curb cuts shall not exceed one-in-twelve (1:12) and shall blend to meet the roadway gutter with a one-half (1/2) inch maximum lip for drainage. Where sidewalks are too narrow to install a straight-line curb cut at a slope of one-in-twelve (1:12), the sides of the curb cut shall slope at one-in-twelve (1:12).
- 21.1.5 Width of curb cuts shall be no less than thirty-six (36) inches, not including sloped sides.
- 21.1.6 Sides of curb cuts shall extend no less than twenty-four (24) inches at the curb. There shall be no vertical curbing at the side of the curb cut.
- 21.1.7 Curb height at intersections shall not exceed seven (7) inches.
- 21.1.8 Texture of curb cut surface, including sloping sides, shall be roughened in the direction of the slope, or shall be painted yellow.
- 21.2 Sidewalks on streets and ways shall be at least forty-eight (48) inches in width, and their slope shall be determined by the natural topography of the ground. Section 25, (Ramps) of these Regulations need not apply to such sidewalks except as provided under Section 22.1. Slope cross section of walks shall not exceed three percent (3%).
- 21.3 Islands: Any raised islands in crossings shall be cut through level with the street, or shall have curb cuts at both sides and a level area at least forty-eight (48) inches long in the part of the island intersected by the crossings.
- 21.4 Uncurbed intersections: If there is no curb at the intersection of a walk and an adjoining street, parking lot, or driveway, the walk shall have a tactile warning texture or be painted yellow at the edge of the vehicular way.

- 22.1 Width of walks and walkways shall be not less than forty-eight (48) inches. Where the slope of walks exceed one-in-twenty (1:20) or five percent (5%) it shall be treated as a ramp and the Regulations applicable to ramps shall apply.
- 22.2 Such walks and walkways shall have continuous common surfaces, not interrupted by steps or abrupt changes in level greater than one-half (1/2) inch. Such surfaces shall be non-slip.
- 22.3 Only a non-slip finish material may be applied to any walk or walkway.
- 22.4 Wherever there is an intersection of walks or walkways, streets, public ways, driveways or parking lots, each shall blend to a common level.
- 22.5 Pedestrian bridges, underpasses and overpasses shall be considered as walkways or ramps and shall comply with Sections 22 and 25.

23 PARKING LOTS, GARAGES

- 23.1 Any person who has lawful control of improved or enclosed private property, used as an off-street parking area for businesses, auditoriums, sporting or recreational facilities, or cultural centers, where the public has the right of access as invitees or licensees, shall cause such parking areas to conform to these Regulations if the parking area has fifteen (15) or more parking spaces.
- 23.2 Specially designated parking spaces for the physically handicapped shall be the closest located spaces in the lot to the accessible entrance(s). Where the designated parking space cannot be located within two-hundred (200) feet of the accessible entrance(s), an accessible drop-off area shall be provided within one-hundred (100) feet of such entrance(s).
- 23.3 In multi-level garages where no elevator is provided, such spaces shall be located near the accessible entrance.



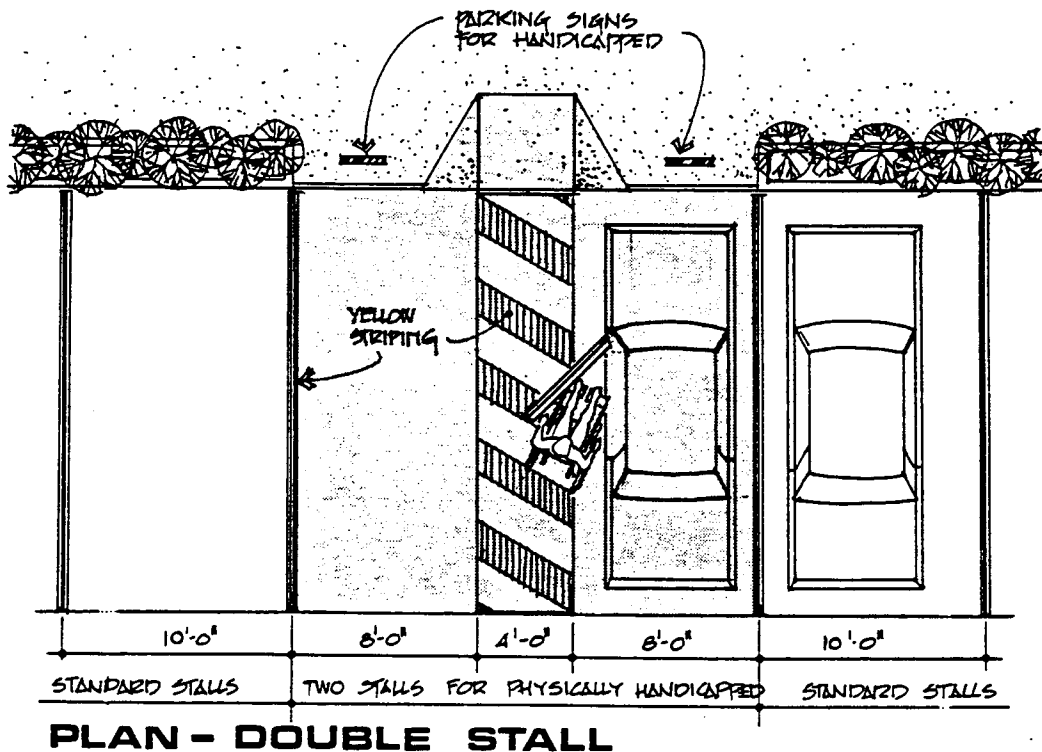
23.4 Number: Such spaces shall be provided as follows:

<u>Total Spaces</u>		<u>Required spaces</u>
15 - 25		1 space
26 - 40	5%	but not less than 2 spaces
41 - 100	4%	but not less than 3 spaces
101 - 200	3%	but not less than 4 spaces
201 - 500	2%	but not less than 6 spaces
501 - 1,000	1.5%	but not less than 10 spaces
1,001 - 2,000	1%	but not less than 15 spaces
2,001 - 5,000	.75%	but not less than 20 spaces
5,001 -	.50%	but not less than 30 spaces

23.5 Width: Such parking spaces which are perpendicular or diagonal to the parking roadway shall be twelve (12) feet wide. Spaces shall allow persons in wheelchairs to enter or leave an automobile on a uniform surface suitable for wheeling and walking.

Alternative: Two eight (8) foot spaces, separated by a four (4) foot center aisle, which is painted or striped yellow.

23.6 Sidewalks: Where sidewalks are provided at such parking spaces, a curb cut (sidewalk ramp) shall be installed at each specially designated space or pair of spaces, so that the handicapped persons are not required to enter the stream of traffic to attain access to sidewalks. If the alternative described in Section 23.5 is used, the curb cuts shall be installed where the center aisle meets the sidewalk.



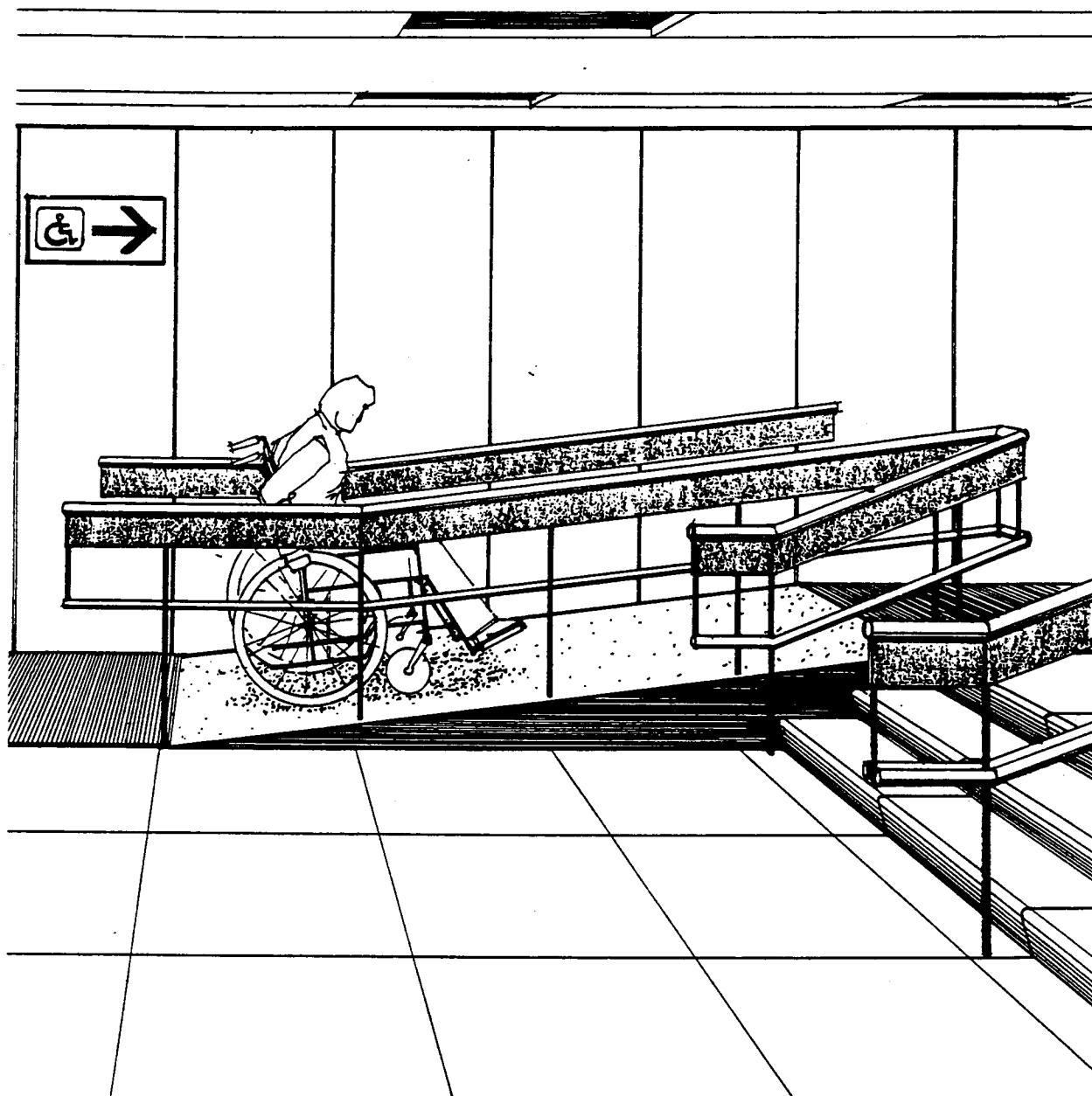
- 23.7 Identification: Such spaces shall be identified by a sign at each space or pair of spaces. This sign shall be located at a height of not less than five (5) feet, nor more than eight (8) feet to the top of the sign. The sign shall contain the "International Symbol of Accessibility" as shown in Section 40 and may also include wording identifying this use.
- 23.8 Walks and ramps required as a means of egress leading from specially designated parking spaces for the handicapped in parking lots, garages, or other parking facilities, shall be in conformity with all sections of these Regulations.
- 23.9 Parking surface areas required to be accessible for the handicapped shall be paved or hard packed smooth surface, and shall not slope more than one-in-twenty (1:20) or five percent (5%).

