

Chapter Ind 52

GENERAL REQUIREMENTS

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Ind 52.01 Fire prevention, detection and suppression for high rise buildings. (1) AUTOMATIC FIRE SPRINKLER SYSTEM. A complete automatic sprinkler system, as specified in s. Ind 51.23, shall be provided in every building more than 60 feet in height, the initial construction of which is commenced after July 2, 1974. The requirements of this section shall not apply to open parking structures as defined in s. Ind 62.10 (2). FP

(a) *Additions to existing buildings.* Building additions more than 60 feet in height shall have an automatic sprinkler system installed. The sprinkler protection shall be provided throughout the existing building unless the addition is separated from the existing building by a fire division wall as specified in s. Ind 51.02 (13). The requirements of this section shall not apply to open parking structures as defined in s. Ind 62.10 (2).

(b) *Substitute suppression systems.* When approved by the department, substitute automatic suppression systems may be used in lieu of a sprinkler system in areas where the use of water could cause unusual damage to equipment, or where water may have a limited effect or may be hazardous to use because of the nature of processes involved.

Note: The department will accept design and installation in accordance with the latest edition of the national fire protection association standards for special extinguishing systems.

(c) *Alternate methods.* When approved by the department, alternate methods of fire prevention, detection and suppression may be provided in lieu of a complete automatic sprinkler system.

Note #1: The department will request a position statement regarding the proposed method to be submitted by the fire chief of the municipality wherein the building is located.

Note #2: The department will consider alternate methods of fire prevention, detection and suppression to include, but not limited to, fire-resistive construction, compartmentation, automatic detection systems, interior finish restriction, and partial sprinkler protection.

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(2) **ADDITIONAL REQUIREMENTS FOR HIGH-RISE BUILDINGS.** The following requirements apply to all buildings more than 100 feet in height or having more than 10 stories. Open parking structures and buildings used for low hazard industrial processes, including the production and distribution of gas, steam or electric power, foundries and similar uses which require unusual heights to accommodate cranes, special machinery or equipment, are exempt from the provisions of this subsection.

(a) *Smoke control.* Natural or mechanical ventilation for the removal of products of combustion shall be provided in every story and shall consist of one or more of the following methods. Controlling devices may be automatic or manual as approved by the local fire department.

1. Panels or windows in the exterior wall which can be opened from a location other than the fire floor. Such venting facilities shall be provided at the rate of at least 20 square feet per 50 lineal feet of exterior wall in each story, and distributed around the perimeter at not more than 50-foot intervals. Such panels shall be clearly identified as required by the fire department.

2. Openable windows in habitable rooms of residential units.

3. When an automatic sprinkler system is installed in compliance with s. Ind 51.23, the mechanical air handling equipment may be designed to assist smoke removal. Under fire conditions, the return and exhaust air shall be taken directly to the outside without recirculation to other sections of the building.

4. A mechanical ventilation system which will prevent the transfer of smoke from the fire source to other floors of the building. The design shall be substantiated by calculations or tests showing that a pressure differential of 0.10 inch of water column will be produced.

5. Any other design which will produce equivalent results.

(b) *Exit stairways.* 1. All stairways shall be pressurized. The pressure across each door shall be at least 0.15 but not more than 0.20 inch of water column with all doors closed. Pressurization shall be activated by the fire alarm system, the detection systems, and the sprinkler system. In lieu of pressurization, a smokeproof stair tower, as defined in s. Ind 51.17, will be accepted.

Note: The department will accept alternate designs which will produce equivalent results.

2. All stairway doors which are to be locked from the stairway side shall have the capability of being unlocked without unlatching upon a signal from the central control station.

(c) *Elevators.* There shall be provided at least one elevator suitable for fire department access to any floor. If the building is not provided with an approved automatic sprinkler system, the elevator lobby at each level shall be separated from the remainder of the building by an effective smoke barrier.

Note: Refer to ch. Ind 4 for additional requirements.

(d) *Fire alarm and detection system.* 1. A manual fire alarm box shall be located adjacent to exit doors into stairway shafts and in every elevator lobby.

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2. An approved system which will provide for automatic detection of products of combustion other than heat shall be installed in every air-handling equipment room, unless sprinklered, and in the return air portion of every air conditioning and mechanical ventilation system. Approved heat detectors may be installed in boiler rooms and furnace rooms in lieu of product of combustion detectors.

a. Detectors shall be located in the main return air and supply air ducts of each ventilation system and at each opening into a vertical return air shaft or duct.

b. The detectors shall actuate an alarm or signaling system and shut down the ventilation system except where automatic smoke control is incorporated in the system.

3. The manual alarm and automatic detection system shall conform to the Wisconsin State Electrical Code, Volume 2, ch. ILHR 16 and one of the following standards [Ind 51.27 (7a)]:

a. Standard for Central Station Protective Signaling Systems, NFPA No. 71;

b. Standard for Auxiliary Protective Signaling Systems, NFPA No. 72B;

c. Standard for Remote Station Protective Signaling Systems, NFPA No. 72C;

d. Standard for Proprietary Protective Signaling Systems, NFPA No. 72D.

4. Detectors shall conform to the Standard for Automatic Fire Detectors, NFPA No. 72E.

(e) *Alarm and communication systems.* The following alarm and communication systems shall be provided. The systems shall be supervised and exposed wiring shall be encased in a metal conduit.

1. Voice alarm system. The detection system, sprinkler water flow device and the fire alarm system shall actuate a prerecorded message or voice alarm capable of being operated from the central control station on a general as well as a selective basis to the area involved. The alarm shall be designed to be heard by all occupants within the building or designated portions.

2. Voice communication system. There shall be a voice communication system between the central control station and the following areas:

Note: The department will accept systems installed in accordance with the Standard for the Installation, Maintenance and Use of Local Protective Signaling Systems for Watchmen, Fire Alarm and Supervisory Service, NFPA No. 72A.

a. Elevators, elevator lobbies, in stairways at every fifth floor, and all manual fire alarm boxes (2-way communication system);

b. Every office area exceeding 1,000 square feet in area (one-way address system); and

c. Each dwelling unit and hotel guest room (one-way address system).

3. Fire department communication system. A system providing 2-way communication shall be provided at all floor levels, stairways, the central control station, and other locations required by the fire department.

a. The system shall be designed so the fire department communication system will override the other communication systems.

b. Wiring shall be arranged so that open circuits or short circuits on individual floors will not interfere with communications on another floor.

4. Combined system. When approved by the local fire department, the fire department communication system may be combined with the voice communication system and the voice alarm system.

(f) *Central control station.* A central control station for fire department operations shall be provided in a location approved by the fire department. It shall contain the voice communication systems panel; fire detection and alarm system panels; status indicators and controls for elevators, smoke venting and air handling systems; controls for unlocking stairway doors; a public telephone; sprinkler valve and water flow detectors; and standby power controls. All fire alarm and water flow signals shall be transmitted directly to the systems indicated in s. Ind 52.01 (2) (d) 3.

(g) *Standby power and light.* An approved permanently installed standby power generating system shall be provided. The system shall be equipped with suitable means for automatically starting the generator set upon failure of the normal electrical service and for automatic transfer and operation of the required electrical functions at full power within 60 seconds of such normal service failure. System supervision with manual start and transfer features shall be provided at the central control station.

1. An on-premise fuel supply sufficient for not less than 2 hours full demand operation of the system shall be provided.

2. The power requirement shall be determined so as to provide service to, but not limited to the following:

a. Fire alarm system;

b. Exit and other emergency lighting;

c. Fire protection equipment;

Note: Standby power to service fire pumps may be omitted if approved by the local fire department.

d. Mechanical ventilation required by this section;

e. Fire department elevator; and

f. Communication systems.

(h) *Maintenance.* All communication, fire prevention, detection and suppression systems required under this section shall be tested and maintained in an operable condition. All installed automatic sprinkler systems shall be maintained pursuant to NFPA No. 13A-1981 - Standard for the Care and Maintenance of Sprinkler Systems. A copy of the test report as specified in NFPA No. 13A-1981 shall be kept and shall be

made available, upon request, to the department or its authorized deputies. The local fire department shall be notified whenever the life safety systems are shut down for repair and when placed back in service.

(i) *Floor level identification.* Each floor level or story shall be identified as to its number or name. Identification signs shall be posted in all elevator lobbies and in all required exit stairways.

History: Emerg. cr. eff. 1-1-75; cr. (1), Register, April, 1975, No. 232, eff. 5-1-75; cr. (2), Register, April, 1975, No. 232, eff. 1-1-76; (2), eff. 1-1-77; am. (2), Register, December, 1976, No. 252, eff. 1-1-77; am. (2) (d) 2. a. and cr. (2) (i), Register, December, 1977, No. 264, eff. 1-1-78; am. (1) (intro.), (a), (2) (intro.) and (2) (e) 2. a., Register, December, 1978, No. 276, eff. 1-1-79; am. (2) (h), Register, December, 1981, No. 312, eff. 1-1-82; am. (2) (h), Register, June, 1983, No. 330, eff. 7-1-83.

