

CR 85-63

# RULES CERTIFICATE

STATE OF WISCONSIN )  
 ) SS  
DEPT. OF INDUSTRY, )  
LABOR & HUMAN RELATIONS)

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Howard S. Bellman, Secretary of the Department of Industry, Labor and Human Relations, and custodian of the official records of said department, do hereby certify that the annexed rule(s) relating to Chs. ILHR 50-64 Bldg & Htg, Vent & A/C Code-Changes for 1986/1987 Edition were duly approved and adopted by this department on \_\_\_\_\_.

(Subject)

(Date)

I further certify that said copy has been compared by me with the original on file in this department and that the same is a true copy thereof, and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the department at 3:30 in the city of Madison, this 22<sup>nd</sup> day of July A.D. 1985.

Howard S. Bellman  
Secretary

**RECEIVED**

JUL 24 1985  
11:05 am  
Revisor of Statutes  
Bureau

# ORDER OF ADOPTION

Pursuant to authority vested in the Department of Industry, Labor and Human Relations by section(s) 101.02 (1) & 101.02 (15) (h) to (j), Stats., the Department of Industry, Labor and Human Relations hereby  creates;  amends;  repeals and recreates; and  repeals and adopts rules of Wisconsin Administrative Code chapter(s):

~~Ind.~~ ILHR 50 to 64 Building & Heating, Ventilating & Air Conditioning Code-  
(Number) Changes for 1986/1987 (Title)  
Edition

The attached rules shall take effect on January 1, 1986

\_\_\_\_\_, pursuant to section  
227.026 (1) (b), Stats.

Adopted at Madison, Wisconsin, this 22<sup>nd</sup>  
day of July, A.D., 1985.

DEPARTMENT OF INDUSTRY, LABOR AND HUMAN RELATIONS

Howard B. Bellwe  
Secretary

**RECEIVED**

JUL 24 1985

Revisor of Statutes  
Bureau



# RULES in FINAL DRAFT FORM

**Rule:** Chs. ILHR 50-64

**Relating to:** Building & Heating, Ventilating & Air Conditioning Code  
Changes for 1986/1987 Edition

**Clearinghouse Rule No.:** 85-63

(Formerly 85-29 except for  
ss. ILHR 57.16(1)(a); 57.165;  
60.001(5); 60.15(1)(b) and (c);  
60.23, 60.31(4)&(5); 60.34;  
61.14 and 61.20)

AN ORDER to repeal ss. Table 52.04 Footnotes 7 and 23, 52.04 (10) (e), 52.60 (2) (f), 54.12 (2) (a) 1. a., 55.09 (2), 58.13 (3), 63.40, 64.22 (3) (a), to renumber ss. ILHR 51.161 (4) (b), Table 52.04 Footnotes 8 to 17, Footnotes 18 to 22, Footnotes 24 and 25, 52.04 (8) (f) to (h), 54.01 (2) (a), 54.01 (2) (c), 54.12 (2) (a) 1. b. and c., 55.02 (2) (a) 1. to 3., (b) and (c), 55.09 (3), 57.19 (1) (a) and (b), 58.13 (2) (a) and (b), 58.13 (4), A53.11 (4) (b), A53.11 (4) (e); to renumber and amend ss. ILHR 51.16 (3) (b), 51.27 (7a), 54.12 (2) (a) 1. (intro.), 54.23, 55.09 (4), 58.50 (1); to renumber and repeal and recreate ss. ILHR Table 52.04 Footnote 7, Footnote 23; to amend ss. ILHR 50.02, 50.02 Special Note #1, 50.03 (2), 50.12 (4) (a) 1. (intro.), 50.20, 51.01 (75a), 51.01 (99), 51.02 (4) (c) 2. c., 51.02 (9), 51.02 (11) (b) 3., 51.02 (13) (c) 2., 51.02 (14) (b), 51.02 (18) (b), 51.03 (7) (f), 51.042 (7), 51.06 (2), 51.06 (3) (a), 51.06 (4) (b) 3. b., 51.06 (4) (c) 1., 51.06 (4) (c) 3. b., 51.06 (4) (e) 2. and 3., 51.065 (1) (b) 1. a. and b., 51.065 (2) (a), Table 51.065-2, 51.065 (6) (c) 2. a., 51.065 (7) (a) 4. a., 51.065 (9) (a) 1., 51.07 (6) (d) (intro.), 51.08 (2) (a) (intro.), 51.08 (2) (b) (intro.), 51.14 (5) (a), 51.15 (3) (a), (4), 51.16 Title, 51.16 (2), 51.16 (3) (a), 51.16 (4) (title), 51.16 (5), 51.161 (1) (a) to (g), 51.24 (5), 51.25, 51.26 (1), 51.27 (6), (9), (10) and (15), 52.04 (3) (a) (intro.), 2., 52.04 (3) (c) 1., 52.04 (3) (d) 1., 52.04 (4) (intro.) Note, 52.04 (4) (b) Note, Table 52.04 Footnotes 5, 8, and 10, 52.04 (6) (a), 52.04 (7) (a), Table 52.04-B, 52.04 (8) (e), 52.04 (10) (b) Note #1, 53.63 (10), 54.01 (2) (b) 1., 54.01 (2) (b) 2., 54.11 (1), Table 54.12-A, Table 54.12-B, 55.10 (4), 55.22 (3), Table 55.32, 57.02 (3) (a) 1., 57.03 (1), 57.13 (1) (a), 57.16 (1) (a), 58.01 (1) (intro.), 58.07, 58.11 (3), 58.15, 58.29 (1) (b), 58.69 (1), 59.13 (2) (d), 59.21 (intro.), Table 63.11, 63.11 (3) (c) 1., 63.12 (1) (b) 1., 64.22 (3) (intro.); to repeal and recreate ss. ILHR 51.01 (104), 51.01 (114a), 51.02 (13) (a) 1., Table 51.044, 51.16 (1), 52.04 (3) (d) 3., Table 52.04, Table 52.04 Footnotes 6, 9 and 15, 52.04 (7) (c), 52.04 (8) (d), 52.04 (10) (d), 52.60 (5) (a), 54.01 (2) (b) 3., 55.001, 55.01, 55.07 (1), 57.01 (2), 57.07 (3), 58.22, 58.59 (2), A51.22, A57.07 (3); to create ss. ILHR 50.04 (6), (7) and (8), 51.01 (5b), 51.01 (11a), 51.15 (3) (e), (f), 51.151, 51.16 (3) (b) 2., 51.16 (4) (f), 51.16 (4) (g), 51.161 (4) (b) 2., 52.04 (8) (f), 52.04 (11), 52.07, 52.60 (2) (b) Note #3, 54.01 (2) (c), 54.12 (2) (a) 1. b. and c., 54.22 (6), 55.02 (2) (c) (intro.) and 1., 57.001 (2) (i), 57.19 (1) (a), 58.01 (1) (d), 58.02 (5), 58.06 (2) (c), 58.13 (2) (a), 58.44 (4), 58.50 (1) (b), 58.55 (6), 59.12 (4), 59.21 (3), ch. 62 subch. VII, 64.22 (9), A51.151, A52.07 (11), relating to miscellaneous provisions of the Building and Heating, Ventilating and Air Conditioning Code.

\* \* \* \* \*

#### ANALYSIS OF RULES

The Wisconsin Administrative Building and Heating, Ventilating and Air Conditioning Code is updated on a two year cycle. The proposed changes are based upon suggestions submitted by users of the code, state enforcement and inspection staff and local building and fire inspectors. The following is a summary of the major changes included in the proposal:

1. The listing of buildings exempt from the code is updated.
2. Definitions of the following terms are added or amended: atrium, bed and breakfast establishment, interior finish, penthouse, property line and rowhouse.
3. Permitted installation of materials and items in fire resistive rated assemblies is clarified.
4. Rules for permitted open stairs and shafts are clarified.
5. Size limitations for fire door assemblies are deleted.
6. Size limitations for mezzanines are modified.
7. Rules for roof access are clarified.
8. The list of approved testing laboratories is expanded and updated.
9. References to specific editions of national standards adopted by reference are deleted in the technical rules but retained in sections where the standards are adopted by reference.
10. Rules for permitted use of security bolts on exit doors are reinstated.
11. Rules and diagrams regarding exit distribution are added.
12. Current stairway rules are expanded to address use of ramps in lieu of stairs.
13. Rules to permit the installation of chair lifts in required exit stairways, even if the exit width is reduced, are added.
- 13A. Rules for handrails in individual living units are clarified.
14. Standards adopted by reference are updated to the most current editions.
15. Barrier-free design requirements are updated, expanded and clarified including:
  - a. deletion of exception for church entrance remodeling;
  - b. number of required accessible units in motels/hotels is amended;
  - c. handrail and guardrail rules are clarified;
  - d. grab bar rules are clarified;
  - e. water closet height rules are amended to be consistent with national standards; and
  - f. drink facility rules are clarified and expanded.

16. New rules for atriums are added based upon s. 1715 of the 1982 Uniform Building Code (used for processing petitions for variance).
- 16A. Rules for size of shower compartments are modified to permit smaller showers.
- 16B. Rules for numbers of lavatories in toilet rooms are clarified/lessened.
17. Rules for unlimited area buildings are expanded to address stair construction limitations.
18. Rules for sanitary fixtures (water closets, urinals and lavatories) in small restaurants are lessened.
19. Rules for limiting the amount of openings in exterior walls of mini-warehouses and mini-garages are relaxed.
20. Rules for assembly hall stairways are modified to be consistent with general stairway rules.
21. Rules regarding exit doors for assembly halls are clarified.
22. Living unit separation rules for residential occupancies are clarified.
23. Access roadway rules for 3 story or less residential buildings are relaxed.
24. Rules regarding the number of exits for dormitory-type buildings are added.
25. Class of construction rules for health care facilities are amended to be consistent with NFPA Standard 220.
26. Exiting rules for health care facilities and place of detention are clarified and expanded to be consistent with the NFPA Standard 101 - Life Safety Code.
27. Elevator lobby rules for health care facilities are clarified.
28. Automatic fire sprinkler rules for nursing homes are amended to be consistent with ch. HSS 132.
29. Rules regarding remote unlocking devices for doors in places of detention are clarified.
30. Exit door rules for garages are clarified.

31. Rules for pedestrian access structures (skywalks) are added.
32. Window infiltration rules for ch. ILHR 57 - Residential Occupancies are clarified.
33. Rules for heat exchanger corrosion protection in heating equipment are expanded in scope.
34. Information from NFPA Standard 10 - Portable Fire Extinguishers is updated in the building code appendix.
35. Procedures for testing atrium smoke control systems are added to building code appendix.
36. Cross referencing errors are corrected.
37. Format, grammatical and miscellaneous changes are also included.

The proposed changes to s. ILHR 52.04 - Barrier-Free Design were developed in conjunction with the Project Committee for Barrier-Free Design. The members of that project committee are as follows:

PROJECT COMMITTEE FOR BARRIER-FREE DESIGN

Ellen Daly	Governor's Committee for People with Disabilities
James Day	Building Owners and Managers Association
Cleo Eliason	Easter Seals Society of Wisconsin
Charles Hanson	Wisconsin Society of Professional Engineers
Mary LaCerte	Wisconsin Society of Architects/AIA
Len Linzmeier	Wisconsin Builders Association
Edward Solner	Wisconsin Society of Architects/AIA
Lewis Stark	Wisconsin Department of Administration
Cynthia Wagner	Wisconsin Rehabilitation Association

All of the proposals have been reviewed and considered by the Building Code Advisory Review Board. The membership of the Review Board is as follows:

BUILDING CODE ADVISORY REVIEW BOARD

Owen Ayres	Wisconsin Society of Professional Engineers
Shary Bisgard	Public (League of Women Voters)
Ronald Chiapete	Wisconsin State Fire Chiefs Association
Victor Halloran	Wisconsin Society of Architects/AIA
Pharis Horton	State Bar of Wisconsin
Lee C. Jensen	City of Milwaukee Building Inspection
Marshall Kuhnly	Wisconsin State AFL-CIO
Thomas Lorenz	Master Builders Association of Wisconsin, Inc.
George Mark	Wisconsin Realtors Association/Wisconsin Builders Association
Donald Roth	League of Wisconsin Municipalities
David J. Schield	Wisconsin Association of Manufacturers and Commerce
Stephen D. Schlough	Wisconsin Department of Health & Social Services
Richard C. Schumacher	Wisconsin Chapter of the Associated General Contractors of America, Inc.
Helmut Seaman	Division of State Facilities Management Department of Administration
William Shea	Building Owners & Managers Assoc. of Milwaukee, Inc. (BOMA)/Income Property Owner's Association, Inc.
Jahn Tinglum (Chairman)	Department of Public Instruction
Larry J. Wills	Wisconsin Chapter - Society of Fire Protection Engineers



\* \* \* \* \*

Pursuant to the authority vested the State of Wisconsin Department of Industry, Labor and Human Relations by ss. 101.02 (1) and 101.02 (15) (h) to (j), Stats., the department hereby repeals, renumbers, renumbers and amends, renumbers and repeals and recreates, amends, repeals and recreates and creates rules interpreting ss. 101.02 (15) (h) to (j), Stats., as follows:

SECTION 1. ILHR 50.02 is amended to read:

ILHR 50.02 SCOPE OF CHAPTERS. The provisions of chs. ILHR 50 to 64 apply to all public buildings and places of employment. The provisions of these chapters are not retroactive unless specifically stated in the administrative rule. Where different sections of these chapters specify different requirements, the most restrictive requirement shall govern, except as specified in ss. ILHR 51.02 (11) (b) 4., 58.001 (2) (c), 62.93 and ~~64.57 (3)~~ 64.57 (4).

Note: For a definition of "public building" and "place of employment," see ss. ILHR 51.01 (102b) and 51.01 (104a) or s. 101.01 (2), Stats.

SECTION 2. ILHR 50.02 Special Note #1 is amended to read:

Special Note #1. An asterisk (\*) following the section or subsection number indicates explanatory material on that paragraph may be found in Appendix A. Example: ILHR 51.01 (16)\* - See A-51.01 (16) in Appendix A. The material contained in this appendix and the notes found in the code are not part of the enforceable rules of this code and are provided for information and clarification purposes only.

SECTION 3. ILHR 50.03 (2) is amended to read:

ILHR 50.03 (2) ALTERATIONS TO BUILDINGS. The provisions of this code shall apply to all remodeling or alterations in any building or structure which affect the structural strength, fire hazard, exits, required natural lighting or replacement of major equipment. These provisions do not apply to minor repairs necessary for the maintenance of any building or structure nor to buildings exempt, as listed in s. ILHR 50.04.

SECTION 4. ILHR 50.04 (6), (7) and (8) are created to read:

ILHR 50.04 (6) Buildings owned by the Federal Government. Buildings owned by other than the federal government and leased to the federal government are not exempt.

ILHR 50.04 (7) Bed and breakfast establishments as defined in s. ILHR 51.01 (11a).

ILHR 50.04 (8) Community-based residential facilities located in existing buildings and providing care, treatment and services to 3 to 8 unrelated adults.

SECTION 4a. ILHR 50.12 (4) (a) 1. (intro.) is amended to read:

ILHR 50.12 (4) (a) 1. The building designer shall submit the following minimum information for structural components such as but not limited to wood trusses, precast concrete, laminated wood members, steel joists and steel girders when the component fabricator is specified as being responsible for the component design:

SECTION 5. ILHR 50.20 is amended to read:

ILHR 50.20 FEES. Fees for petitions for ~~modification~~ variance, material approval, plan examination and approval, and for inspection of buildings, structures, and heating and ventilating shall be submitted ~~in accordance with the provisions of~~ as specified in s. Ind 69.09. Fees shall be submitted at the time the application for approval is submitted. No plan examinations, approvals or inspections ~~will~~ shall be made until the fees are received.

SECTION 6. ILHR 51.01 (5b) is created to read:

ILHR 51.01 (5b) "Atrium" means a floor opening or series of floor openings connecting 2 or more stories that is covered at the top of the series of openings and is used for purposes other than an enclosed stairway; elevator hoistway; or utility shaft used for plumbing, electrical, air conditioning or communication facilities.

SECTION 7. ILHR 51.01 (11a) is created to read:

ILHR 51.01 (11a) "Bed and breakfast establishment", as defined in s. 50.50 (1), Stats., means any place of lodging that provides 4 or fewer rooms for rent, is the owner's personal residence and is occupied by the owner at the time of rental.

SECTION 8. ILHR 51.01 (75a) is amended to read:

ILHR 51.01 (75a) "Interior finish" means the exposed interior surfaces of buildings, including, but not limited to fixed or movable walls and partitions, columns, ceilings, and floors.

(a) "Class A interior finish" includes any material classified at 25 or less on the flame spread test scale and 450 or less on the smoke test scale in accordance with ASTM E84-80 - Test of Surface Burning Characteristics of Building Materials.