24 EXTERIOR SIGNAGE

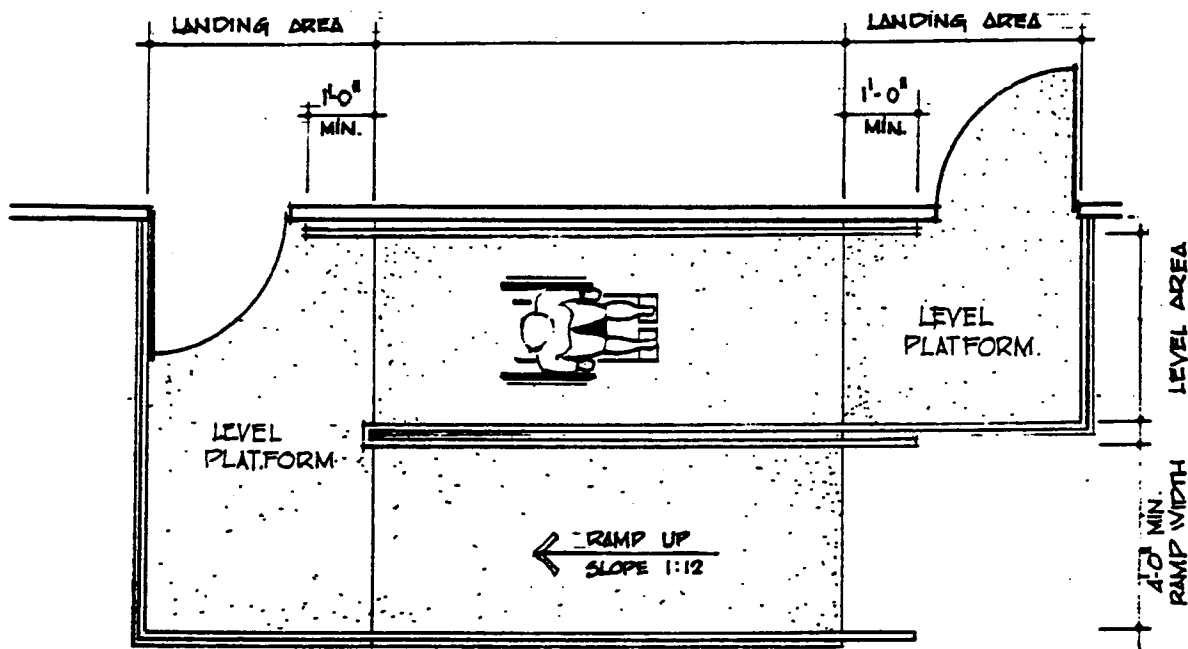
- 24.1 Exterior signage shall be located so as to not become a hazard or an obstacle itself. Overhead signs should be carefully located high enough to avoid conflict with pedestrians.

PART D

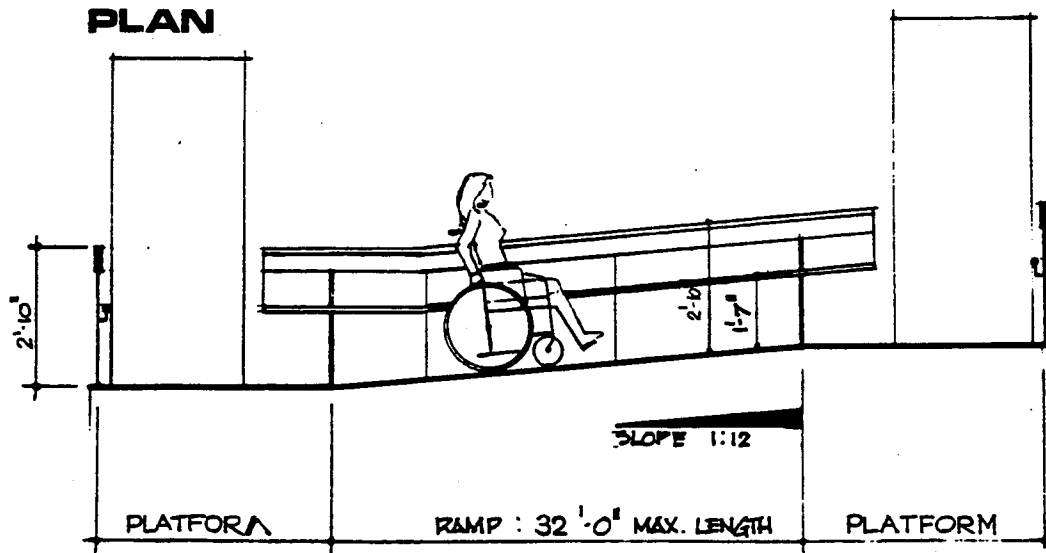
architectural design requirements



- 25.1 All ramps shall comply with the following:
- 25.2 Slope of ramps shall not exceed one-in-twelve (1:12).
- 25.3 Width of ramps shall not be less than forty-eight (48) inches minimum clearance, measured at the railings.

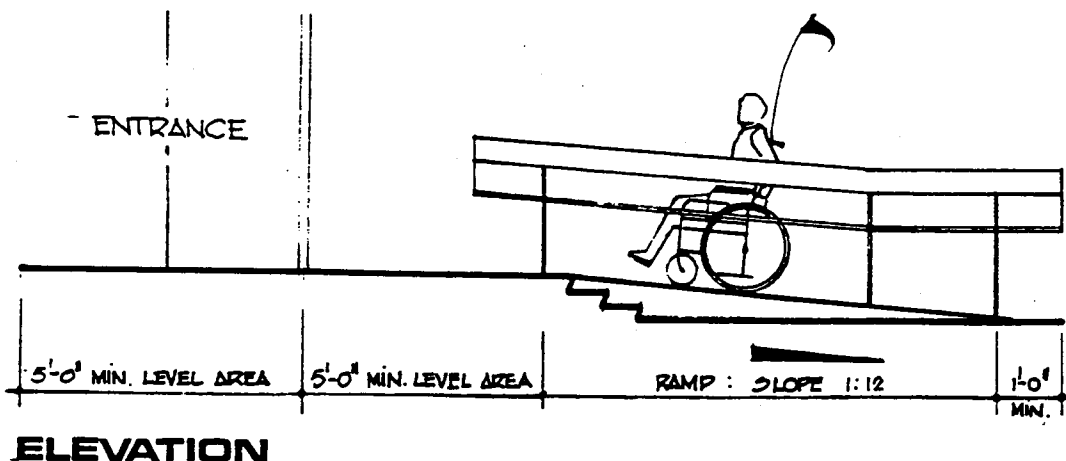
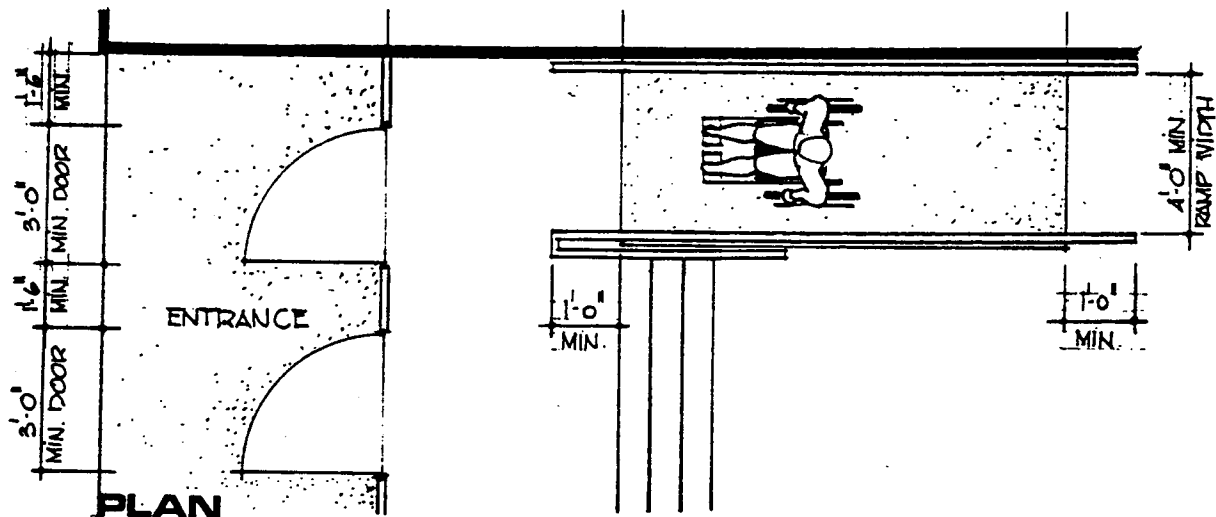


PLAN



ELEVATION

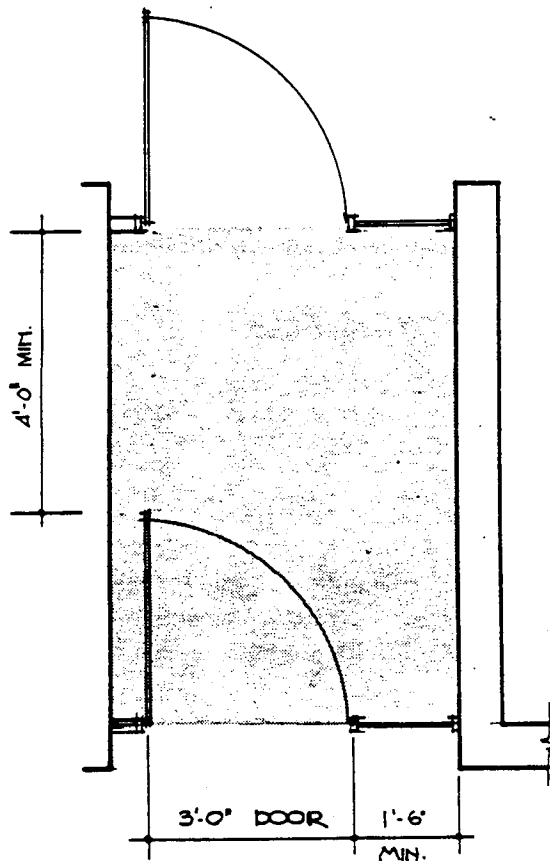
- 25.4 Handrails shall be set on both sides of ramps in pairs, one at a height of thirty-four (34) inches, and a lower one at a height of nineteen (19) inches, measured vertically from the surface of the ramp. Handrails shall extend at least twelve (12) inches beyond the top and bottom of the ramp, but need not so extend if it would cause a safety hazard. The handgrip portion of the handrails shall not be less than one and one-quarter (1 1/4) inches nor more than two (2) inches in outside diameter, shall be round or oval in cross-section, and shall have a smooth surface with no sharp corners. A clearance of one and one-half (1 1/2) inches shall exist between a wall and the wall rail.
- 25.5 Ramps shall have a surface that is non-slip and shall not be carpeted except with carpeting specified as high density, low pile, non-absorbant, stretched tautly, securely anchored, and without padding. Carpet ending in the path of travel must be secured with an edging strip no higher than three-eighths (3/8) of an inch.



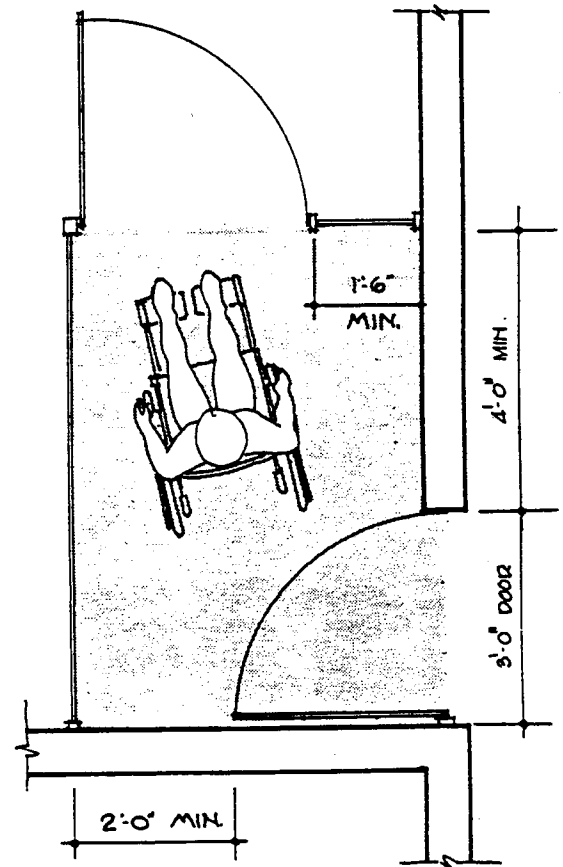
- 25.6 Each Ramp shall have level platforms for turning and resting, which shall be forty-eight (48) inches minimum, unobstructed by door swings, entrances, or other projections. Such platforms shall occur at intervals not exceeding thirty-two (32) feet, wherever a ramp changes direction, and at top and bottom of ramp.
- 25.7 Circular ramps are not acceptable, except with the approval of this Board.



