

(7b) "Automatic fire suppression system" means a mechanical system designed and equipped to detect a fire, actuate an alarm and suppress or control a fire using water, water spray, foam, carbon dioxide, halogenated agent or other approved suppression agent.

(8) BALCONY (EXTERIOR). An elevated platform attached to a building and enclosed on one or more sides by railings.

(9) BALCONY (INTERIOR). An open intermediate level or stepped floor. Also see "Stories, Number of."

(10) BASEMENT. A basement floor is that level below the first or ground floor level with its entire floor below exit discharge grade.

(11) BEARING WALL. See "Wall (bearing)."

(11a) "Bed and breakfast establishment", has the meaning given in s. 50.50 (1), Stats.

Note: Section 50.50 (1), Stats., reads: "Bed and breakfast establishment" means any place of lodging that:

- (a) Provides 8 or fewer rooms for rent to no more than a total of 20 tourists or transients;
- (b) Provides no meals other than breakfast and provides the breakfast only to renters of the place;
- (c) Is the owner's personal residence;
- (d) Is occupied by the owner at the time of rental;
- (e) Was originally built and occupied as a single-family residence, or, prior to use as a place of lodging, was converted to use and occupied as a single-family residence; and
- (f) Has had completed, before May 11, 1990, any structural additions to the dimensions of the original structure, including by renovation, except that a structural addition, including a renovation, to the structure may, after May 11, 1990, be made within the dimensions of the original structure.

(12) BUILDING.* A structure for support, shelter or enclosure of persons or property.

(13) "Building or structure" means public building or place of employment.

(14) BUTTRESS. A structural projection which is an integral part of a wall, primarily to provide resistance to lateral forces.

(15) CAVITY WALL. See "Wall (cavity)."

(15m) CEILING PROTECTION. The fire protection membrane suspended beneath the floor or ceiling construction which, when included with the construction, develops the fire-resistive rating for the overall assembly.

(16) "Cemetery authority" means any person who owns or operates a cemetery specified in s. 157.065 (1), Stats.

(16a) CERTIFIED INSPECTOR. Certified inspector means an individual certified by the department to administer and enforce this code.

(17) CLOSING DEVICE (FIRE DOOR). A closing device is one which will close the door and be adequate to latch or hold, or both, hinged or sliding door in a closed position.

*See Appendix A for further explanatory material.

(a) *Automatic*. An automatic closing device is one which functions without human intervention and is actuated as a result of the predetermined temperature rise, rate of rise of temperature, combustion products or smoke density.

(b) *Self-closing*. A self-closing device is one which will maintain the door in a closed position.

(17g) "Cfm" means cubic feet per minute.

(17m) "Code" means chs. ILHR 50 to 64.

(18) **COMBUSTIBLE CONSTRUCTION**. An assembly such as a wall, floor or roof having components of combustible material.

(19) **COMBUSTIBLE MATERIAL**. All materials not classified as "noncombustible" are considered combustible. This property of a material does not relate to its ability to structurally perform under fire exposure. The degree of combustibility is not defined by standard fire test procedures.

(19a) "Commercial motor vehicle" means all motor vehicles other than passenger vehicles for not more than 9 passengers.

(19b) "Community-based residential facility" or "CBRF" has the meaning given in s. 50.01 (1), Stats.

Note: Section 50.01 (1), Stats., reads: "Community-based residential facility" means a place where 9 or more unrelated adults reside in which care, treatment or services above the level of room and board but not including nursing care are provided to persons residing in the facility as a primary function of the facility. "Community-based residential facility" does not include any of the following:

(a) *A convent or facility owned or operated by members of a religious order exclusively for the reception and care or treatment of members of that order.*

(b) *A facility or private home that provides care, treatment and services only for victims of domestic abuse, as defined in s. 46.95 (1) (a), and their children.*

(c) *A shelter facility as defined under s. 46.97 (1) (d).*

(d) *A place that provides lodging for individuals and in which all of the following conditions are met:*

1. *Each lodged individual is able to exit the place under emergency conditions without the assistance of another individual.*

2. *No lodged individual receives from the owner, manager or operator of the place or the owner's, manager's or operator's agent or employe any of the following:*

a. *Personal care, supervision or treatment or management, control or supervision of prescription medications.*

b. *Care or services other than board, information, referral, advocacy or job guidance; location and coordination of social services by an agency that is not affiliated with the owner, manager or operator, for which arrangements were made for an individual before he or she lodged in the place; or, in the case of an emergency, arrangement for the provision of health care or social services by an agency that is not affiliated with the owner, manager or operator.*

(e) *An adult family home.*

(20) **CONCRETE**. See "Types of Concrete," s. ILHR 51.045 (1) (a).

(21) **CONSTRUCTION**. Includes all labor and materials used in the framing or assembling of component parts in the erection, installation, enlargement, alteration, repair, moving, conversion, razing, demolition or removal of any appliance, device, building, structure or equipment.

(22) CORRIDOR. An enclosed passageway in a building for public ingress and egress to and from dwelling units, rooms or other areas and leading to a lobby, foyer or exit discharge.

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(79a) **MANUFACTURED MULTI-FAMILY DWELLING.** Manufactured multi-family dwelling means any structure or component which is intended for use as a multi-family dwelling and for which certification is sought by the manufacturer, and which is of open or closed construction, fabricated or assembled on-site or off-site in manufacturing facilities for installation, or assembly and installation at the building site. For purpose of this code, a manufactured multi-family dwelling means 3 or more living units attached together, or 2 or more living units and a business occupancy attached together.