(b) "Class B interior finish" includes any material classified at more than 25 but not more than 75 on the flame spread test scale and 450 or less on the smoke test scale in accordance with ASTM E84-80 - Test of Surface Burning Characteristics of Building Materials.

(c) "Class C interior finish" includes any material classified at more than 75 but not more than 200 on the flame spread test scale and 450 or less on the smoke test scale in accordance with ASTM E84-80 - Test of Surface Burning Characteristics of Building Materials.

(d) "Class I interior floor finish" includes any material with a minimum critical radiant flux of 0.45 watts per square centimeter as determined in accordance with ASTM E648-78 - Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source.

(e) "Class II interior floor finish" includes any material with a minimum critical radiant flux of 0.22 watts per square centimeter as determined in accordance with ASTM E648-78 - Standard Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source.

SECTION 9. ILHR 51.01 (99) is amended to read:

ILHR 51.01 (99) ~~PENTHOUSE.~~ ~~PEN~~HOUSE. An "Penthouse" means an enclosed or partially enclosed structure extending above the main roof of a building or structure and/or enclosing a stairway, tank, elevator, machinery, mechanical equipment or other apparatus and not used for human occupancy.

SECTION 10. ILHR 51.01 (104) is repealed and recreated to read:

ILHR 51.01 (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.

SECTION 11. ILHR 51.01 (114a) is repealed and recreated to read:

ILHR 51.01 (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.

SECTION 12. ILHR 51.02 (4) (c) 2. c. is amended to read:

ILHR 51.02 (4) (c) 2. c. Foam plastic insulation complying with the provisions of s. ILHR 51.06 may be used in the construction of the in-fill panels provided the foam plastic is protected on both sides by an approved thermal barrier as specified in s. ~~ILHR 51.06 (4)~~ 51.06 (3).

SECTION 13. ILHR 51.02 (9) is amended to read:

ILHR 51.02 (9) IMBEDDED MATERIAL. ~~No (a) Except as provided in par. (b), pipes, wires, cables, ducts or other service equipment shall not be imbedded lengthwise in the required fire-resistive protection of any structural member except as allowed in approved fire-rated assemblies.~~

(b) 1. Pipes, wires, cables, ducts or other service equipment may be imbedded or installed as permitted in approved fire-rated assemblies.

2. Pipes, wires, cables, metallic ducts or other service equipment may be imbedded or installed in fire-resistive assemblies of 2 hour rating or less in buildings of Types No. 4 to 8 construction. The pipe wire, cable, metallic duct or other service equipment shall be contained within the fire resistive rated assembly.

SECTION 14. ILHR 51.02 (11) (b) 3. is amended to read:

ILHR 51.02 (11) (b) 3. Serving 2 floor levels in buildings containing ch. ILHR 55 to 58 or 60 to 62 occupancies and the opening is not a required means of egress provided the opening is separated from any exit access corridor or exit stairway by fire-resistive rated construction having at least the hourly rating specified for fire-rated enclosures as specified in line 20 of Table 51.03-A; or

SECTION 15. ILHR 51.02 (13) (a) 1. is repealed and recreated to read:

ILHR 51.02 (13) (a) 1. a. Except as provided in subpar. b, the fire division wall shall extend 3 feet above the roof. Where a difference in roof elevations occur at the fire division, the parapet height shall be measured from the lower roof elevation.

b. Where a difference in roof elevations occurs at the fire division wall in buildings of Type No. 4 construction with combustible exterior walls, Type No. 7 or No. 8 construction, the fire division wall shall extend above the lower roof to the high roof elevation and shall be unpierced. In all cases, the fire division wall shall extend at least 3 feet above the lower roof elevation.

SECTION 16. ILHR 51.02 (13) (c) 2. is amended to read:

ILHR 51.02 (13) (c) 2. The total ~~width area~~ of all openings in any fire division wall in any one story shall not exceed 25% of the ~~length area~~ of the wall in that story ~~and no single openings shall have an area greater than 120 square feet.~~

SECTION 17. ILHR 51.02 (14) (b) is amended to read:

ILHR 51.02 (14) (b) ~~1.~~ 1. Except as provided in subd. 2., an interior balcony or mezzanine floor which exceeds 25,000 square feet or ~~one-third (1/3), whichever is least,~~ of the net main area enclosed within exterior walls and/or fire division walls or both, whichever is least, shall be counted as a story. The area of the mezzanine may not be added to the main floor area to determine the maximum area of the mezzanine.

2. An open balcony or mezzanine within a single living unit or tenant space which exceeds 1/3 of the net area enclosed within the walls of that living unit or tenant space shall be counted as a story.

SECTION 17A. ILHR 51.02 (18) (b) is amended to read:

ILHR 51.02 (18) (b) Roof. All 1. Except as provided in subd. 2., all buildings more than 2 stories, or 25 feet in height, where the slope of the roof is less than 3 in 12, shall be provided with a means of access to the main roof from the floor level immediately below. The roof opening shall be at least 20 by 30 inches and shall be provided with a permanent ladder or stairway.

~~1. Exception.~~ 2. Roof access shall not be required in the sloped ceiling (cathedral ceiling) portions of buildings 3 story buildings without attic space.

SECTION 18. Not used.

SECTION 19. Note used.

SECTION 20. Not used.

SECTION 21. Not used.

SECTION 22. ILHR 51.03 (7) (f) is amended to read:

ILHR 51.03 (7) (f) Buildings 3 stories in height of wood frame protected construction may be located ~~between 10 feet and~~ less than 30 feet from a property line or other building on the same property provided any wall ~~within 10 feet to~~ less than 30 feet from a property line or other building on the same property is a 4-hour fire division wall, without openings, as specified in s. ILHR 51.02 (13).

SECTION 23. ILHR 51.042 (7) is amended to read:

ILHR 51.042 (7) In one-hour fire-resistive rated construction and in living unit separations as specified in s. ILHR 57.01 (2), the ceiling may be omitted over unusable crawl space not more than 42 inches in height and the flooring may be omitted where unusable space occurs above.

SECTION 24. Table 51.044 is repealed and recreated to read:

TABLE 51.044  
APPROVED TESTING LABORATORIES

Name of Recognized Laboratories	ASTM Standard Tests						
	E-84	E-108	E-119	E-136	E-152	E-163	E-648
Applied Research Lab. of Florida, Inc., Miami, FL	X	X	X	X	X	X	X
Commercial Testing Co. Inc., Dalton, GA	X	-	-	-	-	-	-
Factory Mutual Research, Norwood, MS	X	-	X	-	X	-	-
Forest Prod. Lab., Madison, WI*	-	-	X	-	X	-	-
Hardwood Plywood Mfgs. Assoc., Reston, VA	X	-	-	X	-	-	X
Nat'l Bureau of St'd., Washington, DC	-	-	X	X	-	-	-
Ohio State Univ., Columbus, OH	-	-	X	X	X	X	-
Portland Cement Assoc., Skokie, IL	-	-	X	-	-	-	-
PFS, Inc. Madison, WI	X	-	X	-	X	-	-
Southwest Research Inst., San Antonio, TX	X	-	-	-	-	-	-
Underwriters Lab., Inc., Northbrook, IL	X	X	X	X	X	X	X
Underwriters Lab. of Canada, Scarborough, Ont., Canada	X	X	X	X	X	X	-
Univ. of Calif., Berkeley, CA	-	X	X	-	-	X	-
U.S. Testing Co., Hoboken, NJ	X	X	-	X	X	X	X
U.S. Testing Co., Los Angeles, CA	X	-	-	X	-	-	X
Warnock Hersey Intl-Inc., Antioch, CA	X	-	X	-	X	X	-

\*Reference based on research and development data. Facility is not available for conducting routine rating tests.

Note #1: See ss. ILHR 51.25 (47) to (50), (52) to (53) and (55) for test information and specific standards adopted.

Note #2: Other testing laboratories may be recognized as approved laboratories if accepted in writing by the department.

SECTION 25. ILHR 51.06 (2) is amended to read:

ILHR 51.06 (2) FLAME SPREAD AND SMOKE DEVELOPED CRITERIA. Except as otherwise provided, all foam plastic and foam plastic cores in manufactured assemblies used in building construction, shall have a flame spread rating of not more than 75 and a smoke developed rating of not more than 450 when tested in the maximum thickness intended for use in accordance with ASTM E84-81a.

SECTION 26. ILHR 51.06 (3) (a) is amended to read:

ILHR 51.06 (3) (a) Except as provided in subs. (4) to (7), foam plastics shall be separated from the interior of a building by an approved thermal barrier of 1/2 inch gypsum wallboard or equivalent thermal barrier material which will limit the average temperature rise of its unexposed surface to not more than 250°F after 15 minutes of fire exposure as specified in the ASTM E119-84 standard time temperature curve or the equivalent using the Small Scale Horizontal Exposure Furnace, with samples for the test having a minimum length and width of 3 feet by 3 feet.

SECTION 27. ILHR 51.06 (4) (b) 3. b. is amended to read:

ILHR 51.06 (4) (b) 3. b. The exterior coating, facing or cladding material for walls may be of other than noncombustible material provided that the foam plastic core, coating, facing and cladding, each when tested individually shall have a flame spread of 25 or less and a smoke developed rating of 450 or less when tested in accordance with ASTM E84-81a; facing, coating, cladding and core material shall be fastened to each other to prohibit failure in bond as a result of temperature which may be experienced in a building fire, or from winds or other conditions; and the wall assembly shall not propagate flame over the surface or through the core when subjected to a full scale test with the assembly in its end use condition or when subjected to an approved diversified test.

SECTION 28. ILHR 51.06 (4) (c) 1. is amended to read:

ILHR 51.06 (4) (c) 1. The foam plastic core material has a flame spread of 25 or less and a smoke developed rating of 450 or less when tested in accordance with ASTM E84-81a;

SECTION 29. ILHR 51.06 (4) (c) 3. b. is amended to read:

ILHR 51.06 (4) (c) 3. b. The exterior coating, facing or cladding material for walls may be of other than noncombustible material provided that the coating, facing and cladding, shall have a flame spread of 25 or less and a smoke developed rating of 450 or less when tested in accordance with ASTM E84-81a;

SECTION 30. ILHR 51.06 (4) (e) 2. and 3. are amended to read:

ILHR 51.06 (4) (e) 2. Shall not be limited as to flame spread rating if it is a component of a factory-made composite insulation or assembly and the roof system complies with the calorimeter requirements of FM 4450, Approval Standard for Class I Insulated Steel Roof Decks, Revised August 5, 1977, or UL 1256, Outline of Investigation for Roof Deck Construction, October, 1979;



3. May be installed without a protective thermal barrier if the foam plastic has a flame spread rating of 75 or less when tested at the maximum thickness intended for use and the roof system complies with the calorimeter requirements of FM 4450, Approval Standard for Class I Insulated Steel Roof Decks, ~~Revised August 5, 1977~~, or UL 1256, Outline of Investigation for Roof Deck Construction, ~~October, 1979~~; and

SECTION 31. ILHR 51.065 (1) (b) 1. a. and b. are amended to read:

ILHR 51.065 (1) (b) 1. a. CC1 - Plastic materials which have a burning extent of one inch per minute or less when tested in nominal .060 inch thickness or in the thickness intended for use by ASTM D635-84, Test for Flammability of Self-Supporting Plastics; or

b. CC2 - Plastic materials which have a burning rate of 2.5 inches per minute or less when tested in nominal .060 inch thickness or in the thickness intended for use by ASTM D635-84, Test for Flammability of Self-Supporting Plastics.

SECTION 32. ILHR 51.065 (2) (a) is amended to read:

ILHR 51.065 (2) (a) "Approved light-transmitting plastic" means a single layer or multi-layer composite consisting of thermoplastic, thermosetting or reinforced plastic material which has a self-ignition temperature 650°F or greater when tested in accordance with Standard Method of Test for Ignition Properties of Plastics, ASTM D1929-77, a smoke density rating no greater than 450 when tested in accordance with Standard Method of Test for Surface Burning Characteristics of Building Materials, ASTM E84-81a in the way intended for use, or a smoke density rating no greater than 75 when tested in the thickness intended for use by Standard Method for Measuring the Density of Smoke from the Burning or Decomposition of Plastics, ASTM D2843-77. Multi-layer composite material shall comply as a composite in the configuration intended for use.

SECTION 33. Table 51.065-2 is amended to read:

TABLE 51.065-2\*

AREA LIMITATIONS FOR LIGHT-TRANSMITTING PLASTIC ROOF PANELS AND SKYLIGHTS		
Class of Plastic	Maximum Area Individual Unit or Panel (sq.ft.)	Maximum Aggregate Area (% of Floor Area)
CC 1	300	<del>30</del> <u>33-1/3</u>
CC 2	100	25

\* The requirements of this table do not apply to greenhouses. See ch. ILHR 62, subch. VI.

SECTION 34. ILHR 51.065 (6) (c) 2.a. is amended to read:

ILHR 51.065 (6) (c) 2. a. The skylight serves as a fire venting system approved by a petition for ~~modification~~ variance as specified in s. ILHR 50.25; or

SECTION 35. ILHR 51.065 (7) (a) 4. a. is amended to read:

ILHR 51.065 (7) (a) 4. a. Fall from their mounting at an ambient temperature of at least 200°F below the self-ignition temperature of the plastic material as measured by ASTM D1929-~~77~~;

SECTION 36. ILHR 51.065 (9) (a) 1. is amended to read:

ILHR 51.065 (9) (a) 1. The approved plastic used as the glazing falls from its mounting either with or without its frame or sash at an ambient temperature of at least 200°F below the self-ignition temperature of the plastic material as measured by ASTM D1929-~~77~~;

[Note to Revisor: Please insert a reference to Footnote #2 after the column title "Exit Access" in Table 51.07. The reference was omitted in the printing of the table for the October 1982, Register #322. See memo dated 6/28/84 previously sent to you.]

SECTION 37. ILHR 51.07 (6) (d) (intro.) is amended to read:

ILHR 51.07 (6) (d) Class B and C finish materials. Interior finish materials, other than Class A materials, which are less than 1/4 inch in thickness, shall be applied directly against a noncombustible backing or a backing of fire-retardant treated wood unless the tests under which ~~such~~ the material has been classified were made with the materials suspended from the noncombustible backing.

SECTION 38. ILHR 51.08 (2) (a) (intro.) is amended to read:

ILHR 51.08 (2) (a) An absolute occupancy separation shall consist of walls or floors or both of not less than 4-hour fire-resistive construction as specified in ss. ILHR 51.04 to 51.049. All openings in walls forming such a separation shall be protected by self-closing fire-resistive door assemblies as specified in s. ILHR 51.047. The total width of all openings in any such separating wall in any one story shall not exceed 25% of the length of the wall in that story ~~and no single opening shall have an area greater than 120 square feet.~~ Floor openings shall be protected by 4-hour rated shaft enclosures or fire curtain doors as specified in s. ILHR 64.42.

SECTION 39. ILHR 51.08 (2) (b) (intro.) is amended to read:

ILHR 51.08 (2) (b) A special occupancy separation shall consist of walls or floors, or both, of not less than 3-hour fire-resistive construction as specified in ss. ILHR 51.04 to 51.049. All openings in walls forming ~~such~~ the separation shall be protected by automatic closing or self-closing fire-resistive door assemblies as specified in s. ILHR 51.047. The total width of all openings in any ~~such~~ separating wall in any one story shall not exceed 25% of the length of the wall in that story ~~and no single opening shall have an area greater than 120 square feet.~~ Floor openings shall be protected by 3-hour rated shaft enclosures or fire curtain doors as specified in s. ILHR 64.42.

SECTION 40. ILHR 51.14 (5) (a) is amended to read:

ILHR 51.14 (5) (a) Skylights. All glazing in skylights shall be safety glazing material and shall comply with the requirements specified in s. ILHR ~~51.02-(6)~~ 51.065 (5) or (6).

SECTION 40a. ILHR 51.15 (3) (a) is amended to read:

ILHR 51.15 (3) (a) A standard exit door shall have such fastenings or hardware that it can be opened from the inside by pushing against a single bar or plate or turning a single knob or handle. The latch or other approved fastening device on the door shall be of an obvious method in its release ~~and shall be so located on the exit door that the device is not less than 32 inches or more than 40 inches above the floor level.~~ Except as provided in pars. (b) to (d), the installation of hardware requiring use of a key for opening an exit door from the inside is prohibited. This The requirements of this subsection except par. (f) shall apply to all buildings in existence and to any building built after the effective date of this subsection.

SECTION 41. ILHR 51.15 (3) (e) is created to read:

ILHR 51.15 (3) (e) 1. Except as provided in subd 2., the door shall not be barred, bolted or chained at any time.

2. When authorized persons, such as employes, frequenters, patrons and other such occupants are not present, the exit door may be secured by the use of a single bar or bolt. A sign or label shall be posted on the door near the single bar or bolt. The sign or label shall bear the following: "This bolt or bar shall be kept open during periods of occupancy."