Ind 52.015 Automatic fire sprinkler systems for low rise buildings. (1) PURPOSE. Pursuant to s. 101.14 (4) (a), (c) and (d), Stats., created by ch. 320, Laws of 1981, this section establishes automatic fire sprinkler requirements for buildings under 60 feet in height which are used as public buildings or places of employment.

(2) **GENERAL.** The automatic fire sprinkler systems specified in this section shall conform to the definition specified in s. 145.01 (8), Stats., and shall satisfy the requirements specified in s. Ind 51.23.

Note #1: See s. Ind 50.03 for additional information regarding the application of these rules to new buildings, additions and changes of use.

Note #2: See s. A52.015 of Appendix A for additional information pertaining to fire hazard classifications, building usage and occupancy.

(3) **APPLICATION.** Automatic fire sprinkler systems shall be installed as follows:

(a) *Miscellaneous applications.* The following areas in all buildings, except hospitals, nursing homes, community-based residential facilities, day care centers, open parking structures and buildings used for farming purposes or primarily for the sale of farm machinery:

1. Storage and workshop areas. Storage and workshop areas exceeding 50 sq. ft. in area and located in assembly halls, theaters, offices, schools and residential occupancies;

Note: See Table A52.015-3 of Appendix A for additional information pertaining to low, moderate and high hazard classifications.

2. Spray painting rooms and shops. Spray painting rooms and shops where painting, brushing, dipping or mixing using flammable materials is involved;

3. Laundry collection and trash collection rooms and chutes. Laundry collection rooms and trash collection rooms and chutes and areas used for incineration. Automatic sprinklers shall be installed within the chute at the top of the chute and on alternate floor levels;

4. Exhaust hoods in commercial kitchens. Exhaust hoods in commercial kitchens shall be protected as specified in s. Ind 64.67 (6); and

5. Windowless floor levels. Floor levels of buildings without openings as specified in s. Ind 52.02 (2) (a) shall be protected by an automatic fire sprinkler system as specified in s. Ind 52.02 (2) (b).

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(b) *Factory, mercantile, class IV dry cleaning plants and moderate hazard storage and warehouse.* 1. Except as specified in subd. 2., buildings having more than 12,000 sq. ft. in area per floor or more than 24,000 sq. ft. in total area on all floors, or more than 3 stories in height and containing factory; mercantile; class IV dry cleaning plants; and storage or warehouse occupancies with moderate hazard contents, which are likely to burn with moderate rapidity, but which do not produce either poisonous gases or fumes or explosives.

Note: See s. A52.015 of Appendix A for additional information pertaining to low, moderate and high hazard classifications.

2. a. *Factory occupancies housing low hazard industrial processing* are exempt from the provisions of subd. 1.

Note: See s. A52.015 of Appendix A for additional information pertaining to low, moderate and high hazard classifications.

b. *Generator and transformer rooms and communication equipment areas of telephone central office equipment buildings used exclusively for such equipment provided the areas are separated from the remainder of the building by at least one-hour fire-resistant rated walls and at least 2-hour fire-resistant rated floor/ceiling assemblies provided the rooms or areas are equipped with an approved automatic fire alarm system as specified in s. Ind 51.24.*

c. *Buildings used for farming purposes or primarily for the sale of farm machinery.*

(c) *Restaurants, recreation centers and lecture halls.* Buildings having more than 12,000 sq. ft. in area per floor and containing restaurants, recreation centers or lecture halls.

(d) *Dance halls and night clubs.* Buildings having more than 5,000 sq. ft. in total area or more than one story in height and containing dance halls and night clubs.

(e) *Exhibition buildings.* Exhibition buildings having more than 12,000 sq. ft. in area per floor.

(f) *Passenger terminals.* Passenger terminals having more than 12,000 sq. ft. in area per floor or providing enclosed loading service for 4 or more buses.

(g) *High hazard buildings.* All high hazard buildings, including class II, IIIA and IIIB dry cleaning plants, used for the storage, manufacture or processing of highly combustible, explosive, corrosive or toxic materials, which are likely to burn with extreme rapidity or which may produce poisonous fumes or explosives.

Note: See s. A52.015 of Appendix A for additional information pertaining to low, moderate and high hazard classifications.

(h) *Theatres with fixed seats.* All areas of theatres with fixed seats except the auditorium, foyer, lobby and toilet rooms.

(i) *Stages.* Stages of any size and the areas within or behind the proscenium separation as follows:

1. Over the stage;

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2. Under the stage gridiron with side wall sprinkler heads rated at 135° F. having heat baffle plates. The heads shall be installed around the entire perimeter of the stage, except above the proscenium opening, at points not more than 30 inches below the gridiron, nor more than 6 inches below the baffle plate;

3. Under all fly galleries;
4. Under the stage;
5. In all basements, cellars, workrooms, dressing rooms, store rooms and property rooms; and
6. In toilet, lounge and smoking rooms.

(j) *Art galleries, museums or libraries.* Buildings having more than 12,000 sq. ft. in area per floor occupied as art galleries, museums or libraries.

(k) *Detention and correctional facilities.* 1. Except as provided in subd. 2., in all detention and correctional facilities.

2. Automatic sprinkler systems need not be provided in detention and correctional facilities with a resident load of less than 6.

(l) *Storage or repair garages.* Except as provided in subd. 3., in storage or repair garages which can accommodate more than 4 passenger motor vehicles, more than 4 motor powered boats, or more than one commercial motor vehicle under the following conditions:

1. Garages used exclusively for the storage of passenger vehicles, which will accommodate not more than 9 passengers as follows:

- a. Greater than 10,000 sq. ft. in area per floor and more than one story in height;
- b. More than 2 stories in height; or
- c. When located in buildings where the upper stories are used for another occupancy and the garage is not separated from the other occupancy by at least 3-hour fire-resistive rated construction.

2. All other garages in which provisions are made for the care, storage, repair or painting of motor vehicles as follows:

- a. Greater than 10,000 sq. ft. in area per floor;
- b. Greater than 7,500 sq. ft. in area per floor and more than one story in height;
- c. Greater than 5,000 sq. ft. in area per floor and more than 2 stories in height;
- d. More than 3 stories in height;
- e. When located in buildings where the upper stories are used for another occupancy and the garage is not separated from the other occupancy by at least 3-hour fire-resistive rated construction;
- f. Where located in any floor level more than 50% below grade; or

g. Bus garages for storage of 4 or more buses.

3. Buildings used primarily for the sale of farm machinery are exempt from provisions of this section.

(4) FIRE DIVISION WALL SEPARATIONS. Buildings requiring complete automatic fire sprinkler systems because the area of the building exceeds the area limitations specified in sub. (3) may be constructed without the automatic fire sprinkler system provided the building is divided into areas less than the area limitations specified in sub. (3) by 4-hour rated vertical fire division walls as specified in s. Ind 51.02 (14).

(5) ADDITIONS TO BUILDINGS. Additions to buildings which result in the area of the entire building exceeding the area limitations specified in sub. (3) shall be protected as follows:

(a) The existing building and the building addition shall be completely protected by an automatic fire sprinkler system;

(b) The building addition shall be separated from the existing building by a 4-hour rated vertical fire division wall as specified in s. Ind 51.02 (14) and the building addition shall be completely protected by an automatic fire sprinkler system; or

(c) The existing building and the building addition shall be separated by 4-hour rated fire division walls as specified in sub. (4).

History: A Register, June, 1983, No. 330, eff. 7-1-83.

Ind 52.02 Windows. (1) NATURAL LIGHT. (a) Except as provided in par. (b), every room in which one or more persons live, sleep, shall be lighted by a window or windows opening directly upon a street or alley, or upon a court on the same lot with the building.

1. The windows shall be so constructed and distributed as to afford light.

2. Every building more than 40 feet deep measuring at right angles to the windows, shall have windows on at least 2 sides of the building.

Note: For windows and other outdoor openings used for natural ventilation, see ss. Ind 64.07, 57.13, 58.03, 58.45 and 60.13.

(b) 1. Windows shall not be required in storage rooms, factories, offices, mercantile facilities, educational facilities or areas where the nature of occupancy will not permit windows provided artificial lighting as specified in ch. Ind 19 is provided.

2. Hotel and motel rooms and similar sleeping rooms in buildings accommodating transients need not be provided with openable windows provided the rooms have clear glazed panels facing naturally lighted pool or recreation areas. The rooms shall be provided with mechanical ventilation supplying at least 5 CFM of tempered outside air per occupant.

(2) FIRE DEPARTMENT ACCESS OPENINGS. (a) Except as provided in par. (b), every story, cellar or basement of all buildings except hospitals, nursing homes, community-based residential facilities, day care centers and buildings used for farming purposes or primarily for the sale of farm machinery shall be provided with at least 20 square feet of opening en-

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tirely above the adjoining ground level in each 50 lineal feet or fraction thereof of exterior wall in the story, cellar or basement, on at least one side of the building.