- 26.1 The primary public entrance(s) of a building shall be accessible by persons in wheelchairs.
- 26.2 The approach to such entrance(s) shall be a paved walk or ramp with a non-slip surface, uninterrupted by steps; and such entrance(s) shall have a level space sixty (60) inches from the door, on the interior and exterior of the entrance doors. Eighteen (18) inches clear floor area shall also be provided on the latch, pull side of the doors.
- 26.3 Vestibules: Between any two hinged or pivoted doors, there shall be a minimum of forty-eight (48) inches plus the width of any door swinging into the space.



PLAN - VESTIBULE



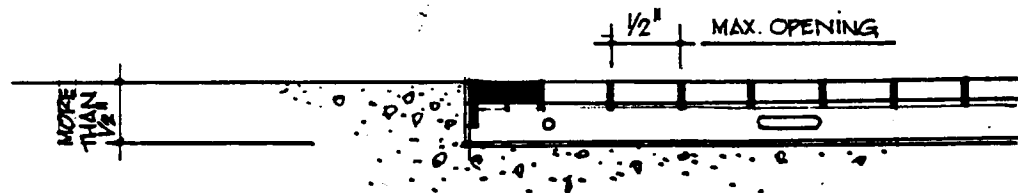
PLAN - VESTIBULE

26.4 The accessible entrance(s) shall be on a level which permit access to building elevators where provided.

26.5 Door mats less than one-half ($1/2$) inch thick shall be securely anchored at all edges to avoid tripping. Door mats thicker than one-half ($1/2$) inch shall be recessed. Grates shall have openings not exceeding one-half ($1/2$) inch in the path of travel.



ANCHORED DOORMATS.

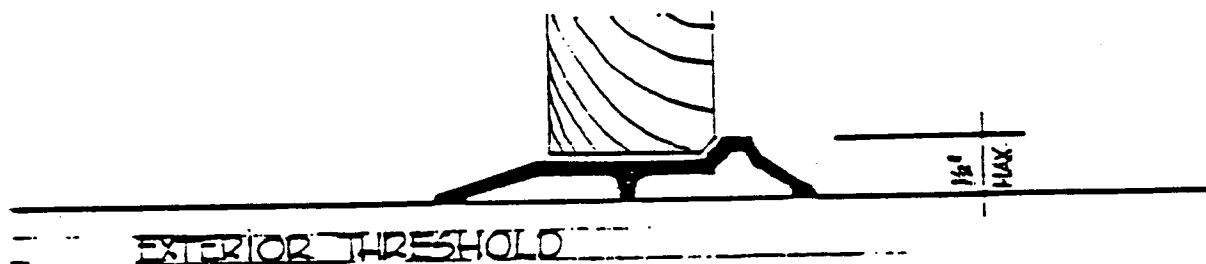


RECESSED FOR THICK DOORMATS OR GRATES

26.6 Obstacles shall not impede the path of travel. Objects which protrude into entranceways, (suspended lights, signs, fixtures, door closers, etc.) shall be at a height of not less than eighty (80) inches above the floor.

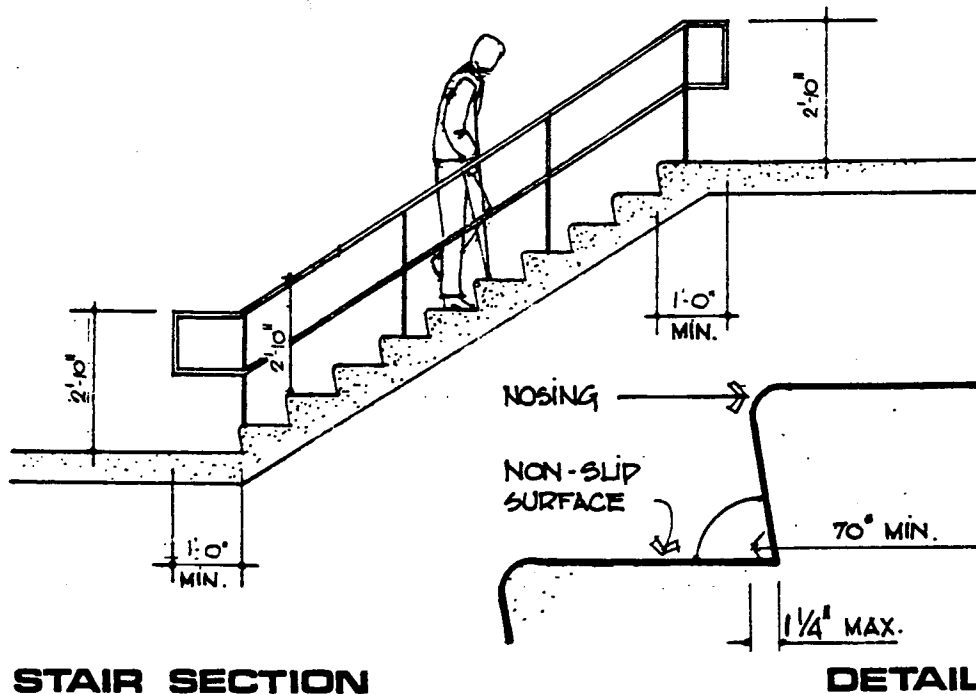
26.7 Identification: Any entrance of a facility not accessible by persons in wheelchairs shall have a sign clearly indicating the location of the accessible entrance.

- 27.1 All doors and doorways provided as a means of egress shall comply with the following:
- 27.2 Doors to all public areas shall have a minimum width of thirty-six (36) inches. Pivoted and balanced hardware doors and other non-hinged doors shall provide a minimum clear opening of not less than thirty-four (34) inches, measured at ninety (90) degrees.
- 27.3 At least one door of a pair of doors shall have a minimum width of thirty-six (36) inches, or shall provide a minimum clear opening of not less than thirty-four (34) inches, measured at ninety (90) degrees.
- 27.4 There shall be a level clear floor area provided, beyond the latch, pull side of the door, doorway or gate, a minimum of eighteen (18) inches and preferably twenty-four (24) inches.
- 27.5 Doors shall have a closing speed of not less than six (6) seconds.
- 27.6 Maximum pressure applied to the latch area to open exterior doors shall not exceed fifteen (15) pounds. Interior doors which have a self-closing feature shall require pressure not to exceed (8) pounds. Doors requiring greater force shall be equipped with compensating devices to reduce the operating force, or shall be equipped with automatic opening devices.
- 27.7 Exterior thresholds shall not exceed one-half (1/2) inch in height, beveled on both sides. Interior thresholds shall be flush with the floor. Changes in floor finish materials may require an edge strip or threshold flush with the higher material and beveled at a ratio of one-in-four (1:4).



- 27.8 The floor inside and outside of each doorway shall be level for a distance of sixty (60) inches from the door.
- 27.9 Height: Hand-operated door-opening hardware shall be located thirty-six (36) inches to forty-two (42) inches above the floor. When hardware is provided or changed on doors in the means of egress, levers, push plates, pull bars, panic hardware, etc., but not conventionally operating door knobs or thumb latch pull devices, shall be used. All door hardware shall be operable with a closed fist.
- 27.10 Where there is a revolving door, there shall be an adjacent accessible door. When the revolving doors are unlocked, the adjacent accessible door shall be unlocked.
- 27.11 Doors in the means of egress shall be operable with one (1) hand and with a single effort. Doors in the paths of ingress shall be able to be unlocked and opened with one (1) hand.
- 27.12 Doors opening into hazardous areas shall have door-opening hardware which is knurled or has a roughened surface to give tactile warning to the visually handicapped. Hazardous areas shall include loading platforms, boiler rooms, electrical equipment rooms, etc.
- 27.13 All doors in elderly housing or in buildings which are predominantly used to house elderly persons shall comply with this Section.

- 28.1 All interior and exterior stairs, required as a means of egress shall comply with the following Regulations:
- 28.2 Such stairs shall be constructed without abrupt projection of tread nosings. Risers may slope no more than one and one-quarter ($1 \frac{1}{4}$) inches from the horizontal projection, and the angle which the riser makes with the tread shall not be less than seventy (70) degrees. Open risers are not permitted.
- 28.3 Handrails shall be set on both sides of such stairs at a height of thirty-four (34) inches above the intersection of tread and riser. Wall rails on each set of such stairs shall extend at least twelve (12) inches beyond the top and bottom riser at a height of thirty-four (34) inches above the floor or landing, but need not so extend if it would cause a safety hazard or if space does not permit.

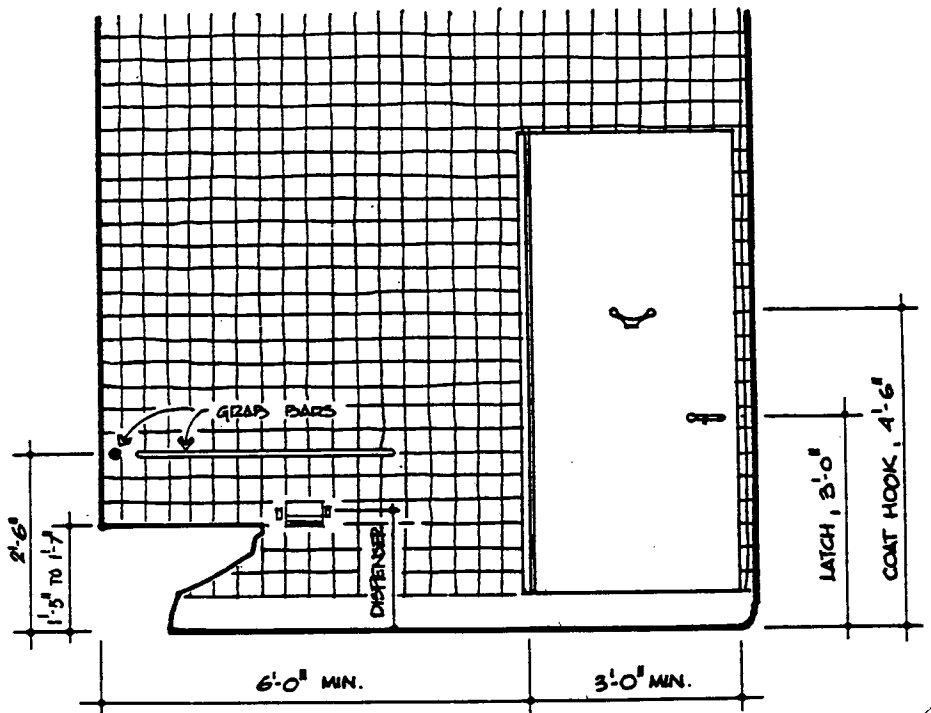
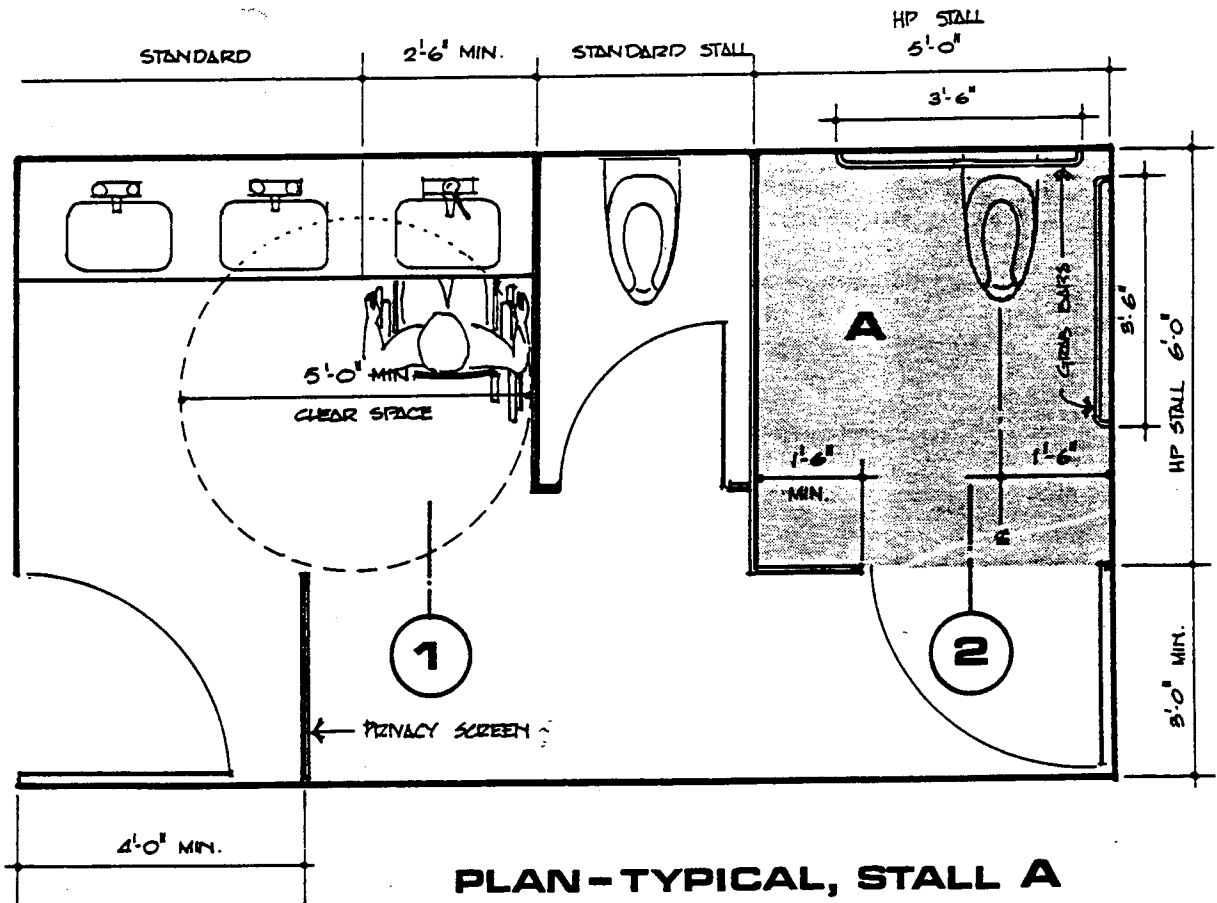


