## **Chapter Comm 62**

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**Note:** Chapter Ind 62 was renumbered chapter ILHR 62 effective January 1, 1984. Chapter ILHR 62 was renumbered to be chapter Comm 62 under s. 13.93 (2m) (b) 1., Stats., and corrections made under s. 13.93 (2m) (b) 7., Stats., Register, September, 1998. No. 513.

**Comm 62.001 Scope.** This classification includes all specialty occupancies as indicated in the scope of each subchapter of this chapter.

**History:** Cr. Register, December, 1977, No. 264, eff. 1–1–78; am. Register, December, 1981, No. 312, eff. 1–1–82.

**Comm 62.10 Definitions. (1)** "Assembly seating facilities" means structures including but not limited to, bleachers, grandstands and stadiums on which persons are seated for such purposes as entertainment, worship or deliberation.

- (1m) "Greenhouses" means structures clad with light–transmitting material designed primarily for the purpose of cultivating plant life and used as public buildings or places of employment.
- (2) "Open parking structure" means a structure with open areas in the exterior walls or ventilation shafts, or combination of both, as specified in s. Comm 62.21 used solely for the parking of passenger vehicles without any facilities for repairing or fueling of vehicles within the structure.

- (3) "Outdoor theater" means a place of outdoor assembly used for the showing of plays, operas, motion pictures and similar forms of entertainment in which the audience views the performance from self-propelled vehicles parked within the theater enclosure.
- **(4)** "Permanent" means in place for more than 180 consecutive calendar days.
- **(5)** "Repair garage" means a structure as defined in s. Comm 59.01 (4).
- **(6)** "Storage garage" means a structure as defined in s. Comm 59.01 (5).
- (7) "Tents" mean portable, temporary shelters or structures, the covering of which is made of pliable material.

**History:** Cr. Register, December, 1977, No. 264, eff. 1–1–78; cr. (3) and (4), Register, January, 1980, No. 289, eff. 2–1–80; r. and recr., Register, December, 1981, No. 312, eff. 1–1–82; cr. (1m), Register, December, 1983, No. 336, eff. 1–1–84.

#### **Subchapter I — Open Parking Structures**

**Comm 62.20 Scope.** This subchapter provides the minimum requirements for the design and construction of open parking structures as specified in s. Comm 62.10 (2).

**History:** Cr. Register, December, 1977, No. 264, eff. 1–1–78; am., Register, December, 1981, No. 312, eff. 1–1–82.

**Comm 62.205** Classifications. Open parking structures shall be classified as either ramp access or mechanical access types as follows:

- (1) 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; or
- (2) 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, 1981, No. 312, eff. 1-1-82.

**Comm 62.21 Construction requirements. (1)** GENERAL. Open parking structures shall be provided with open areas in the exterior walls or ventilation shafts, or a combination of both, on each level of at least 4% of the total floor area of that level, distributed on at least 2 exterior sides so as to provide cross ventilation.

(2) MATERIAL. All open parking structures shall be constructed of noncombustible materials.

**Note:** 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

(3) FLOORS. Floors shall be provided with drainage as specified in s. Comm 82.36.

**History:** Cr. Register, December, 1977, No. 264, eff. 1–1–78; r. and recr. Register, December, 1981, No. 312, eff. 1–1–82; correction in (3) made under s. 13.93 (2m) (b) 7., Stats., Register, August, 1985, No. 356; correction in (3) made under s. 13.93 (2m) (b) 7., Stats., Register, March, 1997, No. 495.

**Comm 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 s. Comm 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.

**Comm 62.23 Occupancy separations and hazard enclosures.** Occupancies within the scope of this chapter shall be separated from other occupancies or uses in accordance with s. Comm 51.08. Hazards shall be enclosed in accordance with s. Comm 51.08.

**History:** Cr. Register, December, 1977, No. 264, eff. 1–1–78; r. and recr. Register, March, 1991, No. 423, eff. 4–1–91; r. and recr., Register, December, 1995, No. 480, eff. 4–1–96; r. and recr., Register, March, 1997, No. 495, eff. 4–1–97.