1. Openings shall have a minimum dimension of not less than 22 inches.

2. The openings shall be accessible to the fire department from the exterior and shall be unobstructed to allow firefighting and rescue operations from the exterior.

3. Every story of a building more than 75 feet deep, measuring at right angles to the openings, shall have openings in that story on at least 2 sides of the building.

4. Openings in the basement or cellar shall be located so any location in the basement or cellar is within 75 feet of an opening.

(b) Automatic fire sprinkler systems shall be required under the following conditions:

1. When openings in a story are provided on only one side of the building and the building is more than 75 feet deep, measuring at right angles to the building; or

2. When any location in a basement or cellar is located more than 75 feet from any fire department access opening.

History: 1-2-56; am. Register, December, 1962, No. 84, eff. 1-1-63; r. and recr. (1) (a), Register, October, 1967, No. 142, eff. 11-1-67; am. (1) (a) Register, May, 1971, No. 185, eff. 6-1-71; r. and recr., Register, September, 1973, No. 213, eff. 10-1-73; cr. (1) (b), Register, January, 1980, No. 289, eff. 2-1-80; r. and recr. Register, June, 1983, No. 330, eff. 7-1-83.

Ind 52.03 Window cleaning. (1) Where the tops of windows to be cleaned are more than 20 feet above the floor, ground, flat roof, balcony, or permanent platform, one of the following means shall be provided to protect the window cleaners.

(a) Approved attachments for window cleaner safety belts to which belts may be fastened at each end. The attachments shall be permanent devices that shall be firmly attached to the window frame, or to the building proper, and so designed that a standard safety belt may be attached thereto; or

(b) An approved portable platform that is projected through the window or supported from the ground, floor, roof or platform level, for the window cleaner to stand upon and that is designed, constructed, maintained and equipped with handrail and toeboard in compliance with the requirements of ch. Ind 1.

(c) A suspended scaffold, swinging scaffold, swinging chair scaffold, or boatswain's chair scaffold designed, constructed, equipped and maintained in compliance with the requirements of ch. Ind 35, or

(d) Other equally effective devices.

(e) Where the window consists of a fixed panel not more than 24 inches in width alongside a removable panel, the fixed panel may be cleaned by reaching through the opening of the removable panel. Where the window consists of a fixed panel between 2 removable panels, the fixed panel may

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be cleaned by reaching through the openings if such fixed panel is not more than 36 inches in width.

(2) For cleaning the insides of skylights (the highest parts of which are more than 20 feet above the floor, ground, balcony or permanent platform), to which access cannot be gained by any of the means described in s. Ind 1.16 (1), scaffolds as specified in ch. Ind 35 shall be provided.

(3) All equipment, including building parts and attachments, used in connection with window cleaning, shall be maintained in reasonably safe condition while in use and shall be inspected at least once each month while in use, and within 30 days before their use. It shall be the responsibility of the owner of the individual safety devices or equipment to inspect and maintain the devices or equipment belonging to the owner so that each will comply with the requirements of this section.

(4) Where the attachments specified in sub. (1) (a) are relied upon for compliance with the provisions sub. (1), the employer shall furnish or see that there is provided, an approved suitable safety belt for each employee while cleaning windows.

History: 1-2-56; am. Register, December, 1962, No. 84, eff. 1-1-63; am. (1) (a), (3) and (4), Register, December, 1981, No. 312, eff. 1-1-82.

Ind 52.04 Requirements for barrier-free environments. (1) SCOPE. The requirements of this section are intended to insure that all public buildings and places of employment shall be accessible and usable by all citizens, including those with functional limitations.

Note: Owners intending to utilize federal funds for buildings may have to comply with other requirements in addition to Ind 52.04, such as the latest revised ANSI A 117.1, Specific-

ation for Making Buildings and Facilities Accessible To, and Usable By, the Physically Handicapped.

(2) **DEFINITIONS.** (a) *Access or accessible.* Access or accessible means the ability of a person with a functional limitation caused by impairments of sight, hearing, incoordination, perception, semiambulatory or nonambulatory disabilities to enter and leave a public building, circulate through a public building, and use the public toilet facilities without assistance. Functional limitations may require aids such as wheelchairs, crutches, braces or canes.

(b) *Primary floor.* A primary floor is one intended for use by the employees or patrons, or both. A floor used primarily for furnace room or storage areas, or both, is not considered a primary floor.

(c) *Public entrance.* Any major access point to a building used for the purpose of entering the building and gaining access to a primary floor is considered a public access. Entrances used only for service or maintenance purposes, or designated for emergency exit only, are not considered public entrances.

(3) **SITE REQUIREMENTS.** A means of access shall be provided from an ancillary parking facility, street or alley to the building.

Note: Section 66.616, Stats., requires curb ramps for persons with physical disabilities at intersection crosswalks on any city or village street, connecting street, or town road provided with curbs and sidewalks.

(a) *Parking spaces.* Where parking spaces are provided, accessible parking spaces shall be designated and provided at the rate of 2% of the total number of parking spaces provided, with a minimum of one.

1. **Width.** Parking spaces shall be at least 12 feet wide.

2. **Identification.** Exterior signs or symbols shall identify all accessible parking spaces and shall direct persons from the accessible parking space to the accessible entrance. The signs shall comply with the requirements of s. Ind 52.04 (9) (c).

3. **Location.** All accessible parking spaces shall be located as close as possible to an accessible entrance (s). Parking spaces in a parking ramp shall be located as close as possible to the main entrance of the parking ramp, to an adjacent accessible public walk, or to an accessible elevator.

(b) *Curb ramps.* Where accessible walks cross driveways, parking facilities, streets or alleys, curb ramps shall be used to provide a means of access.

1. **Slope.** Curb ramps shall have a slope of not more than one inch of rise in 12 inches. Sides of ramps shall be sloped to adjacent terrain or sidewalk. The lower edge of the curb ramp shall be level with the road.

2. **Width.** Curb ramps shall be a minimum of 40 inches in width.

3. **Handrails.** Handrails shall not be required for curb ramps which overcome a difference in elevation of 8 inches or less.

4. **Location.** Curb ramps shall be located to provide the shortest line of travel from the accessible parking space (s) to the accessible public entrance.

(c) *Exterior walks.* Exterior walks leading to accessible entrances shall comply with the following:

1. **Width.** Walks shall have a slip-resistant surface and shall be at least 48 inches wide;

2. **Gradients.** Walks shall have a side slope not greater than 2.5% ($\frac{1}{4}$ inch per foot). Walks with a gradient greater than 5% (1:20), but less than 8.3% (1:12), shall be provided with rest platforms at 30-foot intervals and shall have a handrail on one side of the walk. Walks with a gradient of 8.3% (1:12) shall comply with the requirements for ramps [s. Ind 52.04 (7)]; and

3. **Handrails.** Handrails shall be provided at walks where the adjacent terrain exceeds a 25% (1:4) downward slope away from the walk.

Note: The requirements for accessible walks are not intended to apply to public walks controlled by city datum, nature trails, or walks not required by this code.

(d) *Communication between buildings or properties.* Walks or enclosed passageways which connect 2 or more properties or buildings and are intended for public use shall provide access to each building or property.

(4) **NEW CONSTRUCTION.** All new public buildings and places of employment shall be provided with access to a primary floor, interior circulation and toilet facilities in accordance with Table 52.04 and the requirements of s. Ind 52.04 (4). All buildings with multiple uses shall comply with s. Ind 52.04 (5).

Note: The footnotes in Table 52.04 designate specific exemptions and requirements for access to the primary floor, interior circulation, and toilet facilities for the occupancies listed.

(a) *Access to the primary floor.* Access from the exterior grade to a primary floor, via a public entrance, shall be provided by means of ramps, grade-level entrances, or other means of access approved by the department.

(b) * *Interior circulation.* Access shall be provided to all public-use areas of the building, both horizontally and vertically. Interior circulation between floor levels shall be accomplished by the use of ramps, elevators, lifts, or other means of access approved by the department.

Note: Where elevators are provided, the department recommends that elevator control buttons and emergency call systems be located at a height from 35 inches to 48 inches from the floor. The elevator call buttons in the lobbies should be placed at a height of 42 inches from the floor. See ch. Ind 4, Elevator Code, Wis. Adm. Code, for additional requirements.

(c) *Toilet facilities.* Accessible toilet facilities shall be provided on a primary floor or accessible from a primary floor. Every floor which is accessible, and which is provided with required toilet facilities, shall be provided with accessible toilet facilities which comply with the requirements of s. Ind 52.04 (8) and the following distribution:

1. Accessible water closets shall be provided at the rate of 10% of the total number of toilet facilities provided on each accessible floor, with a minimum of one for each sex; and

*See Appendix A for further explanatory material.