- 28.4 The hand-grip portion of handrails shall be not less than one and one-quarter ($1 \frac{1}{4}$) inches and not more than two (2) inches in outside diameter, shall be round or oval in cross-section, and shall have a smooth surface with no sharp corners.
- 28.5 Clearance between a wall and its wall rail shall be one and one-half ($1 \frac{1}{2}$) inches.
- 28.6 Stair treads shall have a non-slip surface, and only a non-slip finish material may be applied.

29 FLOORS

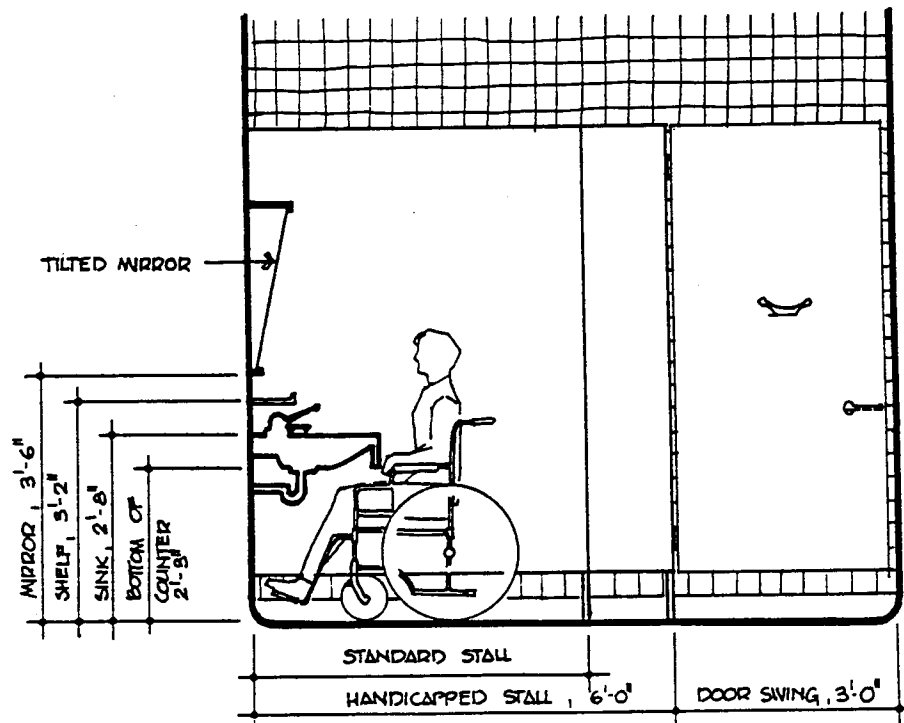
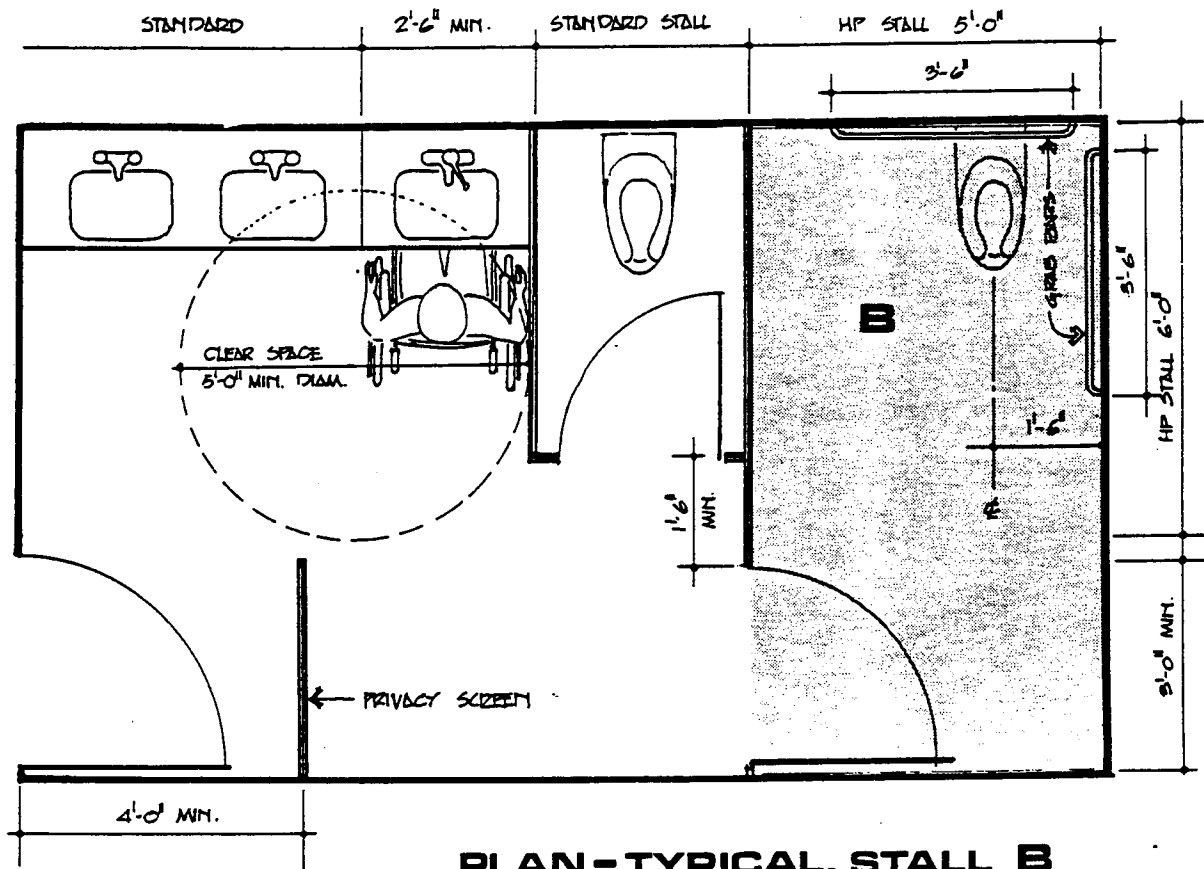
- 29.1 The floor on any single story shall be of a common level throughout, except where a ramp (as described in Section 25) connects different levels.
- 29.2 Floors in the means of egress shall have a surface that is non-slip and shall be maintained with a non-slip material.
- 29.3 Carpeting shall be specified as high density, low pile, non-absorbant, and shall be stretched tautly and securely anchored at all open edges. Edging strip shall not be higher than three-eighths ($3/8$) of an inch above the floor. If padding is installed, it shall not exceed one-quarter ($1/4$) of an inch in thickness, shall have specifications which indicate it to be firm, and shall be secured taut to the floor.

- 30.1 In each toilet room at least one water closet and one lavatory shall be accessible to persons in wheelchairs, or an accessible private lavatory, usable by either sex, shall be provided.
- 30.2 Where vestibules are provided, they shall comply with Section 26.3.
- 30.3 A minimum clear space of sixty (60) inches in diameter measured twelve (12) inches above the floor (to permit turning of a wheelchair without coming into contact with any fixtures or plumbing), shall be provided in each toilet room.
- 30.4 One lavatory or sink shall be wall-mounted without legs or pedestal at a height of thirty-two (32) inches to the top of the rim or counter, and shall extend at least twenty-two (22) inches from the wall; or may be a counter type with clear open knee space of thirty (30) inches in width and at least twenty-seven (27) inches in height to the bottom of the counter. Exposed drain pipes and hot water pipes shall be recessed, insulated or guarded.
- Knob type faucets are not allowed, and spring activated faucets are allowed only if water-running time is at least ten (10) seconds. Lever handle faucets are preferred. Such faucets shall be operable with a closed fist.
- 30.5 Toilet stalls: Each toilet room shall have at least one (1) stall which:
- 30.5.1 is sixty (60) inches wide and seventy-two (72) inches deep;
- 30.5.2 has a door or opening that is thirty-six (36) inches wide, swings out or slides, and has an automatic self-closing hinge device and a pull device to assist in closing the door, provides eighteen (18) inches of clear space on the latch pull side of the door, and has a lock located approximately thirty-six (36) inches above the floor. A coat hook shall be provided at a maximum height of fifty-four (54) inches above the floor;
- 30.5.3 locates the water closet eighteen (18) inches from the centerline of the fixture to the nearest side wall; maintains at least forty-two (42) inches clear space, measured from centerline of water closet to the farthest wall or other fixture; has a narrow understructure that recedes sharply; and has a seat seventeen (17) to nineteen (19) inches above the floor, to the top of the seat;