(79m) **MASONRY.** A construction composed of separate units such as brick, block, hollow tile, stone or approved similar units or a combination thereof, laid up or built unit by unit and bonded by approved manner.

(79r) "Mausoleum" means a building, structure or part of a building or structure that is used or intended to be used for the burial of human remains.

(80) "Mausoleum space" means a niche, crypt or specific place in a mausoleum that contains or is intended to contain human remains.

(80a) "Means of egress" means a continuous and unobstructed way of exit travel from any point in a building or structure to a street, alley, court or a public way. A means of egress consists of the exit access, the exit and the exit discharge. A means of egress includes the vertical and horizontal ways of travel and includes intervening room space, doorways, hallways, corridors, passageways, balconies, ramps, stairs, enclosures, lobbies, horizontal exits and courts.

(81) **MECHANICAL VENTILATION.** See "Ventilation (mechanical)."

(82) "Mezzanine" means an intermediate floor, either open or enclosed.

Note: See also sub. (122), "stories, number of," and s. ILHR 51.02 (14) pertaining to the determination of the number of stories.

(82a) "Mini-warehouse" means an unoccupied compartmentalized warehouse building having one or more overhead doors serving each compartment.

(83) **NET AREA.** See "Area (net)."

(84) **NONBEARING WALL.** Refer to "Wall (exterior)" or "Partition."

(85) **NONCOMBUSTIBLE CONSTRUCTION.** An assembly such as a wall, floor or roof having components of noncombustible material.

(86) **NONCOMBUSTIBLE MATERIAL.** A noncombustible material is one which, in the form in which it is used, meets one of the requirements par. (a) or (b) listed below. Materials used adjacent to or in contact with heat-producing appliances, warm air ducts, plenums and chimneys shall be classified as noncombustible only on the basis of requirement par. (a). Noncombustible does not apply to the flame-spread characteristics of interior finish or trim materials. No material shall be classed as noncombustible building construction material which is subject to increase in combustibility or flame-spread classification (FSC) beyond the limits herein established through the effects of age, moisture or other atmospheric conditions.

Note: The federal trade commission does not consider ASTM E-84 as an accurate indicator of the performance of cellular plastics used in building construction under actual fire conditions, and that it is only valid as a measurement of the performance of such materials under specific, controlled test conditions. The 25 flame-spread rating is not intended to reflect hazards presented by such products under actual fire conditions. The federal trade commission considers that under actual fire conditions, such products, if allowed to remain exposed or unprotected, will under some circumstances produce rapid flame spread, quick flashover, toxic or flammable gases, dense smoke and intense and immediate heat and may present a serious fire hazard.

(a) Materials which pass the test procedure of ASTM E-136 for defining noncombustibility of elementary materials when exposed to a furnace temperature of 1,382° F. for a minimum period of 5 minutes, and do not cause a temperature rise of the surface or interior thermocouples in excess of 54° F. above the furnace air temperature at the beginning of the test and which do not flame after an exposure of 30 seconds.

(b) Materials having a structural base of noncombustible material as defined in par. (a), with a surfacing not more than 1/8 inch thick which has a flame-spread classification (FSC) not greater than 50 when tested in accordance with the method of test for surface burning characteristics of building materials (ASTM E-84).

(86a) "Nursing home" means any building, structure, institution or place which provides 24-hour services including board and room to 3 or more unrelated residents who because of their mental or physical condition require nursing care or personal care in excess of 7 hours a week. The term "nursing home" wherever used in chs. ILHR 50-64, includes nursing and convalescent homes, skilled nursing facilities, infirmaries in homes for the aged, and intermediate care facilities of 15 beds or more.

(87) OCCUPANCY OR USE. The purpose for which a building, structure, equipment, materials, or premises, or part thereof, is used or intended to be used as regulated in this code.

(88) OCCUPIED. Refers to any room or enclosure used by one or more persons for other than incidental maintenance.

(89) OPEN SPACES. Front (setback), rear and side yards, exit courts, outer courts, and outer lot line courts on the same property with a building as regulated by this code.

(90) OUTDOOR OPENINGS. May be doors, windows or skylights located in outside walls or roof and can be opened to provide natural ventilation to the occupied space.

(91) OUTER COURT. See "Court (outer)."

(92) OUTER LOT LINE COURT. See "Court (outer lot line)."

(93) OUTLET (SUPPLY OPENING). An opening, the sole purpose of which is to deliver air into any space to provide heating, ventilating or air conditioning.

(93a) "Outpatient surgical facility" means a facility devoted to the performance of surgical procedures utilizing inhalation anesthetics without anticipation of the overnight stay of patients.

(94) OUTSIDE AIR. Air that is taken from outside the building and is free from contamination of any kind in proportions detrimental to the health or comfort of the persons exposed to it.

(95) **OUTSIDE AIR INTAKE.** Includes the ducts and outdoor openings through which outside air is admitted to a ventilating, air conditioning or heating system.

(96) **PANEL WALL.** See "Wall (panel)."

(97) **PARTITION.** A partition is an interior nonbearing vertical element serving to enclose or divide an area, room or space. Portable or demountable partitions requiring tools for installation or removal are considered partitions not furniture.

(98) **PARTY WALL.** See "Wall (party)."

(99) **"Penthouse"** means an enclosed or partially enclosed structure extending above a roof of a building or structure and enclosing a stairway, tank, elevator, machinery, mechanical equipment or other apparatus and not used for human occupancy.