Note: The intent of par. (e) 2. is to prohibit padlocks or use of a key to open a door or lock at any time. The bar and bolt exception is to give security against intruders from the outside while protecting persons in the building from being trapped.

SECTION 41a. ILHR 51.15 (3) (f) is created to read:

ILHR 51.15 (3) (f) 1. Except as provided in subd. 2., the latch or other approved fastening device shall be located on the exit door so tht the device is not less than 32 inches or more than 54 inches above the floor level.

2. The latch or approved fastening device on solid tempered glass doors may be located on the door at the floor line.

SECTION 42. ILHR 51.15 (4) is amended to read:

ILHR 51.15 (4) A standard exit ~~doorway~~ door shall not be less than 6 feet 4 inches high by 3 feet 0 inches wide, except where expecially provided under occupancy classifications and in s. ILHR 51.20. Where double doors are provided with or without mullions, the width of each single door may be reduced to 2 feet 6 inches, except double doors utilized to provide accessibility in accordance with s. ILHR 52.04 shall have the width of at least one single door increased to 2 feet 8 inches.

SECTION 43. ILHR 51.151 is created to read:

ILHR 51.151 EXIT DISTRIBUTION. All spaces which can accommodate more than 25 persons shall be provided with a minimum of 2 exits, 2 exit access doors or a combination of both which are located to provide the best possible egress from the room or suite. If exit access doors are used, the exit access corridors shall lead to 2 or more separate exits.

Note: See Appendix A for further explanatory material.

Note: See occupancy chs. ILHR 54 to 62 for acceptable types of exits and exit accesses and exceptions.

SECTION 44. ILHR 51.16 title is amended to read:

ILHR 51.16 (title) STAIRWAYS AND RAMPS.

SECTION 45. ILHR 51.16 (1) is repealed and recreated to read:

ILHR 51.16 (1) DEFINITIONS. (a) "Stairway" means one or more flights of steps, and the necessary platforms or landings connecting them, to form a continuous passage from one elevation to another, including exterior porches, platforms and steps.

(b) "Ramp" means a sloping floor or walk and necessary platforms or landings connecting them to form a continuous passage from one elevation to another.

SECTION 46. ILHR 51.16 (2) is amended to read:

ILHR 51.16 (2) REQUIRED AGGREGATE WIDTH. (a) The required aggregate width of stairway or ramp exits from any level shall be as ~~determined in accordance with the requirements of~~ specified in s. ILHR 51.15 (6).

(b) In no case shall the minimum width of an exit stair or ramp be less than that specified in sub. (3).

(c) Under no circumstances shall stairways or ramps decrease in width in the line of travel toward the exit.

SECTION 47. ILHR 51.16 (3) (a) is amended to read:

ILHR 51.16 (3) (a) ~~Every~~ Except as provided in par. (b), every required exit stairway or ramp under chs. ILHR 54 to 62 shall be not less than 3 feet 8 inches wide, except as provided in the occupancy chapters, of which not more than 4 inches on each side may be occupied by a handrail. The clear dimension between handrails, or stringers, shall not be less than 3 feet 0 inches.

SECTION 48. ILHR 51.16 (3) (b) is renumbered to be 51.16 (3) (b) 1. and is amended to read:

ILHR 51.16 (3) (b) 1. Nonrequired stairways or ramps need not conform to the width requirements ~~of this code~~ specified in chs. ILHR 50 to 64.

SECTION 49. ILHR 51.16 (3) (b) 2. is created to read:

ILHR 51.16 (3) (b) 2. Stairway chair lifts, but not platform lifts, for the physically disabled may be installed on the right side as one mounts the stairs on required exit stairways of buildings constructed prior to May 14, 1974.

a. A clear stair width of 24 inches measured from the lift, in its open position, to the nearer edge of the opposite handrail and a clear dimension of 3 feet between the lift mounting track or traveling means and the handrail shall be provided.

b. The lift shall be designed and installed to maintain the code required exit passageway or stair width when the lift is in the parked or stored position.

c. Lifts may not encroach more than 24 inches into the net width determined by s. ILHR 51.15 (6), when in the operating configuration.

SECTION 50. ILHR 51.16 (4) (title) is amended to read:

ILHR 51.16 (4) (title) RISERS, TREADS AND RAMP SLOPES.

SECTION 51. ILHR 51.16 (4) (f) is created to read:

ILHR 51.16 (4) (f) 1. Ramp slopes of required exit ramps may not exceed 1:8.

2. Ramp slopes of all ramps not included under sub. 1. may not exceed 1:6.

Note: See s. ILHR 52.04 (7) for ramp requirements for barrier free design.

SECTION 52. ILHR 51.16 (4) (g) is created to read:

ILHR 51.16 (4) (g) Ramps and landings shall be finished with a slip-resistant surface.

SECTION 53. ILHR 51.16 (5) is amended to read:

ILHR 51.16 (5) STAIRWAY AND RAMP LANDINGS AND PLATFORMS. (a) ~~1.~~  
Except as provided in subd. 2., if a door is provided at the head and/or foot or both of a stairway or ramp, a landing or platform shall be placed between the door and the stairway or ramp regardless of the direction of swing of the door.

2. Platforms may be omitted for ramps 6 foot or less in length.

(b) Every landing or platform shall be at least as wide as the stairway or ramp, measured at right angles to the direction of travel. Every landing or platform must have a length of at least 3 feet, measured in the direction of travel.

(c) Spaces beneath stairs and ramps may not be enclosed for any use.

SECTION 54. ILHR 51.161 (1) (a) to (g) are amended to read:

ILHR 51.161 (1) (a) On the left side, as one mounts the stairs or ramp, on all interior stairways of more than 3 risers and on all ramps overcoming a change in elevation of more than 24 inches.

(b) On the open side of any stairway with more than 3 risers and on the open side of any ramp overcoming a change in elevation of more than 24 inches.

(c) On both sides of interior stairways or ramps 5 feet or more in width.

(d) To divide interior stairways or ramps more than 8 feet wide into widths at least 3 feet 8 inches but less than 8 feet.

(e) On both sides of exterior stairways with more than 3 risers and on both sides of exterior ramps overcoming a change of elevation of more than 24 inches, either of which are an integral part of the building.

(f) To divide exterior stairways or ramps, either of which are an integral part of the building and more than 25 feet wide into approximately equal widths not less than 3 feet 8 inches but not greater than 25 feet.

(g) ~~On interior and exterior ramps having a slope greater than one foot of rise in 20 feet of run in accordance with the~~ The requirements specified in pars. (a) through to (f) do not apply to ramps having a slope less than 1:20.

~~†. Exception. For ramps used to provide barrier free access, see s. ILHR 52.04 (7) (e).~~

Note: See s. ILHR 52.04 (7) (c) for handrail requirements for ramps used to provide barrier free access.

SECTION 54A. ILHR 51.161 (4) (b) is renumbered (4) (b) 1.

SECTION 54B. ILHR 51.161 (4) (b) 2. is created to read:

ILHR 51.161 (4) (b) 2. Handrails on stairs located within individual living units need not comply with the requirements of par. (a).

SECTION 55. ILHR 51.24 (5) is amended to read:

ILHR 51.24 (5) All ~~such~~ alarm systems shall be tested at least once a ~~week~~ month and a record of ~~such the~~ tests shall be kept;

SECTION 56. ILHR 51.25 is amended to read:

ILHR 51.25 ADOPTION OF ASTM STANDARDS. Pursuant to s. 227.025, Stats., the attorney general and the revisor of statutes have consented to the incorporation by reference of the following standards of the American Society of Testing and Materials (ASTM), 1916 Race Street, Philadelphia, PA 19103. Copies of the standards in reference are on file in the offices of the department, the secretary of state, and the revisor of statutes.

(1) GENERAL REQUIREMENTS FOR ROLLED STEEL PLATES, SHAPES, SHEET PILING AND BARS FOR STRUCTURAL USE. ~~Part 4~~ ASTM Designation ~~A6-80a~~ A6-83.

(2) STRUCTURAL STEEL. ~~Part 4~~ ASTM Designation ~~A36-77a~~ A36-81a.

(3) COLD-DRAWN STEEL WIRE FOR CONCRETE REINFORCEMENT. ~~Part 4~~ ASTM Designation A82-79.

(4) ZINC-COATED (GALVANIZED) ~~IRON OR STEEL FARMFIELD AND RAILROAD RIGHT-OF-WAY WIRE FENCING.~~ ~~Part 3~~ WOVEN WIRE FENCE FABRIC ASTM Designation ~~A116-73 (1978)~~ A116-81.

- (5) ZINC COATING (HOT-DIP) ON IRON AND STEEL HARDWARE. ~~Part-3~~ ASTM Designation ~~A153-80~~ A153-82.
- (6) DEFORMED AND PLAIN BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT. ~~Part 4~~ ASTM Designation ~~A615-84~~ A615-82.
- (7) RAIL-STEEL DEFORMED AND PLAIN BARS FOR CONCRETE REINFORCEMENT. ~~Part-4~~ ASTM Designation ~~A616-79~~ A616-82a.
- (8) AXLE-STEEL DEFORMED AND PLAIN BARS FOR CONCRETE REINFORCEMENT. ~~Part-4~~ ASTM Designation ~~A617-79~~ A617-82a.
- (9) GYPSUM. ~~Part-13~~ ASTM Designation C22-77.
- (10) CHEMICAL ANALYSIS OF LIMESTONE, QUICKLIME, AND HYDRATED LIME. ~~Part-13~~ ASTM Designation ~~C25-79~~ C25-83.
- (11) STRUCTURAL CLAY LOAD-BEARING WALL TILE. ~~Part-16~~ ASTM Designation C34-62 (1975).
- (12) COMPRESSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMENS. ~~Part-14~~ ASTM Designation ~~C39-72-(1979)~~ C39-81.
- (13) OBTAINING AND TESTING DRILLED CORES AND SAWED BEAMS OF CONCRETE. ~~Part-14~~ ASTM Designation ~~C42-77~~ C42-82.
- (14) SAMPLING, INSPECTION, PACKING, AND MARKING OF LIME AND LIMESTONE PRODUCTS. ~~Part-13~~ ASTM Designation C50-78 (1983).
- (15) GYPSUM PARTITION TILE OR BLOCK. ~~Part-13~~ ASTM Designation C52-54 (1977).
- (16) CONCRETE BUILDING BRICK. ~~Part-16~~ ASTM Designation C55-75 (1980).
- (17) STRUCTURAL CLAY NON-LOAD-BEARING TILE. ~~Part-16~~ ASTM Designation C56-71 (1976) (1981).
- (18) STRUCTURAL CLAY FLOOR TILE. ~~Part-16~~ ASTM Designation C57-57 (1978).
- (19) BUILDING BRICK (SOLID MASONRY UNITS MADE FROM CLAY OR SHALE). ~~Part-16~~ ASTM Designation ~~C62-75a~~ C62-81.
- (19a) REFRACTORIES FOR INCINERATORS AND BOILERS. ~~Part-17~~ ASTM Designation C64-72 (1977).
- (20) SAMPLING AND TESTING BRICK AND STRUCTURAL CLAY TILE. ~~Part-16~~ ASTM Designation ~~C67-78~~ C67-81.
- (21) HOLLOW LOAD-BEARING CONCRETE MASONRY UNITS. ~~Part-16~~ ASTM Designation C90-75 (1981).
- (22) MASONRY CEMENT. ~~Part-13~~ ASTM Designation ~~C91-78~~ C91-83a.
- (23) ABSORPTION AND BULK SPECIFIC GRAVITY OF NATURAL BUILDING STONE. ~~Part-19~~ ASTM Designation C97-47 (1977) (1982).



(24) MODULUS OF RUTURE OF NATURAL BUILDING STONE. ~~Part 19~~ ASTM Designation C99-52 ~~(1976)~~ (1981).

(24a) GROUND FIRE CLAY AS A REFRACTORY MORTAR FOR LAYING-UP FIRECLAY BRICK. ~~Part 17~~ ASTM Designation C105-47 ~~(1976)~~ (1981).

(25) PHYSICAL TESTING OF QUICKLIME, HYDRATED LIME, AND LIMESTONE. ~~Part 13~~ ASTM Designation C110-76a.

(28) SAMPLING AND TESTING CONCRETE MASONRY UNITS. ~~Part 16~~ ASTM Designation C140-76 (1980).

(29) AGGREGATE FOR MASONRY MORTAR. ~~Part 16~~ ASTM Designation ~~C144-76~~ C144-81.

(30) SOLID LOAD-BEARING CONCRETE MASONRY UNITS. ~~Part 16~~ ASTM Designation C145-75 (1981).

(31) PORTLAND CEMENT. ~~Part 14~~ ASTM Designation ~~C150-80~~ C150-83a.

(32) COMPRESSIVE STRENGTH OF NATURAL BUILDING STONE. ~~Part 19~~ ASTM Designation C170-50 ~~(1976)~~ (1981).

(33) HYDRATED LIME FOR MASONRY PURPOSES. ~~Part 13~~ ASTM Designation C207-79.

(34) MORTAR FOR UNIT MASONRY. ~~Part 16~~ ASTM Designation ~~C270-80a~~ C270-82.

(35) GYPSUM CONCRETE. ~~Part 13~~ ASTM Designation C317-76 (1981).

(36) MICROSCOPICAL DETERMINATION OF AIR-VOID CONTENT AND PARAMETERS OF THE AIR-VOID SYSTEM IN HARDENED CONCRETE. ~~Part 14~~ ASTM Designation ~~C457-71~~ C457-82a.

(37) CHEMICAL ANALYSIS OF GYPSUM AND GYPSUM PRODUCTS. ~~Part 13~~ ASTM Designation C471-76.

(38) PHYSICAL TESTING OF GYPSUM PLASTERS AND GYPSUM CONCRETE. ~~Part 13~~ ASTM Designation C472-79.

(39) PHYSICAL TESTING OF GYPSUM BOARD PRODUCTS, GYPSUM LATH, GYPSUM PARTITION TILE OR BLOCK, AND PRECAST REINFORCED GYPSUM SLABS. ~~Part 13~~ ASTM Designation ~~C473-76a~~ C473-81.

(40) MORTAR AND GROUT FOR REINFORCED MASONRY. ~~Part 16~~ ASTM Designation ~~C476-71~~ ~~(1976)~~ C476-80.

(41) HOLLOW BRICK (HOLLOW MASONRY UNITS MADE FROM CLAY OR SHALE). ~~Part 16~~ ASTM Designation ~~C652-77~~ C652-81a.

(42) TEST FOR RESISTANCE OF CONCRETE TO RAPID FREEZING AND THAWING. ~~Part 14~~ ASTM Designation C666-80.

(42a) TEST METHOD FOR BOND STRENGTH OF MORTAR TO MASONRY UNITS. ASTM Designation C952-76.

(43) ESTABLISHING STRUCTURAL GRADES AND RELATED ALLOWABLE PROPERTIES FOR VISUALLY GRADED LUMBER. ~~Part 22~~ ASTM Designation ~~D245-74~~ D245-81.

(43a) RATE OF BURNING AND/OR EXTENT AND TIME OF BURNING OF SELF-SUPPORTING PLASTICS IN A HORIZONTAL POSITION. ASTM Designation D635-81.

(44) EVALUATING THE PROPERTIES OF WOOD-BASE FIBER AND PARTICLE PANEL MATERIALS. ~~Part 22~~ ASTM Designation D1037-78.

(45) TESTING PILES UNDER AXIAL COMPRESSIVE LOAD. ~~Part 19~~ ASTM Designation D1143-81.

(45a) IGNITION PROPERTIES OF PLASTICS. ASTM Designation D1929-77.

(45b) DENSITY OF SMOKE FROM THE BURNING OR DECOMPOSITION OF PLASTICS. ASTM Designation D2843-77.

(46) CONDUCTING STRENGTH TESTS OF PANELS FOR BUILDING CONSTRUCTION. ~~Part 18~~ ASTM Designation ~~E72-77~~ E72-80.

(47) TEST FOR SURFACE BURNING CHARACTERISTICS OF BUILDING MATERIALS. ~~Part 18~~ ASTM Designation E84-81a.

(48) FIRE TESTS OF ROOF COVERINGS. ~~Part 18~~ ASTM Designation ~~E408-80a~~ E108-83.

(49) FIRE TESTS OF BUILDING CONSTRUCTION AND MATERIALS. ~~Part 18~~ ASTM Designation ~~E119-80~~ E119-83.

(50) TEST FOR BEHAVIOR OF MATERIALS IN A VERTICAL TUBE FURNACE AT 750°C. ~~Part 18~~ ASTM Designation ~~E136-79~~ E136-82.

~~(51) TEST FOR BOND STRENGTH OF MORTAR TO MASONRY UNITS. Part 18 ASTM Designation E149-76.~~

~~(52)~~ (51) FIRE TESTS OF DOOR ASSEMBLIES. ~~Part 18~~ ASTM Designation ~~E152-80~~ E152-81a.

