

47 FR 33862-01, 1982 WL 146286(F.R.)
RULES and REGULATIONS
ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD
36 CFR Part 1190

Minimum Guidelines and Requirements for Accessible Design

Wednesday, August 4, 1982

***33862** AGENCY: Architectural and Transportation Barriers Compliance Board.

ACTION: Final rule.

SUMMARY: The Architectural and Transportation Barriers Compliance Board hereby revises its “Minimum Guidelines and Requirements for Accessible Design” (guidelines and requirements). These revisions respond to concerns registered by certain Board members and to issues raised in comments submitted during the rulemaking process. The purpose of the revisions is to make the guidelines and requirements more cost effective and consistent with Federal and nationally recognized standards while still providing ready access and use. The guidelines and requirements, as revised, will provide a basis for consistent and improved accessibility standards to be issued under the Architectural Barriers Act by the General Services Administration, the Department of Housing and Urban Development, the Department of Defense, and the United States Postal Service. For clarity, the guidelines and requirements are published in their entirety with the revisions incorporated.

EFFECTIVE DATE: September 3, 1982.

ADDRESS: U.S. Architectural and Transportation Barriers Compliance Board, 330 C Street, S.W., Room 1010, Switzer Building, Washington, D.C. 20202.

FOR FURTHER INFORMATION CONTACT:

For information on the applicability, scoping and technical provisions of these amendments, contact Ms. Sally Free, Office of Technical Services (202) 472-2700 (voice) or (202) 245-1801 (TDD); or Mr. Charles Goldman, General Counsel (202) 245-1801 (voice or TDD).

For additional copies of the revised Minimum Guidelines and Requirements for Accessible Design, contact Ms. Diane Pernick, Office of Public Information, Room 1010, 330 C Street, S.W., Washington, D.C. 20202; (202) 245-1591 (voice or TDD). Copies of the final rule, as revised,

are also available on tape for those with visual impairments. Tapes may be obtained at the above address or by contacting Ms. Pernick.

SUPPLEMENTARY INFORMATION:

A. Background

Section 502 of the Rehabilitation Act of 1973, Pub. L. 93-112, 29 U.S.C. 792, established the Architectural and Transportation Barriers Compliance Board (ATBCB) to ensure compliance with standards issued under the Architectural Barriers Act of 1968 (Pub. L. 90-480) (42 U.S.C. 4151 et seq.) as amended.[FN1] The Board consists of eleven Federal agency members plus eleven members appointed by the President from the general public.[FN2]

- 1 To implement this responsibility as it is set forth in 29 U.S.C. 792(b)(1) and in the 1978 amendments to the Rehabilitation Act of 1973, the ATBCB has published rules which provide a process to address instances of alleged non-compliance at 36 CFR Part 1150.
- FN2 The agency members are the heads of their designees (Executive Level IV or above) of the Departments of Education, Transportation, Health and Human Services, Housing and Urban Development, Labor, Interior, Justice, and Defense; General Services Administration; Veterans Administration; and United States Postal Service. The Act requires at least five of the eleven members from the general public to be physically handicapped. There is currently one public member vacancy.

Congress expanded the responsibilities of the ATBCB in the 1978 amendments to the Rehabilitation Act of 1973, Pub. L. 95-602, Section 118, by adding a new sub-paragraph, Section 502(b)(7), requiring the Architectural and Transportation Barriers Compliance Board (ATBCB) “to establish minimum guidelines and requirements for standards issued pursuant to * * * the Architectural Barriers Act of 1968.” Four Federal agencies—Department of Defense (DOD), General Services Administration (GSA), Department of Housing and Urban Development (HUD), and the United States Postal Service (USPS)—are to prescribe standards based on the minimum guidelines and requirements issued by the ATBCB for the design, construction, and alteration of certain Federal and federally-assisted buildings “to insure, whenever possible, that physically handicapped persons will have ready access to, and use of, such buildings.” 42 U.S.C. 4152-4154a. Existing access standards issued by those agencies will be revised to be consistent with the guidelines and requirements. Until such time as these revisions occur, their existing standards [FN3] will remain in effect. In support of efforts to revise these existing standards, the Director of the Office of Management and Budget has established a task force composed of representatives from the staffs of the ATBCB and its federal agency members to consider the development of a uniform standard that would be issued by all four standard-prescribing agencies.

- ³ GSA: 41 CFR 101-196, effective September 2, 1969, revised October 14, 1980 (45 FR 67664); HUD: 24 CFR Part 40, effective September 2, 1969; DOD: DOD 4279-1-M “Construction Criteria,” June 1, 1978, paragraph 5-6; USPS: Postal Service Contracting Manual, Publication 41 § 14-518.4, 39 CFR 601.100, as amended by hand-book RE-4, November 1979.

B. Rulemaking History

On January 6, 1981, the ATBCB adopted as a final rule its “Minimum Guidelines and Requirements for Standards for Accessibility and Usability of Federal and Federally-funded Buildings and Facilities by Physically Handicapped Persons” (Minimum Guidelines and Requirements for Accessible Design or guidelines and requirements). The guidelines and requirements were issued pursuant to Section 118(b)(3) of the Rehabilitation, Comprehensive Services and Developmental Disabilities Amendments of 1978, Pub. L. 95-602, codified at 29 U.S.C. 792, and were published in the Federal Register on January 16, 1981 (46 FR 4270). The Board based this final regulation, in part, on the American National Standard Institute’s “Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People” (ANSI A117.1-1980 or ANSI), Board discussions, and other available information including comments received in response to its Notice of Intent published in the Federal Register at 45 FR 12167 on February 22, 1980, and its Notice of Proposed Rulemaking (NPRM), published in the Federal Register at 45 FR 55010 on August 10, 1980.

On July 10, 1981, the ATBCB determined to publish in the Federal Register a notice proposing rescission of its January 6, 1981, Minimum Guidelines and Requirements for Accessible Design (46 FR 39764, ATBCB Docket 81-G-1, August 4, 1981) and the development of alternative minimum guidelines and requirements, as well as to publish a notice of proposed rulemaking regarding the regulation’s scoping and technical provisions for accessible telephones (46 FR 39764, ATBCB Docket 81-G-2, August 4, 1981). Because several Senators, Congressmen, individuals, and organizations requested additional time for the submission of comments to ATBCB Docket 81-G-1, the Board extended the initial 45 day comment period by an additional 45 days (46 FR 47444, September 29, 1981). In the notice extending the comment period, the Board identified portions of its January ***33863** 1981 regulation on which specific comments were requested. Such items including parking and passenger loading zones, entrances, elevators, toilet and bathing facilities, alarms, listening systems, additions, alterations, leases, special use facilities, and residential structures. The Board emphasized that it sought public comments on all parts of the guidelines and requirements and specifically asked for comments on which sections of this regulation should be retained, which sections should be modified, and which sections should be reserved. The Board also requested comments on the clarity and format of the regulations.

On December 1, 1981, the Board voted to adopt the amendments proposed at [46 FR 39764](#) on August 4, 1981 (ATBCB Docket 81-G-2), addressing scoping and technical requirements for public telephones and related equipment. Believing that these amendments to the rule resolved specific questions raised concerning these requirements, the Board decided to publish these amendments separately from the rulemaking concerning other portions of the guidelines and requirements. These amendments became effective on February 26, 1981, and were published at [47 FR 3934](#) on January 27, 1982. For clarity, they have also been published here within the revised rule.

In addition to resolving the telephone-related portions of the guidelines and requirements, the Board voted unanimously on December 1, 1981, to publish a notice of proposed rulemaking to amend other sections of its accessibility regulation ([47 FR 3939](#), ATBCB Docket 81-G-3, January 27, 1982). Amendments were proposed to Subpart A—General, Subpart C—Scoping, and Subpart D—Technical. Amendments to the guidelines and requirements' technical provisions (Subpart D) were proposed in order to reduce the number of differences between the Board's guidelines and requirements and the American National Standard Institute's “Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped Persons” (ANSI A117.1-1980 or ANSI). The proposed amendments responded to concerns registered by several Board members and to issues raised in comments submitted to ATBCB Docket 81-G-1 (notice of proposed rescission of the minimum guidelines and requirements), and the subsequent notice extending the comment period.

At its May 4, 1982, meeting, the Board voted unanimously to revise the minimum guidelines and requirements based on the comments received to ATBCB Dockets 81-G-1 and 81-G-3, Board discussions and other available information.

C. Overview of Regulations

The ATBCB Minimum Guidelines and Requirements for Accessible Design consist of five major components. Subpart A, General, sets out the purpose, applicability, definitions, relationship of the guidelines and requirements to the Architectural Barriers Act standards and other uses. Subpart B has been reserved. Subpart C enumerates the scoping (i.e., minimum number of elements and spaces required) and the specific technical provisions applicable to new construction, additions, and alterations of buildings and facilities. Subpart D contains the technical requirements. Subpart E, Special Buildings and Facility Types and Elements, continues to be reserved for the development of minimum guidelines and requirements for such special building and facility types and elements as residential structures, recreational facilities, historic structures, hospitals, food service facilities, and library stacks. Subpart E will include housing subject to standards under the Architectural Barriers Act to be issued by the Department of Housing and Urban Development. Pending the development of Subpart E, no HUD standards issued under the Architectural Barriers

Act shall provide for less accessibility than is provided in HUD's current minimum property standards and 24 CFR Part 40 (1981).

It is recognized that any requirement embodied in a standard based on the minimum guidelines and requirements is subject to the waiver and modification provisions of section 6 of the Architectural Barriers Act, 42 U.S.C. 4156 and 29 U.S.C. 792(b)(1).

Paragraph 1190.7, Effect of State or local law, has been deleted and the paragraph number reserved. This is because the minimum guidelines and requirements will not be used directly in Federal design projects, but rather the standards issued by the standard-setting agencies will be. Accordingly, the minimum guidelines and requirements do not directly relate to State or local law.

Throughout the rulemaking process, the ATBCB considered the specifications contained in ANSI A117.1-1980 along with the document's preliminary drafts. The Board has used, wherever appropriate, provisions that are consistent with those contained in the final ANSI document. ANSI is a private institution in New York City, not connected with the Federal Government, that provides a mechanism for creating voluntary consensus standards. Many of the original accessibility standards adopted by the Federal Government and by the states were derived from a document known as ANSI A117.1-1961, or "Specifications for Making Buildings and Facilities Accessible to and Usable by the Physically Handicapped," which was published in 1961. Departures from the ANSI A117.1-1961 recommendations as reaffirmed in 1971, have gradually developed as the state-of-the-art improved in designing and constructing accessible facilities. While the 1980 ANSI specifications are used by a number of states, other states continue to use ANSI 1961 and 1971, have adopted the minimum guidelines and requirements as issued in 1981, or, use standards unique to a particular state or locality.

The 1980 ANSI specifications recommend that scoping provisions be developed by administering agencies. In accordance with this recommendation, ANSI's "reasonable number" references have been given definite numerical values in order to produce explicit guidance for the Federal agencies issuing standards. These requirements have been developed by the Board for new construction, additions, and alternations and are based on the Federal Government's, states', and general public's experiences in applying accessibility requirements and in using buildings and facilities. As a result of this rulemaking process several changes have been made in Subpart C in order to clarify further the Board's requirements and to provide needed flexibility to Federal agencies implementing these requirements. Examples of revisions clarifying paragraphs contained in the new construction requirements (§ 1190.31) include entrances, toilet and bathing facilities, drinking fountains and water coolers, assembly areas, and listening systems, and storage. A paragraph has been added under § 1190.32, Additions, in order to clarify that mechanical rooms, storage areas, and other such minor additions which normally are not used by the public or employees of a facility do not trigger the requirements to provide an accessible entrance, accessible route, and accessible

toilet facilities. Section 1190.33(a)(2), concerning alterations of vertical access equipment (e.g., escalators), has been amended to exempt transit facilities from this requirement if it is structurally impracticable to make such alterations. The so-called 50 percent rule previously codified at 36 CFR Part 1190.33(c) has *33864 been divided into two paragraphs § 1190.33 (b) and (c), in order to provide agencies with additional clarification and flexibility in implementing these provisions. Section 1190.34, Leased Buildings, has been reserved in recognition of the fact that there is a legal dispute concerning what the Act requires of leased buildings which the courts are expected to resolve. The guidelines under § 1190.2 apply to the full extent that the Act does, but the Board expresses no position on the questions of interpretation of the Act which are now in dispute. Leased buildings and facilities constructed or altered in accordance with plans and specifications of the United States are required to comply with the applicable provisions of § 1190.31, New Construction, § 1190.32, Additions, and § 1190.33, Alterations.

In reviewing the ANSI technical requirements, ATBCB found that in some cases sufficient research and/or field experience did not support a Federal requirement in this area at this time. As a result, the ATBCB continues to reserve specific provisions of its technical requirements until such time as sufficient information is obtained. Provisions of the ATBCB guidelines and requirements that continue to be reserved include external door opening force limits, accessible windows, and the use of tactile warnings at locations other than doors leading to hazardous areas.

In addition to those areas previously reserved, the ATBCB has also determined that all sections and paragraphs regarding “signage” and opening time requirements for elevators should be reserved until these provisions can be further reviewed. It is anticipated that this review can be accomplished in the near future.