(100) **PIER.** An isolated column of masonry or concrete. A section of bearing wall not bonded on the sides into adjoining masonry shall be considered to be a pier when its horizontal dimension measured at right angles to the thickness does not exceed 4 times the thickness.

(101) **PILASTER.** A projection of masonry for the purpose of bearing concentrated loads, or to compensate for reduction of wall section by chases, openings or recesses, or for the purpose of stiffening the wall against lateral forces. (See also "Buttress.")

(102) **PIPING (HAZARDOUS).** Any service piping conveying oxygen, flammable liquids, flammable gases or toxic gases.

(102a) **"Place of abode"** means a residential building or part of a residential building used as follows:

(a) Occupied as a residence of 3 or more families living independently or occupied by 2 such families and used also for business purposes; or

(b) Occupied for sleeping or lodging purposes by 3 or more persons not members of the same family.

Note: Examples of places of abode include but are not limited to apartment buildings, garden apartments, row houses, town houses, condominiums, hotels, motels, rooming houses, dormitories, convents, monasteries, homes for the aged and certain community-based residential facilities.

(102b) **PLACE OF EMPLOYMENT.** The term "place of employment" includes every place, whether indoors or out or underground and the premises appurtenant thereto where either temporarily or permanently any industry, trade or business is carried on, or where any process or operation, directly or indirectly related to any industry, trade or business, is carried on, and where any person is, directly or indirectly, employed by another for direct or indirect gain or profit, but does not include any place where persons are employed in a) private domestic service which does not involve the use of mechanical power or b) farming.

(103) **PORCH.** An unenclosed exterior structure at or near grade attached or adjacent to the exterior wall or any building, and having a roof and floor. (See also "Terrace" and "Balcony.")

(104) **"Property line"** means the following:

(a) A legally established line dividing one lot, plot of land or parcel of land from an adjoining lot or plot of land or parcel of land; or

(b) A permanent, recorded easement, on file with the department, on adjoining property providing control over the property eased.

(104a) **PUBLIC BUILDING.** The term "public building" means and includes any structure, including exterior parts of such building, such as a porch, exterior platform or steps providing means of ingress or egress, used in whole or in part as a place of resort, assemblage, lodging, trade, traffic, occupancy, or use by the public or by 3 or more tenants.

(104m) **"Public mausoleum"** means a mausoleum that holds or is intended to hold the remains of more than 10 humans or a mausoleum in which at least one mausoleum space is offered for sale to the general public.

(105) **PUBLIC THOROUGHFARE.** Any legally established street or alley as defined herein.

(105a) **REMODELING.** To remodel or alter, or both, means to change any building or structure which affects the structural strength, fire hazard, internal circulation, or exits of the existing building or structure. This definition does not apply to maintenance, reroofing, or alterations to the heating and ventilating or electrical systems.

(106) **REQUIRED.** A term for mandatory use under the provisions of this code.

(106a) **REQUIRED EXIT CORRIDOR.** See "Corridor (Required Exit)."

(107) **RESTRAINED SUPPORT.** A flexural member where the supports or the adjacent construction, or both, provides complete or partial restraint against rotation of the ends of the member or partial restraint against horizontal displacement, or both, when subject to a gravity load or temperature change, or both.

(108) **RETAINING WALL.** See "Wall (retaining)."

(109) **RETURN (OR EXHAUST OPENING).** Any opening, the sole purpose of which is to remove air from any space being heated, ventilated or air conditioned.

(110) **ROADWAY.** That portion of a public thoroughfare devoted to vehicular traffic, or that part included between curbs.

(111) **ROOF.** The structural cover of a building with a slope range bearing from horizontal to a maximum of 60° to the horizontal.

(112) **ROOF COVERING.** Refers to the covering applied over the roof construction for the purpose of weather or fire resistance.

(113) **ROOF COVERINGS (FIRE-RETARDANT).** See "Fire-Retardant Roof Coverings."

(114) **ROOM.** A space within a building completely enclosed with walls, partitions, floor and ceiling, except for openings for light, ventilation, ingress and egress.

(114a) "Rowhouse" means a place of abode not more than 3 stories in height, arranged to accommodate 3 or more attached, side by side or back to back living units.

(115) SETBACK.* Refers to the open space between the property line or public thoroughfare and the nearest part of the building. Unenclosed terraces, slabs, or stoops without roofs or walls may project into this open space or setback.

(116) SHAFT. A vertical opening in a building extending through one or more stories and/or roof, other than an inner court.

(117) SHALL. A term for mandatory use under the provisions of this code.

(117m) "Shelter facility" has the meaning given in s. 46.97 (1) (d), Stats.

Note: Section 46.97 (1) (d), Stats., reads: "Shelter facility means a temporary place of lodging for homeless individuals or families."

(118) SIGNS. A structure that is intended, designed, or used for advertising, display, identification, announcements, or related purposes; this includes signs, screens, billboards, and other advertising devices of any type.

(119) SIMPLE SUPPORT. A flexural member where the supports or the adjacent construction, or both, allows free rotation of the ends of the member and horizontal displacement when subject to a gravity load or a temperature change, or both.

(119a) "Sleeping area" means the area of residential buildings in which bedrooms or sleeping rooms are located. Bedrooms or sleeping rooms separated by other use areas such as kitchens or living rooms, but not bathrooms, are considered as separate sleeping areas. Each individual room or suite of rooms in hotels, motels, dormitories or congregate living facilities is considered a separate sleeping area.