~~(53)~~ (52) FIRE TESTS OF WINDOW ASSEMBLIES. ~~Part 18~~ ASTM Designation E163-80.

~~(53a)~~ (53) TEST FOR RATE OR AIR LEAKAGE THROUGH EXTERIOR WINDOWS, CURTAIN WALLS AND DOORS. ~~Part 18~~ ASTM Designation ~~E283-73~~ E283-83.

(54) TESTS FOR COMPRESSIVE STRENGTH OF MASONRY PRISMS. ~~Part 18~~ ASTM Designation ~~E447-74~~ E447-80.

(55) TESTS FOR CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS USING A RADIANT HEAT SOURCE. ~~Part 18~~ ASTM Designation E648-78.

SECTION 57. ILHR 51.26 (1) is amended to read:

ILHR 51.26 (1) BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE. ACI ~~318-77~~ 318-83.

SECTION 49. ILHR 51.27 (7a) is renumbered to be 51.27 (7) and amended to read:

ILHR 51.27 (7) National Fire Protection Association, Batterymarch Park, Quincy, Mass. 02269;

(a) STANDARD FOR PORTABLE FIRE EXTINGUISHERS, NFPA No. ~~40-1981~~ 10-1984;

(b) STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS, NFPA No. ~~13-1980~~ 13-1983;

(c) STANDARD FOR THE CARE AND MAINTENANCE OF SPRINKLER SYSTEMS, NFPA No. 13A-1981;

(d) STANDARD FOR THE INSTALLATION OF CENTRIFUGAL FIRE PUMPS, NFPA No. ~~20-1980~~ 20-1983;

(e) STANDARD FOR WATER TANKS FOR PRIVATE FIRE PROTECTION, NFPA No. 22-1981;

(f) STANDARD FOR OUTSIDE PROTECTION, NFPA No. ~~24-1981~~ 24-1984;

(g) STANDARD FOR THE INSTALLATION OF OIL-BURNING EQUIPMENT, NFPA No. ~~31-1978~~ 31-1983;

(h) NATIONAL FUEL GAS CODE, NFPA No. ~~54-1980~~ 54-1984;

(i) STANDARD FOR CENTRAL STATION PROTECTIVE SIGNALING SYSTEMS, NFPA No. 71-1982;

(j) STANDARD FOR THE INSTALLATION, MAINTENANCE AND USE OF LOCAL PROTECTIVE SIGNALING SYSTEMS FOR GUARD'S TOUR, FIRE ALARM AND SUPERVISORY SERVICE, NFPA No. 72A-1979;

(k) STANDARD FOR AUXILIARY PROTECTIVE SIGNALING SYSTEMS, NFPA No. 72B-1979;

(l) STANDARD FOR REMOTE STATION PROTECTIVE SIGNALING SYSTEMS, NFPA No. 72C-1982;

(m) STANDARD FOR PROPRIETARY PROTECTIVE SIGNALING SYSTEMS, NFPA No. 72D-1979;

(n) STANDARD ON AUTOMATIC FIRE DETECTORS, NFPA No. 72E-1982;

(o) STANDARD FOR HOUSEHOLD FIRE WARNING EQUIPMENT, NFPA No. ~~74-1980~~ 74-1984;

~~MANUAL ON CLEARANCES FOR HEAT PRODUCING APPLIANCES, NFPA No. 89M-1976,~~

(p) STANDARD FOR THE INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS, NFPA No. 90A-1981;

(q) STANDARD FOR CHIMNEYS, FIREPLACES AND VENTS, AND SOLID FUEL BURNING APPLIANCES NFPA No. ~~211-1980~~ 211-1984.

SECTION 58. ILHR 51.27 (6), (9), (10) and (15) are amended to read:

ILHR 51.27 (6) American Welding Society, ~~2501 NW 7th Street, P.O. Box 351040, Miami, Florida 33125~~ 33135, STRUCTURAL WELDING CODE-STEEL, AWS D1.1-84 D1.1-84; SPECIFICATIONS FOR STRUCTURAL WELDING CODE- SHEET STEEL IN STRUCTURES, AWS D1.3-78 D1.3-81.

ILHR 51.27 (9) Steel Joist Institute, ~~4703 Parnum Blvd., Suite 204, Richmond, Virginia 23229~~ Suite A, 1205 48th Ave. North, Myrtle Beach, South Carolina 29577, STANDARD SPECIFICATIONS, LOAD TABLES AND WEIGHT TABLES FOR STEEL JOISTS AND JOIST GIRDERS, 4984 1984.

ILHR 51.27 (10) Truss Plate Institute, Inc., ~~2400 East Devon Street, Des Plaines, Illinois 60048~~ 583 D'Onofiro Drive, Suite 200, Madison, Wisconsin 53719, DESIGN SPECIFICATION FOR METAL PLATE CONNECTED WOOD TRUSSES, TPI-78 TPI-85.

ILHR 51.27 (15) Underwriters Laboratories, Inc., 333 Pflingsten Road, Northbrook, Illinois 60062, FACTORY-MADE AIR DUCTS AND CONNECTORS, UL STANDARD No. 181-1981, sixth edition including revisions dated September 16, 1984 March 19, 1984; OUTLINE OF INVESTIGATION FOR ROOF DECK CONSTRUCTION, UL No. 1256, June 15, 1979.

SECTION 59. Not used.

SECTION 60. Not used.

SECTION 61. Not used.

SECTION 62. ILHR 52.04 (3) (a) (intro.) is amended to read:

ILHR 52.04 (3) (a) Parking spaces. Where parking spaces are provided, accessible parking spaces, at least 12 feet wide, shall be provided and designated as specified in Table 52.04-A. Access ramps or curb ramps shall not be located in the accessible parking space or any other parking space.

Note: See Appendix for examples of curb ramp locations.

[Note to revisor: Table 52.04-A remains unchanged.]

SECTION 62a. ILHR 52.04 (3) (a) 2. is amended to read:

ILHR 52.04 (3) 2. 'Location'. All accessible parking spaces shall be located as close as possible to an accessible entrance via an accessible route.

SECTION 63. ILHR 52.04 (3) (c) 1. is amended to read:

ILHR 52.04 (3) (c) 1. Exterior walks shall have a slip-resistant surface and shall have a minimum width of 48 inches, of which not more than 4 inches on each side may be occupied by a handrail.

SECTION 64. ILHR 52.04 (3) (d) 1. is amended to read:

ILHR 52.04 (3) (d) 1. 'Width'. Exterior ramps shall have a slip-resistant surface and shall have a minimum width of 48 inches, of which not more than 4 inches on each side may be occupied by a handrail.

SECTION 65. ILHR 52.04 (3) (d) 3. is repealed and recreated to read:

ILHR 52.04 (3) (d) 3. 'Handrails'. Graspable handrails shall be provided as follows:

- a. Location. 1. Ramps with a gradient greater than 5% (1:20), but less than 8.33% (1:12) shall have a handrail on one side of the ramp;
  2. Ramps with a gradient of 8.33% (1:12) shall have handrails on each side of the ramp; and
  3. Handrails shall be provided on those sides where the adjacent terrain exceeds a 25% (1:4) downward slope away from the ramp.
- b. Height. Handrails shall be mounted so that the top of the handrail is located between 30 inches to 34 inches above the ramp surface.
  - c. Midrails. Open-sided ramps shall have an intermediate parallel rail located at mid-height between the handrail and the ramp surface.
  - d. The clear space between the handrail and any adjoining wall shall be between 1-1/2 inches to 2 inches.

SECTION 66. Table 52.04 excluding footnotes is repealed and recreated to read:

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 <sup>1</sup>	Yes
II. Government-owned buildings except those occupancies listed under V and IX D . . . . .	Yes	Yes	Yes
III. Factories, office and mercantile buildings, and shopping malls . . .	Yes	Yes <sup>1,2,3</sup>	Yes <sup>4,5</sup>
IV. Theaters and assembly halls			
A. Churches (chs. Ind 54 and 55) . .	Yes	Yes <sup>1,6</sup>	Yes <sup>7</sup>
B. Auditoriums, theaters, stadiums and permanent bleachers . . . . .	Yes	Yes <sup>1,6</sup>	Yes
C. Night clubs, bars, restaurants (chs. Ind 54 and 55) . . . . .	Yes	Yes <sup>1</sup>	Yes
D. Recreational facilities (chs. Ind 54 and 55) . . . . .	Yes	Yes <sup>1,8</sup>	Yes
V. Schools and other places of instruction . . . . .	Yes	Yes <sup>1,9</sup>	Yes
VI. Libraries, museums and art galleries . . . . .	Yes	Yes <sup>1</sup>	Yes
VII. Places of abode			
A. Residential living units with individual exterior entrances . .	Yes <sup>10</sup>	Yes <sup>11</sup>	Yes <sup>12</sup>
B. All other residential living units (apartment-type buildings) . . . . .	Yes <sup>13</sup>	Yes <sup>14</sup>	Yes <sup>12</sup>
C. Hotels and motels . . . . .	Yes	Yes <sup>15</sup>	Yes <sup>16</sup>
D. Condominiums . . . . .	Yes <sup>17</sup>	Yes <sup>18</sup>	Yes <sup>12</sup>

TABLE 52.04 (CONTINUED)

REQUIREMENTS FOR NEW CONSTRUCTION

Occupancy and Type of Construction	Access to Primary Floor	Interior Circulation	Toilet Facilities
VIII. Day care centers . . . . .	Yes <sup>19</sup>	Yes <sup>1, 19</sup>	Yes <sup>19</sup>
IX. Health care facilities			
A. Hospitals . . . . .	Yes <sup>20</sup>	Yes <sup>20</sup>	Yes <sup>20</sup>
B. Nursing Homes . . . . .	Yes <sup>20</sup>	Yes <sup>20</sup>	Yes <sup>20</sup>
C. Community-based residential facilities . . . . .	Yes <sup>21</sup>	Yes <sup>21</sup>	Yes <sup>21</sup>
D. Dental and medical clinics and offices . . . . .	Yes	Yes <sup>1, 22</sup>	Yes
X. Places of detention . . . . .	Yes	Yes <sup>1, 23</sup>	Yes
XI. Garage occupancies . . . . .	Yes	Yes <sup>1</sup>	Yes
XII. Specialty occupancies			
A. Open parking structures . . . . .	Yes <sup>24</sup>	Yes <sup>24</sup>	Yes <sup>24</sup>
XIII. Mechanical equipment rooms, maintenance equipment and other storage rooms, janitor closets, storage warehouses, saw and feed mills, motion picture booths, portable bleachers, steel mills, steel fabricating plants, slaughter houses, storage and truck docks and shipbuilding facilities 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.

SECTION 67. Table 52.04, footnote 5 is amended to read:

<sup>5</sup>In enclosed shopping malls, toilet facilities provided within a tenant space less than 750 square feet in net area, are not required to be accessible, providing accessible public toilet facilities are provided in the mall. Toilet facilities provided in accordance with s. ILHR 54.12 (1) (b) shall be accessible.

SECTION 68. Table 52.04, footnote 6 is repealed and recreated to read:

<sup>6</sup>Seating spaces, at the rate of 2% of the total capacity with a maximum of 50 seats shall be integrated throughout the seating plan.

One-half of the accessible seating spaces shall be designed for patrons using wheelchairs. The wheelchair space shall be level. Removable seats may be installed in these wheelchair spaces when these spaces are not required to accommodate wheelchair users. The other spaces shall be designed for patrons using braces, crutches, or similar aids.

Ramp details [s. ILHR 52.04 (7)] do not apply to the aisles in theater auditoriums.

SECTION 69. Table 52.04, footnote 7 is repealed.

SECTION 70. Table 52.04, footnote 8 to footnote 17 are renumbered footnotes 7 to 16.

SECTION 71. Table 52.04, footnote 8 is amended to read:

<sup>8</sup>In buildings containing recreational facilities, access shall be provided to 10% of the individual game areas including bowling alleys, tennis courts and similar areas, with a minimum of one individual game area. Access shall be provided to toilets, lounge areas, bar, dining areas ~~and to the only facility of its kind~~ and similar areas as specified in footnote #1. Access is not required to saunas, racquet ball courts, handball courts and locker rooms associated with these areas.

SECTION 72. Table 52.04, footnote 9 is repealed and recreated to read:

<sup>9</sup>If the total gross area of the building including all floors is 20,000 square feet or less, access is required to a primary floor and to any other floors or floor levels that provide services or facilities that are not found on the accessible floor.



SECTION 73. Table 52.04, footnote 10 is amended to read:

<sup>10</sup>Access to a primary floor shall be provided to at least 10% of the living units, with a minimum of one living unit. In a complex of buildings, the accessible units shall be integrated throughout at least 50% of the buildings in the complex.

SECTION 74. Table 52.04, footnote 15 is repealed and recreated to read:

<sup>15</sup>(a) Number of accessible sleeping units. 1. In a hotel or motel, or a hotel or motel complex providing meeting or conference room facilities, accessible sleeping units shall be provided at a rate of 10% of the total number of sleeping units, with a minimum of one.

2. In a hotel or motel, or a hotel or motel complex not providing meeting or conference room facilities, accessible sleeping units shall be provided at a rate of 5% of the total number of sleeping units, with a minimum of one.

(b) Interior circulation. All doors and corridors throughout the accessible sleeping units shall be designed for access and shall comply with s. ILHR 52.04 (9). Doors to walk-in closets shall be a minimum of 32 inches in width.

(c) Access requirements. Access is required to all public use areas of the building or complex. In a complex of buildings with sleeping units, access shall be provided to at least 50% of the buildings in the complex.

SECTION 74a. Table 52.04 footnotes 18 to 22 are renumbered 17 to 21.

SECTION 75. Table 52.04, footnote 22 is repealed and recreated to read:

<sup>22</sup>If the total gross area of the building including all floors is 20,000 square feet or less, access is required to a primary floor and to any other floors or floor levels that provide services or facilities for the employees and the patients that are not found on the accessible floor.

SECTION 75a. Table 52.04, footnote 23 is repealed.

SECTION 76. Table 52.04, footnote 24 and 25 are renumbered to footnote 23 and 24.

SECTION 77. ILHR 52.04 (4) (intro.) Note is amended to read:

Note: The Access to all areas of the building is preferred, however 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.

SECTION 78. ILHR 52.04 (4) (b) Note is amended to read:

ILHR 52.04 (4) (b) Note: Where elevators are provided, see s. Ind 4.61, Elevator Code, for additional requirements. ~~See Appendix for reprint of s. Ind 4.61.~~

SECTION 79. ILHR 52.04 (6) (a) is amended to read:

ILHR 52.04 (6) (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~~ comply with the all applicable requirements of Table s. ILHR 52.04 and subs. (3), (4), and (9).

SECTION 80. ILHR 52.04 (7) (a) is amended to read:

ILHR 52.04 (7) (a) Width. Interior ramps shall have a slip-resistant surface and shall ~~be at least~~ have a minimum width of 36 inches, measured between handrails.

SECTION 81. ILHR 52.04 (7) (c) is repealed and recreated to read:

ILHR 52.04 (7) (c) Handrails. Except as provided in subd. 5., graspable handrails shall be provided as follows:

1. 'Location'. a. Interior ramps with a gradient greater than 5% (1:20), but less than 8.33% (1:12) shall have a handrail on one side of the interior ramp;

b. Interior ramps with a gradient of 8.33% (1:12) or greater shall have handrails on each side of the ramp; and

c. Handrails are not required on interior ramps where the gradient is less than 5% (1:20).

2. 'Height'. Handrails shall be mounted so that the top of the handrail is located between 30 inches to 34 inches above the ramp surface.

3. 'Guardrails'. Open-sided ramps shall have an intermediate parallel guardrail located at mid-height between the handrail and the ramp surface.

4. The clear space between the handrail and any adjoining wall shall be between 1 1/2 inches to 2 inches.

5. One handrail may be provided for ramps located in existing corridors or hallways having a minimum width of 36 inches.

SECTION 82. Table 52.04-B is amended to read:

TABLE 52.04-B

Compartment Size <sup>1</sup> Width/Length	Door Location	Minimum <sup>1</sup> Door Size	Water Closet Location	Grab Bar Location
36" x 78"	Front entrance	32"	Centered	Each side of WC
36" x 78"	Side entrance	36"	Centered	Each side of WC
54" x 57"	Front entrance (Door shall not align with water closet)	32"	Offset <sup>4</sup> <u>2,3</u>	Wall closest to WC and wall behind WC
42" x 78"	Side entrance	36"	Centered	Each side of WC
48" x 72"	Side entrance	32"	Offset <sup>4</sup> <u>2,3</u>	Wall closest to WC and wall behind WC

<sup>1</sup>See Figure 52.04-1 for additional rules regarding door and corridor dimensions.