Principal departures from the ANSI A117.1-1980 technical requirements include maneuvering space at the latch side clearance of doors, clear space for toilet stalls in new construction, and placement of listening systems. The ATBCB, in addition, has provided clarification on several provisions including requirements for reach ranges, vertical clearances on accessible routes, egress, surface conditions, drainage, carpeting, van parking space and clearance requirements, curb ramps, elevator control mounting heights, platform lifts, clear openings for doorways, unisex toilets, alarm systems, and telephones. For informational purposes, references to specific ANSI provisions and figures have been included in the revised text of the minimum guidelines and requirements. If ANSI contains no similar provision, a note is included. If there are substantial differences in the ATBCB and ANSI provisions, the reference is marked by an asterisk (*).

For additional information, including an overview and section-by-section analysis of the Minimum Guidelines and Requirements, see the Preamble at 46 FR 4270 (January 16, 1981). The minutes of all Board meetings, comments, summaries, and other documents pertaining to this rulemaking are available for inspection at the Board offices.

D. Executive Order 12291, Regulatory Flexibility Act, and National Environmental Policy Act

This revision to the final rule has been submitted to the Office of Management and Budget and reviewed under procedures established in Executive Order 12291.

The Architectural and Transportation Barriers Compliance Board has concluded that the proposed rule will not have a significant economic impact on a substantial number of small entities and that the requirement of the Regulatory Flexibility Act, Pub. L. 96-354, for a regulatory flexibility analysis is not applicable. The Architectural and Transportation Barriers Compliance Board's final rule directly impacts four agencies—the General Services Administration, Department of Housing and Urban Development, Department of Defense, and the United States Postal Service—who are to issue standards in accordance with the Architectural Barriers Act of 1968, as amended. Final determination of possible effect, if any, on recipients of Federal construction funds and on small businesses will be made as these standards based on the guidelines and requirements are issued by the standard-prescribing agencies.

The Architectural and Transportation Barriers Compliance Board has also determined that the issuance of the revisions to the minimum guidelines and requirements will not have any significant impact on the environment. National Environmental Policy Act of 1969, as Amended, 42 U.S.C. 4332.

E. List of Subjects in 36 CFR Part 1190

Buildings, Handicapped, Aged, Transportation.

F. Conclusion

In consideration of the foregoing, Part 1190 of Title 36 of the Code of Federal Regulations is revised, as set forth below. For clarity, the regulation, as revised is published in its entirety.

Dated: May 4, 1982.

As amended July 13, 1982.

By vote of the Board.

Wm. Bradford Reynolds,

Chairperson, Architectural and Transportation Barriers Compliance Board and Assistant Attorney General for Civil Rights, Department of Justice.

PART 1190—MINIMUM GUIDELINES AND REQUIREMENTS FOR ACCESSIBLE DESIGN

Subpart A—General

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Subpart D—Technical Provisions

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Subpart E—Special Building or Facility Types or Elements. [Reserved]

Authority: Section 502(b)(7) of the Rehabilitation Act of 1973 (29 U.S.C. 792(b)(7)), as amended by the Rehabilitation, Comprehensive Services, and Developmental Disabilities Amendments of 1978 (Pub. L. 95-602), 92 Stat. 2979.

***33865 Subpart A—General**

36 CFR § 1190.1

§ 1190.1 Purpose.

The purpose of this part is to implement Section 502(b)(7) of the Rehabilitation Act of 1973 (29 U.S.C. 792(b)(7)), as amended, which requires the Architectural and Transportation Barriers Compliance Board to establish minimum guidelines and requirements for standards issued under the Architectural Barriers Act of 1968 (42 U.S.C. 4151 et seq.), as amended. This part and the standards to be based on it are intended to ensure that certain buildings and facilities financed with Federal funds are designed, constructed, or altered so as to be readily accessible to, and usable by, physically handicapped persons.

36 CFR § 1190.2

§ 1190.2 Applicability: Building and facilities subject to guidelines and standards

(a) Definitions. As used in this section, the term:

(a)(1) “Constructed or altered on behalf of the United States” means constructed or altered for purchase by the United States, or constructed or altered for the use of the United States.

(a)(2) “Primarily for use by able-bodied military personnel” means expected to be occupied, used, or visited principally by military service personnel. Examples of buildings so intended are barracks, officers' quarters, and closed messes.

(a)(3) “Privately owned residential structures” means a single or multifamily dwelling not owned by a unit or subunit of Federal, state, or local government.

(b) Buildings and facilities covered. Except as provided in paragraph (c) of this section, the standards to be issued by the standard-setting agencies in conformance with these minimum guidelines and requirements apply as provided in paragraph (d) of this section to any building or facility—

(b)(1) The intended use for which either—

(b)(1)(i) Will require that such building or facility be accessible to the public, or

(b)(1)(ii) May result in employment or residence therein of physically handicapped persons; and

(b)(2) Which is—

(b)(2)(i) To be constructed or altered by or on behalf of the United States;

(b)(2)(ii) To be leased in whole or in part by the United States after August 12, 1968, and before January 1, 1977, after construction or alteration in accordance with plans and specifications of the United States;

(b)(2)(iii) To be leased in whole or in part by the United States on or after January 1, 1977;

(b)(2)(iv) To be financed in whole or in part by a grant or loan made by the United States after August 12, 1968, if the building or facility may be subject to standards for design, construction, or alteration issued under the law authorizing the grant or loan; or

(b)(2)(v) To be constructed under the authority of the National Capital Transportation Act of 1960, the National Capital Transportation Act of 1965, or Title III of the Washington Metropolitan Area Transit Regulation Compact.

(c) Buildings and facilities not covered. The guidelines and requirements and the standards do not apply to—

(c)(1) Any privately owned residential structure, unless it is leased by the Federal government on or after January 1, 1977, for subsidized housing programs; or

(c)(2) Any building or facility on a military installation designed and constructed primarily for use by able-bodied military personnel.

(d) Application and effective date of standards. Any covered building or facility, as provided in this section, which is designed, constructed, or altered after the effective date of a standard issued in conformance with this guideline which is applicable to the building or facility, shall be designed, constructed, or altered in accordance with the standard. Any other building or facility covered by the Architectural Barriers Act, if and when required by law, shall comply with such standards issued in conformance with this part as are appropriate.

(e) Special building and facility types and elements. Subpart E is reserved for the development of minimum guidelines and requirements for special building and facility types and elements. This includes housing, subject to standards issued by the Department of Housing and Urban Development (HUD), to which the minimum guidelines and requirements in Subpart C and D do not apply. Pending the development of Subpart E, no HUD standards under the Architectural Barriers Act shall provide for less accessibility than is provided in HUD's current minimum property standards and 24 CFR Part 40 (1981).

36 CFR § 1190.3

§ 1190.3 Definitions.

As used in this part, the term:

“ATBCB” means the Architectural and Transportation Barriers Compliance Board.

“Access aisle” means a pedestrian space between elements such as parking spaces, seating, and desks.

“Accessible” means in compliance with the specifications and requirements of any applicable standard issued by a standard-setting agency in conformance with this part. “Accessible” describes a site, building, facility, or portion thereof that complies with these requirements, and that can be approached, entered, and used by physically handicapped persons. Accessible elements and spaces of a building or facility including doors provided adjacent to a turnstile or a revolving door, shall be subject to the same use patterns as other elements and spaces of the building or facility.

“Accessible route” means a continuous unobstructed path connecting accessible elements and spaces in a building or facility and complying with the space and reach requirements of any standard issued by a standard-setting agency in conformance with this part. (Interior accessible routes may include but are not limited to corridors, floors, ramps, elevators, lifts, and clear floor space at fixtures. Exterior accessible routes may include but are not limited to parking access aisles, curb ramps, walks, ramps, and lifts.)

“Accessible space” means a space that complies with any standard issued by a standard-setting agency in conformance with this part.

“Adaptability” means the ability of certain building spaces and elements such as toilet facilities and grab bars, to be added to, raised, lowered, or otherwise altered so as to accommodate the needs of either disabled or nondisabled persons, or to accommodate the needs of persons with different types or degrees of disability.

“Addition” means an expansion, extension, or increase in the gross floor area of a building or facility.

“Agency” means a Federal department, agency or instrumentality, as defined in sections 551(1) and 701(b)(1) of Title 5, United States Code, or an official authorized to represent an agency.

“Alteration” means any change in a building or facility or its permanent fixtures or equipment. It includes, but is not limited to, remodeling, renovation, rehabilitation, reconstruction, changes or rearrangement in structural parts, and extraordinary repairs. It does not include normal maintenance, reroofing, interior decoration, or changes to mechanical systems.

“Architectural Barriers Act” means the Architectural Barriers Act of 1968, Pub. L. 90-480, as amended, 42 U.S.C. 4151 et seq.

“Assembly area” means a room or space accommodating fifty or more individuals for religious, recreational, educational, political, social, or amusement purposes, or for the ***33866** consumption of food and drink, and including all connected rooms or spaces with a common means

of egress and ingress. Such areas as conference and meeting rooms accommodating fewer than fifty individuals are not considered assembly areas.

“Automatic door” means a door—

(1) Used for human passage and

(2) Equipped with a power-operated mechanism and controls that open and close the door upon receipt of a momentary actuating signal.

“Building” or “facility” means all or any portion of buildings, structures, equipment, roads, walks, parking lots, parks, sites, or other real property or interest in such property.

“Circulation path” means an exterior or interior way of passage from one place to another for pedestrians, including, but not limited to, walks, hallways, courtyards, stairways, and stair landings.

“Clear” means unobstructed.

“Common use areas” means those interior and exterior spaces available for use by all occupants and users of a building or facility, exclusive of any spaces that are made available for the use of a restricted group of people or the use of which is restricted to particular functions.

“Construction” means any erection of a new building or of an addition to an existing building or facility.

“Cross slope” means the slope that is perpendicular to the direction of travel (see “running slope”).

“Curb ramp” means a short ramp cutting through a curb or built up to it.

“Egress” or “means of egress” means a continuous and unobstructed way of exit travel from any point in a building or facility to an exterior walk or out of a fire zone. It includes all intervening rooms, spaces, or elements.

“Element” means an architectural or mechanical component of a building, facility, space, or site, e.g., telephone, curb ramp, door, drinking fountain, seating, water closet.

“Entrance” means any access point to a building or portion of a building or facility used for the purpose of entering. An entrance includes the approach walk, the vertical access leading to the entrance platform, the entrance platform itself, vestibules if provided, the entry door(s) or gate(s),

and the hardware of the entry door(s) or gate(s). The principal entrance of a building or facility is the main door through which most people enter.

“Essential features” means those elements and spaces that make a building or facility usable by, or serve the needs of, its occupants or users. Essential features include but are not limited to entrances, toilet rooms, and accessible routes. Essential features do not include those spaces that house the major activities for which the building or facility is intended, such as classrooms and offices.

“Exception” means a special provision in this part or in a standard which indicates an acceptable alternative, under specified circumstances, to a requirement stated directly above the exception.

“Extraordinary repair” means the replacement or renewal of any element of an existing building or facility for purposes other than normal maintenance.

“Full and fair cash value” is calculated for the estimated date on which work will commence on a project and means—

(2)(1) The assessed valuation of a building or facility as recorded in the assessor's office of the municipality and as equalized at one hundred percent (100%) valuation (Note: The one hundred percent (100%) equalized assessed value shall be based upon the state'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%), and 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, and the equalized assessed value equals \$500,000.00.);

(2)(2) The replacement cost; or

(2)(3) The fair market value.

“Guidelines and requirements” means this part.

“Operable part” means a part of equipment or an appliance used to insert or withdraw objects, to activate or deactivate equipment, or to adjust the equipment (e.g., coin slot, push button, handle).

“Physically handicapped person” means any person who has a disability which substantially limits one or more major life activity, including but not limited to such functions as performing manual tasks, walking, seeing, hearing, speaking, breathing, learning, and working. Physically handicapped persons include those having the inability to walk, difficulty walking, reliance on walking aids, sight and hearing disabilities, incoordination, reaching and manipulation disabilities, lack of stamina, difficulty interpreting and reacting to sensory information, and extremes in physical size.

“Power-assisted door” means a door—

(2)(3)(1) Used for human passage; and

(2)(3)(2) With a mechanism that helps to open the door, or relieve the opening resistance of a door, upon the activation of a switch or a continued force applied to the door itself.

“Public use” means any interior and exterior rooms or spaces made available to the general public. Public use may be provided at a building or facility that is privately or publicly owned.

“Ramp” means a walking surface that has a running slope greater than 1:20.

“Reconstruction” means the act or process of reproducing by new construction the exact form and detail of a vanished building, structure, or object, or a part thereof, as it appeared at a specific period of time.

“Restoration” means the act or process of accurately recovering the form and details of a property and its setting as it appeared at a particular period of time by means of the removal of later works or by replacement of missing earlier work.

“Running slope” means the slope that is parallel to the direction of travel (see “cross slope”).

“Section 502 of the Rehabilitation Act” or “Section 502” means Section 502 of the Rehabilitation Act of 1973, Pub. L. 93-112, 29 U.S.C. 792, as amended.

“Shall” denotes a mandatory requirement.

“Signage” means the display of written, symbolic, tactile, or pictorial information.

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

“Site improvements” means landscaping, paving for pedestrian and vehicular ways, outdoor lighting, recreational facilities, and similar site additions.

“Space” means a definable area, e.g., toilet room, hall, assembly area, parking area, entrance, storage room, alcove, courtyard, or lobby.

“Standard” means any standard for accessibility issued under the Architectural Barriers Act.

