

Chapter Ind 50

SCOPE OF BUILDING CODE

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Ind 50.001 Purpose of code. The purpose of this code is to promote the health, safety and welfare of the public by establishing performance minimums contained therein for design, construction, alteration, use and occupancy of buildings and parts thereof.

Note 1: The purpose as stated can be traced to the terms used in the "Safe Place statutes" of the state of Wisconsin, chapter 101, Wis. Stats.

Note 2: This code is intended for the protection of the public and not intended as a design manual, a text book nor a construction manual.

SPECIAL NOTE

AN ASTERISK (*) FOLLOWING THE SECTION OR SUBSECTION NUMBER OR LETTER INDICATES EXPLANATORY MATERIAL ON THAT PARAGRAPH IN APPENDIX A. EXAMPLE: IND 51.01 (12)*—SEE A-51.01 (12) IN APPENDIX A.

History: Cr. Register, December, 1970, No. 180, eff. 1-1-71.

Ind 50.002 Application. (1) **NEW BUILDINGS AND ADDITIONS.** This code shall apply to all new buildings, structures, and also to additions to existing buildings and structures, except as in Wis. Adm. Code, section Ind 50.03.

(2) **GENERAL ORDERS ON EXISTING BUILDINGS.** Buildings and structures erected prior to the effective date of the first building code (October 9, 1914) shall comply with the general orders on existing buildings, issued by the department of industry, labor and human relations.

Note: See Ind 160-164.

History: 1-2-56; renum. from Ind 50.001 to be Ind 50.002, Register, December, 1970, No. 180, eff. 1-1-71; am. (2) Register, June, 1972, No. 198, eff. 7-1-72.

Ind 50.01 Alterations. This code shall apply to all alterations in any building or structure which affects the structural strength, fire hazard, exits or lighting of any new or existing building or structure. This code does not apply to ordinary non-structural changes or minor repairs necessary for the maintenance of any building or structure.

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

Ind 50.02 Change of use. (1) When the use of a building or structure is changed and the requirements for the new use are more stringent than those for the previous use then such building or

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structure shall be made to comply with the requirements for the new use as provided in this code.

(2) If, upon an inspection of a building or structure, it is found that its use was changed since the effective date of the first building code (October 9, 1914) and that it does not comply with the requirements of the building code in effect at the time of such change, it shall then be made to comply with the code requirements in effect at the time of change in use.

Ind 50.03 Exemption from code requirements. This code does not apply to the following buildings:

(1) Dwellings, and outbuildings in connection therewith, such as barns and private garages.

(2) Apartment buildings used exclusively as the residence of not more than 2 families.

(3) Buildings used exclusively for agricultural purposes which are not within the limits of a city or an incorporated village.

(4) Temporary buildings or sheds used exclusively for construction purposes, not exceeding 2 stories in height, and not used for living quarters.

Note: Section 101.05, Wis. Stats., exempts from building code requirements buildings located on research or laboratory farms of public universities or other state institutions used primarily for housing livestock or other agricultural purposes.

Ind 50.04 Local regulations. This code shall not limit the power of cities, villages and towns to make, or enforce, additional or more stringent regulations, provided the same do not conflict with this code or with any other rule of the department of industry, labor and human relations.

Enforcement

Ind 50.10 Approval of plans and specifications. (1) Complete plans and specifications for all buildings and structures in the following classifications shall be submitted to the department of industry, labor and human relations for approval before letting contracts or commencing work.

(a) Theaters and assembly halls.

(b) Schools and other places of instruction.

(c) Apartment buildings, hotels and places of detention.

(d) Hazardous occupancies.

(e) Factories, office and mercantile buildings.

Note: Every architect and every engineer submitting plans for the construction of any structure using public funds shall, prior to the letting of final bids on such structures, submit a written report, indicating whether such structure meets or does not meet federal fallout shelter engineering standards, to the contracting agency according to subsection 101.12 (4), Wis. Stats.

Note: Every building, structure, fill or development placed or maintained within any flood plain is required to satisfy local or state rules according to section 87.30 Wis. Stats.

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(2) The submission of plans and specifications for factories, office and mercantile buildings containing less than 25,000 cubic feet total volume is waived, providing they have no floor or roof spans greater than 30 feet and are not more than 2 stories high. Buildings for which the submission of plans and specifications is waived shall comply with the requirements of this code.

(3) **INFORMATION REQUIRED ON PLANS.** At least 3 complete sets of plans, which are clear, legible and permanent copies, shall be submitted for approval. The plans shall be approved before work is commenced. Complete foundation and footing plans may be submitted for approval prior to submitting the building plans if the plot plan, itemized structural loads, complete footing or foundation design calculations and schematic floor plans are included showing exits, windows, and other pertinent information. The following information shall be a part of or shall accompany all plans submitted for approval:

(a) Name of owner of the building and address of the building.