<sup>2</sup>The 54" x 57" compartment is preferred for use by the physically disabled.

<sup>3</sup>~~Offset~~ <sup>3</sup>Water closet shall be offset ~~45~~ <sup>16</sup> to 18 inches measuring from center line of water closet to wall.

SECTION 83. ILHR 52.04 (8) (d) is repealed and recreated to read:

ILHR 52.04 (8) (d) Grab bars. 1. 'Grab bar loads'. Each grab bar shall be designed and anchored to support a weight of at least 250 pounds, applied at the bar.

2. 'Diameter'. The grab bars shall have a smooth finish, with an approximate outside diameter between one inch to 1 1/2 inches, and with 1 1/2 inches clearance between rail and wall.

3. 'Height'. Grab bars shall be installed 33 inches to 36 inches above the floor and parallel to the floor.

Note: Grab bars located 16 inches above the water closet seat are preferred for use by people with physical disabilities.

4. 'Location'. a. Grab bars shall be located as specified in Table 52.04-B.

b. 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 and one behind the water closet.

SECTION 84. ILHR 52.04 (8) (e) is amended to read:

ILHR 52.04 (8) (e) Water closets. The seat height of the water closets shall be ~~45~~ 17 inches to ~~20~~ 19 inches above the floor measured from the floor to the top of the seat.

SECTION 85. ILHR 52.04 (8) (f) to (h) are renumbered (g) to (i).

SECTION 86. ILHR 52.04 (8) (f) is created to read:

ILHR 52.04 (8) (f) Urinals. Wall-hung urinals shall have an elongated rim and shall be mounted not more than 17 inches above the floor.

SECTION 87. ILHR 52.04 (10) (b) Note #1 is amended to read:

Note #1. The standard wheelchair dimensions are: length including footrest and feet, ~~42~~ 48 inches; width, including hands and knuckles, ~~29-3/4~~ 30 inches.

SECTION 88. ILHR 52.04 (10) (d) is repealed and recreated to read:

ILHR 52.04 (10) (d) Public telephones. If a public telephone is provided, it shall be accessible and installed with the height of the telephone coin slot not more than 54 inches above the floor, with the dial no more than 48 inches above the floor. In a multiple-phone installation, a minimum of one telephone shall be accessible.

Note: An adjustable volume control should be provided in areas where such service is appropriate.

SECTION 88a. ILHR 52.04 (10) (e) is repealed.

SECTION 89. ILHR 52.04 (11) is created to read:

ILHR 52.04 (11) DRINKING FACILITIES. Accessible drinking facilities shall be provided at the rate of 10% of the required drinking facilities as specified in chs. ILHR 54 to 62, with a minimum of one.

(a) Drinking fountains and water coolers. Drinking fountains and water coolers shall comply with the following:

1. 'Spout height'. Spouts shall be not higher than 36 inches measured from the floor or ground surfaces to the spout outlet.

2. 'Spout location'. The spouts of drinking fountains and water coolers shall be at the front of the unit and shall direct the water flow in a trajectory that is parallel or nearly parallel to the front of the unit. The spout shall provide a flow of water at least 4 inches high so as to allow the insertion of a cup or glass under the flow of water.

3. 'Controls'. Unit controls shall be front mounted or side mounted near the front edge.

Note: It is recommended to have lever-type controls.

4. 'Clearances'. a. Wall and post-mounted cantilevered units shall have a clear knee space between the bottom of the apron and the floor or ground at least 27 inches high, 32 inches wide, and 17 inches to 19 inches deep.

b. Free-standing or built-in units not having a clear space under them shall have a clear floor space at least 36 inches by 48 inches that allows a person in a wheel chair to make a parallel approach to the unit.

5. 'Alcoves'. Water fountains and water coolers shall be located completely within alcoves, or positioned so as not to encroach into pedestrian walkways. Alcoves shall be not less than 32 inches in width and 18 inches in depth.

Note: See Appendix for drawings of accessible water fountains and water coolers.

(b) Drinking facilities provided with individual cups. Drinking facilities using individual cups at a potable water source shall comply with s. ILHR 52.04 (8) for accessible lavatories and the individual cups and cup dispenser shall be accessible and located not more than 40 inches above the floor.

SECTION 90. ILHR 52.07 is created to read:

ILHR 52.07 ATRIUMS. (1) SCOPE. (a) Except as provided in par. (b), all buildings fully protected by an automatic fire sprinkler system may have atriums complying with the provisions of this section.

(b) High hazard buildings may not have atriums.

Note: See s. A 52.015 for further information regarding the classification and listing of high hazard buildings.

(2) MINIMUM OPENING AND AREA. Atriums shall have a minimum opening and area as specified in Table 52.07-1.

Table 52.07-1  
Atrium Opening and Area

Height in Floor Levels	Minimum Clear Opening <sup>1</sup> (Ft.)	Minimum Area (Sq. Ft.)
3-4	20	400
5-7	30	900
8 or more	40	1,600

<sup>1</sup>The specified dimensions are the diameters of inscribed circles whose centers fall on a common axis for the full height of the atrium.

(3) SMOKE CONTROL SYSTEM. (a) General. A mechanically operated air-handling system shall be installed that will exhaust smoke either entering or developed within the atrium.

(b) Exhaust openings. 1. Exhaust openings shall be located in the ceiling or in a smoke trap area immediately adjacent to the ceiling of the atrium.

2. The lowest level of the exhaust openings shall be located above the top of the highest portion of door openings into the atrium.

(c) Supply openings. Supply openings shall be sized to provide a minimum of 50 percent of the exhaust volume and shall be located with the bottom of the opening within 18 inches of the floor of the lowest level of the atrium.

(d) Supply air. 1. When the height of the atrium is 55 feet or less, supply air may be introduced by gravity, provided smoke control is accomplished.

2. When the height of the atrium is more than 55 feet, supply air shall be introduced mechanically from the floor of the atrium and be directed vertically toward the exhaust outlets.

3. In atriums over 55 feet in height or where tenant spaces above the second story are open to the atrium, supplemental supply air may be introduced at upper levels.

(e) Systems activation and operation. 1. The exhaust and supply system for the atrium shall operate automatically upon the actuation of either the automatic fire sprinkler system within the atrium or areas open to the atrium or by the actuation of 2 or more smoke detectors required by sub. (4), or both.

2. The exhaust and supply equipment shall also be manually operable by controls designed for fire department use.

3. The smoke-control system may be separate or integrated with other air-handling systems.

4. When the smoke-control mode is actuated, air-handling systems which would interfere with the smoke-control system shall be automatically shut down.

(f) Smoke-control in spaces. Spaces separated from the atrium but sharing a common wall shall be provided with a smoke-control system as follows:

1. The mechanical air-handling equipment for the tenant space may be designed to accomplish smoke removal;

2. Upon activation of the smoke detection or automatic fire sprinkler system within the space, the return and exhaust air shall be moved directly to the outside without recirculation to other sections of the building; and

3. The air handling system shall provide a minimum of 6 air changes per hour of exhaust air for the tenant space involved.

(g) Sizing of smoke-control systems. The atrium smoke-control system shall exhaust not less than the following quantities of air:

1. "Atriums of 600,000 cubic feet or less." a. Except as provided in subpar. b., a minimum of 6 air changes per hour but not less than 40,000 CFM for atriums having a volume of 600,000 cubic feet or less including the volume of any levels not physically separated from the atrium.

b. A lesser rate of air movement shall be acceptable provided it can be shown by test that smoke will not migrate beyond the perimeter of the atrium.

2. "Atriums greater than 600,000 cubic feet." A minimum of 4 air changes per hour for atriums having a volume greater than 600,000 cubic feet including the volume of any levels not physically separated from the atrium.

(4) SMOKE DETECTION SYSTEM. (a) 1. An interconnected smoke detection system which will automatically operate the atrium smoke-control system shall be installed at the perimeter and on the ceiling of the atrium and on the ceiling of each floor level that is open to the atrium.

2. Smoke detectors shall be located within 15 feet of the atrium on floor levels open to the atrium.

(b) Smoke detection systems and individual smoke detectors shall be located and installed in accordance with their listing from a nationally recognized testing laboratory and s. ILHR 51.245.

(5) ENCLOSURE OF ATRIUMS. (a) General. 1. Except as provided in subd. 2., atriums shall be separated from adjacent spaces by at least one-hour fire-resistive rated construction.

2. Open exit balconies are permitted within the atrium.

3. The separation between the adjacent space and the atrium as specified in subd. 1. may be omitted on a maximum of any 3 floor levels, provided the remaining floor levels are separated as specified in subd. 1.

(6) OPENINGS IN THE ATRIUM ENCLOSURE. (a) Door openings. 1. Except as provided in subd. 2., openings in the atrium enclosure shall be protected by at least 3/4-hour, self-closing fire door assemblies as specified in s. ILHR 51.047.

2. The doors may be left open if equipped with an automatic closing device activated by products of combustion other than heat.

(b) Fixed glazed openings. Except as provided in subds. 1. and 2., fixed glazed openings shall be protected by at least 3/4-hour fire window assemblies as specified in s. ILHR 51.048 and the total area of the openings shall not exceed 25 percent of the area of the common wall between the atrium and the room into which opening is provided.

1. In ch. ILHR 57 residential occupancies, openings may be unprotected when the floor area of each guest room or living unit does not exceed 1000 square feet and each guest room or living unit has an approved exit not entering the atrium.

2. In all occupancies other than ch. ILHR 57 residential occupancies, the tenant space may be separated from the atrium by a wired, tempered or laminated glass wall, in a gasketed frame so installed that the glazing system may deflect without breaking the glass before the automatic fire sprinkler system operates.

(7) EXITING. (a) Exit distance. When a required exit enters the atrium space, the travel distance from the doorway of the tenant space to an enclosed stairway, horizontal exit, exterior door or exit corridor shall not exceed 100 feet. The maximum allowable exit distance, as required by chs. ILHR 54 to 62 shall also be met.



(b) Prohibitions. Sleeping rooms of ch. ILHR 58 health care facilities shall not be permitted to have required exits through the atrium.

(c) Except as provided in ss. ILHR 54.08, 55.09 and 57.08, unenclosed stairs within the atrium may not serve as required exit stairs.

(8) OCCUPANCY SEPARATIONS. (a) Except as provided in par. (b), at least an ordinary occupancy separation, as specified in s. ILHR 51.08, shall be provided between different occupancies.

(b) The vertical portion of the occupancy separation adjacent to the atrium may be omitted between:

1. Chapter ILHR 54 office and sales areas and ch. ILHR 57 guest rooms and living units located on another level;

2. Chapter ILHR 55 assembly halls without a stage and having an occupant load of less than 300 persons and ch. ILHR 57 guest rooms and living units located on another level; and

3. Chapter ILHR 54 office and ch. ILHR 55 assembly halls without a stage and having an occupant load of less than 300 persons.

(9) STANDBY POWER. The smoke-control system for the atrium and the smoke-control system for the tenant space shall be provided with emergency standby power as specified in s. ILHR 16.32.

(10) INTERIOR FINISHES. The interior finish of walls and ceilings of the atrium and all unseparated tenant spaces as permitted in sub. (6) (b) 3. shall be Class A. No reduction in class shall be permitted for automatic fire sprinkler system protection.

(11) ACCEPTANCE OF THE SMOKE-CONTROL SYSTEM. Before occupancy, the smoke-control systems shall be tested in an approved manner and shall show compliance with the requirements of this section.

Note: See Appendix A for a reprint of an approved test procedure.

(12) INSPECTION OF THE SMOKE-CONTROL SYSTEM. (a) All operating parts of the smoke-control systems shall be tested by an approved inspection agency or by the owner or designated agent or the smoke control system shall be fully supervised.

(b) The tests shall be made every 3 months and a log of the tests shall be kept. Fully supervised smoke control systems shall be tested at least annually.

(c) The log shall be on the premises and available for examination by department personnel or authorized deputies of the department.

SECTION 91. ILHR 52.60 (2) (b) Note #3 is created to read:

ILHR 52.60 (2) (b) Note #3: See s. ILHR 52.04 (8) for additional requirements dealing with making wall-hung urinals accessible for people with disabilities.

SECTION 92. ILHR 52.60 (2) (f) is repealed.

SECTION 92B. ILHR 52.60 (5) (a) is repealed and recreated to read:

ILHR 52.60 (5) (a) All shower compartments, regardless of shape, shall have a minimum finished interior of 900 square inches and shall be capable of encompassing a 30-inch circle. The minimum required area and dimension shall be measured at a height 24 inches above the top of the threshold and at a point tangent to its centerline. The minimum area and dimensions shall be maintained to a point 70 inches above the shower waste outlet with no protrusions other than the fixture valve or valves, showerheads, soap dishes and safety grab bars or rails. 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.

SECTION 93. ILHR 53.63 (10) is amended to read:

ILHR 53.63 (10) SOLID BLOCKING. All floor and roof joists shall be supported laterally at the ends and at each support by solid blocking ~~except when the ends of joists are nailed to a header, band or rim joist or to an adjoining stud. Solid blocking shall be provided between floor joints where subjected to concentrated loads or other approved methods.~~ Solid blocking shall be not less than 2 inches in nominal thickness and the full depth of the joist.

SECTION 94. ILHR 54.01 (2) (b) 1. is amended to read:

ILHR 54.01 (2) (b) 1. ~~Construction~~ Except as provided in subd. 2., construction meets the requirements for Type No. 3 or 4 and is protected by an approved automatic sprinkler system.

2. Nonbearing partitions may be of non-combustible, fire-retardant treated wood or combustible one-hour rated materials. Openings need not be protected by rated fire door or rated fire window assemblies.

SECTION 95. ILHR 54.01 (2) (a) is renumbered to be 54.01 (2) (a) 1.

SECTION 96. ILHR 54.01 (2) (b) 2. is amended to read:

ILHR 54.01 (2) (b) 2. ~~Construction~~ a. Except as provided in subpars. b. to d., construction meets the requirements for Type 5 or 6 with all building elements listed in Table ~~51.03A~~ 51.03-A and stairs of noncombustible materials and is protected by an approved automatic fire sprinkler system.

~~a. Exception.~~ b. Nonbearing partitions may be of fire-retardant treated wood or combustible one-hour rated materials. Openings need not be protected by rated fire door or rated fire window assemblies.

c. Class A roof coverings may be used.

SECTION 97. ILHR 54.01 (2) (b) 3. is repealed and recreated to read:

ILHR 54.01 (2) (b) 3. Construction of all building elements listed in Table 51.03-A, and all stairs and interior finishes are of non-combustible materials and the contents of the building are entirely noncombustible. Built-up roof coverings may not be used.

SECTION 98. ILHR 54.01 (2) (c) is renumbered to be 54.01 (2) (d).

SECTION 99. ILHR 54.01 (2) (c) is created to read:

ILHR 54.01 (2) (c) There shall be no area restriction in 2-story buildings provided the construction meets the requirements for Type No. 2, 3, 5 or 6 construction with all building elements are of noncombustible materials and the building is completely protected by an approved automatic fire sprinkler system. Class A or non-combustible roof coverings shall be required. The area of the second story may not exceed 1/3 the area of the first story.

SECTION 100. ILHR 54.11 (1) is amended to read:

ILHR 54.11 (1) ~~All~~ (a) Except as provided in par. (b), all stairways, fire escapes and exits and the passageways leading thereto when used at night shall be properly illuminated to facilitate egress. The intensity of illumination shall be ~~not less than 2.5 foot candles.~~ as specified in ch. Ind 19.

(b) The level of intensity of illumination for fire escapes may be reduced to 2.5 foot candles.

SECTION 100A. Tables 54.12-A and 54.12-B are amended to read:

TABLE 54.12-A  
NUMBER OF FIXTURES REQUIRED FOR OCCUPANTS

Number of Occupants	Type of Fixture					
	Water Closets (WC)		Urinals (U)	Lavatories (L)	Showers (S) <sup>1</sup>	Drinking Facilities (DF)
	Males (M)	Females (F)	Males (M)			
1-100 occupants of each sex	1	1	0	One (L) for each 2 <u>required</u> (WC) or (U), or both or fraction	None required	One (DF) for each 150 occupants up to 600 or fraction
101-200 occupants of each sex	1	2	1			
201-300 occupants of each sex	1	3	2			
301-400 occupants of each sex	2	4	2			
401-500 occupants of each sex	2	5	3			
501-600 occupants of each sex	2	6	4			
Over 600 occupants of each sex	One (WC) for each additional 600 (M), or fraction	One (WC) for each additional 275 (F), or fraction	One (U) for each additional 500 (M), or fraction			One additional (DF) for each additional 3000 occupants, or fraction

<sup>1</sup>Showers shall be provided in public pool facilities and for occupants exposed to occupational hazards such as poisons, infectious or irritating materials.