“Standard-setting agency” means one of the four agencies required to issue standards under the Architectural Barriers Act, i.e., the General Services Administration, the Department of Housing and Urban Development, the Department of Defense, and the United States Postal Service.

“Structural impracticability” means having little likelihood of being accomplished without removing or altering a load-bearing structural member and/or incurring an increased cost of 50 percent or more of the value of the element of the building or facility involved.

***33867** “Tactile” means perceptible through the sense of touch.

“Tactile warning” means 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.

“Temporary” means elements are not permanent (i.e., installed for less than six months) and are not required for safety reasons.

“Walk” means an exterior pathway or space with a prepared surface intended for pedestrian use and having a slope of 1:20 or less. It includes general pedestrian areas such as plazas and courts.
36 CFR § 1190.4

§ 1190.4 Issuance of Architectural Barriers Act standards by standard-setting agencies.

(a) These guidelines and requirements are the minimum guidelines and requirements for standards issued under the Architectural Barriers Act by the Administrator of General Services, Secretary of Housing and Urban Development, Secretary of Defense, and Postmaster General.

(b) Standards which conform to or exceed the provisions of the guidelines shall be deemed in compliance with the guidelines and requirements.

(c) Each standard-setting agency is encouraged to issue standards which follow the format of these guidelines and requirements. However, standards which differ in format from these guidelines and requirements but are otherwise consistent with the guidelines and requirements shall be deemed in compliance with these guidelines and requirements.

36 CFR § 1190.5

§ 1190.5 Guidelines: Other uses.

These minimum guidelines and requirements and those standards published by the four standard-setting agencies under the Architectural Barriers Act of 1968, as amended, may be used by other governmental and non-governmental entities, along with other sources, to develop their own standards.

36 CFR § 1190.6

§ 1190.6 Interpretation of guidelines.

(a) These guidelines and requirements shall be liberally construed to carry out the purposes and provisions of the Architectural Barriers Act and Section 502 of the Rehabilitation Act.

(b) Words importing the singular number may extend and be applied to the plural and vice versa. However, unless otherwise specified in the guidelines and requirements, each element or space of a particular building or facility shall comply with the guidelines and requirements.

(c) Use of the imperative mood, e.g., “provide,” means the provision is mandatory. This form is being used to avoid wordiness and monotony but means the same as if the word “shall” had been included.

(d) The provisions in the minimum guidelines and requirements are based upon adult dimensions and anthropometrics.

(e) Dimensions that are not marked “minimum” or “maximum” are absolute, unless otherwise indicated in the text or captions. All dimensions are subject to conventional building tolerances for field conditions.

36 CFR § 1190.7

§ 1190.7 [Reserved]

36 CFR § 1190.8

§ 1190.8 Site conditions. [Reserved]

36 CFR § 1190.9

§ 1190.9 Severability.

If any section, subsection, paragraph, sentence, clause, or phrase of these guidelines and requirements is declared invalid for any reason, the remaining portions of these guidelines and requirements that are severable from the invalid part shall remain in full force and effect. If a part of these guidelines and requirements is invalid in one or more of its applications, the part shall remain in effect in all valid applications that are severable from the invalid applications.

Subpart B—[Reserved]

Subpart C—Scope

36 CFR § 1190.30

§ 1190.30 Scope. [Reserved]

36 CFR § 1190.31

§ 1190.31 Accessible buildings and facilities: New construction.

Except as otherwise provided in this part, all new construction of buildings and facilities shall comply with the following minimum requirements:

(a) Accessible route. At least one accessible route shall comply with § 1190.50, Walks, floors, and accessible routes, and shall connect an accessible building entrance with:

(a)(1) Transportation facilities located within the property line of a given site, including passenger loading zones, public transportation facilities, taxi stands, and parking;

(a)(2) Public streets and sidewalks;

(a)(3) Other accessible buildings, facilities, elements, and spaces that are on the same site; and

(a)(4) All accessible spaces, rooms, and elements within the building or facility.

(b) Parking and passenger loading zones.

(b)(1) If any parking is provided, for employees or visitors, or both, each such parking area shall comply with § 1190.60, Parking and passenger loading zones, and the following table:

Total parking in lot	Required minimum number of accessible spaces
1 to 25	1.
26 to 50	2.
51 to 75	3.
76 to 100	4.
101 to 150	5.
151 to 200	6.
201 to 300	7.
301 to 400	8.
401 to 500	9.
501 to 1,000	2 pct of total.
Over 1,000	20 plus 1 for each 100 over 1,000.

(b)(1)(i) Exception: The total number of accessible parking spaces may be distributed among parking lots, if greater accessibility is achieved.

(b)(1)(ii) Exception: This paragraph does not apply to parking provided for official government vehicles owned or leased by the government and used exclusively for government purposes.

Parking spaces for side lift vans, § 1190.60(c)(2)(a), are accessible parking spaces and may be used to meet the requirements of this paragraph.

(b)(2) If passenger loading zones are provided, at least one passenger loading zone shall comply with § 1190.60, Parking and passenger loading zones.

(c) Ramps and curb ramps. If there is an abrupt level or grade change, if the slope is greater than 1:20, and if no other means of accessible vertical access is provided, a ramp or curb ramp shall be provided. If a ramp or curb ramp is provided, it shall comply with § 1190.70, Ramps and curb ramps.

(d) Stairs. Except as provided in § 1190.31(f)(1), stairs connecting levels that are not connected by an elevator shall comply with § 1190.80, Stairs.

(e) Handrails. Handrails shall be provided at each ramp and staircase as required in § 1190.70, Ramps and curb ramps, and § 1190.80, Stairs, respectively, and shall comply with § 1190.90, Handrails.

(f) Elevators. One passenger elevator complying with § 1190.100, Elevators shall serve each level in all multi-story buildings and facilities. If more than one elevator is provided, each elevator shall comply with § 1190.100, Elevators.

(f)(1) Exception. Elevator pits, elevator penthouses, mechanical rooms, piping, or equipment catwalks are excepted from this requirement.

(f)(2) Exception. Ramps or platform lifts complying with § 1190.70, Ramps and curb ramps, and § 1190.110, Platform lifts, respectively, may be used in lieu of an elevator.

(g) Platform lifts. If the slope is greater than 1:20, and if no other means of accessible vertical access is provided, a platform lift may be provided if there is an abrupt level or grade change. If a ***33868** platform lift is provided, it shall comply with § 1190.110, Platform lifts.

(h) Entrances. At least one principal entrance at each grade floor level to a building or facility shall comply with § 1190.120, Entrances. When a building or facility has entrances which normally serve any of the following functions: transportation facilities, passenger loading zones, accessible parking facilities, taxi stands, public streets and sidewalks, accessible interior vertical access, then at least one of the entrances serving each such function shall comply with § 1190.120, Entrances. Because entrances also serve as exits, particularly in cases of emergency, the proximity of such accessible entrances and exits to all parts of the building is essential. It is preferable that all or most entrances and exits be accessible. One entrance may serve more than one function.

(i) Doors.

(i)(1) At each accessible entrance to a building or facility, at least one door shall comply with § 1190.130, Doors.

(i)(2) Within a building or facility, at least one door at each accessible entrance to the accessible space shall comply with § 1190.130, Doors.

(i)(3) Each door required by § 1190.50(h), Egress, shall comply with § 1190.130, Doors.

(i)(4) Each door that is an element of an accessible route shall comply with § 1190.130, Doors.

(j) Windows. [Reserved]

(k) Toilet and bathing facilities. If toilet facilities are provided, then each public and common use toilet room shall comply with § 1190.150, Toilet and bathing facilities. Other toilet rooms shall be adaptable. If bathing facilities are provided, then each public and common use bathroom shall comply with § 1190.150. In each such facility where any of the fixtures and accessories specified in § 1190.150 (e) and (f) are provided, at least one accessible fixture and accessory of each type provided shall comply with § 1190.150 (e) and (f). For special use situations, refer to Subpart E, Special Building or Facility Types or Elements.

(l) Drinking fountains and water coolers. If drinking fountains or water coolers are provided, approximately 50% of those provided on each floor shall comply with § 1190.160, Drinking fountains and water coolers, and shall be dispersed throughout the floor. If only one drinking fountain or water cooler is provided on any floor, it shall comply with § 1190.160. It is preferred that if only one drinking fountain or water cooler is provided on any floor, then it should have two levels with the lower level complying with § 1190.160.

(m) Controls and operating mechanisms. If controls and operating mechanisms are provided in accessible spaces, along accessible routes or as parts of accessible elements, each shall comply with § 1190.170, Controls and operating mechanisms.

(n) Alarms. If alarm systems are provided, each shall comply with § 1190.180, Alarms.

(o) Tactile warnings. Tactile warnings complying with § 1190.130(g), Doors to hazardous areas, shall be provided on the hardware of all doors that lead to hazardous areas. Tactile warnings shall not be used at emergency exit doors.

(p) Signage. [Reserved]

Note.—In response to comments received on ATBCB rulemaking, the Board intends to address concerns raised regarding the regulation's scoping and technical provisions on signage. A separate rulemaking proposal will be published in the near future.

(q) Telephones.

(q)(1) If public telephones are provided, then accessible public telephones shall comply with § 1190.210, Telephones, and the following table:

Number of public telephones provided on each floor	Number of telephones required to be accessible [FN1]
One or more single unit installations	One per floor.
One bank [FN2]	One per floor.
Two or more banks [FN2]	One per bank. Accessible unit may be installed as a single unit in proximity (either visible or with signage) to bank.
At least one public telephone per floor shall meet the requirements for a forward reach telephone. [FN3]	

1 Additional public telephones may be installed at any height; however, the installation of accessible telephones is strongly recommended. Unless otherwise specified, accessible telephones may be either forward reach or side reach telephones.

2 A bank consists of two or more adjacent public telephones usually installed as a unit.

3 Exception for exterior installations only: If dial-tone-first service is not available, then a side reach telephone may be installed instead of the required forward reach telephone (i.e., one telephone in proximity to each bank shall meet the requirements of § 1190.210, Telephones).

(q)(2) At least one of the public telephones complying with § 1190.210, Telephones, shall be equipped with a volume control. The installation of additional volume controls is encouraged and these may be installed on any public telephone provided.

(q)(3) Signage. [Reserved]

(r) Seating, tables, and work surfaces. If fixed seating, tables, and work surfaces are provided, at least 5 percent but always at least one of each element shall comply with § 1190.220, Seating, tables, and work surfaces.

(s) Assembly areas, conference, or meeting rooms.

(s)(1) If assembly areas are provided, accessible viewing positions shall comply with § 1190.230, Assembly areas, and the following table:

Capacity of assembly area	Number of viewing positions
50 to 75	3.
76 to 100	4.
101 to 150	5.
151 to 200	6.
201 to 300	7.
301 to 400	8.
401 to 500	9.
501 to 1,000	2 pct of total.
Over 1,000	20 plus 1 for each 100 over 1,000.

(s)(2) Assembly areas with audio-amplification systems shall have a listening system complying with § 1190.230 to assist a reasonable number of people but no fewer than two, with severe hearing loss. For assembly areas without amplification systems and for spaces used primarily as meeting and conference rooms, a permanently installed or portable listening system shall be provided. This requirement may be satisfied by use of a portable system that requires little or no installation. If portable systems are used for conference and meeting rooms, the system may serve more than one room.

(s)(3) If performing areas are provided, accessible routes shall comply with § 1190.50, Walks, floors, and accessible routes, to performing areas, including but not limited to stages, arena floors, dressing rooms, locker rooms, and other rooms and spaces required for use of the assembly area. (ANSI 4.33.5)

(s)(3)(i) Exception. In alteration work where it is structurally impracticable to alter all performing areas to be on an accessible route, at least one of each type shall be made accessible. (ANSI 4.33.6* and 4.33.7*)

(s)(3)(ii) [Reserved]

(t) Storage. If storage facilities such as cabinets, shelves, closets and drawers are provided in accessible spaces for occupant use, at least one storage facility of each type provided shall comply with § 1190.240, Storage. Additional storage may be provided outside of the dimensions provided in § 1190.240.

36 CFR § 1190.32

§ 1190.32 Accessible buildings and facilities: Additions.

Each addition to an existing building or facility shall comply with § 1190.31, New construction, except as follows:

(a) Entrances. If a new addition to a building or facility does not have an entrance, then at least one entrance in the existing building or facility shall comply with § 1190.120, Entrances.

(b) Accessible route. If the only accessible entrance to the addition is *33869 located in the existing building or facility, then at least one accessible route shall comply with § 1190.50, Walks, floors, and accessible routes, and shall provide access through the existing building or facility to all rooms, elements, and spaces in the new addition.

(c) Toilet and bathing facilities. If there are no toilet rooms and bathing facilities in the addition and these facilities are provided in the existing building, then at least one toilet and bathing facility in the existing building shall comply with § 1190.150, Toilet and bathing facilities.

(d) Elements, spaces, and common areas. If elements, spaces, or common areas are located in the existing building and they are not provided in the addition, consideration should be given to making those elements, spaces, and common areas accessible in the existing building.

(e) Exception: Mechanical rooms, storage areas, and other such minor additions which normally are not frequented by the public or employees of the facility are excepted from § 1190.32, (a), (b), (c) and (d).

(f) Signage. [Reserved]
36 CFR § 1190.33

§ 1190.33 Accessible buildings and facilities: Alterations.

(a) General. Alterations to existing buildings or facilities shall comply with the following:

(a)(1) If existing elements, spaces, essential features, or common areas are altered, then each such altered element, space, feature, or area shall comply with the applicable provisions of § 1190.31, Accessible buildings and facilities: New construction.

