

Chapter Ind 62

SPECIALTY OCCUPANCIES

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**Ind 62.001 Scope.** This classification includes all specialty occupancies as indicated in the scope of each subpart of this code.

**History:** Cr. Register, December, 1977, No. 264, eff. 1-1-78.

**Ind 62.10 Definitions.** (1) **ENCLOSED PARKING STRUCTURE.** Parking structures which do not satisfy the definition of open parking structure [Ind 62.10 (2)] are considered hazardous occupancies (see section Ind 54.50 for specific requirements).

**Note:** The department is currently working with a project committee to develop rules for enclosed parking structures.

(2) **OPEN PARKING STRUCTURE.** An open parking structure is used for the parking of passenger vehicles and has open areas in exterior walls and ventilation shafts, if any, on each level of at least 4% of the total floor area of that level distributed on at least 2 exterior sides. Facilities for repairing or fueling vehicles within the structure are prohibited. One lower level may be partially or fully enclosed if mechanical ventilation is provided at a minimum rate of 1/2 CFM per square foot and exits are so distributed to offer 2 directions of egress. Open parking structures are classified as either ramp access or mechanical access.

(a) **Ramp access.** Ramp access, open parking structures employ a series of continually sloped floors or a series of interconnected ramps between floors permitting the movement of vehicles under their own power between the street level and parking areas.

(b) **Mechanical access.** Mechanical access, open parking structures employ fully automated parking machines, lifts, elevators or other mechanical devices for moving vehicles between the street level and the parking area, and in which public occupancy is prohibited above street level.

**History:** Cr. Register, December, 1977, No. 264, eff. 1-1-78.

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**PART I — OPEN PARKING STRUCTURES**

**Ind 62.20 Scope.** This classification provides the minimum requirements for the design and construction of open parking structures as defined in section Ind 62.10 (2).

**History:** Cr. Register, December, 1977, No. 264, eff. 1-1-78.

**Ind 62.21 Construction requirements.** (1) **MATERIALS.** All structural elements shall be of noncombustible materials.

(2) **FLOORS.** Floors shall be provided with positive surface drainage.

**Note #1:** Structural components of open parking structures are subjected to corrosive and deteriorating elements. The designer should consider the effects of such elements and should consider the use of air-entrained concrete, concrete sealers and coatings, additional cover for reinforcing and other accepted engineering practices to protect the components.

**Note #2:** The department recommends a minimum slope of 1%.

**History:** Cr. Register, December, 1977, No. 264, eff. 1-1-78.

**Ind 62.22 Setbacks.** Open parking structures may be erected without enclosing walls, except that enclosing walls of not less than 2-hour fire-resistive construction, as specified in section Ind 51.04, shall be provided on all sides which are less than 10 feet from a property line between premises or any other building.

**History:** Cr. Register, December, 1977, No. 264, eff. 1-1-78.

**Ind 62.23 Separation from other occupancies.** Every open parking structure shall be separated from any other occupancy by noncombustible 2-hour (NC-2) rated construction, or better, except as specified in section Ind 55.05. (With respect to Ind 55.05, open parking structures are considered nonhazardous.) All openings in the wall to adjoining occupancies shall be protected by means of self-closing, fire-resistive doors as specified in section Ind 51.047.

**Note:** It is also the intent of this section to consider office and building maintenance areas used in conjunction with the operation of the open parking structure as distinct occupancies requiring 2-hour separation.

**History:** Cr. Register, December, 1977, No. 264, eff. 1-1-78.

**Ind 62.24 Construction, height and allowable area.** (1) **CONSTRUCTION AND HEIGHT.** Open parking structures shall be of the type of construction and shall not exceed the height as specified in this section. The maximum floor area, per level, of any such structure shall not exceed that permitted for the corresponding type of construction and height as follows:

(a) Open parking structures of noncombustible zero-hour (NC-0) rating shall not exceed 70 feet in height or 700,000 square feet in total area.

(b) Open parking structures of noncombustible 2-hour rating or better shall not be limited in height or area per floor level. Exterior walls need not be rated, except as provided in section Ind 62.22.

**Note:** Open parking structures in excess of 60 feet in height are exempt from the administrative rules and statutes requiring automatic fire sprinkler systems (see Ind 62.01 (1) and (2) and s. 101.14, Stats.).

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**Ind 62.25 Clearance limitations.** (1) \* **PRINCIPAL VEHICLE AND PEDESTRIAN TRAFFIC AREAS.** The clear height of each floor level in principal vehicle and pedestrian traffic areas shall be not less than 7 feet 0 inches.

(2) **CLEARANCE SIGNS.** Clearance limitation signs shall be prominently posted at all vehicle entrances.