Comm 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 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 s. Comm 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 s. Comm 52.01 (1) and (2) and s. 101.14, Stats.).

**History:** Cr. Register, December, 1977, No. 264, eff. 1–1–78; am. (1) (intro.), Register, December, 1981, No. 312, eff. 1–1–82.

Comm 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.

Note: See Appendix A for further explanatory material.

(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.

Comm 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 s. Comm 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 by this section shall be standard exits to grade, stairways or horizontal exits as specified in ss. Comm 51.15, 51.16 and 51.19, respectively. The other exits may be non—parking access ramps with a maximum slope of 1:8.

**History:** Cr. Register, December, 1977, No. 264, eff. 1–1–78; am. (4), Register, December, 1978, No. 276, eff. 1–1–79; am. (4), Register, January, 1980, No. 289, eff. 2–1–80.

**Comm 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 s. Comm 62.27 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 s. Comm 62.26 (2).)

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

## Comm 62.28 Pedestrian and perimeter guardrails.

- (1) PEDESTRIAN GUARDRAILS. (a) Pedestrian guardrails, or equivalent, conforming to the requirements of s. Comm 51.162, shall be provided on all open sides of the structure on each level.
- (b) Pedestrian guardrails as specified in s. Comm 62.28 (1) (a) shall be provided at changes of elevation within the structure where 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 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; am. (1), Register, January, 1980, No. 289, eff. 2–1–80.

Comm 62.29 Illumination and exit lights. (1) ILLUMI-NATION LEVELS. Minimum illumination levels at a horizontal plane 30 inches above the floor shall conform to the requirements of Table 62–I.

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(2) EXIT LIGHTS. Every required exit from each floor shall be indicated by an approved exit sign as specified in s. Comm 51.15 (5).

#### TABLE 62–I MINIMUM ILLUMINATION LEVELS

Area	Intensity (in foot- candles)
Stairways and exits	10
Parking areas	2

**History:** Cr. Register, December, 1977, No. 264, eff. 1–1–78; am. (2), Register, December, 1983, No. 336, eff. 1–1–84.

**Comm 62.30 Standpipes. (1)** FIRE DEPARTMENT STAND-PIPES. Fire department standpipes shall be provided in all open parking structures 3 or more stories in height.

- (a) Fire department standpipes shall be dry standpipes systems
- (b) Fire department standpipes with a fire department connection greater than 50 feet to a street shall be interconnected to a standpipe system with such a connection 50 feet or less to a street.
- (c) Fire department standpipes shall be provided in each stair enclosure and shall be provided with approved  $2^{1}/_{2}$  inch valve hose connections at each floor level with one connection in the stair enclosure and one connection immediately outside the enclosure.
- (d) Fire department standpipes shall be as specified in s. Comm  $51.21\,$  (3) (e) to (i).
- (2) EXCEPTIONS. (a) The department will recognize alternative systems and designs if an equivalent degree of safety is provided in lieu of required fire department standpipes in open parking structures 60 feet or less in height.
- (b) The department will accept open parking structures without fire department standpipes if clearances are provided to allow fire-fighting vehicles access throughout the open parking 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; r. and recr., Register, December, 1981, No. 312, eff. 1–1–82; am. (1) (intro.) and (c), Register, March, 1991, No. 423, eff. 4–1–91.

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

**(2)** ATTENDED PARKING STRUCTURES. Sanitary facilities for employees at attended parking structures shall be provided in accordance with s. Comm 54.12 (1) (a).

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

**History:** Cr. Register, December, 1977, No. 264, eff. 1–1–78; am (2); Register, August, 1993, No. 452, eff. 3–1–94; correction in (2) made under s. 13.93 (2m) (b) 7., Stats., Register, March, 2000, No. 531.

Comm 62.33 Exceptions for mechanical access open parking structures. Mechanical access open parking structures need not comply with ss. Comm 62.25 to 62.29, inclusive.