(b) The location of the building with respect to property lines and/or lot lines and/or adjoining streets, alleys and any other buildings on the same lot or property.

(c) The name and seal of the architect(s), engineer(s), or person(s) who prepared the plans shall appear on the title sheet in accordance with Wis. Adm. Code A-E 1.04 (4)—registration seals.

(d) A floor plan for each floor locating all rooms, windows, toilet facilities, and structural elements.

(e) Schematic diagrams showing exiting arrangements.

Note: Diagrams should show normal paths of egress based on intended use of any area of the building.

(f) A room schedule indicating the intended use of all rooms and the number of occupants accommodated therein.

(g) Elevation and sections to illustrate and clarify the design, where required.

(h) A description of the construction for walls, floors, ceilings and roof.

(i) The location, size and type of all equipment.

(j) The size and continuity of all pipe and duct work, dampers and grilles.

(k) A description of construction and location of chimney(s).

(l) The location of required fire or smoke dampers.

(m) Known special hazards to occupants shall be noted; e.g., flammable and combustible liquids, explosives, toxic gases and chemicals, and radio-active materials.

(n) Specifications shall be properly identified with the drawings.

Note #1: Original drawings are not considered a substitute for permanent prints.

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Note #2: Duplicate information need not be submitted when heating, ventilating, air conditioning and building plans are submitted simultaneously.

Note #3: For pit depth and overhead clearance requirements applicable to design of elevator hoistways, see Wis. Adm. Code chapter Ind 4, Elevator Code.

Note #4: Plumbing and swimming pool plans are examined by the department of health and social services.

(4) All plans submitted for approval shall be accompanied by sufficient data and information for the department to judge if the design of the building and the capacity of the equipment and the performance of the system will meet the requirements of this code. The following data shall be submitted:

(a) *Structural data.* Sample structural calculations, including assumed bearing value of soil, live loads and itemized dead loads, unit stresses for structural materials, stress diagrams for trusses, typical calculations for slabs, beams, girders and columns, and diagrams indicating bracing and stability of the structure and components in rigid frames and other open-type buildings. Complete structural calculations shall be furnished upon request of the department or other authorized approving official.

Note: Diagrams are intended to apply to the appropriate final designs of buildings regardless of materials of construction. For job bracing of buildings, see Wis. Adm. Code chapter Ind 35, a supplement to chapters Ind 1000-2000, Wis. Safety and Health Code.

(b) *Thermal performance data.* Calculations shall be provided showing that the maximum average Btu per hour per square foot loss for the exterior envelope does not exceed the requirements set forth in subsection Ind 51.02 (16) (a) for the proposed construction.

Note: See note prior to section Ind 51.02 (16).

(c) *Heating and ventilating data.* Calculations shall be provided including the construction losses for each typical room, total heat loss calculated in Btu per hour, CFM circulation, outside air and exhaust air required, and a summation(s) of total heating and ventilating requirements including:

1. A listing of specific heating and/or ventilating unit(s) with their input and net rating in Btu/hour to satisfy the summation(s). For direct-fired equipment, give input rating.

2. Where more than one heating and/or ventilating unit is to be installed, provide a separate summation for each unit.

Note: Cross reference: The department will accept as the basis for calculations and design data, the methods and standards recommended by the Mechanical Contractors' Association of America; the American Society of Heating, Refrigerating and Air Conditioning Engineers; and the Institute of Boiler and Radiator Manufacturers.

(d) *Additional data.* When requested, additional data pertaining to design, construction, materials and equipment shall be submitted to the department for approval.

(5) This section shall apply to additions and alterations, as well as to new buildings, and shall also apply to all cases where there is a change of occupancy or use of a building.

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(6) Drawings, specifications and calculations for buildings and structures to be constructed within the city limits of Milwaukee shall be submitted to the Inspector of Buildings, Milwaukee, for examination and approval according to requirements of this code.

(7) Drawings, specifications and calculations for buildings containing less than 50,000 cubic feet total volume and alterations to buildings containing less than 100,000 cubic feet total volume shall be submitted to the following cities certified by the department for examination and approval according to requirements of this code. Materials submitted to said cities for examination and approval need not be submitted to the department.

Note: The following cities have been certified by the department:

Appleton	Kenosha	Two Rivers
Beloit	La Crosse	Waukesha
Brookfield	Madison	Wausau
Cudahy	Manitowoc	West Allis
Eau Claire	Muskego	West Bend
Fond du Lac	New Berlin	Wisconsin Rapids
Glendale	Oshkosh	
Green Bay	Racine	
Greenfield	Sheboygan	
Janesville	Stevens Point	

Note: Materials submitted to said cities for examination and approval need not be submitted to the department.