**Note:** A lesser clear height may be permitted in mechanical-access open parking structures when approved by the department.

**History:** Cr. Register, December, 1977, No. 264, eff. 1-1-78.

**Ind 62.26 Number, location and type of pedestrian exits.** (1) **NUMBER OF EXITS.** Every open parking structure and every floor level thereof shall have at least 2 exits.

(2) **DISTANCE TO EXITS.** Additional exits shall be provided so that no part of the open parking structure will be more than 200 feet distant to the exit discharge grade or to a stair enclosure if the walls separating the stair from the open parking structure are of at least noncombustible one-hour (NC-1) rating or better and the enclosure is continuous to an outside exit.

**Note:** In all cases, required exit stairs are required to be enclosed (see Ind 62.27). If the designer elects to increase the exit distance by measuring to the stair enclosure, the enclosure must have at least a noncombustible one-hour (NC-1) rating.

(3) **LOCATION OF EXITS.** Exits in all open parking structures shall be 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 of the structure.

(4) **TYPE OF EXITS.** At least one-half of the exits required in this section shall be standard exits to grade, stairways or horizontal exits as specified in sections Ind 51.15, 51.16 and 51.19, respectively. The other exits may be non-parking access ramps with a maximum slope of 1:6.

**History:** Cr. Register, December, 1977, No. 264, eff. 1-1-78; am. (4), Register, December, 1978, No. 276, eff. 1-1-79.

**Ind 62.27 Stairway enclosures.** Stair enclosures of NC-0 hour rating, or better, shall be provided for all required exit stairways, unless otherwise required to be rated.

**Note:** It is the intent of this rule to require all required exit stairs to be enclosed. If the designer elects to measure the exit distance to the stair enclosure, the enclosure must be then rated. (See Ind 62.26 (2).)

**History:** Cr. Register, December, 1977, No. 264, eff. 1-1-78.

**Ind 62.28 Handrails and guardrails.** (1) **HANDRAILS.** (a) Handrails, or equivalent, not less than 3 feet 6 inches in height, conforming to the requirements of section Ind 51.16 (5) (f), shall be provided on all open sides of the structure on each level.

(b) Handrails as specified in Ind 62.28 (1) (a) shall be provided at changes of elevation within the structure when the clear vertical opening at the elevation change is one foot 6 inches or greater.

(2) **PERIMETER GUARDRAILS.** (a) Perimeter guardrails shall be installed at the end of drive lanes and shall be designed for a minimum

\*See Appendix A for further explanatory material.

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horizontal live load of 1000 pounds per lineal foot acting at 18 inches above the floor level.

(b) Perimeter guardrails shall be installed at the end of parking stalls and shall be designed for a minimum horizontal live load of 500 pounds per lineal foot acting at 18 inches above the floor.

**History:** Cr. Register, December, 1977, No. 264, eff. 1-1-78.

**Ind 62.29 Illumination and exit lights.** (1) **ILLUMINATION LEVELS.** Minimum illumination levels at a horizontal plane 30 inches above the floor shall conform to the requirements of Table 62-1.

(2) **EXIT LIGHTS.** Every required exit from each floor shall be indicated by an approved illuminated exit sign bearing the word EXIT or OUT in plain letters not less than 5 inches in height.

TABLE 62-1

MINIMUM ILLUMINATION LEVELS

Area	Intensity (in footcandles)
Stairways and exits	10
Parking areas	2

**History:** Cr. Register, December, 1977, No. 264, eff. 1-1-78.

**Ind 62.30 Fire protection.** (1) **STANDPIPES.** Fire department standpipes shall be provided in all open parking structures more than 2 levels in height.

(a) Such standpipes shall be dry standpipes and are not required to be interconnected.

1. Exception. Standpipes which are not accessible to the fire department at grade level shall be interconnected to an accessible standpipe.

(b) Standpipes shall be provided in each stair enclosure and shall be provided with a siamese connection at each floor level with one connection in the stair towers and one immediately outside.

(c) Such standpipes shall conform to the requirements outlined in section Ind 51.21 (3) (e) through (i).

(d) Exceptions: 1. The department will recognize special considerations in lieu of standpipes in structures up to 60 feet in height.

2. The department will accept open parking structures without standpipes if clearances are provided to allow fire-fighting vehicles access throughout the structure.

**History:** Cr. Register, December, 1977, No. 264, eff. 1-1-78; am. (1) (d) 2., Register, December, 1978, No. 276, eff. 1-1-79.

**Ind 62.31 Sanitary facilities.** (1) **UNATTENDED PARKING STRUCTURES.** Sanitary facilities need not be provided in unattended parking structures.