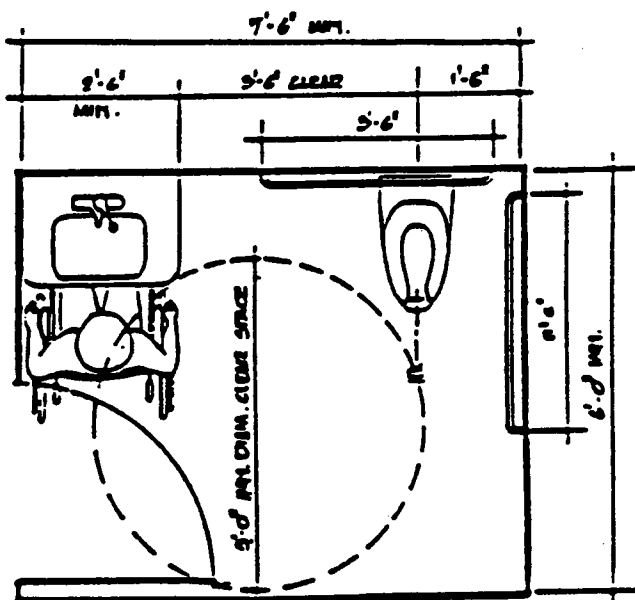
SECTION

2

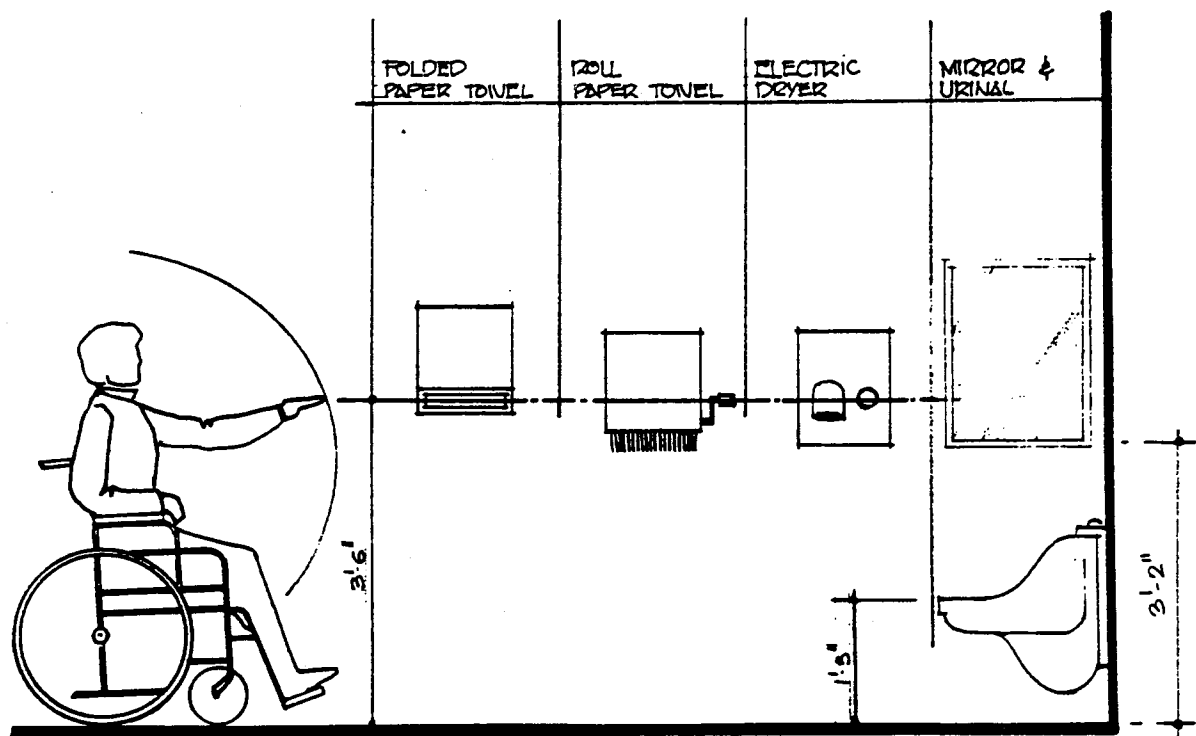


30.5.4 has two (2) grab bars forty-two (42) inches long, one on the wall in back of the water closet and one on the side wall closest to the water closet. Grab bars shall be one and one-quarter (1-1/4) inches in outside diameter, have a one and one-half (1-1/2) inch clearance between the bar and the wall, and set at a height between thirty-three (33) and thirty-six (36) inches above and parallel to the floor. Grab bars shall also be non-rusting and acid-etched or roughened. Where a tank prevents location of the rear grab bar, a bar may be installed three (3) inches above the tank. The side grab bar shall be located a maximum twelve (12) inches from the interior corner. The rear grab bar shall be located a maximum of six (6) inches from the interior corner.

PLAN - PRIVATE TOILET ROOM

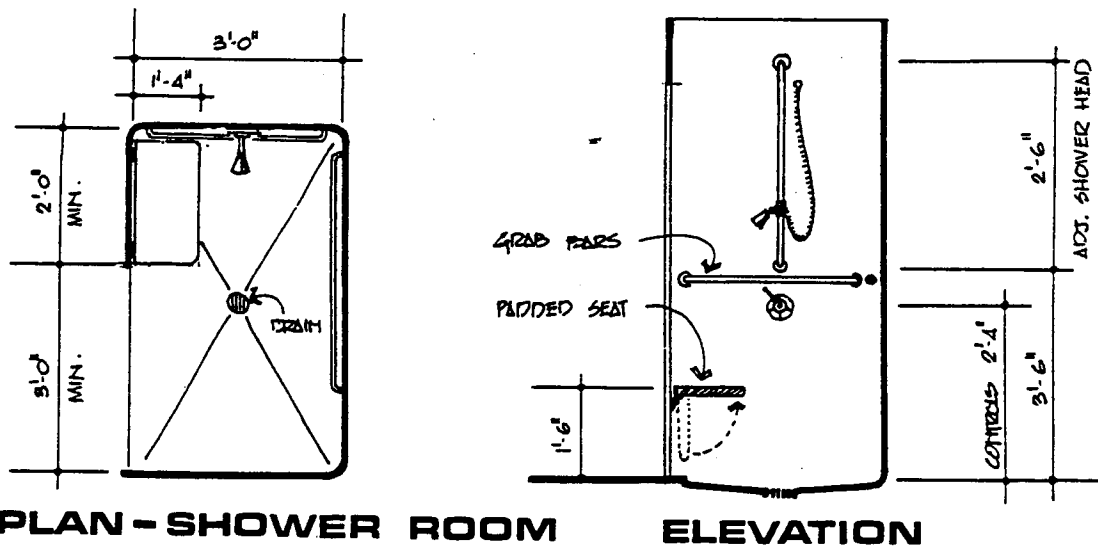


- 30.6 Where urinals are provided, one urinal shall be either wall-mounted with the rim of the basin fifteen (15) inches above the floor maximum, or floor-mounted.
- 30.7 The top of any shelf and/or bottom of any mirror which is provided above a lavatory shall be set at a height no greater than thirty-eight (38) inches above the floor. Tilted mirrors, where provided, shall be installed at a height of forty-two (42) inches above the floor to the bottom of the mirror.
- 30.8 Dispensers: Towel dispensers, drying devices, or other types of devices and dispensers shall have at least one of each device mounted at a maximum height of forty-two (42) inches above the floor, and at least one of each device shall be located within reach of the accessible lavatory.
- 30.9 Toilet paper dispensers shall be located on the side wall closest to the toilet, and be set at a height of twenty-four (24) inches above the floor. Dispensers that control delivery, or that do not permit continuous paper flow are not allowed.



ELEVATION

- 31.1 Where shower rooms are provided, they shall be able to accommodate both wheel-in and transfer use and shall comply with the following:
- 31.2 Stalls shall be thirty-six (36) inches by sixty (60) inches minimum, with a thirty-six (36) inch door opening.
- 31.3 Floors shall be pitched to drain within the stall at the corner farthest from the entrance. Floors shall be carborundum, grit-face tile, or other non-slip surface.
- 31.4 Controls: Showers shall operate by a single lever with a pressure balance mixing valve, and all controls shall be located on the center wall adjacent to the hinged seat. Shower heads attached to a flexible metal hose with a wall mounting adjustable from forty-two (42) inches to seventy-two (72) inches above the floor line shall be provided.
- 31.5 Seat: A hinged, padded seat shall be provided, which is at least sixteen (16) inches deep, folds upward, is securely attached to the side wall, is set at a height of eighteen (18) inches to the top of the seat, and is at least twenty-four (24) inches long.
- 31.6 Grab bars: Two grab bars shall be provided, one thirty (30) inches long and one forty-eight (48) inches long. They shall be placed horizontally at thirty-six (36) inches above the floor line or shall be a continuous L-shaped grab bar.



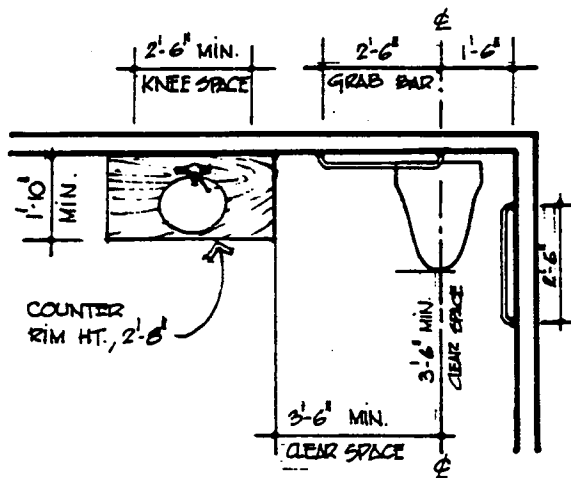
- 31.7 Soap trays shall not incorporate hand hold features unless they can support two hundred and fifty (250) pounds for five (5) minutes.
- 31.8 Gang showers shall also comply with this Section except for the provisions contained in Section 31.2.

32 RESIDENTIAL BATHROOMS

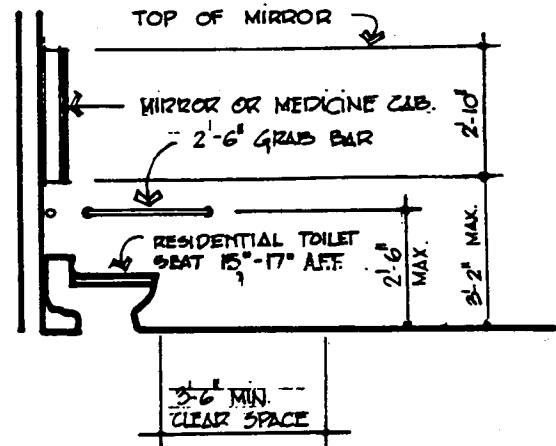
32.1 Residential bathrooms in all units required to be in compliance with these Regulations shall comply with the following:

32.1.1 Size: Such bathrooms shall have a minimum clear space of sixty (60) inches in diameter measured twelve (12) inches above the floor (to permit turning of wheelchairs without obstruction). The door to such bathrooms shall be thirty-six (36) inches wide and shall swing out or slide.

32.1.2 Water closets shall be located eighteen (18) inches from the centerline of the fixture to the nearest side wall, and shall maintain at least forty-two (42) inches clear space measured from the centerline of the water closet to the farthest wall or other fixture; shall have a narrow understructure that recedes sharply; shall have a seat set at fifteen (15) inches to seventeen (17) inches above the floor to the top of the seat; (this only applies to residential use) and shall have two grab bars thirty (30) inches long, one on the wall in back of the water closet and one on the side wall closest to the water closet, set at a height of thirty (30) inches above and parallel to the floor. Where a tank is provided, grab bar may be located three (3) inches above the tank.



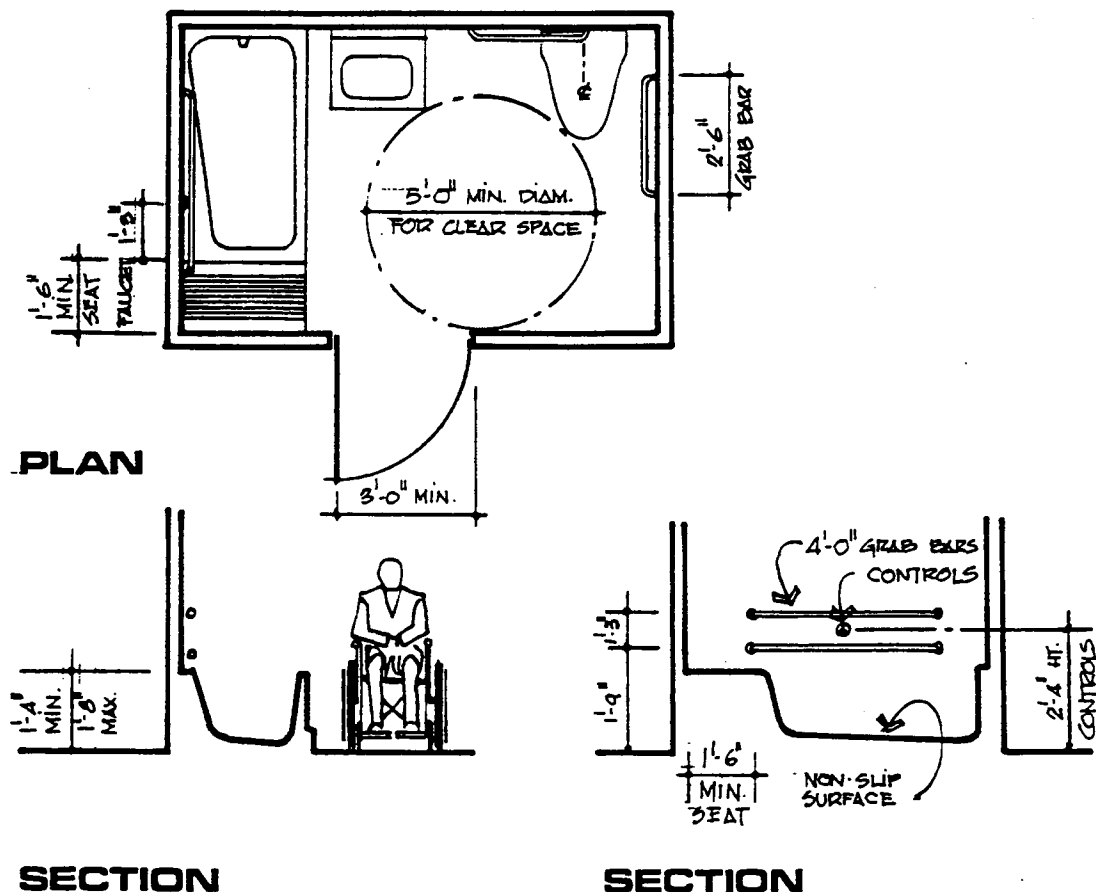
PLAN



SECTION

32.1.3 Lavatories or sinks shall be wall-mounted without legs or pedestals, shall be set at a height of twenty-seven (27) inches to the bottom of the rim or counter, and shall extend at least twenty-two (22) inches from the wall with clear open knee space of thirty (30) inches in width. Lavatories shall be capable of supporting two hundred fifty (250) pounds for five (5) minutes. Knob type faucets are not allowed, and spring-activated faucets are allowed only if water running time is at least ten (10) seconds.