TABLE 54.12-B  
NUMBER OF FIXTURES REQUIRED FOR EMPLOYEES

Number of Employees	Type of Fixture					
	Water Closets (WC)		Urinals (U)	Lavatories (L)	Showers (S) <sup>1</sup>	Drinking Facilities (DF)
	Males (M)	Females (F)	Males (M)			
0- 15 employes of each sex	1	1	0			
16- 35 employes of each sex	1	2	1			
36- 55 employes of each sex	2	3	1			
56- 80 employes of each sex	2	4	2			
81-110 employes of each sex	3	5	2			
111-150 employes of each sex	4	6	2			
Over 150 employes of each sex	One additional fixture for each additional 40 employes of each sex; 2/3 of the additional water closets for males may be urinals.			One (L) for each 2 <u>required</u> (WC) <u>and/or</u> (U), <u>or both</u> , or fraction	One (S) for each 10 employes of each sex, or fraction	One (DF) for each 100 employes, or fraction

<sup>1</sup>Showers shall be provided in public pool facilities and for employes exposed to occupational hazards such as poisons, infectious or irritating materials.

Note #1: Examples: Example #1: Mercantile building with 300 patrons and 50 employes = 350 total occupants; equally divided between sexes = 175 males, 175 females. From Table 54.12-A, 101-200 occupants of each sex: males require one water closet, one urinal, one lavatory; females require 2 water closets, one lavatory. Check for compliance with Table 54.12-B for employes: 50 employes, equally divided between sexes = 25 males, 25 females; 16-35 employes of each sex, males require one water closet, one urinal, one lavatory; females require 2 water closets, one lavatory. Therefore, the number of fixtures required by Table 54.12-A also satisfies the requirements of Table 54.12-B for employes and governs.

Example #2: Office building with 300 employes and 50 patrons = 350 total occupants; equally divided between sexes = 175 males, 175 females. From Table 54.12-A, 101-200 occupants of each sex: males require one water closet, one urinal, one lavatory; females require 2 water closets, one lavatory. Check for compliance with Table 54.12-B for employes: 300 employes, equally divided between sexes = 150 males, 150 females; 111-150 employes of each sex, males require 4 water closets, 2 urinals, 3 lavatories; females require 6 water closets, 3 lavatories. Therefore, the number of fixtures required by Table 54.12-B for employes is more restrictive and governs.

Note #2: The ratios established in Table 54.12-B for employes are taken directly from the U.S. Department of Labor, Occupational Safety and Health Act (OSHA) regulations. Therefore, s. ILHR 50.25, petitions for ~~modification~~, variance is not applicable to the requirements of this table.

Note #3: See also rules of the department of health and social services for sanitary fixtures for public swimming places, mobile home parks, camping grounds, camping resorts, recreational camps and educational camps.

Note #4: See Ch. Ind 1000-2000 -- Wisconsin Safety and Health Code for additional washing facilities required in places of employment where environmental hazards are present.

SECTION 101. ILHR 54.12 (2) (a) 1. a. is repealed.

SECTION 102. ILHR 54.12 (2) (a) 1. (intro.) is renumbered a. and is amended to read:

ILHR 54.12 (2) (a) 1. a. ~~Taverns~~ Except as provided in subpar. b., taverns and restaurants shall provide at least one toilet room for each sex.

SECTION 103. ILHR 54.12 (2) (a) 1. b. and c. are renumbered d. and e., respectively.

SECTION 104. ILHR 54.12 (2) (a) 1. b. and c. are created to read:

ILHR 54.12 (2) (a) 1. b. One toilet room having at least one water closet (WC) and one lavatory (L) may be shared in common by both sexes in restaurants providing seating for 15 or less patrons provided the door of the toilet room is equipped with a lock to ensure privacy. Separate toilet rooms for the employes and the general public need not be provided if the toilet rooms are accessible to both employes and the general public.

ILHR 54.12 (2) (a) 1. c. Restaurants accommodating 16 to 50 total occupants shall provide at least one water closet (WC) and one lavatory (L) for each sex.

SECTION 105. ILHR 54.22 (6) is created to read:

ILHR 54.22 (6) OPENINGS. Mini-warehouse buildings on the same property may be located less than 30 feet to each other with no restriction on the percentage of wall openings provided the combined gross area of the buildings, including the area between the buildings, is not more than the area permitted by s. ILHR 54.01.

SECTION 106. ILHR 54.23 is renumbered to be 54.01 (2) (a) 2. and is amended to read:

ILHR 54.01 (2) (a) 2. Freezer warehouses complying with the requirements of s. ILHR 51.06 ~~(7) (a) 3. b.~~ (6) (a) 3. b. may be designed and constructed with the allowable increase in floor area as specified in s. ILHR 54.01 (2) (a) and with the allowable increase in exit distance as specified in s. ILHR 54.02 (4) (b) without being protected by a complete automatic fire sprinkler system.

Note: See s. ILHR 52.015 for additional requirements pertaining to automatic fire sprinkler systems.

SECTION 107. ILHR 55.001 is repealed and recreated to read:

ILHR 55.001 SCOPE. The requirements of this chapter shall apply to all theatres and assembly halls.

Note: For assembly areas in connection with schools and other places of instruction, refer to ch. ILHR 56.

SECTION 108. ILHR 55.01 is repealed and recreated to read:

ILHR 55.01 DEFINITIONS. In this chapter: (1) "Assembly halls" or "places of assembly" mean all buildings, or parts of buildings, other than theaters, which will accommodate more than 100 persons for entertainment, recreation, worship or dining purposes.

Note: Assembly halls or places of assembly which will accommodate not more than 100 persons are included within the scope of ch. ILHR 54.

(2) "Theaters" means all buildings or parts of buildings, containing an assembly hall, having a stage which may be equipped with curtains or permanent or movable scenery, or which is otherwise adaptable to the showing of plays, operas, motion pictures or similar forms of entertainment.

SECTION 108a. ILHR 55.02 (2) (a) (intro.) is repealed.

SECTION 109. ILHR 55.02 (2) (a) 1. to 3., (b) and (c) are renumbered 55.02 (2) (c) 2. to 4., (a) and (b), respectively.

SECTION 110. Not used.

SECTION 111. Not used.

SECTION 112. ILHR 55.02 (2) (c) (intro.) and 1. are created to read:

ILHR 55.02 (2) (c) Except as provided in subds. 1. to 4., not more than one story in height and limited to one floor level.

ILHR 55.02 (2) (c) 1. 'Exception'. A basement or ground floor heating and fuel room enclosed with fire-resistive construction as specified in s. ILHR 55.29, with all interior openings protected with self-closing fire-resistive door assemblies as specified in s. ILHR 51.047 will be permitted.

SECTION 113. ILHR 55.07 (1) is repealed and recreated to read:

ILHR 55.07 (1) (a) Except as provided in par. (b), every floor and balcony of a theater and assembly hall shall be provided with not less than 2 exits, placed as far apart as practicable and so located that if any exit is blocked, some other exit will still be available from every part.

(b) A balcony accommodating not more than 30 persons in places of worship may be served by one exit.

SECTION 114. ILHR 55.09 (2) is repealed.

SECTION 115. ILHR 55.09 (3) is renumbered (2).

SECTION 116. ILHR 55.09 (4) is renumbered (3) and is amended to read.

ILHR 55.09 (3) (a) Every stairway used by the public in a theater or assembly hall shall have a uniform rise of not more than 7 1/2 inches and a uniform tread of not less than 10 inches, measuring from tread to tread and from riser to riser.

~~No winders shall be used and there shall be not less than 3 nor more than 16 risers in any run.~~

~~(a) Exception.~~ (b) Less than 3 risers may be used to elevated altars, podiums and similar areas in churches provided the elevated area is not part of a required exit passageway.

Note: See s. ILHR 51.16 for general stairway requirements.

SECTION 117. ILHR 55.10 (4) is amended to read:

ILHR 55.10 (4) Sills at all exit doorways shall be level and flush with adjacent inside and outside floors and ramps. Where an aisle or passageway leads to an exit from either side of the exit doorway there shall be a level floor space at the doorway ~~subtending~~ extending the width of the aisle and the doorway.

SECTION 118. ILHR 55.22 (3) is amended to read:

ILHR 55.22 (3) Each such opening shall ~~not exceed 21 square feet in area and shall~~ be protected by a fire-resistive door assemblies as specified in s. ILHR 51.047.

SECTION 118A. Table 55.32 is amended to read:



TABLE 55.32  
NUMBER OF FIXTURES REQUIRED FOR PLACES OF ASSEMBLY

Type of Occupancy	Type of Fixture				
	Water Closets (WC)		Urinals (U)	Lavatories (L)	Drinking Facilities (DF)
	Males (M)	Females (F)	Males (M)		
Places of Assembly					
0-100 persons of each sex	1	1	0	One (L) for each 2 <u>required</u> (WC) or (U), or both, or fraction	One (DF) for each 150 persons up to 600
101-200 persons of each sex	1	2	1		
201-300 persons of each sex	1	3	2		
301-400 persons of each sex	2	4	2		
401-500 persons of each sex	2	5	3		
501-600 persons of each sex	2	6	4		
Over 600 persons of each sex	One (WC) for each additional 600 (M), or fraction	One (WC) for each additional 275 (F), or fraction	One (U) for each additional 500 (M), or fraction		One additional (DF) for each additional 3000 persons
Taverns and restaurants <sup>1</sup>	One (WC) for each 75 (M), or fraction	One (WC) for each 30 (F), or fraction	One (U) <sup>2</sup> for each 50 (M), or fraction		0

<sup>1</sup>The ratio of the number of fixtures to the number of persons accommodated in excess of 300 need be one-half of the figures shown.

<sup>2</sup>Urinal may be omitted in restaurants which accommodate less than 25 males and do not serve alcoholic beverages.

Note: See also rules of the department of health and social services for sanitary fixtures for public swimming places, mobile home parks, camping grounds, camping resorts, recreational camps and educational camps.

SECTION 119. ILHR 57.001 (2) (i) is created to read:

ILHR 57.001 (2) (i) Bed and breakfast establishments as defined in s. ILHR 51.01 (11a).

SECTION 120. ILHR 57.01 (2) is repealed and recreated to read:

ILHR 57.01 (2) LIVING UNIT SEPARATION. (a) Each living unit, except rowhouse units as specified in s. ILHR 51.01 (114a), shall be separated from other living units, common use areas and from the exit access corridors by construction protected with at least the equivalent of one layer of 5/8-inch Type X gypsum wallboard with taped joints.

1. The fire-protective membrane shall be provided on both sides of walls and on the ceiling beneath the floor construction providing the separation. The membrane shall be fastened to the framing or suspended in the manner as required for one-hour fire-resistive rated assemblies.

2. The membrane protection may be omitted on the ceiling of the topmost story if firestopping as specified in s. ILHR 53.63 (1) (d) is provided at the intersection of the living unit separation walls and the roof.

Note #1: See s. ILHR 51.03 for building elements required to have fire-resistive ratings to satisfy class of construction standards.

Note #2: This section is intended to apply to living unit separations only. The design and construction of required fire-resistive rated construction for stairway enclosures, hazardous occupancy separations, exit corridors, isolation of hazards enclosures, vertical division walls, fire division walls and other rated construction is governed by ss. ILHR 51.043 to 54.046.

SECTION 121. ILHR 57.02 (3) (a) 1. is amended to read:

ILHR 57.02 (3) (a) 1. For buildings 3 stories or less in height, the street or access roadway shall ~~be~~:

a. Be located within 150 feet of all portions of the exterior walls of the first story; or

b. Extend along at least one entire side of the building which constitutes at least 25% of the total building perimeter with the road edge closest to the building located at least 10 feet but not more than 50 feet from the building.

SECTION 122. ILHR 57.03 (1) is amended to read:

ILHR 57.03 (1) NUMBER OF EXITS. ~~There~~ (a) Except as provided in par. (b), there shall be at least 2 directions of travel from each living unit door by means of exits to grade, stairways, interior enclosed stairways, ramps, fire escapes or horizontal exits.

(b) Living units may have 2 exits or 2 exit access doors having only one direction of travel provided the exit access doors lead to separate exits.

(c) A minimum of 2 exits or exit access doors shall be provided from any living unit which accommodates more than 8 people.

SECTION 123. ILHR 57.07 (3) is repealed and recreated to read:

ILHR 57.07 (3)\* CHANGES OF ELEVATION WITHIN INDIVIDUAL LIVING UNITS. (a) Except as provided in par. (b), changes of elevation within the living unit shall be overcome by means or steps, stairs or ramps and shall be as specified in s. ILHR 21.04.

(b) A spiral stairway as specified in s. ILHR 51.16 (7) may serve as the only exit from floor levels, within an individual living unit, if the floor level served is no larger than 400 square feet; and

SECTION 124. ILHR 57.13 (1) (a) is amended to read:

ILHR 57.13 (1) (a) ~~The~~ Every habitable room shall have outside windows ~~in every habitable room shall~~ which have a total sash area of at least 8% of the floor area of the room.

SECTION 125. Not used.

SECTION 126. Not used.

SECTION 127. ILHR 57.19 (1) (a) and (b) are renumbered (b) and (c).

SECTION 128. ILHR 57.19 (1) (a) is created to read:

ILHR 57.19 (1) (a) Each living unit shall be separated from the adjacent living unit by a vertical occupancy separation of not less than one hour fire-resistive construction, extending from the foundation to the underside of the roof deck.

[Note to Revisor: Section ILHR 58.06 (1) (a) is printed twice in the code text. The first version is the correct version. Please delete the second par (a).]

SECTION 129. ILHR 58.01 (1) (intro.) is amended to read:

ILHR 58.01 (1) (intro.) TWO OR MORE STORIES. ~~All~~ Except as provided in par. (d), all health care facilities 2 or more stories in height shall be of fire-resistive Type 1 construction as specified in s. ILHR 51.03 (1) with the following modifications:

SECTION 130. ILHR 58.01 (1) (d) is created to read:

ILHR 58.01 (1) (d) Health care facilities up to and including three stories in height may be of Type 3 construction if completely protected by an approved automatic fire sprinkler system.

SECTION 131. ILHR 58.02 (5) is created to read:

ILHR 58.02 (5) EXITING FROM MIXED OCCUPANCIES. Required means of egress from health care occupancies may exit through non-health care occupancies provided the means of egress complies with the requirements specified in this subchapter.

SECTION 132. ILHR 58.06 (2) (c) is created to read:

ILHR 58.06 (2) (c) Non-required exit stairways and ramps connecting different levels within the same floor as defined in s. ILHR 51.02 (56a) are not required to be enclosed.

SECTION 133. ILHR 58.07 is amended to read:

ILHR 58.07 HANDRAILS. Handrails shall be provided as specified in s. ILHR 51.161, except that handrails protecting the open sides of stairways and ramps shall have intermediate rails or an ornamental pattern designed to prevent the passage of an object with a diameter larger than 6 inches.

SECTION 134. ILHR 58.11 (3) is amended to read:

ILHR 58.11 (3) ENCLOSURE. Ramps used as a required means of egress and that connect different ~~floor levels~~ floors shall comply with the enclosure requirements for stairways specified in s. ILHR 58.06 (2).

SECTION 135. ILHR 58.13 (2) (a) and (b) are renumbered to (b) and (c).

SECTION 136. ILHR 58.13 (2) (a) is created to read:

ILHR 58.13 (2) (a) Dead end corridor. Every exit or exit access shall be so arranged that no corridor, aisle or passageway has a pocket or dead end exceeding 30 feet.

SECTION 137. ILHR 58.13 (3) is repealed.

SECTION 138. ILHR 58.13 (4) is renumbered to be 58.13 (3).

SECTION 139. ILHR 58.15 is amended to read:

ILHR 58.15 DISCHARGE FROM EXITS. All required ramps or stairs serving as exits shall discharge directly to the outside at grade or be arranged to travel through an exit passageway discharging to the outside at grade. Unenclosed exterior ramps or stairways may not be used as required exits as specified in s. ILHR 58.04.

SECTION 140. ILHR 58.22 is repealed and recreated to read:

ILHR 58.22 (1) GENERAL. All elevator lobbies shall be enclosed with at least one-hour fire-resistive construction as specified in s. ILHR 51.04, to limit the spread of smoke and fire. All openings shall be protected with fire-resistive door assemblies as specified in s. ILHR 58.21.

(2) OPENINGS IN THE ENCLOSURE. Openings in the elevator lobby enclosure shall be limited to exit access doors serving public passageways or corridors and openings into elevator shaft enclosures. The elevator lobby shall not be used as a portion of the exit access passageway.

SECTION 141. ILHR 58.29 (1) (b) is amended to read:

ILHR 58.29 (1) (b) Nursing homes. 1. A complete automatic fire sprinkler system shall be provided in all nursing homes constructed after the effective date of this rule.

2. Additions to existing nursing homes shall be provided with a complete automatic fire sprinkler system. The sprinkler protection shall be provided throughout unless the addition is separated from the existing building by at least 2 hour fire-resistive construction in which case only the addition shall be protected by an automatic fire sprinkler system.