(119b) "Smoke detector" means a device which detects particles or products of combustion other than heat.

(119c) "Solid-fuel equipment" means equipment burning solid rather than gas or liquid fuel.

Note: Typical solid fuels are coal and wood.

(120) "Space heater" means a fuel-fired vented, self-contained free-standing or wall recessed heating appliance.

(120a) "Spandrel" means that portion of wall filling the space between the top of a window in one story and the sill of the window in the story above.

(120b) STEP. Step is a unit consisting of one riser of not more than 7½ inches and one tread of not less than 9½ inches, alone or in a series.

*See Appendix A for further explanatory material.

(121) **STORIES, NUMBER OF.*** The number of stories of a multistory building includes all stories except the basement, ground floor, attic or interior balcony and mezzanine floor. (Also see ILHR 51.02 (14).)

(122) **STORY.** The space in a building between the surfaces of any floor and the floor next above or below, or roof next above, or any space not defined as basement, ground floor, mezzanine, balcony, penthouse or attic. (Also see "Stories, Number of.")

(124) **"Street"** means any legally established public thoroughfare or all-weather hard surface area 30 feet or more in width whether designated or not by name or number such as avenue, boulevard, circle, court, drive, lane, place, road or way. Streets must extend at least 50% of the length of the side of the building and must be accessible to fire fighting equipment.

(125) **STRUCTURE.** A structure is an assembly of materials forming a construction for occupancy or use meeting the definition of place of employment or public building.

Note: Structures include, among others, buildings, stadiums, tents, reviewing stands, observation towers, radio and television towers, water tanks, piers, wharves, shelters, canopies, and display signs.

(126) **SUPPORT (RESTRAINED).** See "Restrained Support."

(127) **SUPPORT (SIMPLE).** See "Simple Support."

(128) **TEMPERED AIR.** Air transferred from heated area of building.

(129) **TEMPERED OUTSIDE AIR.** Outside air heated before distribution.

(130) **TERRACE.** An unenclosed exterior structure at or near grade having a paved, floored, or planted platform area adjacent to an entrance or to the exterior walls for a building or structure and having no roof.

(130a) **"Townhouse"** means an apartment building where each living unit is served by an individual exterior exit within 3 feet of the exit discharge grade.

(131) **TREATED WOOD (FIRE-RETARDANT).** See "Fire Retardant-Treated Wood."

(132) **UNIT HEATER (HIGH STATIC PRESSURE TYPE).** A direct-fired suspended or floor standing, self-contained, automatically controlled and vented, heating appliance having an integral means for circulation of air against 0.2 inch or greater static pressure.

(133) **UNIT HEATER (LOW STATIC TYPE).** A direct-fired suspended, self-contained automatically controlled, vented heating appliance, having integral means for circulation of air by means of a propellor fan or fans.

(134) **VENEERED WALL.** See "Wall (veneered)."

(135) **VENTILATING SYSTEM (EXHAUST).** Any combination of building construction, machinery, devices or equipment, designed and operated to remove harmful gases, dusts, fumes or vitiated air, from the breathing zone of employees and frequenters.

*See Appendix A for further explanatory material.

(136) **VENTILATION.** The process of supplying or removing air by natural or mechanical means, to or from any space.

(137) **VENTILATION (GRAVITY EXHAUST).** A process of removing air by natural means, the effectiveness depending on atmospheric condition, such as difference in relative density, difference in temperature or wind motion.

(139) **VERTICAL EXIT.** A means of egress used for ascension or descension between 2 or more floors, or other levels, and shall include approved exterior stairways, automatic (moving) stairways, fire escapes, ramps, stairways, and smokeproof stair towers.

(139a) **VOLUME (TOTAL).** The "total volume" (cube or cubage) of a building is the actual cubic space enclosed within the outer surfaces of the outside or enclosing walls and contained between the outer surfaces of the roof and the underside of the lowest floor. The volume of structures without enclosing walls (canopies, roofed shelters and similar structures) will be computed by projecting imaginary vertical planes as the enclosing walls at the outer surface of the exterior supports or columns. For cantilevered structures with interior supports, the imaginary vertical planes will be projected at the farthest roof projection or overhang.

Note: The definition of total volume requires the cube of dormers, penthouses, vaults, pits, enclosed porches and other enclosed appendages to be included as a part of the cube of the building. It does not include the cube of courts or light shafts, open at the top, or the cube of outside steps, cornices, parapets, or open porches or loggias.

(140) **WALL.** A structural element which is vertical or within 30° of vertical, serving to enclose space, form a division, or support superimposed weight.

(141) **WALL (BEARING).** Any wall which supports a load in addition to its own weight.

(142) **WALL (CAVITY).** A wall built of masonry units or of plain concrete, or a combination of these materials, so arranged to provide an air space within the wall, and in which the facing and backing (inner and outer parts) of the wall are tied together with metal ties.

(143) **WALL (CURTAIN).** An exterior nonbearing wall.

(144) **WALL (DIVISION)*** (a) *Building division.* A wall used for separation between 2 buildings on the same property identical in construction to a party wall.

(b) *Fire division.* A wall extending from the lowest floor level to or through the roof to restrict the spread of fire.

(145) **WALL (EXTERIOR).** Any outer enclosing wall of a building or structure.

(146) **WALL (FRAMING).** Wall framing shall include columns, studs, beams, girders, lintels and girts.