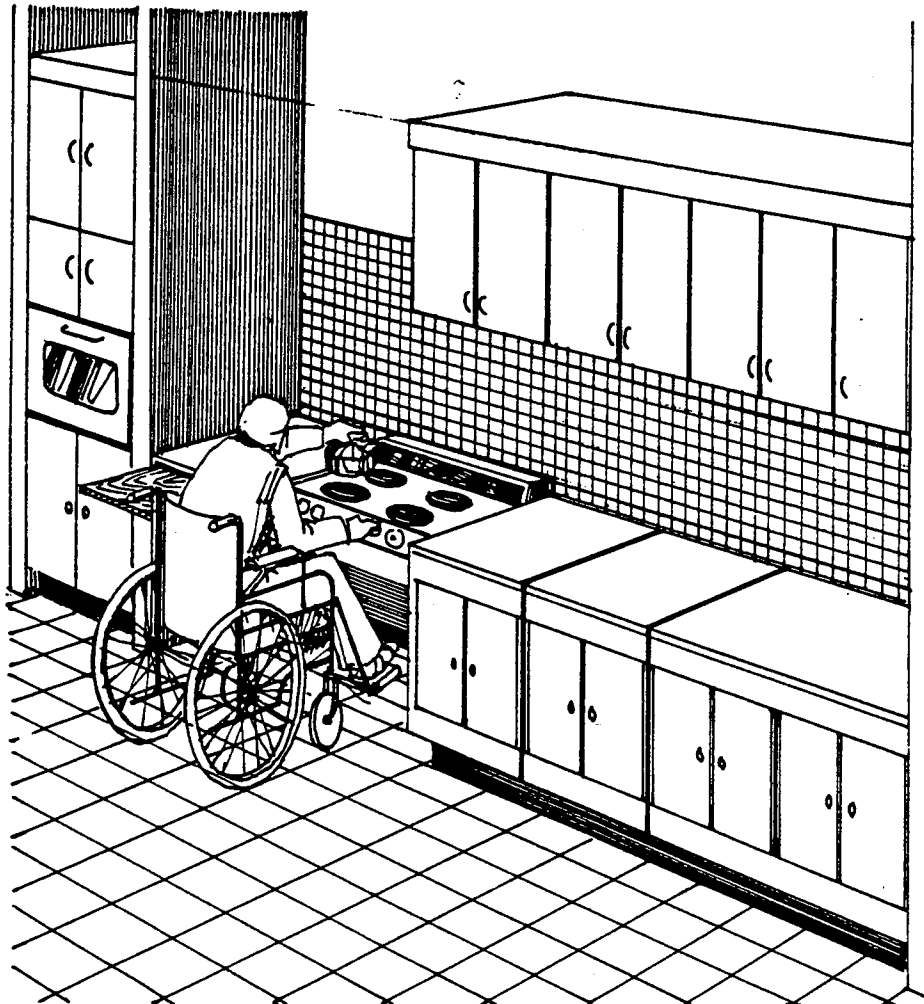
32.1.4 Bathtubs shall not be less than sixteen (16) inches nor more than twenty (20) inches above the floor line measured to the rim. A built-in seat eighteen (18) inches deep shall be provided beyond the head of the tub as a safe transfer area. Tub bottoms and seats shall have a non-slip surface. Tub controls shall be approximately fifteen (15) inches from the tub seat on the long wall approximately twenty-eight (28) inches above the floor line, and shall operate by single control levers with pressure-balanced mixing valves. Each tub shall also provide a shower head attached to a flexible hose, sixty (60) inches long. The shower head shall have an adjustable wall mounting. Enclosures on bathtubs shall not have tracks mounted on their rims.



- 32.1.5 Showers, where provided in lieu of tubs, shall comply with Section 31.
- 32.1.6 Grab bars shall be capable of supporting two hundred fifty (250) pounds for five (5) minutes, shall be non-rusting and acid etched or roughened, shall be one and one-quarter (1 1/4) inches in outside diameter, and shall be set not more than one and one-half (1 1/2) inches clear from the wall. Walls shall be structurally capable of securing grab bars at any reasonable height. Two grab bars, forty-eight (48) inches long, shall be installed, one at a height of twenty-one (21) inches, and one at a height of thirty-six (36) inches above and parallel to the floor line on the long wall, located so as to extend six (6) inches beyond the seat at the head of the tub.
- 32.1.7 Accessories: The bottoms of mirrors over lavatories shall be thirty-eight (38) inches above the floor line; tops of mirrors shall be at least seventy-two (72) inches above the floor line. Medicine cabinets shall be set no higher than thirty-eight (38) inches above the floor line to the bottom of the cabinet.
- 32.1.8 Towel racks shall be capable of supporting two hundred fifty (250) pounds for five (5) minutes.
- 32.1.9 Soap trays shall not incorporate a hand hold feature unless they can support two hundred fifty (250) pounds for five (5) minutes.
- 32.1.10 Toilet paper dispenser shall be located on the side wall closest to the toilet, at a height of twenty-four (24) inches.

33.1 Kitchens shall be of sufficient size to allow persons in wheelchairs to use all kitchen facilities and shall provide a clear space of sixty (60) inches in diameter, measured twelve (12) inches above the floor.

33.1.1 Counter tops shall contain a sink and a cooking unit, and structural support shall be provided to relocate the sink and cooking unit counter top height from thirty (30) inches to forty (40) inches measured from the floor to the surface of the counter. Counter space at least fifteen (15) inches wide shall be provided on at least one side of the cooking unit and sink, and shall have a clear space underneath.



33.1.2 Wall cabinets may be one of the following:

33.1.2.1 Permanently fixed in height, if the bottom of the cabinet is set at fifty-one (51) inches from the floor; provided that an adjustable shelf is installed between the counter top and the bottom of the fixed cabinet, which shelf is adjustable from forty-two (42) inches to forty-six (46) inches from the floor; or

33.1.2.2 A wall cabinet with a structural support so as to make the cabinet adjustable from forty-two (42) inches to fifty-six (56) inches from the floor; or

33.1.2.3 A tall cabinet with dimensions of at least thirty (30) inches wide and approximately seventy-two (72) inches in height may be installed. Cabinet opening devices shall be located at the top of base cabinets and at the bottom of wall cabinets.

33.1.3 Cabinet hardware shall be operable with a closed fist.

33.1.4 Access spaces for the knees and feet of wheelchair users shall be provided under cooktops and sinks, and elsewhere as space and storage considerations permit. All such spaces shall be at least thirty (30) inches wide. Where sink and cooking units are within fifteen (15) inches of each other, access space under the counter shall be continuous at a height of twenty-seven (27) inches to the underside of the counter.

33.1.5 All counters shall be capable of adjustment in height from thirty (30) inches to forty (40) inches, measured from floor to counter top.

33.1.6 Sink depth shall not exceed six (6) inches. Sink traps and drains shall be located as close to rear walls as possible. Plumbing pipes shall be recessed, insulated, or guarded. Spouts may swivel, shall have aerators, and shall operate by a single lever. Garbage disposals, when provided, shall be controlled by switches under the counter at the front.

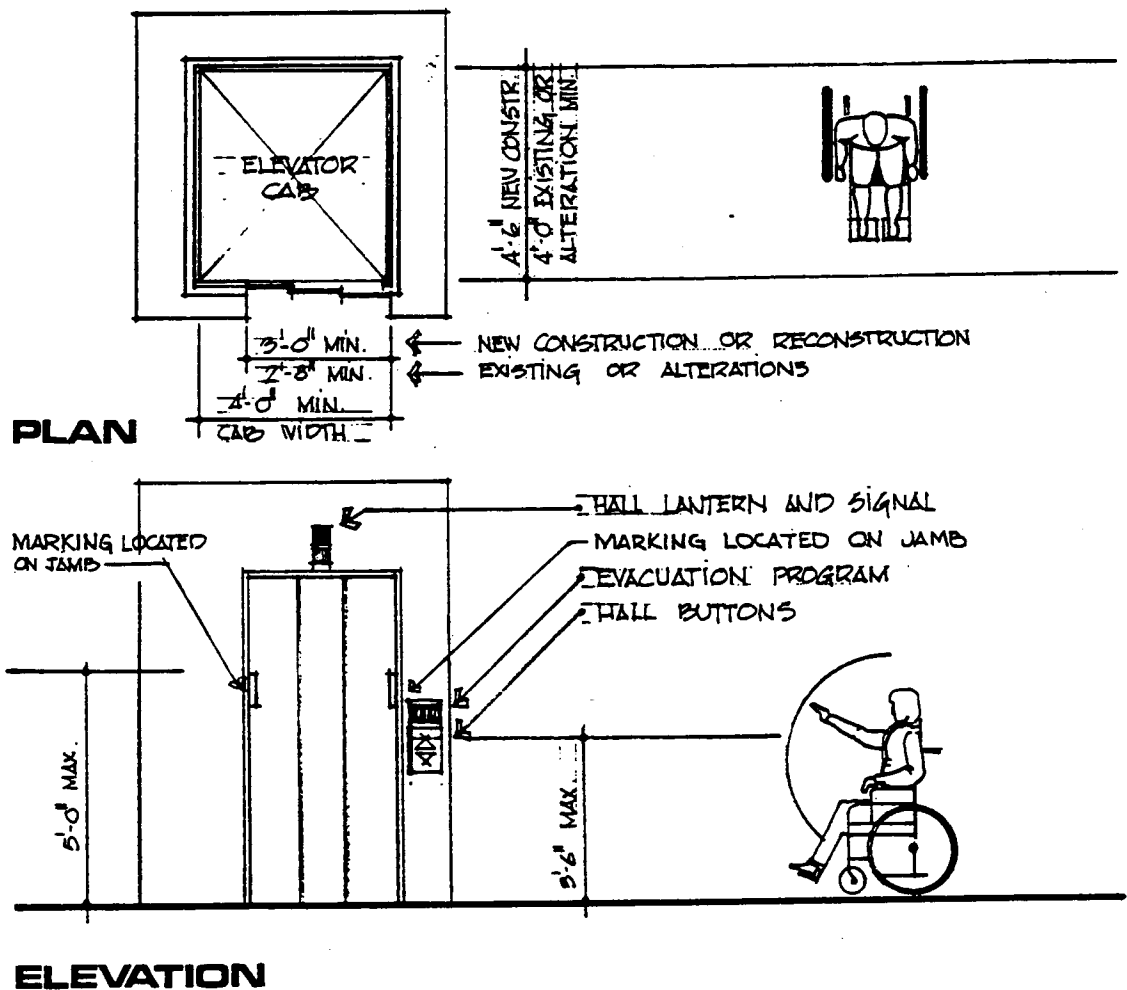


- 33.1.7 Cooking units shall be the in-counter type with controls at the front, and with open access space under the counter. Where hoods are provided, controls shall be located no higher than fifty-four (54) inches above the floor, but shall not be located behind cooking units. Ovens shall be the wall-oven type, set at a height such that bottoms of doors are thirty (30) inches above the floor. Doors to ovens shall be either bottom-hinged or side-hinged. Bottom-hinged ovens shall provide retractable "bread board" type shelves concealed in the counter, adjacent to the oven door. If side-hinged, bread board shelf shall be located under the oven. Ovens shall also be self-cleaning, or continuous cleaning.
- 33.1.8 Refrigerators may be combination refrigerator-freezers with two (2) doors side by side, or may be two (2) door freezer-above-the-refrigerator units, provided the bottom of such freezers are no higher than forty-four (44) inches above the floor and shall be self-defrosting.
- 33.1.9 Windows above sinks are not required to be operable by a person in a wheelchair.
- 33.1.10 All controls and alarms, including but not limited to inter-coms and electrical distribution panels, shall be located between thirty-six (36) inches and fifty-four (54) inches above the floor, and located at least eighteen (18) inches from an interior corner.