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2. One accessible toilet room is required in buildings accommodating 10 or less employes and less than 25 patrons per s. Ind 54.12 (1) (a) 1.

TABLE 52.04

REQUIREMENTS FOR NEW CONSTRUCTION

Occupancy and Type of Construction	Access to Primary Floor	Interior Circulation	Toilet Facilities
I. All public buildings and places of employment not listed in categories II-XII.....	Yes	Yes ¹	Yes
II. Government-owned buildings, except those occupancies listed under V and IX. D	Yes	Yes	Yes
III. Factories, office and mercantile buildings	Yes	Yes ¹	Yes ²
IV. Theaters and assembly halls			
A. Churches, (chs. Ind 54 and 55)	Yes ³	Yes ^{1, 5}	Yes ⁴
B. Auditoriums, theaters, stadiums and permanent bleachers	Yes	Yes ^{1, 5}	Yes
C. Night clubs, bars, restaurants (chs. Ind 54 and 55)	Yes	Yes ¹	Yes
D. Recreational facilities (chs. Ind 54 & 55) ⁶	Yes	Yes	Yes
V. Schools and other places of instruction	Yes	Yes ^{1, 7}	Yes
VI. Libraries, museums and art galleries	Yes	Yes ¹	Yes
VII. Places of abode			
A. Residential living units with individual exterior entrances	Yes ⁸	Yes ⁹	Yes ¹⁰
B. All other residential living units (apartment-type buildings)	Yes ¹¹	Yes ¹²	Yes ¹⁰
C. Hotels and motels	Yes	Yes ^{7, 13}	Yes ¹⁴
D. Condominiums.....	Yes ¹⁵	Yes ¹⁶	Yes ¹⁰
VIII. Day care centers ¹⁷	Yes	Yes ¹	Yes
IX. Health care facilities			
A. Hospitals ¹⁸	Yes	Yes	Yes
B. Nursing homes ¹⁸	Yes	Yes	Yes
C. Community-based residential facilities ¹⁹	Yes	Yes	Yes
D. Dental and medical clinics and offices.....	Yes	Yes ^{1, 20}	Yes
X. Places of detention.....	Yes	Yes ^{1, 21}	Yes
XI. Garage occupancies	Yes	Yes ¹	Yes
XII. Specialty occupancies			
A. Open parking structures ²²	Yes	Yes	Yes
XIII. Mechanical equipment rooms, maintenance equipment and other storage rooms, janitor closets, storage warehouses, saw and feed mills, motion picture booths, portable bleachers and similar occupancies determined by the department	No	No	No

Note: Floors used entirely for storage or mechanical purposes need not be included in determining the total gross area.

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Footnotes of Table 52.04:

¹ (a) *All buildings.* Access is not required to a mezzanine if duplicate facilities to those provided on the mezzanine are located on an accessible floor. Access is required to employ facilities (i.e., lunch rooms, change rooms and locker rooms) required by s. Ind 54.13.

(b) *Buildings having an area 20,000 square feet or less.* If the total gross area of the building including all floors, is 20,000 square feet or less, interior circulation is required to a primary floor and throughout at least 2/3 of that floor area. Access is required to any raised or depressed area of the primary floor containing the only facility of its kind.

(c) *Buildings having an area greater than 20,000 square feet.* If the total gross area of the building, including all floors, is greater than 20,000 square feet, interior circulation is required to all floors and to at least 2/3 of the total area of each floor. Access is required to any floor level containing the only facility of its kind.

² If the required toilet facilities in buildings accommodating 15 or less employees and 25 or less patrons are not accessible, one additional accessible toilet room for both sexes shall be provided. That toilet facility shall be located on an accessible floor and shall contain one lavatory and one water closet. A privacy lock for the door shall be provided.

³ If remodeling or adding, or both, involves an entrance or exit and constitutes less than 25% of the total square footage, access is not required to a primary floor.

⁴ In remodeled churches, a separate accessible toilet room for use by both sexes will be acceptable providing the toilet room is located on an accessible floor, contains one lavatory and one water closet, and is provided with a privacy lock.

⁵ Seating spaces, at the rate of 5% of the total capacity, with a maximum of 30 spaces required, shall be integrated throughout the seating plan. One-half of the accessible seating spaces shall be designed for patrons using wheelchairs and shall be located on level grade; the other half of the accessible seating spaces shall be designed for patrons using braces, crutches or similar aids. Ramp details [s. Ind 52.04 (7)] do not apply to the aisles in theater auditoriums.

⁶ In buildings containing recreational facilities, access shall be provided to 10% of the individual game areas (i.e., bowling alleys, tennis courts and similar areas), with a minimum of one. Access shall be provided to toilets, lounge areas, bar and dining areas and to the only facility of its kind of a similar nature. Access is not required to saunas, racquet ball courts, handball courts and locker rooms associated with those areas.

⁷ Interior circulation shall be provided to any level containing the only facility of its kind.

⁸ Access shall be provided to at least 10% of the living units, with a minimum of one. In a complex of buildings, the accessible units shall be integrated throughout at least 50% of the buildings in the complex.

⁹ All doors throughout the accessible living units shall be at least 32 inches wide. All corridors within the accessible living units shall be at least 36 inches wide.

¹⁰ Grab bars, special lavatories, water closets, mirrors, or special bathing facilities are not required.

¹¹ Access shall be provided to a primary floor with living units. In a complex of buildings, access shall be provided to at least 50% of the buildings in the complex.

¹² Interior circulation within all living units on the accessible floor shall be accomplished through the use of doors at least 32 inches wide. All corridors needed to provide accessibility shall be at least 36 inches wide. If laundry or storage facilities, or both, are provided in buildings with more than 20 living units per building, the laundry or storage facilities, or both, shall be accessible.

¹³ Accessible sleeping units shall be provided at a rate of 10% of the total number of units, with a minimum of one. Doors at least 32 inches wide are required throughout the accessible living units. All corridors within the accessible living units, or needed to provide accessibility, shall be at least 36 inches wide.

¹⁴ Accessible bathtubs or showers shall be provided and shall comply with s. Ind 52.04 (8) (h). Self-rising toilet seats and sliding-door tub enclosures are prohibited.

¹⁵ Condominiums, 2 stories or less in height, are exempt from the accessibility requirements relating to parking spaces, ramps and grade-level entrances.

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16 All doors throughout all condominium living units shall be at least 32 inches wide. all corridors shall be at least 36 inches wide.

17 Access, interior circulation, and toilet facilities do not apply to a change of use.

18 See ss. Ind 52.041 and 52.042 for additional requirements on accessibility.

19 For community-based residential facilities within the scope of ch. Ind 61, see s. Ind 61.18 for additional requirements; for community-based residential facilities within the scope of ch. Ind 57, common-use areas and 10% of the sleeping rooms shall be accessible.

20 If the total gross area of the building, including all floors, is less than 20,000 square feet, interior circulation is required to all the medical and dental areas, or both, used by the patients. All one-of-a-kind facilities provided for the employees shall be located on an accessible floor.

21 In penal institutions, 10% of the total number of required institutional living units shall be accessible. Vertical transportation between tiers of cells is not required.

22 See s. Ind 62.34 for additional requirements.

(5) **BUILDINGS WITH MULTIPLE USES.** (a) *Buildings greater than 20,000 square feet.* Multiple-use buildings with a total gross area greater than 20,000 square feet, including all floors, shall comply with the criteria established in Table 52.04 for each specific use. Interior circulation is required to and throughout at least $\frac{2}{3}$ of each specific use area.

(b) *Buildings of 20,000 square feet or less.* Multiple-use buildings with a total gross area of 20,000 square feet or less, including all floors, shall be provided with a means of access to and throughout at least $\frac{2}{3}$ of the total area of the primary floor and to the toilet facilities on the primary floor. Government-owned buildings and dental and medical clinics and offices shall comply with the criteria established in Table 52.04 for each specific use.

Note: Floors used entirely for storage or mechanical purposes need not be included in determining the total gross area.

(6) **ADDITIONS, REMODELED BUILDINGS, AND CHANGE OF USE.** All existing public buildings or places of employment, and all additions, shall be provided with access to a primary floor, interior circulation and toilet facilities in accordance with the following:

(a) *More than 50% remodeled or added.* If more than 50% of the gross interior area of a building is remodeled, added to or both, the entire building shall be provided with the requirements of Table 52.04 and subs. (3), (4) and (9).

(b) *25% to 50% remodeled or added.* If 25% to 50% of the gross interior area of a building is remodeled, added to or both, that part of the building which is remodeled, added to or both shall be provided with the requirements of Table 52.04 and sub. (4).

(c) *Less than 25% remodeled or added.* If less than 25% of the gross interior area of a building is remodeled, added to or both, the requirements of Table 52.04 and sub. (4) need not be provided unless the remodeling or addition involves an entrance or exit or toilet facilities.