(147) **WALL (HOLLOW BONDED).** Wall built of masonry units with or without any air space within the wall, and in which the facing and backing of the wall are bonded together with masonry units.

*See Appendix A for further explanatory material.

(148) **WALL (NONBEARING EXTERIOR)**. Wall which supports no vertical load other than its own weight.

(148a) **WALL (NONBEARING INTERIOR)**. See "Partition."

(149) **WALL (PANEL)**. An exterior nonbearing wall in skeleton construction.

(150) **WALL (PARAPET)**. That part of a wall entirely above the roof line.

(151) **WALL (PARTY)**.^{*} Walls used for separation between 2 buildings on the property line between adjoining properties.

(152) **WALL (RETAINING)**. Wall used to resist laterally imposed pressures.

(153) **WALL (VENEERED)**. Wall having facing which is attached to the backing but not so bonded as to exert common action under load.

(153a) **WAREHOUSE**. A warehouse is a place adapted to the reception and storage of goods and merchandise.

(154) **YARD (FRONT)**. An open, unoccupied space unobstructed to the sky, extending across the full width of a lot, or plot of land between the street line and the base of a front building wall. Unenclosed terraces, slabs or stoops without roofs or walls may project into this open space.

History: Cr. Register, June, 1972, No. 198, eff. 1-1-73; renum. (1) to be (1a), r. and recr. (10), (54), (67) and (121), cr. (1), (5a), (22a), (56a), (57a), (67a), (76a), (106a) and (148a), Register, September, 1973, No. 213, eff. 10-1-73; cr. (102a), (104a) and (105a), Register, December, 1974, No. 228, eff. 1-1-75; cr. (7a), (41a), (139a) and (153a) and am. (125), Register, December, 1976, No. 252, eff. 1-1-77; cr. (42a), (42b), (42c), (42d), and (120a), am. (139a), Register, December, 1977, No. 284, eff. 1-1-78; am. (23) to (26), (97) and (139a), r. (86) (c), Register, December, 1978, No. 276, eff. 1-1-79; cr. (16a), (71a), (79a) and (114a), Register, May, 1980, No. 293, eff. 6-1-80; am. (1) and (124), r. (123), r. and recr. (120), renum. (102a) to be (102b), renum. (114a) to be (114b), cr. (19a), (36a), (36b), (36c), (37a), (38a), (38b), (71b), (75a), (80a), (82a), (102a), (114a), (119a), (119b), (119c) and (130a), Register, December, 1981, No. 312, eff. 1-1-82; renum. (71a) to be (71c), cr., (68a), (71a), (86a) and (93a), Register, February, 1982, No. 314, eff. 3-1-82; r. and recr. (7a), renum. (19a) to be (19b), cr. (7b) and (19a), Register, June, 1983, No. 330, eff. 7-1-83; renum. (120a) to be (120b), cr. (3a), (57b), (58a), (58b) and (120a), r. and recr. (13), am. (85) (a), (104) and (120), Register, December, 1983, No. 336, eff. 1-1-84; am. (7b), Register, February, 1984, No. 338, eff. 3-1-84; cr. (5b), (11a) and (29a), am. (75a) and (99), r. and recr. (104) and (114a), Register, August, 1985, No. 356, eff. 1-1-86; reprinted to correct error in (99), Register, May, 1988, No. 389; am. (5), (5b), (33) and (99), renum. (36c), (71a) to (71c) to be (36d), (71m), (71o) and (71p) and am. (71o), cr. (6m), (17g), (17m), (36c), (71k), (71n) and (117m), r. and recr. (11a), (19b) and (82), r. (114b) and (138), Register, February, 1991, No. 423, eff. 4-1-91; renum. (16) and (80) to be (15m) and (79m), cr. (16), (79r), (80) and (104m), Register, March, 1992, No. 435, eff. 4-1-92.

Standards for Classes of Construction

ILHR 51.015 Scope. This section covers minimum standards for common types of building designs currently being constructed. This section does not specifically include classification for uncommon building designs such as shells, domes, space frames, inflatable and similar types of designs. The standards contained herein shall be used as a guide for such uncommon building designs to achieve the degree of safety intended by these standards.

History: Cr. Register, June, 1972, No. 198, eff. 1-1-73; renum. Register, September, 1973, No. 213, eff. 10-1-73.

ILHR 51.02 General requirements. (1) **FIRE-RESISTIVE RATINGS.** The fire-resistive ratings shown in "Classes of Construction" Table 51.03-A are Register, March, 1992, No. 435