(a)(2) If power-driven vertical access equipment (e.g., escalator) is planned or installed where none existed previously, or if new stairs (other than stairs installed to meet emergency exit requirements) requiring major structural changes are planned or installed where none existed previously, then a means of accessible vertical access shall be provided that complies with § 1190.70, Ramps and curb ramps; § 1190.100, Elevators; or § 1190.110, Platform lifts, except to the extent where it is structurally impracticable in transit facilities.

(a)(3) If alterations of single elements, when considered together, amount to an alteration of a space of a building or facility, the entire space shall be made accessible.

(a)(4) Signage. [Reserved]

(b) Where a building or facility is vacated and it is totally altered, then it shall comply with § 1190.31 Accessible buildings and facilities: New construction, except to the extent where it is structurally impracticable.

(c) Where substantial alteration occurs to a building or facility, then each element or space that is altered or added shall comply with the applicable provisions of § 1190.31, Accessible buildings and facilities: New construction, except to the extent where it is structurally impracticable and the altered building or facility shall contain:

(c)(1) At least one accessible route complying with § 1190.50, Walks, floors, and accessible routes, and § 1190.33(a);

(c)(2) At least one accessible entrance complying with § 1190.120, Entrances. If additional accessible entrances are altered, then they shall comply with § 1190.33(a)(1); and

(c)(3) The following toilet facilities, whichever number is greater:

(c)(3)(i) At least one toilet facility for each sex in the altered building complying with § 1190.150, Toilet and bathing facilities;

(c)(3)(ii) At least one toilet facility for each sex on each substantially altered floor, where such facilities are provided, complying with § 1190.150, Toilet and bathing facilities.

In making the determination as to what constitutes “substantial alteration,” the agency issuing standards for the facility shall consider the total cost of all alterations (including but not limited to electrical, mechanical, plumbing, and structural changes) for a building or facility within any twelve (12) month period. For guidance in implementing this provision, an alteration to any building or facility is to be considered substantial if the total cost for this twelve month period amounts to 50% or more of the full and fair cash value of the building as defined at § 1190.3.

(c)(4) Exception. If the cost of the elements and spaces required by § 1190.33(c) (1), (2), and (3) exceeds 15% of the total cost of all other alterations, then a schedule may be established by the standard-setting and/or funding agency to provide the required improvements within a 5 year period.

(c)(5) Exception. If the alteration is limited solely to the electrical, mechanical, or plumbing system and does not involve the alteration of any elements and spaces required to be accessible under Part 1190, then § 1190.33(c) does not apply.

(c)(6) Exception. Consideration shall be given to providing accessible elements and spaces in each altered building or facility complying with:

(c)(6)(i) Section 1190.60, Parking and Passenger Loading Zones:

(c)(6)(ii) Section 1190.160, Drinking Fountains and Water Coolers;

(c)(6)(iii) Section 1190.180, Alarms;

(c)(6)(iv) Section 1190.210, Telephones;

(c)(6)(v) Section 1190.220, Seating Tables and Work Surfaces;

(c)(6)(vi) Section 1190.230, Assembly Areas;

(c)(6)(vii) Section 1190.240, Storage.

(c)(7) Exception: Mechanical rooms and other spaces which normally are not frequented by the public or employees of the facility or which by nature of their use are not required by the Architectural Barriers Act to be accessible are excepted from § 1190.33(c) (1), (2), and (3).

36 CFR § 1190.34

***33870 § 1190.34 [Reserved]**

Note.—The Minimum Guidelines and Requirements for Accessible Design require that all buildings and facilities covered by the Architectural Barriers Act are subject to this Part. As published on January 16, 1981, the guidelines and requirements specifically provided that all buildings and facilities leased by the Federal Government must be accessible at the time the building or facility is leased. In view of the continuing controversy over the point at which the Architectural Barriers Act applies to leased buildings and facilities, this Part no longer specifies at which point the accessibility standard must apply to leased buildings and facilities. This change has been made solely in recognition of the fact that the issue concerning the applicability of the Architectural Barriers Act to certain leased buildings is a legal one on which the Board expresses no position.

Subpart D—Technical Provisions

Note.—References to the American National Standard Institute A117.1-1980 (ANSI) are for informational purposes only. Provisions in most cases are similar but not necessarily identical. ANSI sections and figures having major differences from ATBCB requirements are marked by an asterisk (*). If a provision is contained in the Minimum Guidelines and Requirements, but is not found in ANSI, it is also noted.

36 CFR § 1190.40

§ 1190.40 Human data.

(a) General. This section is the basis for clearances and equipment location required by other sections. (ANSI 4.2)

(b) Moving wheelchair clearances. Provide the clearances for moving wheelchairs as follows:

(b)(1) Minimum clear width for passage of a single wheelchair is 3'-0" (915 mm) (fig. 4.1). (ANSI 4.2.1) (ANSI figures 1 and 24(e))

(b)(1)(i) Exception. The clear width may be reduced to 2'-0" (610 mm) in length at points such as doorways (fig. 4.1). (ANSI 4.2.1) (ANSI figures 1 and 24(e))

(b)(1)(ii) [Reserved].

This space allowance is for makeup purposes for illustrations in Part III

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(b)(2) Minimum clear width for two wheelchairs to pass is 5'-0" (1,525 mm) (fig. 4.2). (ANSI 4.2.2) (ANSI figure 2)

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(b)(3) Minimum clear space to make a 180 degree turn is 5'-0" (1,525 mm) diameter (fig. 4.3) or a T-shaped space that complies with Figure 4.4. (ANSI 4.2.3) (ANSI figures 3(a) and 3(b)*)

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(c) Clear floor or ground space. Provide the following clear floor or ground space to accommodate a single, stationary occupied wheelchair:

(c)(1) Clear floor or ground space shall be a minimum of 2'-6" by 4' 6"-0" (760 mm by 1,220 mm) (fig. 4.5). (ANSI 4.2.4.1) (ANSI figures 4(a) and 6(a))

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*33871 (c)(2) Position clear floor or ground space for either forward or parallel approach to an object or element as required (figs. 4.6 and 4.7). (ANSI 4.2.4.1) (ANSI figures 4 (b) and (c))

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(c)(3) Clear floor or ground space may overlap the clear space required under some objects. (ANSI 4.2.4.1)

(c)(4) Clear floor or ground space shall adjoin or overlap an accessible route or another clear floor or ground space for at least one full, unobstructed side. (ANSI 4.2.4.2)

(c)(5) If clear floor or ground space is confined or restricted on all or part of three sides, provide additional maneuvering space adjoining clear floor or ground space as shown in figures 4.8, 4.9, 4.10 and 4.11. For example, a 2'-6" depth is satisfactory for a telephone enclosure that is 2'-6' square since the telephone protrudes from the wall 6" and thus reduces the actual depth of the "alcove" to 2'-0". (ANSI 4.2.4.2) (ANSI figures 4 (d) and (e))

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(c)(6) Surfaces of clear floor or ground spaces shall comply with § 1190.50(i), Walks, floors, and accessible routes. (ANSI 4.2.4.3) (d) Reach limitations for wheelchair users. Reach limitations for wheelchair users are a function of the mounting height of the object being reached and the distance the object is from the user (figures 4.12 and 4.13) (ANSI—no similar provision).

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***33872** (c)(6)(1) Forward reach to surface mounted object:

(c)(6)(1)(i) Maximum height of reach for a forward approach shall be 4'-0" (1,220 mm) (fig. 4.14). (ANSI 4.2.5) (ANSI figure 5(a))

(c)(6)(1)(ii) Minimum height of reach for a forward approach shall be 1'-3" (380 mm) (fig. 4.14). (ANSI 4.27.3) (ANSI—no similar figure)

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(c)(6)(1)(iii) Maximum height of reach for a forward approach over an obstruction shall comply with figures 4.15 and 4.16. (ANSI 4.2.5) (ANSI figure 5(b))

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(c)(6)(2) Side reach (parallel approach):

(c)(6)(2)(i) Maximum height of reach for a side approach shall be 4'-6' '' (1,370 mm) (fig. 4.17). (ANSI 4.2.6) (ANSI figure 6(b))

(c)(6)(2)(ii) Minimum height of reach for a side approach shall be 9 inches (230 mm) (fig. 4.17). Electrical and communications system receptacles on walls shall be mounted no less than 1'-3'' (380 mm) above finished floor (a.f.f.) (ANSI 4.2.6 and 4.27.3) (ANSI figure 6(b))

(c)(6)(2)(iii) The clear floor space for a parallel approach can be located a maximum of 10 inches (55 mm) from the wall or surface of the object to be reached as shown in figures 4.17 and 21.1. (ANSI—no similar provision)

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***33873** (c)(6)(2)(iv) Maximum height of reach for a side approach over an obstruction shall comply with figure 4.18. (ANSI 4.2.6) (ANSI figure 6(c))

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(c)(6)(3) Special equipment, in order to be accessible, may require measurements different from those provided above and these measurements should be dictated by equipment design. (ANSI 4.27.3)

36 CFR § 1190.50

§ 1190.50 Walks, floors, and accessible routes.

(a) General. Accessible routes required by Subpart C—Scope shall comply with this section. (ANSI 4.3.1)

(b) Width. Provide the minimum clear width for continuous passage and for point passage required by § 1190.40(b)(1) (fig. 4.1). Provide maneuvering clearances as shown in figures 5.1 and 5.2 if the accessible route requires a turn around an obstruction. (ANSI 4.3.3) (ANSI figures 7 (a) and (b))

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(c) Protruding objects. No protruding object shall reduce the clear width of an accessible route or maneuvering space below the minimum required by § 1190.40(b)(1) (fig. 5.3). (ANSI 4.4) (ANSI figure 8(e))

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(c)(1) Objects 2'-0" (610 mm) long or less that are fixed to wall surfaces shall not project into accessible routes more than 4 inches (100 mm) if mounted with their leading edges between 2'-3' and 6'-8" (685 mm and 2030 mm) (nominal dimension) above finished floor (fig. 5.4). (ANSI 4.4.1) (ANSI figure 8(a))

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(c)(2) Objects fixed to wall surfaces may project more than 4 inches (100 mm) if mounted with the lower extreme of their leading edge at or below 2'-3" (685 mm) above the finished floor. These objects shall not project into the required minimum clear width (figure 5.5). (ANSI 4.4.1) (ANSI figure 8(a))

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(c)(3) Free standing objects mounted on posts or pylons may overhang the circulation path in the direction(s) of approach a maximum of 1'-0" (305 mm) from 2'-3" to 6'-8" (685 mm to 2030 mm) above ground or finished floor surface (figures 5.6 and 5.7). An overhang may be greater than 1'-0" (305 mm) only if it is not located within a circulation path. (ANSI 4.4.1) (ANSI figure 8(d))

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***33874** (c)(4) Objects mounted with their leading edge at or below 2'-3" (685 mm) above the finished floor may protrude any amount (figures 5.8 and 5.9). (ANSI 4.4.1) (ANSI figure 8(c))

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(d) Passing space. If an accessible route has less than a 5'-0" (1,525 mm) clear width, provide accessible passing spaces at intervals not exceeding 200 ft. (61 m). See figures 4.2 and 4.4 for examples of acceptable passing spaces. (ANSI 4.3.4) (ANSI figures 2 and 3(b))

(e) Vertical clearance. Provide a minimum vertical clearance (headroom) of 6' -8" (2,030 mm) throughout accessible routes. If vertical clearance of area adjoining accessible route is reduced to less than 6'-8" (nominal dimension), provide a barrier to warn blind or visually-impaired persons (fig. 5.10). (ANSI 4.4.2*) (ANSI figures 8(a) and 8(c); ANSI does not have a figure similar to ATBCB 5.10)

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(f) Slope. Accessible routes with running slopes greater than 1:20 shall be considered ramps and shall comply with § 1190.70, Ramps and curb ramps. Cross-slopes on accessible routes shall not exceed 1:48 (¼ inch per foot). (ANSI 4.3.7)

(g) Changes in level. All changes in level or grade in accessible routes shall comply with the following (ANSI 4.3.8):

(g)(1) Up to ¼ inch (6 mm): vertical without edge treatment (fig. 5.11). (ANSI 4.3.8 and 4.5.2) (ANSI—no figure similar to ATBCB 5.11)

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(g)(2) ¼ inch to ½ inch (6 mm to 13 mm): beveled with slope not exceeding 1:2 (Fig. 5.12). (ANSI 4.3.8 and 4.5.2) (ANSI—no figure similar to ATBCB 5.12)

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(g)(3) Greater than ½ inch (13 mm): comply with § 1190.70, Ramps and curb ramps; § 1190.100, Elevators; or § 1190.110, Platform Lifts. (ANSI 4.3.8 and 4.5.2)

(g)(3)(i) Exception. Exterior sliding patio door thresholds may be ¾ ' ' (19 mm) *33875 maximum if beveled with slope not exceeding 1:2. (ANSI 4.13.8)

(g)(3)(ii) [Reserved]

(g)(4) Stairs shall not be the sole means of vertical access along an accessible route. (ANSI 4.3.8)

(h) Egress. Arrange egress so as to be readily accessible from all accessible rooms and spaces. Where fire code provisions require more than one means of egress from any space or room, then more than one means of accessible egress shall also be provided to handicapped persons. (ANSI 4.3.10)

(h)(1) Exception. In multiple story buildings and facilities where at-grade egress from each floor is impossible, either of the following is permitted:

(i) The provision of approved fire and smoke partitions within each story creating horizontal exits (ANSI—no similar provision); or

(ii) The provision of areas of refuge within each floor approved by agencies having authority for safety. (ANSI 4.3.10)

(ii)(2) [Reserved].