- 34.1 Bedrooms for the handicapped shall provide access space for persons in wheelchairs to use all furniture and to reach the windows and the closet pole, and shall provide clear space of sixty (60) inches in diameter at one side of the bed.
- 34.2 Closet shelves and poles shall be adjustable from forty-two (42) inches to seventy-two (72) inches. Closet doors shall permit access to the entire closet length.
- 34.3 When windows can be opened, they shall be operable by a person in a wheelchair.
- 34.4 Electrical outlets shall be located at least eighteen (18) inches above the floor.
- 34.5 All controls and alarms, including but not limited to intercoms and electrical distribution panels, shall be located between thirty-six (36) inches and fifty-four (54) inches above the floor, and located at least eighteen (18) inches from an interior corner.

35 ELEVATORS

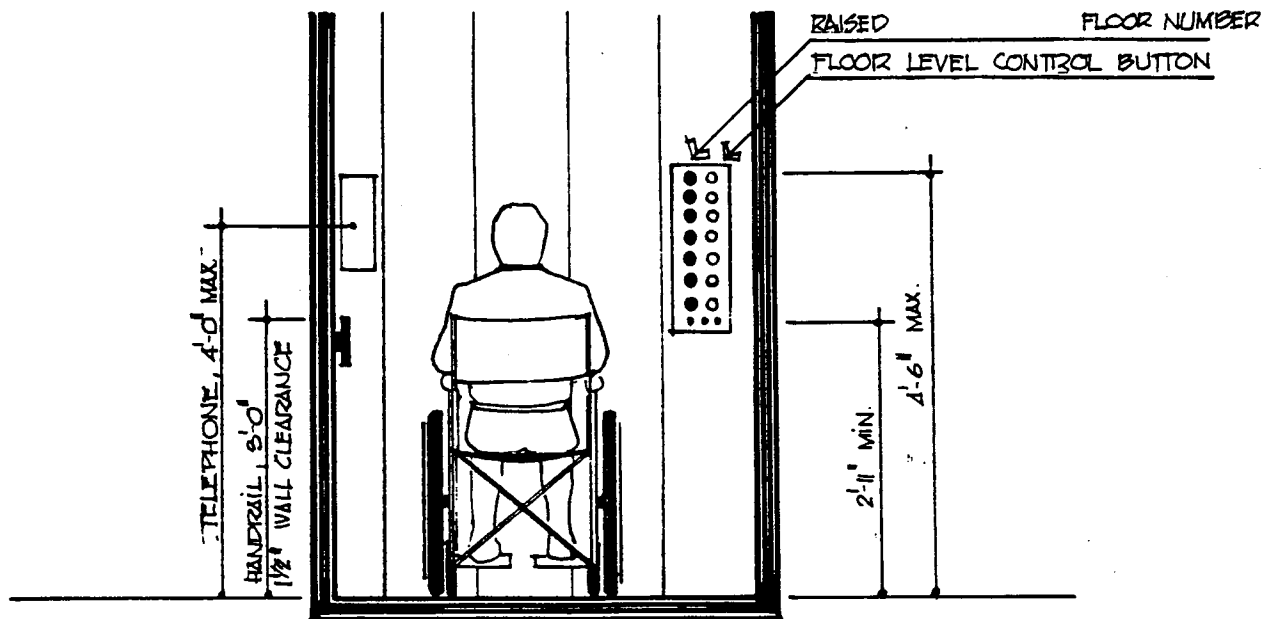
- 35.1 Buildings having two (2) levels shall provide a ramp or elevator to each level; buildings having more than two levels shall provide elevator access to each level.
- 35.2 OPERATION: All elevators which are provided for public use shall be automatic, and shall be self-leveling with a maximum tolerance of plus or minus one-half (1/2) inch under normal loading conditions.
- 35.3 Elevator doors in constructed or reconstructed buildings shall provide a clear opening of at least thirty-six (36) inches in width. Elevator doors in buildings having alterations performed shall provide a clear opening of at least thirty-two (32) inches in width.
- 35.3.1 Doors shall be power-operated and automatic, closing at a maximum speed of approximately one (1) foot per second.



35.3.2 A door reopening device shall be provided to stop and reopen the car door and adjacent hoistway door when the car door is obstructed while closing. A non-contact sensing/ reopening device may be substituted for a door safety edge if its effective area extends to the full door height. A localized non-contact device such as an electric eye may be used in addition to a full door height contact reopening device, provided that the localized device operates at five (5) inches and twenty-nine (29) inches above the floor. Such non-contact sensing devices are not required if a timer is set to hold the doors open a minimum of six (6) seconds at each stop. If a non-contact sensing device is provided, the minimum time for the door to remain fully open is three (3) seconds.

35.4 Car size measured from wall-to-wall and wall-to-door shall not be less than fifty-four (54) inches wide by fifty-four (54) inches deep.

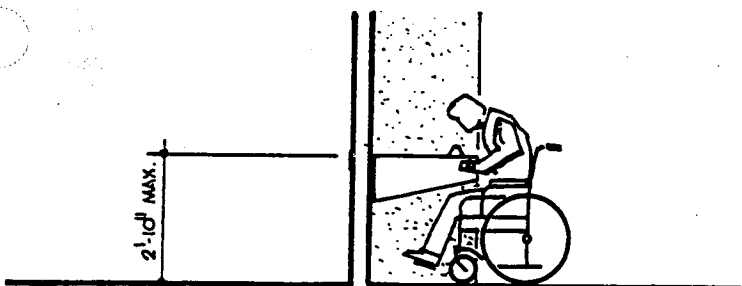
35.5 Car controls shall be located no lower than thirty-five (35) inches and no higher than fifty-four (54) inches, measured from button centerline to the floor. Floor numbers, letters or symbols shall be at least one-half (1/2) inch high and raised three-hundredths (.03) of an inch, on contrasting background, and located to the left of floor buttons, not on the buttons. Permanent adhesive plates are acceptable. Emergency controls shall be grouped at the bottom of the control panel. Braille letters and numbers may be used in addition to, but not instead of, large raised characters.



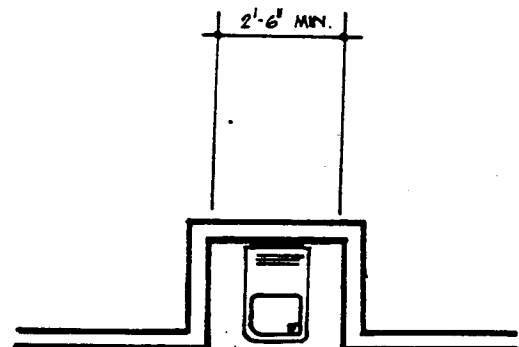
SECTION - ELEVATOR CAB

- 35.6 A car position indicator shall be located above the control panel or door, and shall be illuminated on a contrasting background. In addition, audible signals shall indicate passing floors.
- 35.7 Hall buttons shall be located not higher than forty-two (42) inches from the centerline of the highest button, to floor. Button numbers, letters or symbols shall be three-quarters (3/4) of an inch in height. No ashtrays or other obstacles shall be placed directly below or above the call buttons.
- 35.8 Audible signals shall differentiate direction of travel as standardized nationally; one sound signal for up, two signals for down. An in-car signal lantern is permitted.
- 35.9 Door jamb markings indicating floor designations shall be provided at each hoistway entrance on both sides of jamb visible from within the car and the elevator lobby at a height of sixty (60) inches above the floor. Numbers shall be on a contrasting color background a minimum of two and ~~one-half~~ (2 ~~1/2~~) inches high and raised three hundredths (.03) of an inch. *amendment as of 1/29/92 two (2) inches high*
- 35.10 Handrails shall be located on at least one wall in every elevator between thirty-two (32) to thirty-six (36) inches above the car floor, with a one and one-half (1 1/2) inch clearance from the wall.
- 35.11 Floor coverings shall be non-slip. Carpeting shall be specified as high density, low pile, non-absorbant, and flame-retardant. Carpeting shall be stretched tautly, and shall be securely anchored at all edges. Edging strips shall not be higher than three-eighths (3/8) of an inch above the floor. If padding is installed it shall not exceed one-quarter (1/4) of an inch in thickness, shall have specifications which indicate it to be firm, and shall be secured taut to the floor.
- 35.12 Where a service location is maintained in a building, a two-way communication system shall be provided between each elevator and that location. The elevator component shall be placed at a maximum height of forty-eight (48) inches above the car floor.
- 35.13 Wheelchair lift devices such as vertical and inclined wheelchair lifts may be permitted by the Board where consistent with the Regulations of the Massachusetts Elevator Board. Wheelchair lifts may be used as a part of an accessible route of travel if no other alternative or design solution is feasible.

- 36.1 At each location where drinking fountains or coolers are provided, at least one fountain shall be accessible to persons in wheelchairs. The accessible fountain shall comply with the following:
- 36.1.1 Drinking fountains shall have hand-operated push-button or lever controls, and shall have spouts located near the front. Spouts shall direct a stream of water as parallel to the front of the fountain as possible. Knob type faucets are not permitted. Other types of controls may be installed in addition to, but not instead of, hand-operated controls.
 - 36.1.2 Basin rims of wall-mounted drinking fountains shall be mounted not more than thirty-four (34) inches above the floor.
- 36.2 Where accessible drinking fountains are located in a recess, the recess shall be not less than thirty (30) inches wide, nor deeper than the depth of the drinking fountain.