1. **Exception.** Additions, larger than 20,000 square feet gross area, shall comply with Table 52.04 and subs. (3), (4) and (9) regardless of the percent of floor area of the entire building.

(d) *Toilet facilities in remodeled buildings.* If an existing building having passenger elevators is remodeled in accordance with the percentages above, accessible toilet room facilities for each sex shall be provided to serve each 5 floors, or fraction thereof, and shall comply with the requirements of sub. (8);

(e) *Change of use.* If the use of an existing building is changed to a new use and the building undergoes physical remodeling, the building shall comply with the percentages established in sub. (6);

(f) *Remodeling in stages.* The percentage requirements established in this subsection shall apply to the accumulative sum of any remodeling or additions, or both, undertaken after May 15, 1974.

(7) **RAMP DETAILS.** (a) *Ramp slope.* Ramps shall have a slope of not more than one foot of rise in 12 feet of run. An interior ramp with a slope of one foot of rise in 8 feet may be used to overcome a total height not greater than 2 feet. The ramps shall have a slip-resistant surface and shall have no side slope.

(b) *Ramp width.* Ramps shall be at least 4 feet wide, of which not more than 4 inches on each side may be occupied by a handrail.

(c) *Ramp handrails.* Ramps shall have a handrail on each side which shall be at least 2 feet 6 inches high (preferable height, 2 feet 8 inches). Handrails on unenclosed ramps shall include an intermediate parallel rail at mid height. Handrails are not required on interior ramps where the slope is less than one foot of rise in 20 feet of run.

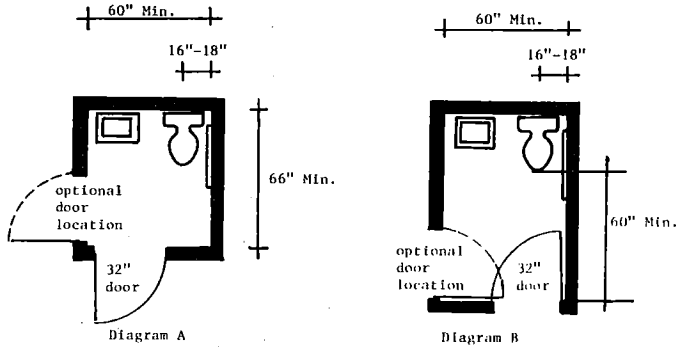
(d) *Ramp clearance.* Where ramps are provided to accessible doorways, the floor on each side of the doorway shall be level for a distance of 5 feet from the door.

(e) *Ramp platforms.* Ramps having a 1:12 slope shall have a 5-foot long level platform at 30-foot intervals. Ramps shall have a level platform at least 5 feet long where they turn and at least 5 feet of level clearance at the bottom of the ramp. Ramp platforms are not required on interior ramps where the slope is less than one foot of rise in 20 feet of run.

(8) * **TOILET FACILITY DETAILS.** (a) *Accessible toilet rooms and compartments.* Accessible toilet rooms and toilet compartments shall be sized to provide ease of access, usability and uninterrupted mobility. Fixtures, doors, and other obstructions shall be arranged to ensure accessibility.

* See Appendix A for further explanatory material.

(b) *Single-fixture toilet rooms.* Single-fixture toilet rooms containing one water closet and one lavatory shall be designed to provide the minimum space requirements as shown in diagram A, diagram B, or as approved by the department.



(c) *Water closet compartments.* Accessible water closet compartments shall be designed in accordance with the minimum design standards as established in Table 52.04-A, or as approved by the department. Sufficient clearance must be maintained to permit the door to the toilet room compartment to open at least 95°.

Note: The water closet compartment specifications contained in Table 52.04-A do not apply to toilet rooms containing one water closet and one lavatory; or to bathrooms containing a water closet, a lavatory and a bathing facility. See the appendix for examples of accessible toilet room and bathroom arrangements.

TABLE 52.04-A

Compartment Size Width/Length	Door Location	Door Size	Water Closet	
			Location	Grab Bar Location
36" x 72"	Front entrance	32"	Centered	Each side of WC
36" x 78"	Side entrance	36"	Centered	Each side of WC
42" x 78"	Side entrance	32"	Centered	Each side of WC
48" x 57"	Front entrance	32"	Offset ¹	Wall closest to WC
48" x 72"	Side entrance	32"	Offset ¹	Wall closest to WC

¹ Offset 15 to 18 inches from center line of water closet to wall.

(d) *Grab bars.* Each grab bar shall be designed and anchored to support a weight of at least 250 pounds, applied at the bar. The grab bars shall have a smooth finish, with an approximate outside diameter between one inch to 1½ inches, and with 1½ inches clearance between rail and wall.

1. Side-mounted grab bars. Side-mounted grab bars shall be installed 33 inches high and parallel to the floor.

2. Single-fixture toilet rooms. In single fixture toilet rooms containing one water closet and one lavatory, one grab bar shall be located on the wall adjacent to the water closet.

3. Bathing facilities (bathtubs). Horizontal grab bars for bathtubs shall be located along the side wall and one end wall and shall be mounted 4 to 6 inches above the rim of the tub. A vertical 36-inch long grab bar shall be required on the side wall, located not more than 30 inches from the end of the tub. The bottom of the bar shall be 9 inches above the rim of the bathtub. See Appendix for diagrams.

4. * Bathing facilities (shower stalls). In shower stalls, horizontal grab bars shall be mounted 36 inches above the floor of the shower stall and be located on the back wall and the wall opposite the seat.

5. Seat-mounted grab bars are not permitted.

(e) *Water closets.* The seat height of the water closet shall be 15 inches to 20 inches above the floor.

(f) *Lavatory.* At least one lavatory, mounted at a height which allows 29 inches clear space at the bottom of the apron and a maximum rim height of 34 inches, shall be provided.

Note: It is recommended that water supply controls be single lever controls and that exposed hot water pipes be insulated.

(g) *Mirror and towel dispensers.* At least one mirror and towel dispenser or hand dryer, when provided, shall be mounted not more than 40 inches above the floor.

Note: The department will accept toilet rooms, individual toilet compartments and grab bars as illustrated in the Appendix.

(h) * *Accessible bathing facilities.* 1. The bathtub shall be equipped with a hand shower with a flexible hose at least 6 feet in length. A seat of nonabsorbent material shall be provided and shall be mounted 17 to 20 inches above the floor of the bathtub. The seat may be folding, retractable or fixed, unless an alternate method, such as a lift, is provided. Grab bars shall be mounted on 2 sides of the bathtub and shall comply with the requirements of par. (d) 4. In detention or correctional facilities, 2 fixed shower heads may be provided in lieu of a hand shower with a flexible hose.

Note: Refer to ch. H 62 — Design, Construction, Installation, Supervision and Inspection of Plumbing, Wis. Adm. Code, for requirements pertaining to the plumbing system, including the use of vacuum breakers.

2. The shower shall be equipped with lever type control handles. A seat of nonabsorbent material shall be provided and located 17 to 20 inches from the floor of the shower. The seat may be folding, retractable or fixed. Grab bars shall be mounted on 2 sides of the shower and shall comply with the requirements of par. (d) 4. If a shower wheelchair is provided for use in the shower, the grab bars and seat are not required. The threshold to the shower shall be no more than ½-inch and the edges

*See Appendix A for further explanatory material.

shall be beveled to provide a smooth, unbroken surface to accommodate a wheelchair.

(9) MISCELLANEOUS DETAILS. (a) *Doors*. 1. Door sizes. All entrance doors and passageway doors used to provide accessibility shall be at least 32 inches in width.

2. Door thresholds. Thresholds at exterior doors shall not extend more than $\frac{3}{8}$ -inch above the finished floor and exterior platform. Weather-stripped thresholds shall not exceed one inch above the finished floor and exterior platform, including the weather-stripping. All exterior thresholds shall be not less than 4 inches in width. Interior thresholds shall extend not more than $\frac{1}{2}$ -inch above the finished floor or carpeting. All thresholds shall be beveled to provide smooth, unbroken surfaces.

Note: Lever handles or door handles are recommended over conventional door knobs. Kickplates, 16 inches high, are recommended on the accessible side of doors. Automatic power-operated doors are recommended at entrances. Time-delay door closures are recommended at all accessible doors. The manual pull or push of a door is recommended not to exceed 8 pounds.

3. Doors in series. Doors in series, other than those which are electronically controlled, shall be arranged to provide a minimum distance of 6 feet 6 inches between the doors when closed. See Appendix for diagrams.

(b) *Platforms*. At least 18 inches of clear platform space shall be provided on the door knob side of all exterior doors. The platform shall have a side slope not greater than 2.5% ($\frac{1}{4}$ inch per foot) and shall be at least 4 feet in length when the door swings inward or 5 feet in length when the door swings outward.

(c) * *Identification signs*. 1. International symbol for barrier-free environments. The international symbol for barrier-free environments shall identify all accessible entrances, toilet facilities, drinking fountains, telephones and parking spaces.