(ii)(2)(i) Ground and floor surfaces.

(ii)(2)(i)(1) Surface Condition. Surfaces of paving and floors shall be stable, firm, and slip-resistant. Irregular paving and flooring materials that may cause tripping or difficult wheelchair passage because of height differentials are not permitted on accessible routes. (ANSI 4.5.1*)

(ii)(2)(i)(2) Drainage. Design accessible routes so that their surfaces will not collect water. Gratings located in accessible routes shall have openings no greater than ½ inch (13 mm) when measured in the dominant direction of travel (fig. 5.13). Gratings with elongated openings shall be so placed that the long dimension is perpendicular to the predominant route of travel (figure 5.14). (ANSI 4.5.4 and 4.8.8) (ANSI—no figures similar to 5.13 and 5.14)

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(ii)(2)(i)(3) Carpeting. If carpet or carpet tile is used on an accessible ground or floor surface, it shall:

(ii)(2)(i)(3)(i) Be securely attached (ANSI 4.5.3);

(ii)(2)(i)(3)(ii) Have a firm cushion or pad or no cushion or pad (ANSI 4.5.3);

(ii)(2)(i)(3)(iii) Have a construction of level loop, textured loop, level cut pile, or level cut/uncut pile (ANSI 4.5.3);

(ii)(2)(i)(3)(iv) If carpet tile is used on an accessible ground or floor surface, it shall have a maximum combined thickness of pile, cushion, and backing height of ½ inch (13 mm) (figure 5.15). If carpet is used, then it should also meet this requirement, but in no case shall the pile height exceed ½ inch. (ANSI 4.5.3*) (ANSI—no figure similar to ATBCB 5.15)

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(ii)(2)(i)(3)(v) Exposed edge(s) and trim shall be securely fastened in place and shall comply with § 1190.50(g), Changes in level. (ANSI 4.5.3)
36 CFR § 1190.60

§ 1190.60 Parking and passenger loading zones.

(a) General. Parking and passenger loading zones required to be accessible by Subpart C—Scope shall comply with this section. (ANSI 4.6.1)

(b) Location. Accessible parking spaces and accessible passenger loading zones shall:

(b)(1) Be the spaces or zones located closest to the nearest accessible entrance on an accessible route (ANSI 4.6.2); and

(b)(2) If located in a separate building or facility, be on the shortest accessible route to an accessible entrance of the parking facility. (ANSI 4.6.2)

(c) Accessible parking spaces. Provide accessible parking spaces (figure 6.1) (ANSI figure 9) that:

(c)(1) Are at least 8'-0" (2,440 mm) wide (ANSI, 4.6.3);

(c)(2) Have an adjacent access aisle at least 5'-0" (1,525 mm) wide and shall comply with § 1190.50, Walks, floors, and accessible routes. (ANSI 4.6.3)

(c)(2)(i) Exception. If accessible parking spaces for vans designed for handicapped persons vans are provided, each should have an adjacent access aisle at least 8'-0" (2,440 mm) wide complying with § 1190.50, Walks, floors, and accessible routes. (ANSI—no similar provision)

(c)(2)(ii) [Reserved].

(c)(3) May share a common access aisle between two parking spaces (ANSI 4.6.3);

(c)(4) Do not permit parked vehicle overhangs to reduce the clear width of accessible routes (ANSI 4.6.3); and

(c)(5) Have parking spaces and access aisles with surface slopes not exceeding 1:48 (¼ inch per foot) in all directions. (ANSI—no similar provision)

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(d) Passenger loading zones. Provide accessible passenger loading zones that:

(d)(1) Have an access aisle at least 5'-0" (1,525 mm) wide by 20'-0" (6 m) long adjacent, parallel, and level with the vehicle standing space (figure 6.2) (ANSI 4.6.5*) (ANSI figure 10*);

(d)(2) Have curb ramps conforming to § 1190.70, Ramps and curb ramps, if there are curbs between the access aisle and other portions of the accessible route (ANSI 4.6.5); and

***33876** (d)(3) Have vehicle standing spaces and access aisles with surface slopes not exceeding 1:48 (¼ inch per foot) in all directions. (ANSI—no similar provision)

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(e) Vertical clearance. Provide minimum vertical clearances of 9'-6" at accessible passenger loading zones and along vehicle access routes to such areas from site entrances. Minimum vertical clearances of 9'-6" (3.45 m) at accessible van parking spaces should be provided. (ANSI—no similar provision)

(f) Signage. [Reserved] (ANSI 4.6.4)
36 CFR § 1190.70

§ 1190.70 Ramps and curb ramps.

(a) General. Ramps and curb ramps required by Subpart C—Scope shall comply with this section. (ANSI 4.7.1)

(b) Slopes and rise. Provide the least practical slope for any ramp or curb ramp subject to the following maximums:

(b)(1) New construction requirements:

(b)(1)(i) Maximum running slope shall not exceed 1:12 (8.3%) (fig. 7.1). (ANSI 4.7.2 and 4.8.2) (ANSI figures 11 and 16);

(b)(1)(ii) Maximum rise for any run shall not exceed 2'-6" (760 mm) (fig. 7.2). (ANSI 4.7.2 and 4.8.2) (ANSI figure 16); and,

(b)(1)(iii) Maximum slopes of adjoining gutters, road surface immediately adjacent to the curb ramp, or accessible routes shall not exceed 1:20 and shall comply with § 1190.70(e)(8) (fig. 7.11). (ANSI—no similar provision)

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(b)(2) Existing construction requirements:

(b)(2)(i) If space limitations prevent compliance with § 1190.70(b)(1), slopes and rises listed in figure 7.3 may be used. (ANSI Table 2)

(b)(2)(ii) [Reserved].

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(c) Width. Ramps and curb ramps shall have a minimum clear width of 3'-0" (915 mm) exclusive of edge protection or flared sides. (ANSI 4.7.3 and 4.8.3)

(d) Cross-slope and surface. Cross-slope of ramp surfaces shall not exceed 1:48 (¼ inch per foot). Ramp surfaces shall comply with § 1190.50, Walks, floors, and accessible routes. (ANSI 4.8.6)

(e) Curb ramps. In addition to the requirements of § 1190.70 (a), (b), and (c), curb ramps shall comply with the following requirements:

(e)(1) Provide flared sides if a circulation path crosses any part of the ramp or curb ramp not protected by handrails or guardrails; flared slope shall not exceed 1:10 (fig. 7.4) where a 4'-0" (1,220 mm) landing is provided at the top of the curb ramp. If less than 4'-0" (1,220 mm) is provided, the flared slope shall not exceed 1:12 (fig. 7.5). Where pedestrians will not normally walk across a ramp, returned curbs may be used (fig. 7.6). (ANSI 4.7.5*) (ANSI figures 12 (a) and (b)) (ANSI does not have a figure similar to ATBCB 7.5)

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(e)(2) Locate built-up curb ramps so that they do not project into vehicular traffic lanes (fig. 7.7). (ANSI 4.7.6) (ANSI figure 13)

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*33877 (e)(3) Diagonal or corner type curb ramps having returned curbs or well defined edges, shall have such edges parallel to the direction of pedestrian flow (fig. 7.8). Diagonal or corner type curb ramps having flared sides shall have at least a 2'-0" (610 mm) long segment of straight curb located on each side of the curb ramp and within marked crossings (fig. 7.9). (ANSI 4.7.10) (ANSI figures 15 (c) and (d))

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(e)(4) Curb ramp discharge (bottom) shall be to a 4'-0" (1,220 mm) minimum deep clear space. If the marked crossings are provided, locate bottom discharge entirely within marked crossings (figs. 7.8 and 7.9). (ANSI 4.7.9 and 4.7.10) (ANSI figures 15 (c) and (d))

(e)(5) Locate curb ramps to prevent blockage of discharge areas by parked vehicles. (ANSI 4.7.8)

(e)(6) Cut any islands through flush with street surfaces or ramp each side to permit crossing. Provide 4'-0" (1,220 mm) long rest area (see fig. 7.10). (ANSI 4.7.11) (ANSI figures 15 (a) and (b))

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(e)(7) Curb ramps which cross a circulation path, but do not have an abrupt change in level, do not require handrails. (ANSI 4.8.5)

(e)(8) Transitions from ramps to walks, gutters, or streets shall be flush and free of abrupt changes (Fig. 7.11). (ANSI—no similar provision)

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(e)(9) Warning textures. [Reserved]

NOTE.—The “Warning textures” is reserved until such time as sufficient research and/or field experience dictate a requirement in this area. For information on warning textures, see ANSI A117.1(1980) § 4.7.7 and 4.7.12 and ANSI figure 14, Warning Signals at Curb Ramps.

(f) Ramps. In addition to the requirements of § 1190.70 (a), (b), (c) and (d) provide the following at all ramps:

(f)(1) Provide landings at the top, bottom, and at changes of direction. If ramp runs exceed maximum projection given in figures 7.2 and 7.3, provide intermediate landings. (ANSI 4.8.4) Landings shall:

(f)(1)(i) Have a width at least as wide as the widest ramp run approaching it. (ANSI 4.8.4(1));

(f)(1)(ii) Have a minimum length of 5'-0" (1,525 mm). (ANSI 4.8.3(2)); and,

(f)(1)(iii) Comply with § 1190.130, Doors, if doors open into them. (ANSI 4.8.3(4))

(f)(2) Provide handrails that comply with § 1190.90, Handrails, on both sides of any ramp run exceeding a 6-inch (150 mm) rise or a 6'-0" (1,830 mm) horizontal projection (figs. 7.12, 7.13, 7.14, and 7.15). (ANSI 4.8.5) (ANSI figure 17)

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***33878** (f)(3) Provide curbs, walls, vertical guards or projected edges at ramps and landings with drop-offs. Minimum curb height shall be 2 inches (50 mm) (fig. 7.16). (ANSI 4.8.7) (ANSI figure 17)

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(g) Exterior condition. Curb ramps, ramp, and landing surfaces shall comply with § 1190.50(i)(2), Drainage. (ANSI 4.8.8)
36 CFR § 1190.80

§ 1190.80 Stairs.

(a) General. Stairs required by Subpart C—Scope shall comply with this section. (ANSI 4.9.1)

(b) Treads and risers. On any given flight of stairs, all steps shall have a uniform riser height and uniform tread width. Stair treads shall be no less than 11 inches (280 mm), measured from riser to riser. Open risers are not permitted (fig. 8.1) on accessible routes. (ANSI 4.9.2) (ANSI figures 18 (a), (b), and (c))

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***33879** (c) Nosings. Nosings shall:

(c)(1) Project a maximum of 1½ inch (38 mm) (ANSI 4.9.3);

(c)(2) Have a leading edge with a maximum radius of curvature of ½ inches (13 mm) (ANSI 4.9.3); and

(c)(3) Be formed by risers that are sloped, or shall have undersides of the nosings which form an angle not less than 60 degrees from the horizontal (fig. 8.1). (ANSI 4.9.3) (ANSI figures 18 (a), (b), and (c))

(d) Handrails. Provide continuous handrails at both sides of stairways. Handrails shall comply with § 1190.90, Handrails. (ANSI 4.9.4)

(e) Exterior conditions. Stair treads and landing surfaces shall comply with § 1190.50(i)(2), Drainage. (ANSI 4.9.6)

(f) Tactile warnings. [Reserved].

Note.—Tactile warnings at stairs has been reserved until such time as sufficient research and/or field experience support a solution in this area. For information, see ANSI A117(1980) § 4.9.5. 36 CFR § 1190.90

§ 1190.90 Handrails.

(a) General. Handrails for ramps or stairs required by Subpart C—Scope shall comply with this section. (ANSI 4.8.5, 4.9.4, and 4.16.1)

(b) Size and spacing. Size and spacing of handrails shall:

(b)(1) The handgrip portion of the handrail, if round, shall be not less than 1¼ inches (32 mm) nor more than 1½ inches (38 mm) in diameter (fig. 9.1). If the shape of the handrail is not round, then the dimensions shall be not more than 1½ inches (38 mm) (fig. 9.2) nor less than 1¼ " (32 mm). (ANSI 4.26.2) (ANSI figures 39(a), (b), and (c))

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(b)(2) If handrails are mounted adjacent to walls or other surfaces, provide a 1½ inch (38 mm) (minimum/maximum) clear space between the surface and the handrail (figs. 9.1, 9.2, 9.3, and 9.4). The handrail and the surfaces adjacent to the handrail shall be free of any sharp or abrasive elements. Edges shall have minimum radius of ⅛ inch (3 mm). Freestanding rails located farther than 6 inches (150 mm) from wall or other vertical surfaces are not subject to this provision. (ANSI 4.26.2) (ANSI figures 39(a), (b), (c), and (d))

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(b)(3) Handrails may be mounted in recesses if the recesses comply with figure 9.4. (ANSI 4.26.2) (ANSI figure 39(d))

***33880** (b)(4) On switchbacks or dogleg ramps or stairs, inside handrails shall be continuous. (Fig. 9.8) (ANSI 4.8.5(1) and 4.9.4)

(b)(5) Gripping surfaces shall not be interrupted with newel post, ballisters, or other obstructions. (ANSI 4.8.5(4) and 4.9.4(4))

(c) Handrail projections.