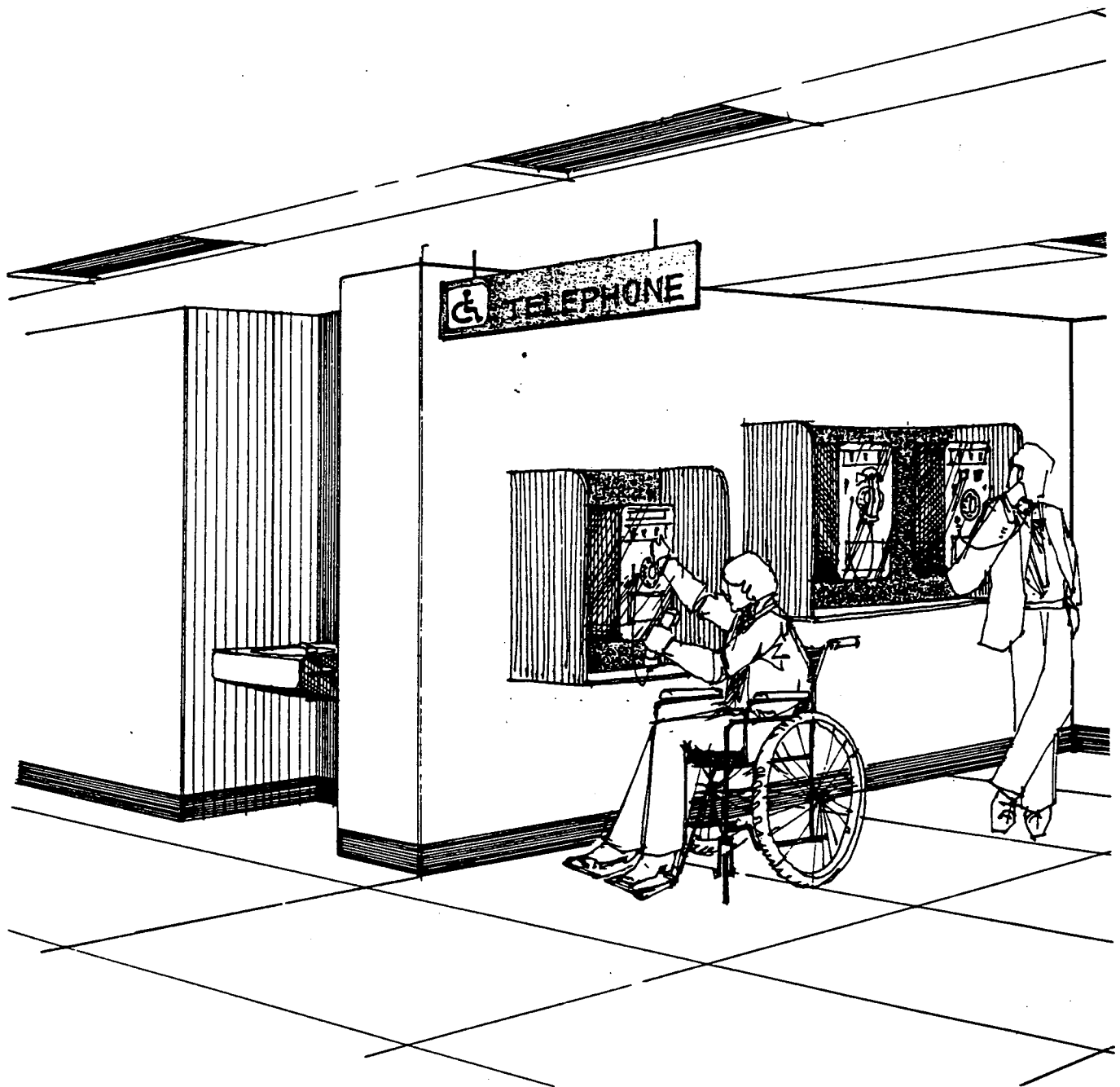


ELEVATION - FOUNTAIN

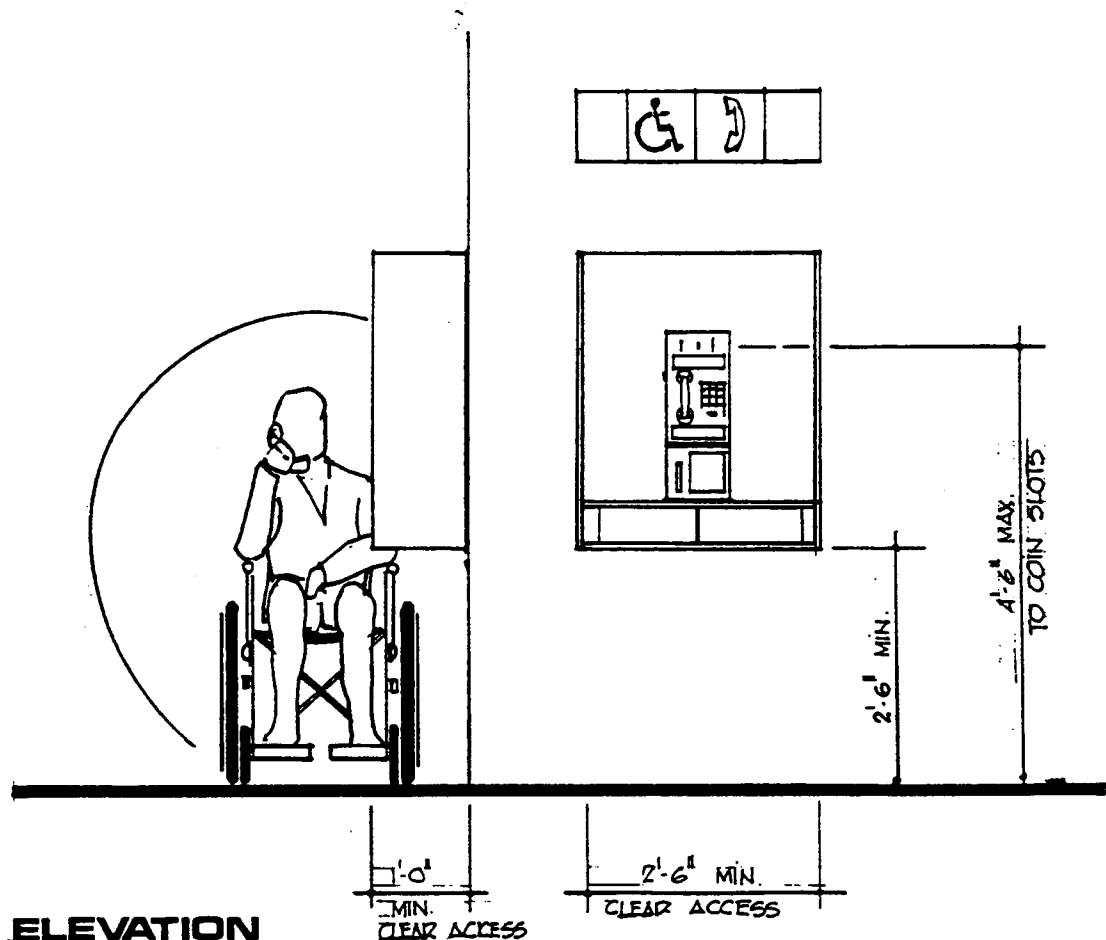


PLAN - RECESS

- 36.3 Free-standing or built-in accessible units not having clear space under them shall have a clear floor space at least thirty (30) inches by forty-eight (48) inches that allows a person in a wheelchair to make a parallel approach to the unit.

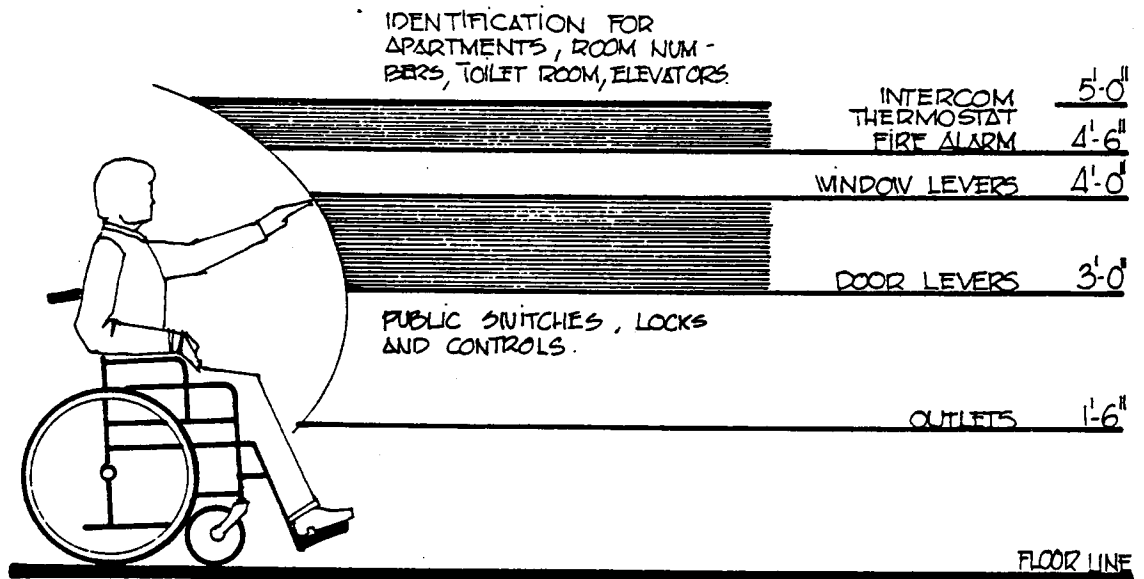


- 37.1 Wherever public telephones are provided, at least one (1) telephone shall be accessible to and usable by a person in wheelchair.
- 37.2 The dial, handset and coin deposit slots, or the highest operating part, shall be mounted not more than fifty-four (54) inches above the floor, assuming vertical access.
- 37.3 The receiver shall be equipped with an inductive coil to provide a magnetic field for hearing aid telephone switches, and shall be identified as being so equipped.
- 37.4 Unobstructed access within twelve (12) inches of the telephone shall be provided. Such access shall be a clear opening not less than thirty (30) inches in width and height.
- 37.5 The accessible telephone shall be equipped with an adjustable volume control for the headset, and instructions for use of the control shall be attached to or next to the telephone.



38 CONTROLS

- 38.1 Where switches, locks and controls are provided for public use, they shall be placed no higher than forty-eight (48) inches, or lower than thirty-six (36) inches from the floor, with the exception of thermostats, intercoms, and fire alarms, which may be centered no higher than fifty-four (54) inches, and electrical outlets which may be centered no lower than eighteen (18) inches from the floor.
- 38.2 All controls and alarms, including but not limited to intercoms and electrical distribution panels, in units for the handicapped, shall be located between thirty-six (36) inches and fifty-four (54) inches above the floor. Electrical outlets shall be centered no lower than eighteen (18) inches above the floor.
- 38.3 All such controls shall be located at least eighteen (18) inches from an interior corner.



CONTROL LOCATIONS

- 39.1 Location of signs, numbers or graphics, which identify apartments, room numbers, toilet rooms, and elevators, shall be at a height not less than fifty-four (54) inches nor more than sixty (60) inches above the floor, and within eighteen (18) inches of the door latch jamb or recess.
- 39.2 Where such signs, numbers, or graphics are provided in the means of egress, they shall be permanently fixed. Letters and numbers shall be raised at least one and one quarter (1 1/4) inches, and shall contrast with the background color. Braille letters or numbers may be used in addition to, but not instead of, raised characters.
- 39.3 Where warning signals such as fire alarms are being installed in public areas, they shall be equipped with visual signals as well as audible signals. Visual signals shall flash no faster than five (5) cycles per second.

40 SYMBOL OF ACCESSIBILITY

40.1 The International Symbol of Accessibility shall be displayed in the following locations:

40.1.1 Any entrance of a facility not accessible by persons in wheel-chairs shall have a sign clearly indicating the location of the accessible entrance.



**INTERNATIONAL
SYMBOL OF ACCESSIBILITY**

40.1.2 At the entrance to all public toilet rooms, if one is not accessible, the symbol shall be placed at that toilet room indicating the location of the nearest accessible toilet room.

40.1.3 Where signs, building layout diagrams or maps are provided, the Symbol of Accessibility shall indicate where accessible toilet rooms, entrances and elevators are located. Layout diagrams or maps shall be oriented from the standpoint of the viewer, and the viewer's position clearly indicated.

40.1.4 At special parking spaces for the handicapped in accordance with Section 23.

APPENDIX

GENERAL INFORMATION

1.1

Wheelchair dimensions: The collapsible-model wheelchair of tubular-metal construction with cloth or plastic upholstery is the most prevalent model manufactured and typically has the following dimensions:

- 1.1.1 Length: forty-eight (48) inches.
- 1.1.2 Width when opened: twenty-eight (28) inches.
- 1.1.3 Width when collapsed: thirteen and one-half (13 1/2) inches.
- 1.1.4 Height of seat from floor: nineteen (19) inches.
- 1.1.5 Height of arm rest from floor: twenty-nine (29) inches.
- 1.1.6 Height of lap from floor: twenty-seven (27) inches.
- 1.1.7 Eye level: forty-three (43) inches to fifty-one (51) inches.

1.2

Wheelchair use characteristics:

- 1.2.1 Space required to turn a wheelchair three hundred and sixty (360) degrees is approximately sixty (60) inches by sixty (60) inches or approximately a sixty (60) inch diameter circle.
- 1.2.2 Space required for a pedestrian and a person in a wheelchair to pass each other: forty-eight (48) inches.
- 1.2.3 Space required for two wheelchairs to pass each other is sixty (60) inches.
- 1.2.4 Vertical reach averages sixty (60) inches above the floor.
- 1.2.5 Horizontal reach (at tables, desks, etc.) averages thirty (30) inches.
- 1.2.6 Diagonal reach (at wall-mounted dial telephone, towel dispenser, shelf, etc.) averages forty-eight (48) inches above the floor.

1.3

Crutch use characteristics:

- 1.3.1 Width of path of travel of an individual five (5) feet, six (6) inches tall averages thirty-one (31) inches. Width of path of travel of an individual six (6) feet tall averages thirty-two and one-half (32 1/2) inches. Width of path of travel of an individual six (6) feet, six (6) inches tall averages thirty-four (34) inches.