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

Comm 62.34 Barrier-free requirements. (1) PARK-ING SPACES. Accessible parking spaces shall be provided in accordance with the applicable requirements specified in s. Comm 52.04.

**(2)** TOILET FACILITIES. Toilet facilities provided for the employees, as specified in s. Comm 62.31 (2), shall comply with ch. Comm 69.

**History:** Cr. Register, December, 1978, No. 276, eff. 1–1–79; corrections in (1) and (2) made under s. 13.93 (2m) (b) 7., Stats., Register, March, 2000, No. 531; **am.** (2), Register, September, 2000, No. 537, eff. 10–1–00.

# Subchapter II — Television and Radio Transmitting and Receiving Antenna

**Comm 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.

**Comm 62.36 Construction requirements.** All television and radio antenna systems, including the supporting tower or mast, shall be constructed of galvanized steel or other corrosiveresistant 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.

**Comm 62.37 Design loads. (1)** DEAD AND ICE LOADS. The supporting tower shall be designed for the dead load of the structure and all appurtenances plus an ice load of at least <sup>1</sup>/<sub>2</sub> inch in radial thickness. The ice load shall be considered on all members of the structure including guys.

- **(2)** WIND LOADS. (a) Self-supporting towers shall be designed for the wind loads specified in s. Comm 53.12.
- 1. Open face or latticed tower structures shall be designed for wind pressure applied to the projected area of all members, including ice, in one face multiplied by the following factors:
  - a. 1.75 for towers of square cross-section; or
  - b. 1.5 for towers of triangular cross-section.
- 2. Wind loads shall be considered basic design loads with no increase in allowable unit stresses permitted.
- (b) Guyed towers shall be designed in accordance with a recognized engineering standard.

Note: "Structural Standards for Steel Antenna Towers and Antenna Supporting Structures", EIA Standard RS–222–C, published by Electronic Industries Association, 2001 Eye Street, N.W., Washington, D.C. 20006, is an acceptable standard for the design of guyed towers and self–supporting towers.

**History:** Cr. Register, December, 1978, No. 276, eff. 1–1–79; r. and recr. Register, December, 1983, No. 336, eff. 1–1–84.

**Comm** 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.

**Comm 62.39 Setbacks.** 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; am. Register, December, 1983, No. 336, eff. 1–1–84.

**Comm 62.40** Antenna system support. Poles or other structures used for electric power or for communication lines may not be used for supporting or for guying any antenna system, unless calculations are prepared, signed, and sealed or stamped by a Wisconsin registered architect or engineer that show the support system will support all live, dead, and special loads imposed upon if

**History:** Cr. Register, December, 1978, No. 276, eff. 1–1–79; am. Register, March, 1991, No. 423, eff. 4–1–91; am. Register, September, 2000, No. 537, eff. 10–1–00.

**Comm 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, volume 2, ch. Comm 16.

**History:** Cr. Register, December, 1978, No. 276, eff. 1–1–79; correction made under s. 13.93 (2m) (b) 7., Stats., Register, December, 1996, No. 492.

#### Subchapter III — Tents

**Comm 62.42 Scope.** The requirements of this part shall apply to all tents, except those used exclusively for construction purposes.

History: Cr. Register, January, 1980, No. 289, eff. 2-1-80.

**Comm 62.43 Area limitation and setbacks. (1)** Area OF GROUND COVERED. No tent shall be erected to cover more than 75% of the premises on which it is located.

- **(2)** SETBACK TO PROPERTY LINE AND OTHER STRUCTURES. (a) Tents used for assembly purposes which cover 1500 square feet or more of ground area shall be located at least 20 feet from any other structure or adjoining property lines.
- (b) Concession and other tents not used for assembly purposes need not be separated from each other and may be located less than 20 feet from other structures.
- (3) SETBACK FOR EXITING. Stake lines of adjacent tents used for assembly purposes shall be sufficient distance from each other to provide an emergency exit passageway not less than 6 feet in width between stake lines. Proper protection shall be provided along such stake lines to eliminate tripping hazards.

History: Cr. Register, January, 1980, No. 289, eff. 2-1-80.