2. Location. The international symbol for barrier-free environments shall be placed at all entrances indicating the location of the nearest accessible entrance (s) and accessible toilet facilities. The symbol at the exterior of the building shall be legible from adjacent streets, driveways or public walks.

(d) * *Wheelchair functions*. All 90°, 180°, 360° and S-turns shall be designed to provide ease of access, usability and uninterrupted mobility.

Note #1: The standard wheelchair dimensions are: length including footrest and feet, 42 inches; width, including hands and knuckles, 31 inches.

Note #2: The minimum space required to turn 90°, 180°, 360° and S-turns is illustrated in the Appendix.

(e) *Grates*. All openings in gratings that will be in the path of access shall not exceed $\frac{3}{8}$ -inch in width, and shall be installed perpendicular to the direction of travel. Spacers perpendicular to the grate and flush with the top of the grate shall be provided at not more than 18-inch intervals.

*See Appendix A for further explanatory material.

(f) *Water fountains.* Water fountains shall be accessible and installed at or adapted to a usable height.

Note: Conventional floor-mounted water coolers can be serviceable to patrons with functional limitations if a small fountain is mounted on the side of the cooler 30 inches above the floor. Fully recessed water fountains are not recommended and should not be recessed in an alcove unless the alcove is wider than a wheelchair. See Appendix for accessible designs.

(g) *Public telephones.* Where coin telephone(s) are provided for public use, a minimum of one telephone shall be accessible.

Note: It is recommended that the height of the telephone coin slot be not more than 64 inches above the floor, with the dial no more than 48 inches from the floor. An adjustable volume control should be provided in areas where such service is appropriate.

History: Cr. Register, December, 1974, No. 228, eff. 1-1-75; r. and recr. (3) (b), (4), (5) and (9) (a) and (b), am. (6), (7) (a), (7) (a), (8) (c) and (d), r. (9) (d) 3, Register, December, 1975, No. 240, eff. 1-1-76; am. table, (4) (c) 2 and (6) (e), Register, December, 1976, No. 252, eff. 1-1-77; cr. (2) (b) and (c), (3) (a) 3, am. (3) (b) (intro.), (4) (b) and (c) 1, (5), (7) (a), (c) and (e), (8) (b) and (9) (a) 1 and 2, r. and recr. (8) (b), Register, December, 1977, No. 264, eff. 1-1-78; am. (4) (c) 2., (5) (b), (6) (a) to (c), (7) (a) and (8) (c), Register, December, 1978, No. 276, eff. 1-1-79; am. (4) table, (5) (b), (9) (a) 1., (9) (c) 1. and 2., r. and recr. (3) and (8), cr. (9) (a) 3., Register, January, 1980, No. 289, eff. 2-1-80; cr. (8) (h), Register, December, 1981, No. 312, eff. 1-1-82; am. (8) (e), Register, October, 1982, No. 322, eff. 11-1-82.

Ind 52.041 Health care facilities — new construction. All new health care facilities shall be provided with access to a primary floor, interior circulation and toilet facilities in accordance with s. Ind 52.04 and the following requirements:

(1) **ACCESSIBLE PATIENT TOILET FACILITIES.** Accessible patient toilet facilities shall be provided in accordance with this section.

(a) *Individual toilet facilities.* Where individual toilet facilities are provided in patient sleeping rooms or contiguous to patient sleeping rooms, at least 20% of these toilet facilities shall be usable by the disabled and shall comply with s. Ind 52.04 (8). The accessible toilet facilities shall be integrated throughout the patient sleeping room area.

(b) *Centrally located toilet facilities.* Central toilet facilities serving the patient sleeping rooms shall be usable by the disabled and shall comply with s. Ind 52.04 (8).

(2) **ACCESSIBLE PATIENT BATHING FACILITIES.** Accessible patient bathing facilities shall be provided in accordance with the following:

(a) *Individual bathing facilities.* Where individual bathing facilities are provided in patient sleeping rooms or contiguous to patient sleeping rooms, at least 20% of these bathing facilities shall be usable by the disabled and shall comply with s. Ind 52.04 (8). The accessible bathing facilities shall be integrated throughout the patient sleeping room area.

(b) *Centrally located bathing facilities.* Central bathing facilities serving the patient sleeping rooms shall be usable by the disabled and shall comply with s. Ind 52.04 (8).

History: Cr. Register, December, 1981, No. 312, eff. 1-1-82.

Ind 52.042 Existing health care facilities. (1) **ADDITIONS AND REMODELING.** Any addition to an existing health care facility or remodeling of an existing health care facility shall comply with the requirements specified in s. Ind 52.04 (6) based on the percentage limitations and the requirements in this section.

(2) **TOILET AND BATHING FACILITIES.** Toilet and bathing facilities shall be provided in accordance with Table 52.042.

(a) *Additions.* Additions to existing health care facilities shall comply with s. Ind 52.041.

(b) *Remodeling.* The remodeled or altered areas and portions of existing health care facilities shall comply with the requirements in Table 52.042.

TABLE 52.042
TOILET AND BATHING FACILITIES

Remodeling of Existing Health Care Facilities	Gross Interior Area of Entire Existing Building		
	Less than 25%	25-50%	More than 50%
Remodeling of existing patient sleeping rooms.	Toilet and bathing facilities being remodeled shall be accessible and comply with s. Ind 52.04 (8).	20% of the patient sleeping rooms being remodeled shall be provided with accessible toilet and bathing facilities and shall comply with s. Ind 52.04 (8).	20% of the total number of patient sleeping rooms of the entire building shall be provided with accessible toilet and bathing facilities and shall comply with ss. Ind 52.04 (8) and 52.041.
Remodeling of ancillary areas (such as surgery, labs or similar areas), but no physical remodeling, additions, or both, to patient sleeping rooms.	Toilet and bathing facilities being remodeled shall be accessible and comply with s. Ind 52.04 (8).	At least one toilet facility and bathing facility per 50 patients, but not less than one toilet facility and bathing facility per nursing station shall be available to both sexes and shall be accessible from a public corridor or public area.	

History: Cr. Register, December, 1981, No. 312, eff. 1-1-82.

Ind 52.05 Size of courts. (1) In applying the following requirements, a building from 30 to 43 feet high shall be considered as having at least 3

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stories, and each additional 13 feet shall be considered an additional story.

(2) Outer lot line courts shall be not less than 5 feet wide for a court 2 stories or less in height and 40 feet or less in length, measured from the lot line to the wall of the building. For each additional story in height, the width of such court shall be increased one foot; and for each additional 15 feet or fraction thereof in length, the width of such court shall be further increased one foot.

(3) Outer courts between wings or parts of the same building, or between different buildings on the same lot, shall be not less than 6 feet wide for a court 2 stories or less in height and 40 feet or less in length. For each additional story in height, the width of such court shall be increased one foot, and for each additional 10 feet or fraction thereof in length, the width of such court shall be further increased one foot.

(4) Where outer courts or outer lot line courts open at each end to a street or other open space not less than 15 feet wide, the above lengths may be doubled.

(5) Inner lot line courts one story high shall be not less than 5 feet wide and not less than 45 square feet in area. Inner lot line courts 2 stories high shall be not less than 6 feet wide and not less than 60 square feet in area. For every additional story, every such inner lot line court shall be increased by at least one lineal foot in length and one lineal foot in its width.

(6) Inner courts shall be not less than 10 feet in width nor less than 150 square feet in area for courts 2 stories or less in the height; and for every additional story every such inner court shall be increased by at least one lineal foot in its length and one lineal foot in its width.

(7) Courts shall not be covered by a roof or skylight but the entire required area shall be open and unobstructed from the bottom thereof to the sky. No fire escape or stairway shall be constructed in any court unless the court be enlarged proportionately.

(8) Walls of inner courts whose least horizontal dimension is less than one-fourth the height, shall be faced with material with a permanent white surface or shall be painted white at least every 2 years.

(9) No buildings shall be altered or enlarged to encroach upon space reserved under this code for light and air on the lots or parcels of ground on which such building is erected.

History: 1-2-56; am. (2) and (5), Register, September, 1973, No. 213, eff. 10-1-73.

Ind 52.06 Ventilation of courts. At the bottom of every shaft or inner court there shall be sufficient access to such shaft or court to enable it to be properly cleaned out. Every inner court which is required under s. Ind 52.02 and which is more than one story in height, shall have an intake for fresh air, leading from the street or other open space. The area of such intake in square feet shall equal at least .002 of the number of cubic feet contained in the court, but such area need not be more than 50 square feet. Every intake shall be of not less than 2-hour fire-resistive

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construction and unless the intake is used as a passageway for persons, there shall be no openings into the same other than the inlet and outlet.

History: 1-2-56; am. Register, December, 1981, No. 312, eff. 1-1-82.