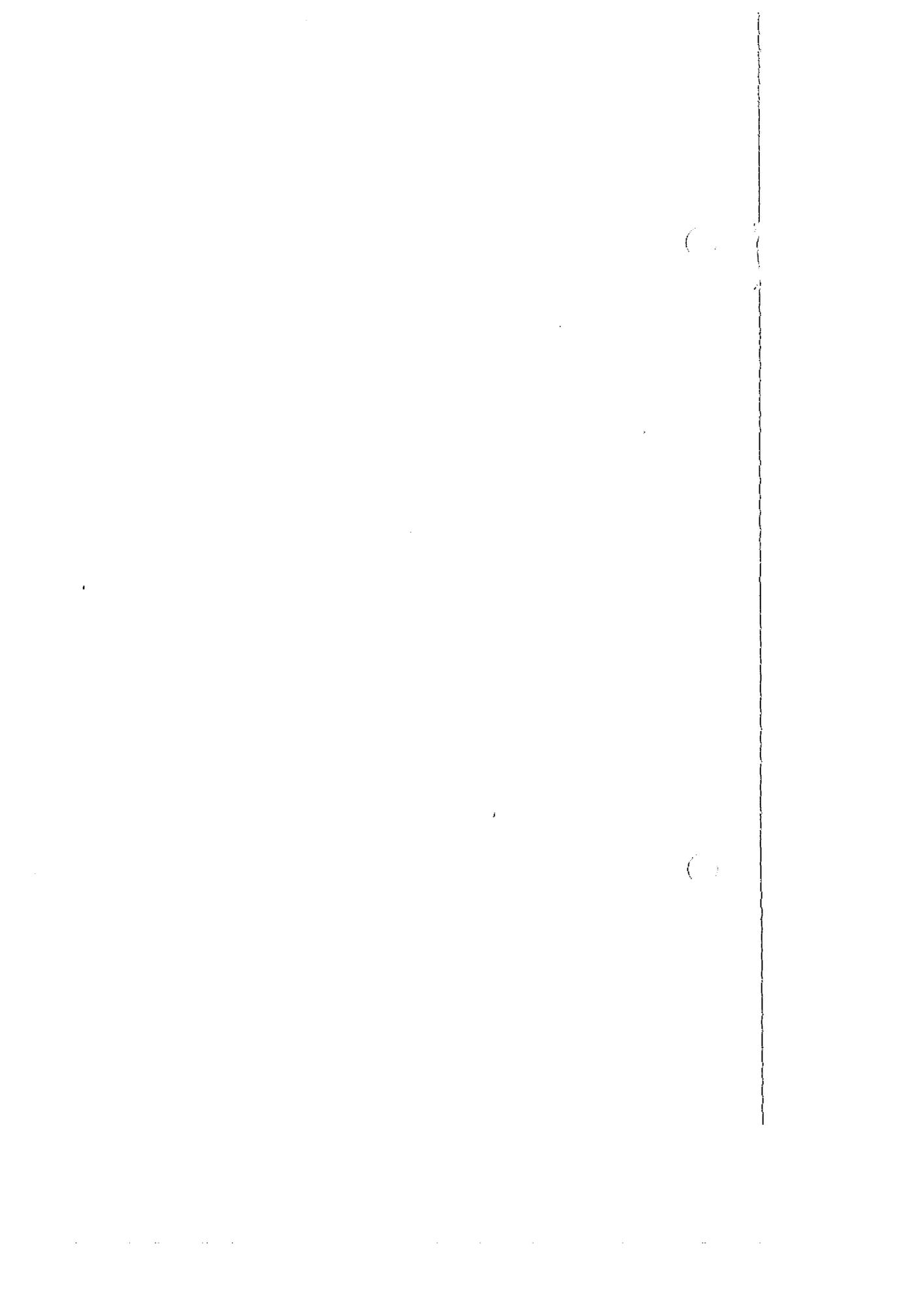
to satisfy the structural integrity end point for the time specified. For heat transmission end point requirements see s. ILHR 51.042 (5).

(2) **SUBSTITUTE.** Substitution of a building element fire-resistive rating will be permitted in any class of construction providing it is equal to or better than the required fire-resistive rating as specified in Table 51.03-A.

(a) Construction requiring the use of noncombustible material shall not be replaced by combustible construction regardless of fire-resistive rating unless mentioned specifically under classes of construction standards.

(b) Noncombustible construction may be substituted for combustible construction provided the fire-resistive rating indicated in Table 51.03-A is equal to or better than that noted for combustible construction.

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(6) APPLICATION OF INTERIOR FINISH. (a) *Attachment*. Interior finish materials shall be applied or otherwise fastened in such a manner that they will not readily become detached when subjected to room temperature of 200° F. or less for 30 minutes, or otherwise become loose through changes in the setting medium from the effects of time or conditions or occupancy.

(b) *Application to structural elements*. 1. Interior finish materials applied to walls, ceilings or structural elements of a building or structure which are required to be of fire-resistive rated or noncombustible construction shall be applied directly against the exposed surface of such structural elements or to furring strips attached to such surfaces.

2. Where furring strips are used, all concealed spaces shall be firestopped into areas not greater than 10 square feet in area or 8 feet in any dimension.

(c) *Furred construction*. Where walls, ceilings or other structural elements are required to be of fire-resistive rated or noncombustible construction, and the interior finish is set out or dropped distances greater than 1¾ inches from the surface of the elements, only material of which both faces qualify as Class A shall be used, unless the finish material is protected on both sides by an approved automatic fire suppression system or is attached to a noncombustible backing as specified in par. (e) or to furring strips applied directly to such backing as specified in par. (b).

(d) *Class B and C finish materials*. Interior finish materials, other than Class A materials, which are less than ¼ inch in thickness shall be applied directly against a noncombustible backing or a backing of fire-retardant treated wood unless the tests under which the material has been classified were made with the materials suspended from the noncombustible backing.

(e) *Backing material*. 1. Backing for interior finish materials shall be a continuous surface with permanently tight joints, equal in area to the area of the finish, and extending completely behind such finish in all directions.

2. Backing shall be of noncombustible or fire retardant treated wood materials.

3. When the backing does not constitute an integral part of the structural elements or system, it shall be attached directly to the structural elements or to furring strips as specified in par. (b) or may be suspended from the structural members at any distance provided concealed spaces are firestopped as specified in s. ILHR 53.63 (1).