(8) This section shall not apply to sanitary appliances, such as water supply and sewage disposal systems, chemical and septic toilets and similar equipment which shall be submitted for approval and installed in accordance with the regulations of the state board of health.

(9) After being approved, plans and specifications shall not be changed in any respect which may involve any provisions of this code, except with the written consent of the approving official.

(a) The approval of a plan or specification is not to be construed as the assumption of any responsibility for the design.

History: 1-2-56; am. Register, December, 1962, No. 84, eff. 1-1-63; r. and recr. (3), Register, February, 1967, No. 134, eff. 3-1-67; cr. (3) (j), (k), and (l), Register, February, 1971, No. 182, eff. 3-1-71; am. (3) (intro. par.), cr. NOTE in (3) (L), r. and recr. (6), renum. (7) and (8) to be (8) and (9), cr. (7), Register, March, 1972, No. 195, eff. 4-1-72; am. (7), Register, September, 1973, No. 213, eff. 10-1-73; cr. (3) (m), Register, December, 1974, No. 228, eff. 1-1-75; r. and recr. (3), (4) and (7), Register, December, 1975, No. 240, eff. 1-1-76.

Ind 50.11 Evidence of approval. The architect, professional engineer, builder or owner shall keep at the building one set of plans bearing the stamp of approval.

Ind 50.12 Approval of materials, methods and devices. All materials, methods of construction and devices designed for use in the construction, alteration or equipment of buildings or structures under this code and not specifically mentioned in this code shall not be so used until approved in writing by the department of industry, labor and human relations, except sanitary appliances, which shall be

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approved in accordance with the state plumbing code issued by the state board of health. The data, tests and other evidence necessary to prove the merits of such material, method of construction or device shall be determined by the department of industry, labor and human relations.

Ind 50.13 Design and supervision of construction. (1) **DESIGN.** Every new building, or alteration to a building, containing more than 50,000 cubic feet in total volume, or addition to a building in which the addition results in the entire building containing a total volume more than 50,000 cubic feet, shall be designed in compliance with this code and the following requirements:

(a) *Building or structural design.* The plans and specifications for the design of the building or structure shall be prepared by a registered architect or engineer.

(b) *Heating, ventilating and air conditioning design.* The plans and specifications for the installation of heating, ventilating and air conditioning equipment shall be prepared by a registered architect, engineer or designer.

Note: According to section 101.12 (4), Wis. Stats., every architect and every engineer submitting plans for the construction of any structure using public funds is required, prior to the letting of final bids on such structures, to submit a written report to the contracting agency indicating whether such structure meets or does not meet federal fallout shelter engineering standards.

(2) **CHANGES TO APPROVED PLANS.** No change in plans or specifications which involve any provisions of this code shall be made unless such change is signed, sealed and dated by the architect, engineer or designer who made the change, and approved by the department.

(3) **SUPERVISION.** The construction or installation of every design described in (1) shall be supervised by a registered architect or engineer, except that a registered designer may supervise the installation of heating, ventilating and air conditioning equipment. The person responsible for supervision shall also be responsible for the construction and installation being in substantial compliance with the approved plans and specifications. Should the supervising architect, engineer, designer, or the department, be confronted with a nonconformance to the code during or at the end of construction, said parties, together with the designing architect, engineer or designer shall effect compliance.

(a) *Definition.* Supervision of construction is a professional service, as distinguished from superintending of construction by a contractor, and means the performance, or the supervision thereof, of reasonable on-the-site observations to determine that the construction is in substantial compliance with the approved plans and specifications.

(b) *Name of supervising architect, engineer or designer.* Prior to the start of construction, the owner of the building or structure, whose name must be a part of or accompany all plans submitted for approval, as required by section Ind 50.10, or his/[her] authorized agent, shall designate to the department, in writing, the name and

registration number of the architect, engineer or designer retained to supervise construction of the building or structure.

(c) *Completion statement.* On completion of the construction, the supervising architect, engineer or designer shall file a written statement with the department certifying that to the best of his/ [her] knowledge and belief construction has been performed in substantial compliance with the approved plans and specifications.

(4) **OWNER'S RESPONSIBILITY.** No owner shall construct or alter any building or structure, or portion of a building or structure, or permit any building or structure to be constructed or altered except in compliance with the provisions of this section.

Note #1: The terms "architect," "engineer" or "designer" above mean "registered architect," "registered professional engineer" or "registered designer" as defined by laws regulating the practice of engineering and architecture found in chapter 443, Wis. Stats.

Note #2: For definition of "owner," refer to section 101.02 (2) (i), Wis. Stats.

Note #3: For cubic contents of buildings, refer to Wis. Adm. Code chapter A-E 2.

History: Cr. Register, December, 1975, No. 240, eff. 1-1-76.