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(2) **ATTENDED PARKING STRUCTURES.** Sanitary facilities for employes shall be provided in accordance with section Ind 54.12 in attended parking structures.

**Note:** Sanitary facilities for patrons need not be provided.

**History:** Cr. Register, December, 1977, No. 264, eff. 1-1-78.

**Ind 62.32 Isolation of hazards.** (1) **FIRE PROTECTION.** Boilers, furnaces and all open-flame equipment within parking structures shall be isolated from the rest of the parking structure by at least a 2-hour fire-resistive enclosure as specified in section Ind 51.04.

(2) **PROTECTION OF OPENINGS.** All openings in such enclosure shall be protected with self-closing fire-resistive doors as specified in section Ind 51.047.

(3) **SUSPENDED EQUIPMENT.** Space heaters, suspended furnaces, and direct-fired unit heaters, fired with various fuels, may be used without an enclosure where approved by the department. Where such equipment is used without an enclosure, they shall be located at least 8 feet above the floor.

**History:** Cr. Register, December, 1977, No. 264, eff. 1-1-78.

**Ind 62.33 Exceptions for mechanical access open parking structures.** Mechanical access open parking structures need not comply with sections Ind 62.25 - 62.29, inclusive.

**History:** Cr. Register, December, 1977, No. 264, eff. 1-1-78.

**Ind 62.34 Barrier-free requirements.** (1) **PARKING SPACES.** Accessible parking spaces shall be provided in accordance with the applicable requirements specified in section Ind 52.04 (3) (a).

(2) **TOILET FACILITIES.** Toilet facilities provided for the employes, as specified in section Ind 62.31 (2), shall comply with the requirements of section Ind 52.04 (4) (c).

**History:** Cr. Register, December, 1978, No. 276, eff. 1-1-79.

## **PART II—TELEVISION AND RADIO TRANSMITTING AND RECEIVING ANTENNA**

**Ind 62.35 Scope.** The requirements of this part shall apply to the outdoor portion of all apparatus, more than 12 feet in height, used for transmitting and receiving television or radio waves.

**History:** Cr. Register, December, 1978, No. 276, eff. 1-1-79.

**Ind 62.36 Construction requirements.** All television and radio antenna systems, including the supporting tower or mast, shall be constructed of galvanized steel or other corrosive-resistant noncombustible material. Where approved by the department, towers constructed of wood or wood poles set in the ground may be used to support antenna systems, but no wood tower or wood pole may be mounted on the roof of any building structure.

**History:** Cr. Register, December, 1978, No. 276, eff. 1-1-79.

**Ind 62.37 Design loads.** The antenna and tower shall be designed to support the dead load of the structure plus an ice load at least ½-inch in

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radial thickness. The ice load shall be computed only upon the wires, cables, messengers and antenna.

(1) **WIND LOADS.** The tower or mast shall be braced or guyed and anchored to resist a horizontal wind pressure of not less than 30 pounds for every square foot (net area) of exposed surface. Guy wires shall not be anchored to a chimney or to any roof ventilator or vent pipe.

**History:** Cr. Register, December, 1978, No. 276, eff. 1-1-79.

**Ind 62.38 Antenna systems on buildings.** Antenna systems installed on the roof of a building shall not be supported by or attached to a chimney. All such installations shall be mounted on an independent platform or base and anchored in place. The platform or base of the tower shall be sized to distribute the weight of the structure so the roof construction will safely support the weight of the structure in addition to the required live and dead roof loads.

**History:** Cr. Register, December, 1978, No. 276, eff. 1-1-79.

**Ind 62.39 Setbacks.** All antenna systems shall be so installed that no part of the structure will be nearer to a street, or other public thoroughfare, than the height of the antenna as measured from its platform or base to the topmost point. No wires, cables, or guy wires shall extend over any street or other public thoroughfare or over any electric power or communication lines.

**History:** Cr. Register, December, 1978, No. 276, eff. 1-1-79.

**Ind 62.40 Antenna system support.** Poles used for electric power or for communication lines shall not be used for supporting or for guying any antenna system. Where antenna installations are so located that damage will be caused to adjacent power or communication lines by the falling of the antenna structure, a separate safety wire shall be attached to the top of the tower and secured in a direction away from the power or communication lines.

**History:** Cr. Register, December, 1978, No. 276, eff. 1-1-79.

**Ind 62.41 Electrical requirements.** Electrical installations in connection with antenna systems, including the grounding of the tower or mast, shall comply in all respects with the requirements of the Wisconsin state electrical code.

**History:** Cr. Register, December, 1978, No. 276, eff. 1-1-79.