Note: See s. ILHR 51.01 (75a) for further explanatory information.
Class A Interior Finish — flame spread 0-25, smoke developed 0-450.
Class B Interior Finish — flame spread 26-75, smoke developed 0-450.
Class C Interior Finish — flame spread 76-200, smoke developed 0-450.
Class I Interior Floor Finish — critical radiant flux — .45 watts/cm².
Class II Interior Floor Finish — critical radiant flux — .22 watts/cm².

History: Cr. Register, December, 1981, No. 312, eff. 1-1-82; am. table, Register, October, 1982, No. 322, eff. 11-1-82; renum. (3) to be (3) (a), cr. (3) (b) and (6), Register, December, 1983, No. 336, eff. 1-1-84; am. (6) (d) (intro.), Register, August, 1985, No. 356, eff. 1-1-86.

ILHR 51.08 Occupancy separations. (1) When a building is used for more than one occupancy purpose, each part of the building comprising a

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(2) Openings in occupancy separations shall be protected by fire-door assemblies as specified in s. ILHR 51.047 or by fire-window assemblies as specified in s. ILHR 51.048.

TABLE 51.08
OCCUPANCY SEPARATIONS
Minimum Fire Resistive Ratings in Hours

Occupancies	Ch 54	Ch 55		Ch 56	Ch 57	Ch 58		Ch 59				Ch 60	Ch 61	Ch 62 Open Park'g Struc.
		Occu- pant < 750	Occu- pant > 750			Health Care	Deten- tion	< 500 sq ft		> 500 sq ft				
								Storage	Repair	Storage	Repair			
Ch 54	0	3 ^a	4 ^a	0	i	2 ^a	2 ^b	1 ^{c,d}	2	2 ^{c,d}	3	0	0	NC-2
Ch 55 < 750 occupants > 750 occupants	3 ^o 4 ^o	3 ^o 4 ^o	4 ^o 4 ^o	3 ^{o,g} 4 ^{o,g}	3 4	3 ^a 4 ^a	3 ^b 4 ^b	3 3	4 4	3 3	4 4	3 ^h 4 ^h	3 4	3 4
Ch 56	0	3 ^{o,g}	4 ^{o,g}	0	i	2 ^a	2 ^b	2	3	2	3	0	0	NC-2
Ch 57	i	3	4	i	i	2 ^a	2 ^b	1 ^c	2	2 ^{c,l}	3	i	i	NC-2
Ch 58 Health Care Detention	2 ^o 2 ^b	3 ^a 3 ^b	4 ^o 4 ^b	2 ^a 2 ^b	2 ^a 2 ^b	0 0	2 ^o 0	3 3	4 4	3 3	4 4	2 2	2 2	NC-2 NC-2
Ch 59 Storage < 500 sq ft Repair < 500 sq ft Storage > 500 sq ft Repair > 500 sq ft	1 ^{c,d} 2 2 ^{c,d} 3	3 4 3 4	3 4 3 4	2 3 2 3	1 ^c 2 2 ^{c,l} 3	3 4 3 4	3 4 3 4	0 1 ^k 1 ^k 1 ^k	1 ^k 0 1 ^k 1 ^k	1 ^k 1 ^k 0 1 ^k	1 ^k 1 ^k 1 ^k 0	1 2 2 3	B B B 3	1 ^k 1 ^k 1 ^k 1 ^k
Ch 60	0	3 ^o	4 ^o	0	i	2	2	1	1	2	3	0	0	NC-2
Ch 61	0	3	4	0	i	2	2	m	2	m	3	0	0	NC-2
Ch 62 Open Parking Structures	NC-2	3	4	NC-2	NC-2	NC-2	NC-2	1 ^k	1 ^k	1 ^k	1 ^k	NC-2	NC-2	0

Keys and Examples: NC = Noncombustible construction; 0 = 0 (No hourly rating); NC-2 = Noncombustible construction 2-hour rating

FOOTNOTES TO TABLE 51.08:

a. Auditoriums, chapels, residential facilities and other similar areas provided for the patients or employees of health care facilities need not be separated from the health care facility. Also, administrative offices, doctors' offices, medical clinics and laboratories which are intended primarily to provide in-house services or support to the health care facility need not be separated from the health care facility. Doctor's offices, medical clinics and other similar areas which are intended to provide out-patient services independent of the health care facility shall be separated in accordance with the table.

b. Auditoriums, chapels, residential facilities, administrative offices, medical clinics, educational facilities, workshops and other similar areas which are provided for the residents or employees of the detention facility need not be separated from the facility.

c. An occupancy separation need not be provided within a fire station or other similar facility to separate vehicles from other areas of the building, if the vehicles are directly and permanently related to the functions of the building.

d. An occupancy separation need not be provided within an office, factory or warehouse occupancy to separate a storage garage accommodating one or 2 vehicles which are directly related to the functions of that occupancy. If a storage garage accommodating one or 2 vehicles within an office, factory or warehouse occupancy is part of a multi-occupancy/multi-tenant building (i.e., strip shopping center), the occupancy separation shall be provided at least at the adjoining tenants' walls.

e. An occupancy separation need not be provided to separate two adjoining assembly hall areas or functions located within the same building, if the operation or control of the two assembly areas are under the same owner or tenant.

f. An occupancy separation need not be provided between a church and a day school operated by the church provided both occupancies conform with the most restrictive requirements of chs. ILHR 55 and 56.