Ind 52.07 Fireplaces and fireplace stoves. **History:** Cr. Register, January, 1980, No. 289, eff. 2-1-80; r. Register, December, 1981, No. 312, eff. 1-1-82.

Ind 52.16 Floor protection. **History:** 1-2-56; r. Register, December, 1981, No. 312, eff. 1-1-82.

Ind 52.17 Wall and ceiling protection. **History:** 1-2-56; r. Register, December, 1981, No. 312, eff. 1-1-82.

Ind 52.19 Gas and oil lamps. (1) Gas and oil lamps shall not be used where electricity is available, except within living units of apartment buildings.

(2) Gas and oil lamps shall be placed at least 6 feet above the floor level, at least 6 inches from any combustible partition or wall, and at least 2 feet (measured from top of flame) below any combustible ceiling unless properly protected by a metal shield with at least 2 inches of air space above. Swinging brackets shall be provided with a guard or stop so that the light cannot come nearer to the partition or wall than one foot. In aisles and public passageways, every such light shall be protected by an incombustible guard unless the light is at least 7 feet above the floor. Gas and oil lights shall be kept at least 2 feet from any drape or window curtain.

(3) Every gas supply main shall have a service cock outside of the building, so placed and maintained that it can be shut off at any time without entering the building.

History: 1-2-56; am. (1), Register, September, 1973, No. 213, eff. 10-1-73.

Ind 52.20 Electrical work. All electrical work shall conform to the requirements of the Wisconsin State Electrical Code, Volume 2, ch. ILHR 16, Wis. Adm. Code, of the department. **FP**

Note: For the design requirements for transformer vaults, see ch. E 450 of the Wisconsin State Electrical Code, Volume 2, ch. ILHR 16, Wis. Adm. Code.

History: 1-2-56; am. Register, January, 1961, No. 61, eff. 2-1-61.

Ind 52.21 Location and maintenance of exits. Every exit mentioned in ss. Ind 51.15 to 51.20, inclusive, shall lead to a street, alley or open court connected with a street. All such exits and all passageways leading to and from the same, shall be kept in good repair and unobstructed at all times. **FP**

History: 1-2-56; am., Register, January, 1980, No. 289, eff. 2-1-80.

Ind 52.22 Repairs. Every building shall be kept in good repair and the roof shall be maintained to prevent leakage. All rainwater shall be so drained and conveyed to prevent dampness in the walls and ceilings. **FP**

History: Cr. Register, December, 1981, No. 312, eff. 1-1-82.

Ind 52.23 Cleanliness. Every building, including connecting yards, courts, passages, areas or alleys, shall be kept clean, and shall also be **FP**

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kept free from any accumulation of dirt, filth, rubbish, garbage, or other matter.

History: Cr. Register, December, 1981, No. 312, eff. 1-1-82.

SANITATION REQUIREMENTS

Ind 52.50 Toilet rooms. (1) Every place of employment and public building shall have toilet rooms as provided in the occupancy classifications of this code, completely enclosed and so arranged as to ensure privacy, unless otherwise exempted.

History: 1-2-56; am. Register, December, 1962, No. 84, eff. 1-1-63; am. Register, December, 1976, No. 252, eff. 1-1-77.

Ind 52.52 Sex designation. Where separate toilet rooms for each sex are required by this code, each toilet room shall be marked with regard to the sex which uses it; words such as MEN or WOMEN, in letters not less than one inch high, or symbols may be used.

History: 1-2-56; am. Register, September, 1973, No. 213, eff. 10-1-73; am. Register, December, 1976, No. 252, eff. 1-1-77.

Ind 52.53 Location, light and ventilation. (1) Every toilet or bathroom shall be so located as to open to outside light and air, by windows or skylights opening directly upon a street, alley or court, except as provided in s. Ind 52.54.

(2) The glass area for a toilet room containing one water closet or urinal shall be at least 4 square feet with at least 2 square feet openable.

(a) Bathrooms containing a water closet or urinal shall be considered as a toilet room.

(3) No toilet room shall have windows or ventilator openings in any elevator shaft or inner court that has windows of habitable rooms above.

(4) Every toilet room having more than one fixture including closets and urinals shall be ventilated in accordance with the provisions of s. Ind 64.65, except that this requirement shall not apply to chemical or septic toilets which are installed in accordance with the provisions of the chemical toilet code or the septic toilet code issued by the department.

(a) The size of gravity vent ducts, if surmounted with effective siphon type hoods, may be determined as follows: $\frac{A \times 2}{300}$ = net cross sectional area of vent duct in square feet.

Where A = floor area in the toilet room in square feet.

History: 1-2-56; am. Register, December, 1962, No. 84, eff. 1-1-63; r. and recr. Register, October, 1967, No. 142, eff. 11-1-67; am. (3), Register, September, 1973, No. 213, eff. 10-1-73; am. (4) (intro.), Register, December, 1975, No. 240, eff. 1-1-76; am. (4), Register, December, 1981, No. 312, eff. 1-1-82.

Ind 52.54 Location without outside windows; when permitted.

(1) **SINGLE FIXTURE TOILET ROOMS AND BATHROOMS.** Windows may be omitted in bathrooms or toilet rooms containing a single fixture (water closet or urinal) and lavatory or bathing facility where artificial light

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and either mechanical exhaust ventilation or an approved duct-less air circulating and treatment device is provided.

Note: The department will accept ductless air circulating and treatment devices conforming to standard C-10 as adopted by the National Sanitation Foundation (NSF).

(2) **MULTIPLE FIXTURE TOILET ROOMS.** Toilet rooms with more than one fixture (water closet or urinal) will be permitted without windows if mechanical ventilation, in accordance with the requirements of s. Ind 64.65, and artificial light are provided.

History: 1-2-56; r. and recr. Register, October, 1967, No. 142, eff. 11-1-67; am. Register, December, 1975, No. 240, eff. 1-1-76; r. and recr. Register, December, 1977, No. 264, eff. 1-1-78.

Ind 52.55 Artificial light. Every toilet room, except those within living units, shall be artificially lighted during the entire period that the building is occupied, wherever and whenever adequate natural light is not available, so that all parts of the room, especially the toilet compartments, shall be provided with artificial light intensity of not less than 2.5 footcandles at the floor level.

History: 1-2-56; am. Register, September, 1973, No. 213, eff. 10-1-73.

Ind 52.56 Size. Every toilet room shall have at least 14 square feet of floor area with a minimum width of 3 feet, and at least 100 cubic feet of air space for each water-closet and each urinal in addition to the space required for lavatories if installed within the toilet room.

Ind 52.57 Floor and base. Every toilet room, except those within living units of apartment buildings, shall have the entire floor and the side walls to a height of not less than 4 inches made waterproof with ceramic tile, terrazzo, painted concrete, marble slate, monolithic asphalt or other approved material impervious to water.

Note: This section is also intended to prohibit the use of wall registers within 4 inches of the floor, baseboard registers and floor registers.

History: 1-2-56; am. Register, September, 1973, No. 213, eff. 10-1-73; am. Register, December, 1981, No. 312, eff. 1-1-82.

Ind 52.58 Walls and ceilings. (1) The walls and ceilings of every toilet room shall be completely covered with smooth non-absorbent material.

(2) The interior surface of walls and partitions shall be of light color to improve illumination and facilitate cleaning.

History: 1-2-56; r. and recr. Register, September, 1959, No. 45, eff. 10-1-59; am. (1), Register, December, 1977, No. 264, eff. 1-1-78.

Ind 52.59 Enclosure of fixtures. (1) The fixtures (closets and urinals) in every toilet room shall be arranged to ensure privacy. Water-closets shall be enclosed with partitions. Urinals shall be placed against walls and arranged individually. Individual floor type urinals shall be placed against walls at least 7 feet 0 inches high.

(a) *Exception.* The above requirements need not apply to toilet rooms accommodating only a single closet or urinal.

(2) A space of 6 to 12 inches shall be left between the floor and the bottom of each partition. The top of the partition shall be from 5½ to 6

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feet above the floor. Doors with the top 5½ to 6 feet above the floor, and the bottom 6 to 12 inches above the floor, shall be provided for all water-closet compartments. All partitions and doors shall be of material and finish required for walls and ceilings under s. Ind 52.58.

(3) The water closet compartments in toilet rooms shall be not less than 30 inches in width, and shall be not less than 54 inches in depth with a clearance of not less than 24 inches between the fixture and the compartment door when closed except as specified in s. Ind 52.04 (8). Compartment doors which are hung to swing inward shall clear the fixture not less than 2 inches.

(4) No admission fee shall be charged for the use of any toilet facility in a public building or place of employment. Key-locking of toilet rooms is prohibited in all buildings except service stations and filling stations having exterior toilet room access.

Note: Section 146.085, Stats., prohibits charging a fee for the use of toilet facilities and imposes a fine of \$10 to \$50 for violations.