(c)(1) If outside handrails are not continuous, then:

(c)(1)(i) At a ramp landing, handrails shall project parallel with ramp or landing surface for a length of 1'-0" (305 mm) beyond the top and bottom of ramp surfaces (figs. 7.12, 7.13, 7.14, and 7.15). (ANSI 4.8.5(2) and 4.9.4(2)) (ANSI figures 17(a), (b), (c), and (d)); and,

(c)(1)(ii) At a stair landing, handrails shall project at least 1'-0" (305 mm) beyond the top riser and at least 1'-0" (305 mm) plus the depth of one tread beyond the bottom riser. The 1'-0" (305 mm) projection shall in each instance be parallel with the floor (figs. 9.5, 9.6, and 9.7). (ANSI 4.8.5(2) and 4.9.4(2)) (ANSI figures 19(a), (b), (c), and (d))

(c)(1)(iii) Exception. Full extension of handrails shall not be required on certain handrails at landings or in alterations where such extensions would be hazardous or impossible due to plan configurations (fig. 9.8). (ANSI —no similar provision)

(c)(2) [Reserved].

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(d) Mounting height. Mount handrails for accessible stairs and ramps at a height of 2'8" to 2'10" (815 mm to 865 mm) above stair nosing(s) or ramp surface as applicable (see figs. 7.13, 7.14, 7.15, and 7.16). (ANSI—no similar provision)

(e) Structural strengths.

(e)(1) Handrails, as installed, shall support a minimum momentary concentrated load applied at the top edge of 200 lbs. (91 kg) horizontally and 30 percent of that load vertically downward. (ANSI 4.26.2)

(e)(2) Handrails shall not rotate within their fittings. (ANSI—no similar provision)

(f) Hazards. Ends of freestanding handrails shall be returned smoothly to floor or post as shown in figures 9.5 and 9.6 (see § 1190.50(c), Protruding objects). (ANSI 4.2.4) (ANSI figures 19 (c) and (d))

36 CFR § 1190.100

§ 1190.100 Elevators.

(a) General. (1) Elevators required by Subpart C—Scope shall comply with this section. For additional information see the American National Standard Safety Code for Elevators, *33881 Dumbwaiters, Escalators and Moving Walks, A17.1, and see also National Elevator Industry, Inc. (NEII) Suggested Minimum Elevator Requirements for the Handicapped. (ANSI 4.10.1*)

(a)(2) Freight elevators shall not be considered as meeting the requirements of this section, unless the only elevators provided are used as combination passenger and freight elevators for the public and employees. (ANSI—no similar provision)

(b) Operation and leveling. Elevators shall be automatic and shall be provided with a self-leveling feature that will automatically bring the car to the floor landing within a tolerance of ½ inch (13 mm) under normal loading and unloading conditions. The self-leveling feature shall, within its zone, be entirely automatic and independent of the operating device and shall correct for over-travel or under-travel and shall maintain the car approximately level irrespective of loading conditions. (ANSI 4.10.2)

(c) Elevator door operation. Elevator doors shall be a minimum of 3'-0" (915 mm) wide and automatic door controls shall comply with the following requirements:

(c)(1) The minimum acceptable time from notification that a car is answering a hall call until the doors of that car start to close shall be as indicated in fig. 10.1 and table 10.1. The travel distance shall be established from a point in the center of the corridor or lobby directly opposite but not more than 5'-0" (1,525 mm) from the farthest call button to the centerline of the farthest hoistway entrance (fig. 10.2) and Table 10.1. (ANSI 4.10.7) (ANSI figure 21):

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(c)(2) [Reserved]

Note.—Timing on elevator door opening has been reserved pending further review. For information on elevator door timing see ANSI A117.1 (1980), Section 4.10.7.

(c)(3) Provide doors with a reopening device which will function to stop and reopen the car door and adjacent hoistway door in case the car door is obstructed while the door is closing. This reopening device shall also be capable of sensing a person or an object in the path of a closing door at a nominal height of 5 inches and 2'-5" (125 mm and 735 mm) above finished floor without requiring contact for activation. Such devices shall remain effective for a period of not less than 20 seconds. (Fig. 10.9) For additional information, see ANSI A17.1. (ANSI 4.10.7)

(c)(3)(i) Exception. If a safety edge is provided in existing automatic elevators, then the automatic door reopening devices may be omitted. (ANSI—no similar provision)

(c)(3)(ii) [Reserved].

(d) Elevator cars.

(d)(1) The minimum floor areas of elevator cars shall comply with figures 10.3 and 10.4. The floor area of elevator cars shall provide space for wheelchair users to enter the car, maneuver within reach of controls, and exit from the car. (ANSI 4.10.9) (ANSI figure 22)

(d)(1)(i) Exception. Where existing shaft or structural elements prohibit strict compliance in alteration work, these dimensions may be reduced by the minimum amount necessary, but in no case shall they be less than 4'-0" by 4'-0" (1,220 mm by 1,220 mm) clear minimum car area. (ANSI—no similar provision)

(d)(1)(ii) [Reserved].

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(d)(2) Car floors shall comply with § 1190.50, Walks, floors and accessible routes. The horizontal clearance between the car platform sill and the edge of any hoistway landing shall be no greater than 1¼ inches (32 mm). (ANSI 4.9.10 and 4.10.10)

***33882** (d)(3) Car controls shall comply with the following:

(d)(3)(i) Provide a visual signal indicating when each call is registered and answered. (ANSI 4.12.2(1));

(d)(3)(ii) Mount the highest floor buttons at a maximum of 4'-0" (1,220 mm) above the floor and the lowest buttons at a minimum of 2'-11" (890 mm) above the floor (fig. 10.5). (ANSI 4.10.12(3*)) (ANSI figure 23(b))

(d)(3)(ii)(A) Exception. If there is a substantial increase in cost as a result of the 4'-0" (1,220 mm) requirement, the highest floor buttons may be mounted at a maximum of 4'-6" (1,370 mm). (ANSI—no similar provision)

(d)(3)(ii)(B) [Reserved].

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(d)(3)(iii) Group emergency buttons at the bottom of the panel with their centerlines no lower than 2'-11" (890 mm). (ANSI 4.10.12(3))

(d)(3)(iv) Buttons, exclusive of border, shall have a minimum dimension of $\frac{3}{4}$ inch (19 mm) and shall be raised or flush with the operating panel. (ANSI 4.12.1(1))

(d)(3)(v) Designate all control buttons by raised standard alphabet characters for letters, arabic characters for numerals, or standard symbols as shown in figure 10.6. For additional information see ANSI A17.1 and see also NEII Suggested Minimum Elevator Requirements for the Handicapped. Place raised designations to the immediate left of the button to which they apply. Permanently attached, applied plates are acceptable. Locate the call button for the main entry floor in the left-most column and designate it with a raised star as shown in figure 10.6. (ANSI 4.10.12(2)) (ANSI figure 23(a))

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(d)(3)(vi) Locate control panels as shown in figures 10.7 and 10.8. (ANSI 4.10.12(3)) (ANSI figures 23(c) and (dd))

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(e) Door jamb markings. Provide floor designation markings at each hoistway entrance on both jambs and that comply with the following:

(e)(1) The centerlines of characters shall be located 5'-0" (1,525 mm) above finished floor (figure 10.9) (ANSI 4.10.5) (ANSI figure 20); and

(e)(2) [Reserved] (ANSI 4.10.5)

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(f) Lobby call buttons. (1) Call buttons shall:

(f)(i) Be mounted with centerlines at 4'-0" (1,220 mm) maximum above finished floor (fig. 10.9) (ANSI 4.10.3*) (ANSI figure 20*);

(f)(ii) Be a minimum of $\frac{3}{4}$ inch (19 mm) in diameter (ANSI 4.10.3);

(f)(iii) Have visual signals indicating when a call is registered and answered (ANSI 4.10.3);

(f)(iv) Be raised or flush (ANSI—no similar provision); and

(f)(v) Have the button designating “up” mounted on top. (ANSI 4.10.3)

(f)(v)(2) Objects mounted beneath lobby call buttons shall not project into the elevator lobby more than 4 inches (100 mm). (ANSI—no similar provision)

(g) Hall lanterns. Provide an audible and visual signal at each hoistway entrance to indicate car arrival and its travel direction. (ANSI 4.10.4)

(g)(1) Audible signals shall sound once for the up direction and twice for the down direction or shall announce the words “up” or “down.” (ANSI 4.10.4)

(g)(2) Visual signals shall:

(g)(2)(i) Be mounted with their centerlines a minimum of 6'-0" (1,830 mm) above finished floor (fig. 10.9) (ANSI 4.10.4(1)) (ANSI figure 20);

(g)(2)(ii) Have a minimum dimension parallel to the mounting surface of 2½ " (64 mm) (ANSI 4.10.4(2));

***33883** (g)(2)(iii) Distinguish between up and down travel directions (ANSI 4.10.4); and

(g)(2)(iv) Be visible from the vicinity of call buttons. (ANSI 4.10.4(3))

(g)(3) In-car lanterns mounted on car door jambs and that comply with § 1190.100(e)(2) are acceptable. (ANSI 4.10.4(3))

(h) Car position indicator and signal. Provide audible and visual car position indicators within each elevator car as follows:

(h)(1) Audible indicators shall (ANSI 4.10.13):

(i) Signal as the car passes or stops at each landing. Signal shall exceed the ambient noise level by at least 20 decibels with a frequency below 1,500 Hz (ANSI 4.10.13); or

(ii) Provide an automatic verbal announcement. (ANSI 4.10.13*)

(ii)(2) Visual indicators shall:

(ii)(2)(i) Be located above the car operating panel or over the car door (ANSI 4.10.13);

(ii)(2)(ii) Visually display the floor number as the car passes or stops at a landing (ANSI 4.10.13);

(ii)(2)(iii) [Reserved] (ANSI 4.10.13)

(ii)(2)(iii)(i) Illumination levels. Illuminate car controls, platform, car threshold, and landing sill to a minimum of 5 footcandles. (ANSI 4.10.11)

(j) Intercommunication systems. If provided, emergency intercommunication systems shall comply with the following:

(j)(1) Locate the highest operable part of the system no higher than 4'-0" (1,220 mm) above car floor (ANSI 4.10.14*);

(j)(2) [Reserved](ANSI 4.10.14)

(j)(3) If system employs a handset, provide a 2'-5" (735 mm) cord length (ANSI 4.10.14);

(j)(4) If system is located in a closed compartment, compartment door hardware shall conform to § 1190.170, Controls and operating mechanisms (ANSI—no similar provision); and,

(j)(5) The emergency intercommunication system shall not require voice communication. (ANSI—no similar provision)

36 CFR § 1190.110

§ 1190.110 Platform lifts.

(a) General. Platform lifts required by Subpart C—Scope, shall comply with this section. (ANSI 4.11.1)

(b) Requirements. Platform lifts:

(b)(1) Shall accommodate an occupied wheelchair within the space provisions of § 1190.40, Human data (ANSI 4.11.2);

(b)(2) Shall have accessible controls complying with § 1190.170, Controls and operating mechanisms (ANSI 4.11.2 and 4.27);

(b)(3) Shall satisfy safety requirements of the agency having responsibility for safety of the facility (ANSI 4.11.2);

(b)(4) Should facilitate unassisted entry and exit from the lift in accordance with the provisions of § 1190.50, Walks, floors, and accessible routes. (ANSI—no similar provision)

36 CFR § 1190.120

§ 1190.120 Entrances.

(a) General. Entrances required to be accessible by Subpart C—Scope shall comply with § 1190.50, Walks, Floors and Accessible Routes; § 1190.120, Entrances; and § 1190.130, Doors. (ANSI 4.14.1)

(b) Service entrances. A service entrance is not to be used as the only accessible entrance unless it is the only entrance to the building or facility. (ANSI 4.14.2)

(c) Access to elevators. If accessible elevators are provided, an accessible route shall be provided from an accessible entrance to the elevators. (ANSI 4.14.2)

36 CFR § 1190.130

§ 1190.130 Doors.

(a) General. Doors required to be accessible by Subpart C—Scope shall comply with this section. (ANSI 4.13.1)

(a)(1) Gates, including ticket gates, shall comply with this section. (ANSI 4.13.3);

(a)(2) In double-leaf doorways, at least one leaf shall comply with this Section and it shall be the active leaf. Double-leaf automatic doors are excepted from the one leaf provision if both leaves are automatic. (ANSI 4.13.4*); and,

(a)(3) Revolving doors or turnstiles are not accessible doors and shall not be the sole means of access at any accessible entrance or on any accessible route. An accessible door shall be provided adjacent to the turnstile or revolving door and shall be so designed as to facilitate the same use pattern. (ANSI 4.13.2*)

(b) Clear width. Provide doorways with clear openings of 2'-8" (815 mm) as measured with the door open 90 degrees between the face of the door and the latch side jamb (figs. 13.1, 13.2, and 13.3). Where existing elements prohibit strict compliance in alteration work, the latch side stop may project into this clear opening 5/8 inch maximum (16 mm). Openings deeper than 2'-0" (610 mm) shall be a minimum of 3'-0" (915 mm) wide (fig 4.1). (ANSI 4.13.5) (ANSI figures 24(a), (b), (c), (d), and (e), 25(a) and 1)

(b)(1) Exception. If a space and the elements within that space comply with the requirements of § 1190.40, Human Data, and the user does not require full passage into that space, then the opening to that space may be a minimum of 1' -8" (510 mm) wide. (ANSI—no similar provision)

(b)(2) [Reserved.]