**Comm 62.44 Structural requirements. (1)** MATERIAL SIZE AND STRENGTH. Poles and other members supporting tents shall be of sufficient size and strength to support the structure safely without exceeding the stresses specified in ch. Comm 53.

- **(2)** WIND LOAD. (a) All tents shall be adequately guyed, supported and braced to withstand a wind pressure or suction of not less than 10 pounds per square foot.
- (b) The poles, guys, stakes, fastenings and similar devices shall be of sufficient strength and so attached as to resist a wind pressure of at least 20 pounds per square foot of projected area of the tent

History: Cr. Register, January, 1980, No. 289, eff. 2-1-80.

**Comm 62.45 Flame resistance.** All tents used for assembly purposes or in which animals are stabled and all other tents used by the public in places of outdoor assembly shall be effectively flameproofed. The owner shall furnish a certificate or a test report by a recognized testing engineer or laboratory as evidence that such tents have the required flame resistance.

**History:** Cr. Register, January, 1980, No. 289, eff. 2–1–80.

**Comm 62.46 Fire hazards.** (1) CLEARING OF GROUND. The ground enclosed by a tent used in connection with a place of outdoor assembly and for a distance of not less than 10 feet outside such structure on all sides shall be cleared of all flammable material or vegetation which will transmit fire. The premises shall be kept free from such flammable material during the period the premises are used by the public.

- **(2)** COMBUSTIBLE MATERIAL FOR CARE OF ANIMALS. No hay, straw, shavings or similar combustible materials other than that necessary for the current feeding and care of animals shall be permitted within any tents used for public assembly except that sawdust and shavings may be used if kept damp.
- (3) NO SMOKING. No smoking or unapproved open flame of any kind shall be permitted in any tent while occupied by the public. "No Smoking" signs shall be conspicuously posted in all tents open to the public.
- **(4)** SAFETY FILM. Tents shall not be used for motion picture performances unless safety film is used.

**(5)** COMBUSTIBLE AND FLAMMABLE LIQUIDS. Combustible and flammable liquids shall be isolated in accordance with ch. Comm 10.

**History:** Cr. Register, January, 1980, No. 289, eff. 2–1–80; cr. (5), Register, March, 1991, No. 423, eff. 4–1–91.

**Comm 62.47 Exits. (1)** NUMBER OF EXITS. (a) Every tent occupied by the public shall have at least 2 standard exits located at or near opposite ends of the structure.

- (b) In tents used for assembly purposes, exits shall be provided on 3 sides if the capacity exceeds 600 persons and on 4 sides where the capacity exceeds 1,000 persons.
- (2) EXIT DISTANCE. Exits shall be uniformly distributed but in no case shall the line of travel to an exit be greater than 150 feet.
- (3) EXIT WIDTH. The total width of exits from a tent used for assembly purposes shall be not less than 44 inches per 100 persons. Exit openings shall comply in all respects with the requirements of ss. Comm 51.15 and 55.10.

History: Cr. Register, January, 1980, No. 289, eff. 2-1-80.

**Comm 62.48 Toilet facilities.** Separate toilet facilities, in conjunction with all tents used as places of outdoor assembly, shall be provided in accordance with s. Comm 55.32. Toilet rooms and equipment shall comply with the requirements of ss. Comm 52.50 to 52.64 or as approved by the department.

History: Cr. Register, January, 1980, No. 289, eff. 2-1-80.

**Comm 62.49 Electrical installations. (1)** GENERAL. Electrical systems in all tents used as places of outdoor assembly shall be installed in accordance with the requirements of the Wisconsin state electrical code, volume 2, ch. Comm 16. All such systems shall be maintained and operated in a safe and workmanlike manner.

**(2)** PROTECTION AND ISOLATION. The electrical system and equipment shall be isolated from the public by proper elevation and guarding. All electrical fuses and switches shall be installed in approved enclosures. Cables laid on the ground or in areas traversed by the public shall be placed in trenches or protected by approved covers.