g. An occupancy separation need not be provided between an assembly hall or theater and an instructional facility regulated under ch. ILHR 56 if the operation and control of the two occupancies is under the same owner.

h. An occupancy separation need not be provided to separate a day care center from an assembly hall occupancy, if the day care center conforms with the more stringent requirements of ch. ILHR 55.

i. See s. ILHR 57.01 concerning living unit separations.

j. Storage garages, attached to residential occupancies under the scope of ch. ILHR 57, may be separated from a residential occupancy by at least one-hour fire-resistive construction, if the storage garage is divided by walls with at least one-hour fire-resistive ratings into spaces with floor areas not exceeding 500 square feet.

k. An occupancy separation need not be provided to separate adjoining storage garages, repair garages or open parking structures which are located within the same building, if the entire building conforms to the most stringent occupancy requirements of chs. ILHR 59 and 62, subch. 1.

m. Storage garages, attached to CBRF occupancies under the scope of ch. ILHR 61, may be separated from a CBRF by:

- Common walls between the garage and the CBRF protected with not less than one layer of ½-inch Type X gypsum board with taped joints, or equivalent, on the garage side and with not less than one layer of ½-inch gypsum board with taped joints, or equivalent, on the CBRF side;

- Floor-ceiling assemblies between garage and the CBRF protected with not less than one layer of ½-inch Type X gypsum board on the garage side of the ceiling or roof framing; and

- Openings between the garages and the CBRF protected by self-closing, 1½-inch solid wood core doors or with self-closing doors of equivalent fire resistive rating.

n - Public mausoleums constructed adjacent to or as part of an assembly hall need not be provided with an occupancy separation.

See s. ILHR 61.10 (2) concerning detached garages serving CBRF's.

History: 1-2-56; r. and recr. (2) (c), Register, October, 1967, No. 142, eff. 11-1-67; am. (2) (a), (b) and (c), Register, February, 1971, No. 182, eff. 7-1-71; r. and recr. (2) (a), (b) and (c) eff. 8-1-71 and expiring 1-1-72 and cr. (2) (a), (b) and (c) eff. 1-1-72, Register, July, 1971, No. 187; am. (2) (b) 1., Register, December, 1978, No. 276, eff. 1-1-79; r. and recr. (2), Register, December, 1981, No. 312, eff. 1-1-82; am. (2) (a) and (b) (intro.), Register, October, 1982, No. 322, eff. 11-1-82; am. (2) (a) (intro.) and (b) (intro.), Register, August, 1985, No. 356, eff. 1-1-86; r. and recr. Register, February, 1991, No. 423, eff. 4-1-91; am. Table 51.08, Register, March, 1992, No. 435, eff. 4-1-92.

FP **ILHR 51.14 Safety glazing.** (1) **SCOPE.** This section applies to fixed or operating glazed flat panels adjacent to doors; fire window assemblies; display cases within 7 feet of the floor in schools; skylights; sloped glazing and any other glazing materials used in hazardous impact areas which are not included within the scope of the federal consumer product safety commission (CPSC) standard for architectural glazing materials, 16 CFR, para. 1201.

Note: The CPSC standard for architectural glazing materials pre-empts state and local regulations for framed or unframed interior or exterior glazed doors, exterior doors with glazed lights, sliding doors and the adjacent glazed fixed or operating panel, storm doors, shower doors, walk-in mirror closet doors and tub enclosures.

(2) **APPLICATION.** All glazing material used in hazardous impact locations shall be safety glazing material. All replacements of glazing material in hazardous impact locations made after November 30, 1976, shall be safety glazing, except that the replacement of glazing shall be as specified in sub. (3).

(a) **Location.** Hazardous impact locations shall include all glazed elements such as framed or unframed interior or exterior glass doors, the first fixed or operating flat panel within 2 feet of nearest vertical edge of an entrance or exit door, exterior doors with glass lights, or any other glazed elements which may be mistaken for a means of egress or ingress to a room or building. Other hazardous impact locations shall include sliding doors and the adjacent glazed fixed or operating panel, storm doors, shower doors, tub enclosures and display cases within 7 feet of the floor in schools except as follows:

1. A fixed or operating flat panel immediately adjacent to an entrance or exit door is exempt from the requirements of this paragraph if the lower horizontal edge of the panel is 2 feet or more above the floor; or

2. Any mirror, framed glazed picture or similar decorative object which is attached to a door or wall in a hazardous impact location and which does not in whole or in part conceal any opening in such door or wall is exempt from the requirements of this paragraph.

(b) **Material.** Safety glazing shall include any glazing material including but not limited to tempered glass, laminated glass, wired glass, safety plastic, or safety insulating units which meet the test requirements of the American National Standards Institute (ANSI) standard Z97.1-1975, and which are constructed, treated or combined with other materials so as to minimize the likelihood of cutting and piercing injuries resulting from human impact with the glazing material.

(c) **Labeling.** Safety glazing material shall be labeled with a permanent label by such means as etching, sand blasting, firing of ceramic material, or hot die stamping. The label shall be legible and visible after installation. Labels identifying safety glazing materials may be omitted provided that a notarized affidavit or invoice is submitted to the department or owner upon request certifying the installation of safety glazing material. The label or affidavit shall identify the seller, manufacturer, fabricator, or installer, the nominal thickness and type of safety glazing material, and the fact that the material meets the test requirements of the American National Standards Institute (ANSI) standards Z97.1-1975.