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***33884** (c) Maneuvering space. Provide the following space at all non-automatic and non-power-assisted doors:

(c)(1) At doors allowing front approach only, maneuvering space shall be as shown in figures 13.2, 13.3, and 13.4. The minimum maneuvering space (i.e., latch side clearance) required for a hinged opening is 1'-6" (455 mm), but 2' -0" (600 mm) is recommended where space is available. (ANSI 4.13.6*) (ANSI figures 24 (c) and (d) and 25 (a))

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(c)(2) At doors allowing hinge side approach only, maneuvering space shall be as shown in figure 13.5. (ANSI 4.13.6) (ANSI figures 25 (b) and (e))

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(c)(3) At doors allowing latch side approach only, maneuvering space shall be as shown in figure 13.6. (ANSI 4.13.6) (ANSI figures 25 (c) and (f))

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(c)(4) The floor or surface area within the required maneuvering space shall be clear and shall comply with § 1190.50(i), Ground and floor surfaces. It shall have a slope in any direction no greater than 1:48 ($\frac{1}{4}$ inch per foot). (ANSI 4.13.6)

(d) Doors in series. Between any two hinged or pivoted doors in series, provide a minimum of 4'-0' (1,220 mm) plus the width of any door swinging into the space. Opposing doors shall not swing towards each other, into the intervening space (see figs. 13.7 and 13.8). (ANSI 4.13.7) (ANSI figure 26)

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(e) Thresholds. Raised thresholds, if provided, shall be beveled with a slope not to exceed 1:2 and with heights not exceeding the following:

(e)(1) Exterior sliding patio doors: $\frac{3}{4}$ inch (19 mm) maximum. (ANSI 4.13.8)

(e)(2) Other doors: ½ inch (13 mm) maximum. Bevel not required if less than ¼ inch (6 mm). (ANSI 4.13.8)

(f) Hardware. Provide handles, pulls, latches, locks and other operating hardware that are easy to grasp with one hand and that do not require twisting of the wrist, tight grasping, or tight pinching to operate. Acceptable designs include, but are not limited to, lever-operated hardware, push-type hardware, and U-shaped handles. Operating hardware shall be exposed and usable from both sides when sliding doors are fully open. Mount no operating hardware higher than 4'-0" (1,220 mm) above finished floor. (ANSI 4.13.9)

(g) Doors to hazardous areas. Provide a textured surface on any door handle, knob, pull, or other piece of operating hardware on doors that lead to areas that may prove hazardous to blind people. Such areas may include, but are not limited to, loading platforms, mechanical equipment rooms, stages, and similar spaces. Textured surfaces may be achieved by knurling, roughening, or applying materials on the hand contact surface. Do not provide textured surfaces on hardware leading to emergency egress or on any doors other than those leading to hazardous areas. (ANSI 4.29.3)

(h) Closers and opening forces.

(h)(1) Door closers, if provided, shall have a sweep period adjusted so that from a position of 70 degrees open it will take the door a minimum of 3 seconds to reach a point 3 inches (75 mm) from the door jamb, measured from the leading edge of the door. (ANSI 4.13.10)

(h)(2) Maximum pushing or pulling opening forces for doors shall be as follows:

(i) Exterior hinged doors: [Reserved] (ANSI 4.13.11(2)(a)*)

(ii) Interior hinged doors: 5 lbs (2.3 Kg) (ANSI 4.13.11(2)(b))

***33885** (ii)(iii) Sliding or folding doors: 5 lbs (2.3 Kg) (ANSI 4.13.11(2)(c))

(ii)(iv) Adjust fire doors for the minimum opening and closing forces required by the agency having responsibility for the safety of the facility. (ANSI 4.13.11(1))

(ii)(v) Power-assisted doors: Comply with § 1190.130(g)(2) for closing force. These forces do not apply to forces required to retract or disengage latch bolts or other door latching devices. (ANSI 4.13.2*)

(ii)(v)(i) Automatic doors. If automatic pedestrian doors are provided:

(ii)(v)(i)(1) They shall not open to back check in less than 3 seconds (ANSI 4.13.12); and

(ii)(v)(i)(2) They shall not require more than 15 lbs (6.8 Kg) to stop door movement (ANSI 4.13.12);

(ii)(v)(i)(3) Latch side clearances provided by § 1190.130(c), Maneuvering space, are not required for automatic doors;

(ii)(v)(i)(4) See the American National Standard for Power-Operated Pedestrian Doors, ANSI A156.10 (latest edition) for additional information on the requirements for both standard and custom designed installations. The ANSI publication contains information on slow opening, low powered automatic pedestrian doors. (ANSI 4.13.12)

36 CFR § 1190.140

§ 1190.140 Windows [Reserved]

36 CFR § 1190.140

Note.—ATBCB has reserved § 1190.140 Windows until such time as research and/or field experience support a requirement in this area. For information on window requirements, see ANSI A117.1 (1980), Section 4.12.

36 CFR § 1190.150

§ 1190.150 Toilet and bathing facilities.

(a) General. Toilet rooms and bathing facilities required to be accessible by Subpart C—Scope shall comply with this section. (ANSI 4.16.1, 4.17.1, 4.18.1, 4.19.1, 4.20.1, 4.21.1, 4.22.1, 4.23.1, and 4.24.1)

(a)(1) Exception. Where alterations to existing facilities make strict compliance with § 1190.150 structurally impracticable, the addition of one “unisex” toilet per floor containing one water closet and one lavatory that complies with § 1190.150(b) located adjacent to existing facilities will be acceptable in lieu of making existing toilet facilities for each sex accessible. (ANSI—no similar provision)

(a)(2) [Reserved].

(b) Doors. Doors to toilet rooms and bathing facilities shall:

(b)(1) Comply with § 1190.130, doors (ANSI 4.22.2, 4.23.2, and 4.13.6); and

(b)(2) Not swing into clear floor spaces required at fixtures. (ANSI 4.22.2, 4.23.2, and 4.13.6)

(c) Clear turning space. Each accessible toilet room and bathing facility shall have an unobstructed turning space that:

(c)(1) Complies with §1190.40(b)(3) (ANSI 4.22.3, 4.23.3, and 4.2.3);

(c)(2) Adjoins an accessible route complying with § 1190.50, Walks, floors, and accessible routes (ANSI 4.22.3, 4.23.3, and 4.2.3); and

(c)(3) May overlap the accessible route and clear floor space at fixture(s). (ANSI 4.22.3, 4.23.3, and 4.2.4.1)

(c)(3)(i) Exception. In toilet rooms with one water closet, one lavatory and/or one shower a clear floor space of 2'-6" by 5'-0" (815 mm x 1,525 mm) may be used in lieu of the unobstructed turning space.

(c)(3)(ii) [Reserved].

(d) Signage. [Reserved] (ANSI 4.30.1)

(e) Toilet fixtures and accessories.

(e)(1) Water closets. Accessible water closets shall:

(e)(1)(i) Be provided with clear floor access spaces complying with figures 15.1, 15.2, and 15.3 for fixtures not mounted in stalls. Clear floor space may be provided to allow either left-handed or right-handed approach. (ANSI 4.16.2) (ANSI figure 28)

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(e)(1)(ii) Have top of seats mounted 1'-5" to 1'-7" (430 mm to 485 mm) above finished floor (see fig. 15.5). Seats shall not be sprung to return to a lifted position when not in use. (ANSI 4.16.3*) (ANSI figures 29(a) and (b))

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***33886** (e)(1)(iii) Have automatic or hand-operated flush controls complying with § 1190.170, Controls and operating mechanisms. Mount controls for use from the wide side of access area (see fig. 15.4) and no higher than 3'-8" (1,120 mm) above finished floor. (ANSI 4.16.5)

(e)(1)(iv) Have toilet paper dispensers mounted as shown in figure 15.5. Do not use dispensers that control delivery or that do not permit continuous paper flow. (ANSI 4.16.6*)

(e)(1)(v) Have grab bars mounted of the length and positioning as shown in figures 15.1, 15.2, 15.3, 15.4, and 15.5. (ANSI 4.16.4) (ANSI figures 28 and 29)

(e)(2) Toilet stalls. Accessible toilet stalls shall:

(e)(2)(i) Have a water closet complying with 1190.150(b)(1) (ANSI 4.17); and

(e)(2)(ii) Be of the size and arrangement as shown in figures 15.3 and 15.6. Stall configuration may be reversed for left or right-handed approach. (ANSI 4.17.3*) (ANSI figure 30(a))

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(e)(2)(ii)(A) Exception. In instances of alteration work where provision of a standard stall (figs. 15.6 and 15.7) is structurally impracticable or plumbing fixture code requirements prevent combining existing stalls to provide space, alternate stalls (figs. 15.8 and 15.9) may be provided in lieu of the standard stall. (ANSI 4.17.3) (ANSI figures 30(a) and (b))

(e)(2)(ii)(B) [Reserved].

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(e)(2)(iii) Have toe clearances at the front partition and at least one side partition of 9 inches (230 mm) above finished floor. If stall depth is greater than 5'-0" (1,525 mm), then toe clearance is optional. (ANSI 4.17.4)

(e)(2)(iv) Have doors that comply with § 1190.130, Doors, and that do not reduce clear floor area and have hardware that complies with § 1190.170 Controls and operating mechanisms. (ANSI 4.17.5 and 4.13)

(e)(2)(iv)(A) Exception. If toilet stall approach is from the latch side of the stall door, clearance between the door side of the stall and any obstruction may be reduced to a minimum of 3'-6" (1,065 mm). (ANSI 4.17.3*)

(e)(2)(iv)(B) [Reserved].

(e)(2)(v) Have grab bars mounted of the length and positioning shown in figures 15.4, 15.5, 15.6, 15.7, 15.8, 15.9, 15.10, and 15.11. Grab bars may be mounted by any desired method as long as they have a gripping surface at the locations shown and do not obstruct the required clear area. Grab bars shall comply with § 1190.150(g). (ANSI 4.17.6) (ANSI figures 30(a), (b), (c), and (d)).

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***33887** (e)(3) Urinals. Accessible urinals shall:

(e)(3)(i) Have a clear floor space that complies with § 1190.40, Human data. (ANSI 4.18, 4.18.3, 4.22.5, 4.23.5) (ANSI—no similar provision)

(e)(3)(i)(A) Exception. Urinal shields as allowed by some plumbing codes that do not extend beyond the front edge of the urinal rim may be provided with 2'-5" (735 mm) clearance between them. (see fig. 15.12) (ANSI—no similar provision)

(e)(3)(i)(B) [Reserved].

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(e)(3)(ii) Be floor mounted stall type or wall-hung with an elongated rim mounted at 1'-5" (430 mm) maximum above finished floor (fig. 15.13). (ANSI 4.18.2) (ANSI—no similar provision)

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(e)(3)(iii) Have automatic or hand-operated controls complying with § 1190.170, Controls and operating mechanisms, and mounted no higher than 3'-8" (1,120 mm) above finished floor. (ANSI 4.18.4)

(e)(4) Lavatories and sinks. Lavatories and sinks shall meet the following requirements (ANSI 4.19, 4.22.6, and 4.23.6):

(e)(4)(i) Mount lavatories with the rim or counter surface no higher than 2' -10" (865 mm) above finished floor. Provide clearance between bottom of apron and finished floor of at least 2'-5" (735 mm) high and 2'-6" (760 mm) wide. Provide knee space as shown in figure 15.14. (ANSI 4.19.2*) (ANSI figure 31)

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(e)(4)(ii) Clear floor space permitting front approach shall comply with § 1190.40, Human Data. Clear floor space and knee space shall overlap 1'-5" (485 mm) minimum (fig. 15.15). (ANSI 4.19.3 and 4.24.5) (ANSI figure 32)

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(e)(4)(iii) Insulate or cover hot water and drain lines. Allow no sharp or abrasive surfaces to remain exposed under accessible lavatories or sinks. (ANSI 4.19.4 and 4.24.6)

(e)(4)(iv) Acceptable faucet control designs include level-operated, push type, touch-type, and electronically controlled mechanisms that comply with § 1190.170, Controls and operating mechanisms. (ANSI 4.19.5* and 4.24.7)

(e)(4)(iv)(A) Exception. Self-closing valves are permitted at lavatories if the faucet remains open for at least 10 seconds. (ANSI 4.19.5)

(e)(4)(iv)(B) [Reserved].