SECTION 142. ILHR 58.44 (4) is created to read:

ILHR 58.44 (4) EXITING FROM MIXED OCCUPANCIES. Required means of egress from all detention and correctional occupancies may exit through non-detention and non-correctional occupancies provided the means of egress complies with the requirements specified in this sub-chapter.

SECTION 143. ILHR 58.50 (1) is renumbered to be 58.50 (1) (a) and is amended to read:

ILHR 58.50 (1) GENERAL. (a) All required exit stairways shall comply with the requirements specified in s. ILHR 51.16 and shall be enclosed as specified in s. ILHR 51.18.

SECTION 144. ILHR 58.50 (1) (b) is created to read:

ILHR 58.50 (1) (b) 1. Except as provided in subd. 2., stairways in addition to those required by this chapter need not lead to the outside but shall be enclosed as required in par. (a).

2. Nonrequired stairways serving open mezzanines need not be enclosed.

SECTION 144a. ILHR 58.55 (6) is created to read:

ILHR 58.55 (6) DEAD END CORRIDOR. Every exit or exit access shall be so arranged that no corridor, aisle or passageway has a pocket or dead end exceeding 30 feet.

SECTION 145. ILHR 58.59 (2) is repealed and recreated to read:

ILHR 58.59 (2) REMOTE RELEASE. All remote release operated doors shall be provided with a back-up means of operation as follows:

(a) Power-operated sliding doors or power operated locks shall be so constructed that in the event of power failure a manual mechanical means to release and open the doors is provided at each door and either emergency power in accordance with ch. ILHR 16 is provided for the power operation or a remote manual mechanical release is provided.

(b) Mechanically operated sliding doors or mechanically operated locks shall be provided with a manual mechanical means to release and open the door at the door.

SECTION 146. ILHR 58.69 (1) is amended to read:

ILHR 58.69 (1) CLASS OF CONSTRUCTION. Guard (a) Except as provided in par. (b), guard towers shall be of Type 1, 2 or 3 construction as specified in s. ILHR 51.03.

(b) Guard towers classified as Type 3 construction may have a non-combustible roof assembly with no fire-resistive rating. A Class A roof covering is acceptable.

SECTION 147. ILHR 59.12 (4) is created to read:

ILHR 59.12 (4) MINI-GARAGES. Mini-garage buildings on the same property may be located less than 30 feet to each other with no restriction on the percentage of wall openings provided the combined gross area of the buildings, including the area between the buildings, is no more than the area permitted by this section.

SECTION 148. ILHR 59.13 (2) (d) is amended to read:

ILHR 59.13 (2) (d) A door not complying with s. ILHR 51.15 (2), may be used as a standard exit serving ~~rooms, spaces or areas with an occupancy load of less than 10 persons~~ storage garages or storage areas not exceeding 3,000 square feet in area.

Note: Where accessibility and interior circulation for persons with functional limitations must be provided, the requirements of s. ILHR 52.04 (9) govern.

[Note to Revisor: Please insert a reference to footnote 4 under the column title "Chapter 60" in Table 59.22. Printed copy did not agree with adopted draft. See memo dated January 23, 1984.]

SECTION 149. ILHR 59.21 (intro.) is amended to read:

ILHR 59.21 All fuel-fired heating equipment within a storage garage and a repair garage, including, but not limited to boilers, furnaces and water heaters, shall be isolated from the remainder of the storage garage or repair garage by at least 2-hour fire-resistive construction as specified in s. ILHR 51.04 or shall be installed ~~in accordance with s. ILHR 64.21~~ as specified in sub. (3).

SECTION 150. ILHR 59.21 (3) is created to read:

ILHR 59.21 (3) SUSPENDING EQUIPMENT. (a) Except as provided in par. (b), boilers up to 200,000 Btu input, water heaters up to 200,000 Btu input, gas and liquid fuel-fired space heaters, suspended furnaces, vented and unvented unit heaters may be used without an enclosure where approved by the department. Where suspended furnaces, vented and unvented unit heaters, boilers and water heaters are used without an enclosure, all units shall be located at least 8 feet above the floor or, in aircraft hangars, 10 feet above the upper surface of the wing or engine enclosure of the aircraft. The blow-off pipe for suspended boilers and water heaters shall be extended down to within 6 inches of the floor.

(b) The rated enclosure for heating equipment in storage or repair garages may be omitted if the burner of the equipment is located at least 8 feet off the floor and the equipment is protected from physical damage.

Note: See s. ILHR 64.21 for additional requirements.

SECTION 151. Not used.

SECTION 152. Not used.

SECTION 153. Not used.

SECTION 154. Not used.

SECTION 155. Not used.

SECTION 156. Not used.

SECTION 157. Not used.

SECTION 158. Ch. ILHR 62, Subch. VII is created to read:

Chapter ILHR 62  
Specialty Occupancies  
Subchapter VII  
Pedestrian Access Structures Connecting Buildings

ILHR 62.97 SCOPE. The requirements of this subchapter shall apply to all structures used as pedestrian access corridors or walkways between buildings or structures.

ILHR 62.98 GENERAL REQUIREMENTS. (1) CONSTRUCTION. All pedestrian access structures shall be of one of the following classes of construction as specified in s. ILHR 51.03:

(a) Structures of 4 stories or less, where the open space below elevated structures is counted as a story, shall be of Type 6 construction, or better, and shall be of totally noncombustible construction;

(b) 1. Except as provided in subd. 2., structures of 5 stories, where the space below elevated structures is counted as a story, shall be of Type 3 construction, or better.

2. Supporting columns in the space beneath elevated structures may be of noncombustible 0-hour rated construction;

(c) 1. Except as provided in subd. 2., structures of 6 or more stories, where the space below elevated structures is counted as a story, shall be of Type 2 construction, or better.

2. Supporting columns in the space beneath elevated structures may be of noncombustible 0-hour rated construction.

(2) FLOORS. (a) Except as provided in par. (b), floor systems separating pedestrian walkway levels shall be of noncombustible one-hour rated construction or better.

(b) The floor system between the lowest pedestrian level and the space below an elevated structure may be of noncombustible 0-hour rated construction.

(3) SEPARATIONS. The pedestrian access structure shall be separated from any building to which it is connected as follows:

(a) 1. Except as provided in subd. 2., the wall of the building within the structure separating the structure from the building shall be of at least 2-hour rated construction.

2. The wall separating the structure from the building need not be of hourly-rated construction provided the structure is more than 20 feet long and all side walls of the structure be open to the atmosphere with the area of the opening being equal to or exceeding 30% of the side wall area.



(b) 1. Except as provided in subd. 2., openings in the wall separating the structure from the building shall be protected with 1-1/2 hour rated fire door assemblies equipped with self-closing devices activated by products of combustion detectors which respond to products of combustion other than heat.

2. a. The opening may be protected with an open head water deluge curtain activated by a products of combustion detector which responds to products of combustion other than heat, in conjunction with solid doors equipped with self-closing devices activated by the water deluge curtain detector.

b. The protection of openings in the wall separating the structure from the building may be omitted provided the structure is more than 20 feet long and all side walls of the structure be open to the atmosphere with the area of the opening being equal to or exceeding 30% of the side wall area.

(4) EXTERIOR PROTECTION. (a) Where the sidewalls of a pedestrian access structure are within 10 feet horizontally of a wall opening of the connected or an adjacent building, the wall opening shall be protected by at least a 3/4-hour rated fire door or fire window assembly or the sidewalls of the structure shall be of at least noncombustible 1-hour rated construction for a distance or at least 10 feet from the opening or the wall of the connected building.

(b) 1. Except as provided in subd. 2., all wall openings of a connected building directly below or below and within 10 feet horizontally of the pedestrian access structure shall be protected by at least 3/4-hour rated fire door or fire window assemblies or the lower floor of the structure shall be of at least noncombustible one-hour rated construction for a distance of at least 20 feet from the wall of the connected building.

2. The fire resistive rated construction and protection of openings specified in subd. 1. may be omitted provided the pedestrian access structure is protected by a complete automatic fire sprinkler system.

(5) SEPARATION AT LOT LINE. (a) Pedestrian access structures constructed over lot lines and connecting buildings with different owners shall be provided with a separation having a minimum 2-hour fire-resistive rating.

(b) All openings in the separation shall be protected by approved 1-1/2 hour rated fire door assemblies or better.

(6) FIRE DEPARTMENT ACCESS. (a) Except as provided in par. (b), fire department access openings as specified in s. ILHR 52.02 (2) shall be provided on each level of the pedestrian access structure.

(b) Fire department access openings may be omitted in structures protected by a complete automatic fire sprinkler system.

ILHR 62.99 EXITING. (1) NUMBER OF EXITS. (a) Except as provided in sub. (3), every pedestrian access structure, and every level, other than the open space below the structure, shall be provided with at least one exit.

(2) TYPE OF EXITS. (a) Except as provided in par. (b), the exit specified in sub. (1) from the pedestrian access structure shall be an exit door to grade, a stairway to grade constructed as specified in s. ILHR 51.16, or a fire escape to grade constructed as specified in s. ILHR 51.20.

(b) 1. Open stairways or fire escapes may not be used as an exit for any level more than 55 feet above grade.

2. Type "A" fire escapes may terminate on a platform at least 3 feet long, located not more than 10 feet above grade.

(3) EXCEPTIONS. The exit specified in sub. (1) from the pedestrian access structure may be omitted providing:

(a) The doors connecting the structure and the building are equipped with exit hardware such that a person can pass from the structure into the building; or

(b) The doors connecting the structure and the building are equipped with hardware that requires a key to pass from the building onto the structure, and that key will also open the door allowing passage from the structure back into the building.

(4) EXIT DISTANCE. (a) Except as provided in par. (b), exits shall be distributed or located so that no part of the pedestrian access structure will be more than 200 feet distance from an exit.

(b) Where approved automatic fire sprinklers are provided throughout the pedestrian access structure, an increase in exit distance to 300 feet will be permitted.

ILHR 62.991 SPECIAL REQUIREMENTS. (1) PERMITTED USE. Pedestrian access structures may not be used for purposes other than pedestrian walkways.

(2) HEATING AND VENTILATING. (a) Pedestrian access structures need not be heated but shall be provided with ventilation as specified in s. ILHR 64.05 for shopping mall corridor areas.

(b) If the pedestrian access structure is to be heated, the structure shall comply with the provisions of ch. ILHR 63 based upon the inside design temperature utilized.

(3) STRUCTURAL. (a) The floor of the pedestrian access structure shall be designed and constructed for the actual loading, but in no case shall the design live load be less than 100 pounds per square foot.

(b) The roof of the pedestrian access structure shall be designed and constructed in accordance with the provisions of s. ILHR 53.11 (4).

(c) The pedestrian access structure shall be designed and constructed to withstand the wind loads specified in s. ILHR 53.12.

(d) Elevated pedestrian access structures shall be designed as bridges, including design factors for sway, sympathetic vibration and deflection.

SECTION 159. Table 63.11 is amended to read:

TABLE 63.11

AIR INFILTRATION RATES FOR FACTORY MANUFACTURED  
EXTERIOR WINDOWS AND DOORS

Component	Infiltration Rate (Expressed in CFM/linear foot of perimeter crack of operable sash, unless otherwise specified)
Operable windows, prime	
Residential*	.30
All other occupancies	.15
Prehung, swing-type doors	.50
Glazed, sliding (patio type) doors	.50 CFM/square foot of door area

\*Residential occupancies include ~~apartments, row houses, town houses, condominiums, convents and monasteries~~ all ch. ILHR 57 residential occupancies including motels and hotels.

SECTION 160. ILHR 63.11 (3) (c) 1. is amended to read:

ILHR 63.11 (3) (c) 1. Compliance with the air infiltration rates specified in Table 63.11 shall be certified by an independent testing laboratory or a Wisconsin registered architect or professional engineer using the criteria for air leakage specified in ASTM E-283-73, Standard Method of Test for Rate of Air Leakage Through Exterior Windows, Curtain Walls and ~~Door~~ Doors ~~as specified in s. ILHR 51.25 (55)~~ at a pressure differential of 1.567 pounds per square foot (equivalent to effect of 25 mile per hour wind).

Note: The term "factory manufactured" does not apply to units constructed or fabricated in the field or to units assembled from individual components at a lumber yard or building material center.

SECTION 161. ILHR 63.12 (1) (b) 1. is amended to read:

ILHR 63.12 (1) (b) 1. The thermal performance values for the exterior envelope of all ch. ILHR 57 residential buildings including but not limited to ~~apartments, row houses, town houses, condominiums, convents and monasteries~~ of 3 stories or less in height shall not exceed 9 Btu/hour/square foot of above-grade exterior envelope.

SECTION 162. ILHR 63.40 is repealed.

SECTION 163. ILHR 64.22 (3) (intro.) is amended to read:

ILHR 64.22 (3) Equipment suspended or guarded as specified in s. ILHR 64.21 shall be installed in an occupied space. Suspended or guarded equipment may be used in multiple tenant buildings providing the equipment is located in tenant spaces of an occupancy use where suspended or guarded equipment is permitted. The equipment shall be visible to persons within the room.

SECTION 164. ILHR 64.22 (3) (a) is repealed.

SECTION 165. ILHR 64.22 (9) is created to read:

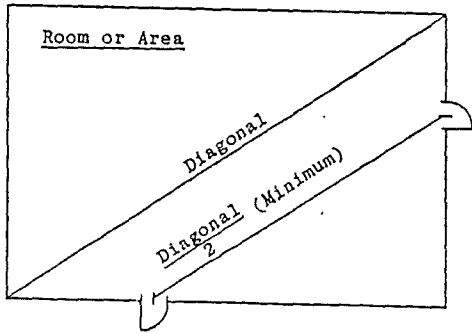
ILHR 64.22 (9) HEAT EXCHANGER CORROSION PROTECTION. If the entering air to the heat exchanger of all gas-fired equipment is 30°F or lower, the heat exchanger and burners shall be constructed of corrosion-resistive materials.

[Note to revisor: The word "handbook" is misspelled in s. ILHR 64.31 Note.]

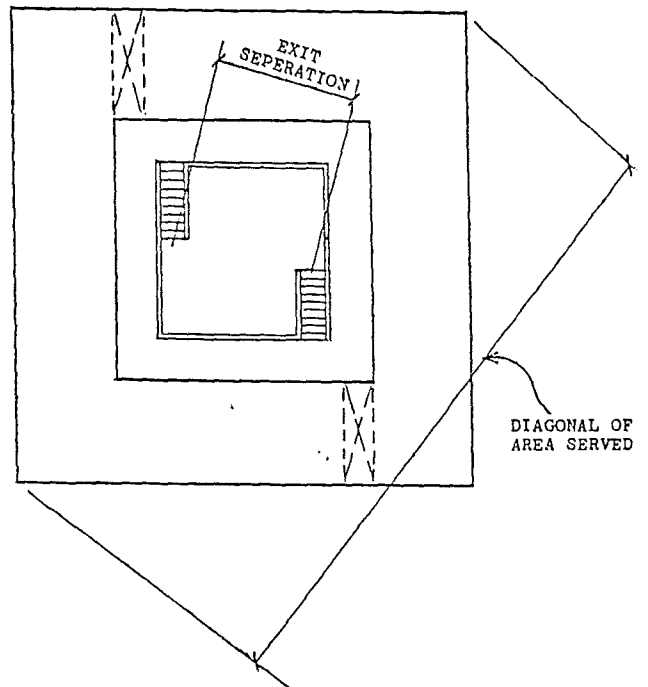
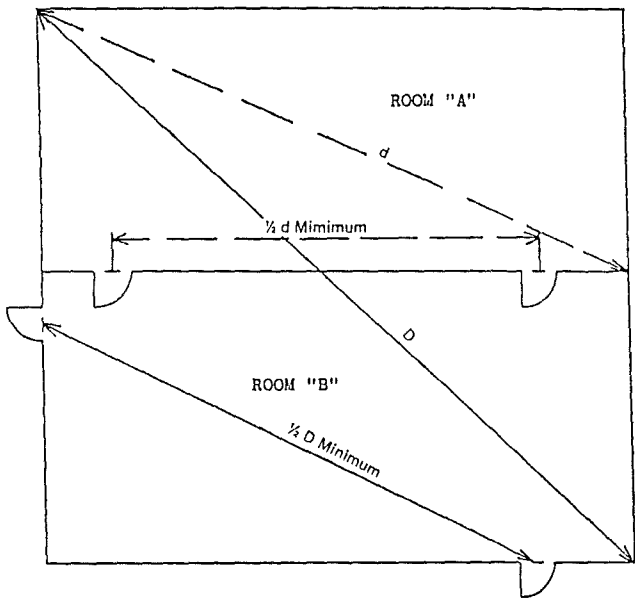
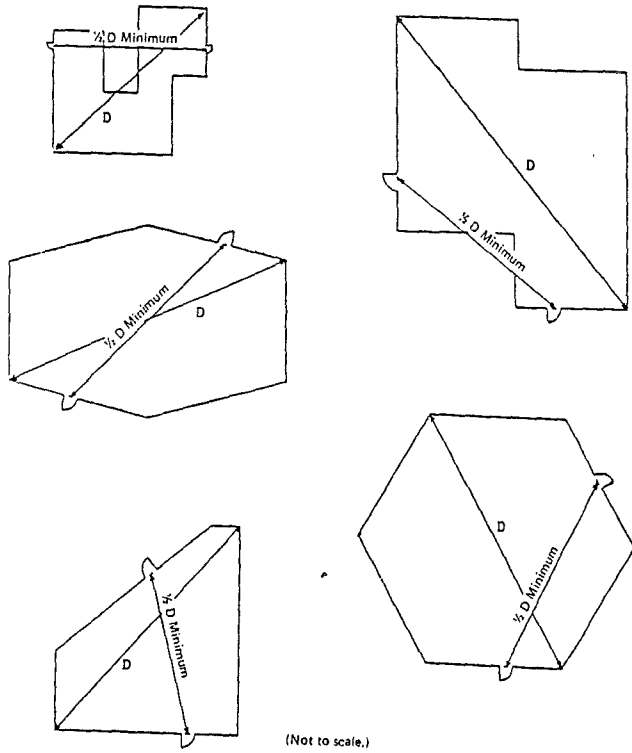
SECTION 166. A51.151 is created to read:

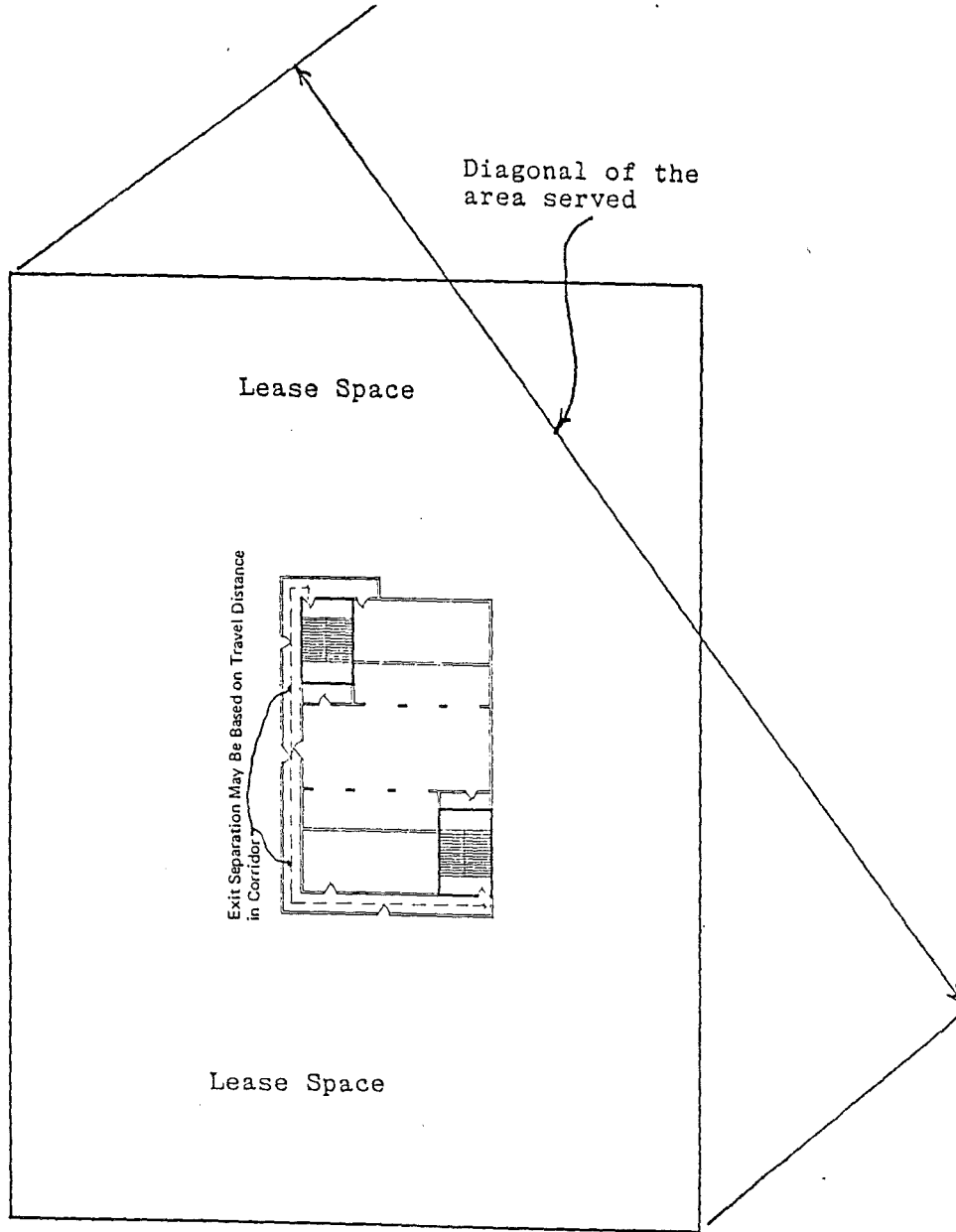
A 51.151 EXIT DISTRIBUTION. The following diagrams are provided to aid building designers in determining proper exit distribution:

ARRANGEMENT OF EXITS



Minimum Distance = One-half of Diagonal





SECTION 167. A-51.22 is repealed and recreated to read:

A-51.22 FIRE EXTINGUISHERS. The following information is taken from the National Fire Protection Association Standard #10-1984 - Portable Fire Extinguishers. The information is provided to assist building designers in determining the number, type and location of fire extinguishers needed to comply with the provisions of the standard.

1-4 CLASSIFICATION AND RATINGS OF FIRE EXTINGUISHERS.

1-4.1 Portable fire extinguishers are classified for use on certain classes of fires and rated for relative extinguishing effectiveness at a temperature of plus 70°F by testing laboratories. This is based upon the preceding classification of fires and the fire-extinguishment potentials as determined by fire tests.

1-4.2 The classification and rating system described in this standard is that used by Underwriters Laboratories Inc., and Underwriters Laboratories of Canada and is based on extinguishing preplanned fires of determined size and description as follows:

Class A Rating - Wood and excelsior.

Class B Rating - Two-inch depth n-heptane fires in square pans.

Class C Rating - No fire test. Agent must be a nonconductor of electricity.

Class D Rating - Special tests on specific combustible metal fires.

1-5 CLASSIFICATION OF HAZARDS.

1-5.1 Light (low) hazard. Locations where the total amount of Class A combustible materials, including furnishings, decorations and contents, is of minor quantity. These may include buildings or rooms occupied as offices, classrooms, churches, assembly halls, etc. This classification anticipates that the majority of contents items are either noncombustible or so arranged that a fire is not likely to spread rapidly. Small amounts of Class B flammables used for duplicating machines, art departments, etc., are included provided that they are kept in closed containers and safely stored.

1-5.2 Ordinary (moderate) hazard. Locations where the total amount of Class A combustibles and Class B flammables are present in greater amounts than expected under light (low) hazard occupancies. These occupancies could consist of offices, classrooms, mercantile shops and allied storage, light manufacturing, research operations, auto showrooms, parking garages, workshop or support service areas of light (low) hazard occupancies and warehouses containing Class I or Class II commodities as defined by NFPA 231, Standard for Indoor General Storage.

1-5.3 Extra (high) hazard. Locations where the total amount of Class A combustibles and Class B flammables are present, in storage, production use and/or finished product over and above those expected and classed as ordinary (moderate) hazards. These occupancies could consist of woodworking, vehicle repair, aircraft and boat servicing, individual product display showrooms, product convention center displays, storage and manufacturing processes such as painting, dipping, coating, including flammable liquid handling. Also included is warehousing of, or in-process storage of other than Class I and Class II commodities.

3-2 FIRE EXTINGUISHER SIZE AND PLACEMENT FOR CLASS A HAZARDS.

3-2.1 Minimal sizes of fire extinguishers for the listed grades of hazards shall be provided on the basis of Table 3-2.1 except as modified by 3-2.3. Extinguishers shall be located so that the maximum travel distances shall not exceed those specified in Table 3-2.1, except as modified by 3-2.3.

3-2.1.1 Certain smaller extinguishers which are charged with multipurpose dry chemical or Halon 1211 are rated on Class B and Class C fires, but have insufficient effectiveness to earn the minimum 1-A rating even though they have value in extinguishing smaller Class A fires. They shall not be used to meet the requirements of 3-2.1.

3-2.2 Up to one-half of the complement of extinguishers as specified in Table 3-2.1 may be replaced by uniformly spaced 1 1/2 inch hose stations for use by the occupants of the building. When hose stations are so provided they shall conform to NFPA 14, Installation of Standpipe and Hose Systems. The location of hose stations and the placement of fire extinguishers shall be in such a manner that the hose stations do not replace more than every other extinguisher.

3-2.3 Where the floor area of a building is less than that specified in Table 3-2.1, at least one extinguisher of the minimum size recommended shall be provided.

3-2.4 The protection requirements may be fulfilled with extinguishers of higher rating provided the travel distance to such larger extinguishers shall not exceed 75 feet.

TABLE 3-2.1

	Light (Low) Hazard Occupancy	Ordinary (Moderate) Hazard Occupancy	Extra (High) Hazard Occupancy
Minimum rated single extinguisher	2-A	2-A	4-A*
Maximum floor area per unit of A	3,000 sq. ft.	1,500 sq. ft.	1,000 sq. ft.
Maximum floor area for extinguisher	11,250 sq. ft.	11,250 sq. ft.	11,250 sq. ft.
Maximum travel distance to extinguisher	75 ft.	75 ft.	75 ft.

\*Two 2 1/2 gal water type extinguishers can be used to fulfill the requirements of one 4-A rated extinguisher.



SECTION 168. A 52.07 (11) is created to read:

A 52.07 (11) ACCEPTANCE OF THE ATRIUM SMOKE CONTROL SYSTEM. The following is a reprint of an approved test procedure:

Acceptance test procedure for the atrium smoke management system.

1. All testing shall be in the presence of a representative from the department.

2. All exhaust and supply-air systems shall be operationally balanced and tested. Complete air-balance reports shall be recorded on each piece of equipment, all exhaust inlets, and all supply outlets.

3. Each automatic initiating device shall be tripped to observe proper function. This test shall be performed on both normal and emergency power.

4. Each manual switch and override shall be tripped to observe proper function. This test shall be performed on both normal and emergency power.

5. All indicator lights shall display the appropriate detection and operating status.

6. Select a location on the first floor approximately 5 ft. outside the perimeter of the atrium opening. The location shall be acceptable to the department's representative.

7. Prepare three two-minute smoke bombs.

8. Ignite all three smoke bombs. When they become fully active, manually activate the atrium smoke-management system.

9. Observe and record the results.

10. After all smoke has been cleared, select an additional location on an upper level acceptable to the department's representative.

11. Prepare three more two-minute smoke bombs.

12. Ignite all three smoke bombs. When they become fully activated, again manually activate the atrium smoke-management system.

13. Observe and record the results.

14. Acceptable performance shall be movement of the smoke from the source into the atrium and out through exhaust at the top of the atrium. Smoke migration down the corridors shall be limited to no more than a light haze at a point 25 ft from the source. Furthermore, the balconies around the perimeter of the atrium shall maintain a smoke-free zone.

15. Upon successful completion of these tests, a signed and dated copy of the department's acceptance shall be filed with the test records and a copy shall be maintained with the quarterly test log.

16. A copy of this acceptance test procedure and all plans, specifications, and calculations for the hotel shall be maintained with the quarterly test log.

SECTION 169. A 53.11 (4) (b) is renumbered 53.11 (4) (c).

SECTION 170. A 53.11 (4) (e) is renumbered 53.11 (4) (d).

SECTION 171. A 57.07 (3) is repealed and recreated to read:

A-57.07 (3) CHANGES OF ELEVATION WITHIN INDIVIDUAL LIVING UNITS. Section ILHR 57.07 (3) permits the steps, stairs and ramps within individual living units to conform with s. ILHR 21.04 of the Uniform Dwelling Code. The following is a reprint of the applicable portions of that section:

ILHR 21.04 STAIRS. Every exterior or interior stairs shall conform to the requirements of this section.

(1) LANDINGS. (a) Intermediate landings. Intermediate landings located in a flight of stairs shall be at least as wide as the stairs and shall measure at least 3 feet in the direction of travel. Trim and handrails may project no more than 3-1/2 inches into the required width.

(b) Landings at the top and base of stairs. A level landing shall be provided at the top and at the foot of every stairs. The landing shall be at least as wide as the stairs and shall measure at least 3 feet in the direction of travel.

(c) Doors at landings. Where a door is provided at the head or foot of a stairs, a level landing on each side of the door shall be provided between the door and the stairs, regardless of the door swing.

1. Exception. A landing shall not be required between the door and the head of interior stairs within a dwelling unit, provided the door does not swing over the stairs.

2. Exception. A storm door or screen door shall be permitted to swing over an exterior platform or sidewalk provided the platform or sidewalk is located not more than 8-1/4 inches below the door sill and provided the platform has a length at least equal to the width of the door.

(2) HANDRAILS AND GUARDRAILS. (a) Handrails. Every stairs of more than 3 risers shall be provided with at least one handrail. Handrails shall be provided on all open sides of stairways.

(b) Guardrails. All openings between floors, open sides of landings, platforms, balconies or porches which are more than 24 inches above grade or a floor, shall be protected with guardrails.

(c) Handrail and guardrail details. 1. Height. Handrails shall be located at least 30 inches, but not more than 34 inches, above the nosing of the treads. Guardrails shall be located at least 36 inches above the upper surface of the floor.

2. Open railings. Open guardrails or handrails shall be provided with intermediate rails or an ornamental pattern to prevent the passage of a sphere with a diameter larger than 9 inches.

3. Clearance. The clearance between the handrail and the wall surface shall be at least 1-1/2 inches.

4. Loading. Handrails and guardrails shall be designed and constructed to withstand a 200 pound load applied in any direction.

5. Exterior rails. Exterior handrails and guardrails shall be constructed of metal, decay resistant or pressure treated wood or shall be protected from the weather.

(3) STAIR DETAILS. Stairs shall meet the following requirements:

(a) Minimum width. Every stairs shall measure at least 3 feet in width.

(b) Headroom. Every stairs shall be provided with a minimum headroom clearance of 6 feet 4 inches. The minimum clearance shall be measured vertically from a line parallel to the nosing of the treads to the ceiling or soffit directly above that line.

(c) Treads and risers. Risers shall not exceed 8 inches in height, measured vertically from tread to tread. Treads shall be at least 9 inches wide, measured horizontally from nosing to nosing. There shall be no variation in uniformity exceeding 3/16-inch in the width of tread or in the height of risers. No flight of stairs shall exceed 12 feet in height unless landings are provided.

(d) Winders. Winder steps may be used in stairs where the length of the tread is at least 3 feet and the winder tread measures at least 7 inches in width at a point one foot from the narrow end of the tread.

(e) Spiral stairs. Spiral stairs may be used as an exit stairs. The tread shall measure at least 26 inches from the outer edge of the supporting column to the inner edge of the handrail and at least 7 inches in width from nosing to nosing at a point one foot from the narrow end of the tread.

[Note to revisor: New, amended and deleted material for Appendix A and the Index is forthcoming.]

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EFFECTIVE DATE

Pursuant to s. 227.026 (1) (b), Stats., these rules shall take effect on January 1, 1986.

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*The Wisconsin Department of Industry, Labor and Human Relations*

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P.O. Box 7946  
Madison, Wisconsin 53707  
Telephone 608/266-7552

Gary Poulson  
Assistant Revisor of Statutes  
for Administrative Rules  
411 West, State Capitol  
Madison, Wisconsin

Douglas LaFollette  
Secretary of State  
Room 271, GEF-1  
201 East Washington Avenue  
Madison, Wisconsin

Dear Messrs. Poulson and LaFollette:

TRANSMITTAL OF RULE ADOPTION

CLEARINGHOUSE RULE NO. 85-63

RULE NO. chs. ILHR 50 to 64

RELATING TO: Building & Heating, Ventilating & Air Conditioning Code - Changes  
for 1986/1987 Edition

Pursuant to section 227.023, Stats., agencies are required to file a certified copy of every rule adopted by the agency in the offices of the Secretary of State and the Revisor of Statutes.

At this time, the following material is being submitted to you.

1. Order of Adoption.
2. Rules Certificate Form.
3. Rules in Final Draft Form.

Pursuant to section 227.016 (6), Stats., a summary of the final regulatory flexibility analysis is also included.

Respectfully submitted,



Howard S. Bellman  
Secretary

cc: Agency Contact Person