History: 1-2-56; am. (3) and cr. (4), Register, November, 1963, No. 95, eff. 12-1-63; am. (2), Register, February, 1974, No. 218, eff. 3-1-74; r. (4), Register, December, 1974, No. 228, eff. 1-1-75; am. (3), Register, December, 1975, No. 240, eff. 1-1-76; cr. (4), Register, December, 1976, No. 252, eff. 1-1-77; am. (1), Register, December, 1977, No. 264, eff. 1-1-78.

Ind 52.60 Fixtures. (1) **WATER CLOSETS.** Only water closets of porcelain, vitreous china, stainless steel or other nonabsorbent materials shall be used. All water closets in public buildings and places of employment shall have elongated bowls and hinged, open-front seats without cover. Water closets in apartments, day care centers, individual executive offices, and sleeping units of hotels and motels may be of the round bowl type, provided with a hinged, closed-front seat, with or without cover. Water closets shall be equipped to limit the use of water to not more than 4 gallons per flush.

(2) **URINALS.** (a) *Stall type.* Stall-type urinals shall be set into the floor, and the floor shall be graded toward the fixture. Spaces between stall-type urinals, or urinals and sidewalls, shall be filled in flush with the front and top of the urinal with nonabsorbent material if the space is less than 12 inches.

(b) *Wall type.* Wall-hung urinals may be installed in all buildings except elementary schools (kindergarten through 8th grade).

Note #1: The definitions and general classifications for schools are found in s. 116.01, Stats.

Note #2: The department recommends that wall-hung urinals be installed at a height between 22 inches to 24 inches above the floor.

(c) *Flushing devices.* The urinals shall be equipped with an effective flushing device which limits the use of water to not more than 1.5 gallons per urinal per flush.

(d) *Multiple urinals.* Batteries of urinals shall be spaced not less than 30 inches center-to-center. The center line of a single urinal shall be at least 16 inches from the nearest sidewall or partition.

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(e) *Materials.* Only individual urinals of procelain, vitreous china, stainless steel, or other nonabsorbent materials approved by the department shall be used.

(f) *Floor drain.* A stall-type urinal, or floor drain located not more than 12 inches from a wall supporting wall-hanging urinals, shall be provided for each group of 4, or less, urinals.

(3) **HAND-WASHING AND DRYING FACILITIES.** Hand-washing facilities shall be provided in all places of employment and public buildings in accordance with the requirements of this subsection.

(a) *Lavatories.* Lavatories shall be of an approved type and shall be provided with hot and cold running water. The faucets of such lavatories shall be of a type which limits the flow of water through the faucet, after the handle is released, to not more than one gallon. Lavatories in toilet rooms of private living units shall be equipped to limit the flow of water to not more than 3 gallons per minute. The lavatories may be equipped with a hot and cold regulating device. If a multiple-use lavatory is installed, 24 lineal inches of wash sink or 20 inches measured along the edge of a circular basin will be considered equivalent to one lavatory.

(b) *Hand-drying facilities.* Individual hand towels, sections of cloth or paper, or clean individual sections of continuous toweling, convenient to the lavatories, shall be provided. Hand-drying facilities shall be provided at the ratio of at least one unit for every 3 lavatories. Warm-air blowers may be substituted for up to one-half of the required hand-drying units. Warm-air blowers shall provide air at not less than 90° F, nor more than 140° F.

Note: The department will accept the qualified blowers listed by Underwriters' Laboratories, Inc.

(c) *Toilet soap.* Soap or similar cleansing agents shall be provided.

(d) *Receptacles.* Receptacles shall be provided for the disposal of used towels and other waste materials.

(4) **DRINKING FACILITIES.** Drinking facilities shall be provided in all buildings except in areas where food and drinks are served. Drinking facilities shall not be installed in toilet rooms, except in residential occupancies. Drinking fountains, coolers or individual cups at a potable water source may be provided. Common drinking cups are prohibited.

Note: Where running water is not available, a covered drinking water container, equipped with a faucet or bubbler, may be provided. The container should be cleaned and sanitized at frequent intervals.

(5) **BATHING FACILITIES.** Bathing facilities shall be provided for the specific occupancies outlined in the occupancy chapters of this code.

(a) *Showers.* Shower compartments shall have at least 1,024 square inches of floor area and shall be at least 30 inches in the minimum dimension. Each shower room or compartment shall be constructed of material impervious to moisture. The floor of the shower room or compartment shall be provided with a slip-resistant finish.

(b) *Hot and cold water.* Bathing facilities shall be provided with hot and cold water and be equipped with a hot and cold water regulating

device. The device shall be plainly marked. Supply or feed pipes to showers shall be placed overhead or protected to avoid the probability of a person coming in contact with the hot water pipes. Showers shall be equipped to limit the flow of water to not more than 3 gallons per minute per shower head.

(c) *Toilet soap and towels.* Employees who use showers shall be provided with soap or other appropriate cleansing agents and clean individual towels.

Note: See ch. H 62, Wis. Adm. Code, rules of the department of health and social services, for special fixture requirements.

History: 1-2-56; r. and recr., Register, September, 1959, No. 45, eff. 10-1-59; am. (1), Register, September, 1973, No. 213, eff. 10-1-73; r. and recr., Register, December, 1974, No. 228, eff. 1-1-75; am. (1) and (2) (d), r. and recr. (2) (b), cr. (2) (f), (3), (4) and (5), Register, December, 1976, No. 252, eff. 1-1-77; am. (2) (c), Register, May, 1978, No. 269, eff. 6-1-78; am. (1), (2) (c), (3) (a) and (5) (b), Register, January, 1980, No. 289, eff. 2-1-80.

Ind 52.61 Protection from freezing. All water-closets and urinals and the pipes connecting therewith shall be properly protected against freezing, so that such water-closets and urinals will be in proper condition for use at all times.

Ind 52.62 Disposal of sewage. (1) Each water-closet and urinal, and each lavatory or slop sink, located in a toilet room shall be connected with a sewer and water system, where such systems are available. In locations where a sewer system is not available, or cannot be made available, the disposal of human waste may be accomplished as follows:

(a) Sewage treatment tank and disposal system; or

Note: For detailed requirements on such systems see ch. H 62, Wis. Adm. Code.

(b) Where the local conditions make it impractical to install such system, outdoor toilets, as described in s. Ind 52.63, or other facilities, such as septic toilets installed in accordance with the provisions of the septic toilet code issued by the department may be used; provided that in the case of places of employment for more than 10 persons, schools larger than 2 rooms, and apartment houses, water-flush toilets as herein described shall be provided, unless outdoor toilets or other facilities are permitted in writing by the department.

Ind 52.63 Outdoor toilets. (1) Outdoor toilets shall comply with ss. Ind 52.50 to Ind 52.59, inclusive, and in addition:

(a) No privy, with or without a leaching pit or other container, shall be erected or maintained within 50 feet of any well, 10 feet of the line of any street or other public thoroughfare, 5 feet of the property line between premises or 25 feet of the door or window of any building;

(b) Located on ground that is well drained, and where there is no possibility of contaminating any drinking water supply;

(c) Provided with suitable approach, such as concrete, gravel or cinder walk.

(d) The foundations shall be of concrete or other masonry;

(e) The vault shall extend at least 6 inches above ground, be as dark as possible, and be proof against entrance by flies, rats, or other vermin.

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The upper portion shall be of concrete, or of brick or stone laid in cement mortar. If in poorly drained soil, the entire vault shall be of concrete, or brick, or stone, laid in cement mortar;

(f) All windows, ventilators and other openings shall be screened to prevent the entrance of flies, and all doors shall be self-closing. A separate ventilator shall be provided for the vault and shall extend from the vault to not less than one foot above the roof and be provided with an effective ventilating hood; and

(g) The entire installation shall be kept clean and sanitary. Milk of lime (freshly slaked lime) or other equally effective disinfectant shall be used in the vault and in the urinal trough in sufficient quantities, and at frequent intervals. The floors, seats and urinals shall be scrubbed as often as necessary. The vault shall be cleaned out at proper intervals.

Ind 52.64 Maintenance and housekeeping. (1) **MAINTENANCE OF TOILETS.** Every toilet room, and every part thereof, including walls, floor, ceiling and fixture therein, shall be kept clean, efficient, and in good repair.

(2) **PAPER.** In every toilet room, sufficient toilet paper made of material which will not interfere with the operation of the system or obstruct the fixtures, shall be provided.

(3) **DEFACEMENT.** Indecent or suggestive marks, pictures, or words are forbidden in toilet rooms, and such defacement when found shall be removed at once.

(4) **SERVICE CLOSETS.** In buildings having 5 or more fixtures (water closets and/or urinals) a service closet shall be provided conforming with the requirements for toilet rooms.

(a) The service closet shall be supplied with mop, broom, bucket, soap, toilet paper, toweling and other equipment for sanitary upkeep of toilet rooms.

History: 1-2-56; r. and recr. (4), Register, October, 1967, No. 142, eff. 11-1-67.