(e)(5) Mirrors. Mount mirrors with the bottom edge of reflecting surface no higher than 3'-4" (1,015 mm) above finished floor (fig. 15.13). (ANSI 4.19.6) (ANSI figure 31)

(e)(6) Controls, dispensers, receptacles, or other equipment. Accessible equipment shall comply with § 1190.170, Controls and operating mechanisms. (ANSI 4.22.7, 4.23.7, and 4.27)

(f) Bathing facilities. Bathtubs or showers shall:

(f)(1) Have clear access space as shown in figures 15.16 to 15.20. (ANSI 4.20.2 and 4.21.2) (ANSI figures 33(a), (b), and 35(a)(b))

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***33888** (f)(2) Have seats provided as shown in figures 15.16 to 15.19, and 15.24. A seat shall be provided in transfer shower stalls as shown in figures 15.19 and 15.26 to 15.28. The seat shall be mounted 1'-6" (435 mm) from the bathroom floor. The seat shall be on the wall opposite the controls. (ANSI 4.20.3 and 4.21.3)

(f)(2)(i) Seats and their attachments shall safely support a 250 lbs (114 Kg) continuous live load without sustaining permanent deflection. Seats shall not move when mounted during use. In-tub seats shall be portable. (ANSI 4.26.3) (ANSI figures 33 (a), (b), 35(a), 34(b), 36, and 37(a))

(f)(2)(ii) Shear stress induced in a seat by the application of 250 lbf shall be less than the allowable shear stress for the material of the seat. If its mounting bracket or other support is considered to be fully restrained, then direct and torsional shear stresses shall be totaled for the combined shear stress, which shall not exceed the allowable shear stress. (ANSI 4.26.3)

(f)(2)(iii) Shear force induced in a fastener or mounting device from the application of 250 lbf shall be less than the allowable lateral load of either the fastener or mounting device or the supporting structure, whichever is the smaller allowable load. (ANSI 4.26.3)

(f)(2)(iv) Tensile force induced in a fastener by a direct force of 250 lbf plus the maximum moment from the application of 250 lbf shall be less than the allowable withdrawal load between the fastener and the supporting structure. (ANSI 4.26.3)

(f)(3) Have grab bars mounted of the length and positioning shown in figures 15.16 to 15.32. (ANSI 4.20.4 and 4.21.4) (ANSI figures 33(a), (b), 35(a), (b), 34(a), (b), 36, and 37 (a), (b))

(f)(4) Have faucets and controls complying with § 1190.170, Controls and Operating Mechanisms, located as shown in figures 15.21 and 15.29. In shower stalls 3'-0" x 3'-0" (915mm x 915mm), all controls, faucets, and the shower unit shall be mounted on the side wide opposite the seat. (ANSI 4.20.5 and 4.21.5) (ANSI figures 34(a) and 37(a) and (b))

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***33890** (f)(5) Have a shower spray unit with a flexible hose minimum of 5'-0" (1,525 mm) long that is usable as a fixed shower head and as a hand-held shower. (ANSI 4.20.6 and 4.21.6)

(f)(5)(i) Exception. In unmonitored facilities where vandalism is a concern, a fixed shower head mounted at 4'-0" (1,220 mm) above the tub bottom or shower floor may be used in lieu of the hand-held unit. (ANSI—no similar provision)

(f)(5)(ii) [Reserved].

(f)(6) Have enclosures, if provided, that do not obstruct transfer from wheelchairs onto seats, into tubs or showers, or access to controls from clear floor spaces. Bathtub enclosures shall not have tracks mounted on the bathtub rims. (ANSI 4.20.7 and 4.21.7)

(f)(7) Have shower curbs or thresholds no higher than ½ inch (13 mm) beveled. (ANSI 4.21.7*)

(g) Grab bars for accessible toilet and bathing fixtures:

(g)(1) Grab bars shall have a diameter or width of the gripping surfaces that is 1¼ inches to 1½ inches (32 mm to 38 mm). (ANSI 4.26.2)

(g)(2) Grab bars shall have a 1½ inch (38 mm) (maximum/minimum) clear space between the bar and the mounting surface (fig. 15.32). (ANSI 4.26.2) (ANSI figures 39 (a), (b), and (c))

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(g)(3)(i) Bending stress in a grab bar induced by the maximum bending moment from the application of 250 lbf shall be less than the allowable stress for the material of the grab bar. (ANSI 4.16.3(5))

(g)(3)(ii) Shear stress induced in a grab bar by the application of 250 lbf shall be less than the allowable shear stress for the material of the grab bar. If the connection between the grab bar and its mounting bracket or other support is considered to be fully restrained then direct and torsional shear stresses shall be totaled for the combined shear stress, which shall not exceed the allowable shear stress. (ANSI 4.26.3(5))

(g)(3)(iii) Shear force induced in a fastener or mounting device from the application of 250 lbf shall be less than the allowable lateral load of either the fastener or mounting device or the supporting structure, whichever is the smaller allowable load. (ANSI 4.26.3(5))

(g)(3)(iv) Tensile force induced in a fastener by a direct tension force of 250 lbf plus the maximum moment from the application of 250 lbf shall be less than the allowable withdrawal load between the fastener and the supporting structure. (ANSI 4.26.3(5)).

(g)(4) Grab bars shall not rotate in their fittings. (ANSI 4.26.3(5))
36 CFR § 1190.160

§ 1190.160 Drinking fountains and water coolers.

(a) General. Drinking fountains and coolers required by Subpart C—Scope shall comply with this section. (ANSI 4.15.1)

(b) Clearances. Drinking fountains and water coolers shall have clear floor or ground spaces that comply with § 1190.40, Human data, and shall be:

(b)(1) Cantilevered units with a clear space allowing a forward approach and having a knee space under the unit that is at least 2'-3" (685 mm) high, 2'-6" (760 mm) wide, and 1'-5" (430 mm) to 1'-7" (485 mm) deep (figs 16.1 and 16.2) (ANSI 4.15.5) (ANSI figures 27 (a) and (b)); or

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***33891** (b)(2) Free-standing or built-in units with a clear space allowing a parallel approach and not having knee-space (fig. 16.3 and 16.4 and 16.5). (ANSI 4.15.5(2)) (ANSI figures 27 (c) and (d); ANSI does not have a figure similar to ATBCB 16.3)

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(c) Spouts of drinking fountains and water-coolers. Spouts shall:

(c)(1) Be mounted no higher than 3'-0" (915 mm) above the finished floor, measured to the spout outlet. (ANSI 4.15.2)

(c)(2) Be at the front of the unit and shall direct water flow trajectory parallel or nearly parallel the front of the unit. (ANSI 4.15.3)

(c)(3) Direct water flow at least 4 inches (100 mm) above the unit basin to facilitate cup or glass insertion. (ANSI 4.15.3)

(d) Controls. Unit controls shall be front mounted or side mounted near the front edge and shall comply with § 1190.170, Controls and operating mechanisms. (ANSI 4.15.4*)

36 CFR § 1190.170

§ 1190.170 Controls and operating mechanisms.

(a) General. Controls and operating mechanisms required to be accessible by Subpart C—Scope shall comply with this section. (ANSI 4.27.1)

(b) Location requirements. Controls and operating mechanisms shall adjoin clear floor or ground space complying with § 1190.40, Human data. Mount controls and operating mechanisms in compliance with approach direction and reach limitations specified in § 1190.40(c), Clear floor or ground space, and § 1190.40(d), Reach limitations (figs 17.1 and 17.2). (ANSI 4.27.2 and 4.27.3) (ANSI—no similar figures)

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(c) Operations. 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 lbs. of force (2.2 Kg). (ANSI 4.27.4)

(d) Specialized equipment. If specialized mechanical, electrical, or process equipment has inherent functional requirements which dictate location or force requirements other than those specified in this section, locate the equipment as dictated by its functional requirements. (ANSI 4.27.3)

36 CFR § 1190.180

§ 1190.180 Alarms.

(a) General. Alarm systems required to be accessible by Subpart C—Scope shall comply with this section. (ANSI 4.28.1)

(b) Audible alarms. Audible alarms shall produce a sound pressure level that exceeds ambient room or space noise by 15 decibels or any maximum noise level of 30 second duration by 5 decibels, whichever is greater. (ANSI 4.28.2). Sound levels for alarm signals shall not exceed 120 decibels.

(c) Visual and other sensory alarms. If audible alarms are provided, then in addition, provide a visual alarm device adjacent to or within each exit sign which flashes in conjunction with audible alarms and operates from the same power source. Flash frequency of visual alarms shall be less than 5 Hz. If such alarms use electricity from the building as a power source, then they shall be installed on the same system as the audible emergency alarms. (ANSI 4.28.3)

(c)(1) Exception. Specialized systems utilizing advanced technology may be substituted if equivalent protection is afforded handicapped users of the building or facility. (ANSI—no similar provision)

(c)(2) [Reserved.]

(d) Pull Stations. Alarm pull stations shall comply with § 1190.170, Controls and operating mechanisms. (ANSI—no similar provision)

36 CFR § 1190.190

§ 1190.190 Tactile Warnings. [Reserved]

Note.—Tactile Warnings has been reserved until such time as sufficient research and/or field experience dictate *33892 a requirement in this area. For information on tactile warnings, see ANSI A117-1 (1980), Section 4.29.

36 CFR § 1190.200

§ 1190.200 Signage. [Reserved]

Note.—Signage has been reserved temporarily pending further review. For information on signage, see ANSI A117.1 (1980), Section 4.30.

36 CFR § 1190.210

§ 1190.210 Telephones

(a) General. Public telephones and related equipment required to be accessible by Subpart C—Scope shall comply with this section.

(b) Clear floor or ground space. Clear floor or ground spaces that comply with § 1190.40, Human data, shall be provided at each telephone (figs. 21.1, 21.2, and 21.3). These clear spaces shall not

be restricted by installation of bases, fixed seats, or enclosures. (ANSI 4.31.2 and 4.31.4) (ANSI figures 44(a), (b), and (c))

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(c) Protruding objects. Telephones shall comply with § 1190.50(c), Protruding objects. (ANSI 4.31.2)

(d) Equipment characteristics. Telephone equipment shall:

(d)(1) Have the highest operable parts which are essential to the basic operation of the telephone located at a maximum of 4'-6" (1,370 mm) above finished floor for side reach (fig. 21.4); and at a maximum 4'-0" (1220 mm) above finished floor for forward reach (figs. 21.5.) (ANSI 4.31.3) (ANSI figures 44(a), (b), and (c))

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(d)(2) Have push button controls where service by such equipment is available. (ANSI 4.31.6)

(d)(3) Have a minimum handset cord length of 2'-5" (735 mm). (ANSI 4.31.8)

(d)(4) Have telephone books, if provided, located in a position that complies with § 1190.40, Human data. (ANSI 4.31.7)

(e) Equipment for hearing impaired people. Telephone receivers shall generate a magnetic field in the area of the receiver cap. Volume controls shall be provided in accordance with Subpart C—Scope. (ANSI 4.31.5)

36 CFR § 1190.220

§ 1190.220 Seating, tables, and work surfaces.

(a) General. Fixed seating spaces, tables, or work surfaces required to be accessible by Subpart C—Scope shall comply with this section. (ANSI 4.32.1)

(b) Clearances. Seating spaces for people in wheelchairs at tables, counters, or work surfaces shall:

(b)(1) Have a clear floor or ground space that comply with § 1190.40, Human data (figure 22.1). (ANSI 4.32.2) (ANSI figure 45)

(b)(2) Have knee spaces that are at least 2'-6" (760 mm) wide and 1'-7" (485 mm) deep, clear access space and knee space may overlap 1'-7". (ANSI 4.32.3)

(b)(3) Have table tops or work surfaces mounted between 2'-4" to 2'-10" (710 mm to 865 mm) above finished floor. (ANSI 4.32.4)

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36 CFR § 1190.230

***33893 § 1190.230 Assembly areas, conference, and meeting rooms.**

(a) General. Assembly areas required to be accessible by Subpart C—Scope shall comply with this section. (ANSI 4.33.1)

(b) Size and location of viewing positions. Accessible viewing positions shall:

(b)(1) Provide minimum, level clear floor or ground areas as shown in figures 23.1 and 23.2 (ANSI 4.33.2) (ANSI figures 46 (a) and (b))

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(b)(2) Accommodate one occupied wheelchair or one portable seat to accommodate persons with crutches or leg braces. (ANSI 4.33.2)

(b)(3) Be in an adjoining configuration if only two positions are provided. Additional positions may be in single position configurations. (ANSI 4.33.2)

(b)(4) Be an integral part of the seating plan and shall be dispersed throughout the assembly area providing sight lines comparable to those for all seating. (ANSI 4.33.3)

(b)(4)(i) Exception. In alteration work where it is structurally impracticable to alter seating locations to disperse seating throughout, seating may be located in collected areas as structurally feasible. Seating must adjoin an accessible route that also serves as a means of emergency egress. (ANSI—no similar provision)

(b)(4)(ii) [Reserved].

(b)(5) Adjoin an accessible route of emergency egress as required by § 1190.50(h), Egress. (ANSI 4.33.3)

- (b)(6) Have surfaces that comply with § 1190.50(i), Ground and floor surfaces. (ANSI 4.33.4)
- (c) Listening systems. Provide listening systems as required by 1190.31(s). (ANSI 4.33.6* and 4.33.7*)

(c)(1) If the listening system serves individual seats, locate such seats within 50 feet (15 m) of the stage or arena. Such locations shall provide a complete view of the stage or arena. (ANSI 4.33.6)

(c)(2) Acceptable types of listening systems include, but are not limited to, audio loops and radio frequency systems. (ANSI 4.33.7)

36 CFR § 1190.240

§ 1190.240 Storage.

(a) General. Storage facilities required to be accessible by Subpart C—Scope shall comply with this section. (ANSI 4.25.1)

(a)(1) Provide clear floor or ground spaces that comply with § 1190.40, Human data. (ANSI 4.25.2)

(a)(2) Provide storage spaces and clothes rods that comply with figure 24.1. (ANSI 4.25.3) (ANSI figure 38)

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(a)(3) Provide accessible hardware that complies with § 1190.170, Controls and operating mechanisms. (ANSI 4.25.4)

(b) [Reserved].

Subpart E—Special Building or Facility Types or Elements. [Reserved]

[FR Doc. 82-20984 Filed 8-3-82; 8:45 am]

BILLING CODE 4000-07-M