**History:** Cr. Register, January, 1980, No. 289, eff. 2–1–80; correction in (1) made under s. 13.93 (2m) (b) 7., Stats., Register, December, 1996, No. 492.

**Comm 62.493** Fire extinguishers. (1) GENERAL. Portable fire extinguishers shall be installed as specified in Table 62.493.

 $\textbf{Note:} \ \ \textbf{See Appendix A for further explanatory material}.$ 

#### **TABLE 62.493**

Basic Minimum Extinguisher Rating	Maximum Travel Distance to Extinguisher (feet)	Area to be Protected per Extinguisher (sq. ft.)
1A	75	3,000
2A	75	6,000
3A	75	9,000
4A or larger	75	11,250

- **(2)** LOCATION. (a) Extinguishers shall be conspicuously located where they will be readily accessible and immediately available in the event of fire.
- (b) Extinguishers shall not be obstructed or obscured from view.
- **(3)** MAINTENANCE. Portable fire extinguishers shall be maintained as specified in s. Comm 51.22.

History: Ćr. Register, January, 1980, No. 289, eff. 2–1–80; r. and recr., Register, December, 1981, No. 312, eff. 1–1–82; renum. from Comm 62.50, Register, September, 2000, No. 537, eff. 10–1–00; correction in (1) made under s. 13.93 (2m) (b) 7., Stats., Register, September, 2000, No. 537.

## Comm 62.496 Illumination; exit lights and signs.

(1) LIGHTING OF EXITS. All exits, aisles and passageways leading to exits in tents used as places of outdoor assembly shall be kept adequately lighted at all times when the structure is occupied by the public. Artificial illumination having an intensity of not less

- than 2.5 footcandles at the floor line shall be provided when natural light is inadequate.
- (2) ILLUMINATED EXIT SIGNS. Exit lights and signs complying with the requirements of s. Comm 55.11 shall be provided in all tents used as places of outdoor assembly where more than 100 persons can be accommodated.

History: Cr. Register, January, 1980, No. 289, eff. 2–1–80; renum. from Comm 62.51, Register, September, 2000, No. 537, eff. 10–1–00.

#### Subchapter IV — Membrane Structures

Comm 62.50 Scope. (1) GENERAL. The provisions of this subchapter apply to air-inflated, air-supported, membranecovered cable, and membrane-covered frame structures that are erected for a period of 180 days or longer, except as provided in

(2) UNOCCUPIED. A membrane structure that is not used for human occupancy, such as covering a water storage facility, water clarifier, water or sewage treatment plant, or greenhouse which is not used for retail or educational purposes, is only required to conform to ss. Comm 62.503 and 62.508.

History: Cr. Register, September, 2000, No. 537, eff. 10-1-00.

#### **Comm 62.501 Definitions.** In this subchapter:

- (1) "Air-inflated structure" means a structure having a shape that is maintained by air pressurization of cells or tubes to form a barrel vault over the usable area. Occupants of such a structure do not occupy the pressurized area used to support the structure.
- (2) "Air-supported structure" means a structure having a shape that is attained by elevated air pressure, and occupants of the structure are within the elevated pressure area.
- (3) "Membrane" means a thin, flexible, impervious material capable of being supported by air pressure or structural frames or cables.
- (4) "Membrane-covered structure" means a nonpressurized structure having a cable or rigid frame structural system that supports a membrane weather barrier.

History: Cr. Register, September, 2000, No. 537, eff. 10-1-00.

Comm 62.502 Construction requirements. (1) (a) A membrane structure shall be classified as Type 8 wood frame unprotected construction, except as specified in par. (b).

- (b) A membrane structure may be classified as Type 6 metal frame unprotected construction if the structure and membrane are noncombustible materials as defined in s. Comm 51.01 (86).
- (2) A membrane structure, regardless of occupancy, shall comply with the allowable floor area requirements in s. Comm 54.01.
  - (3) No membrane structure may exceed one story in height.
- (4) Except as required by s. Comm 55.02 (2m), a membrane structure shall be at least 10 feet from a property line or another building, unless separated therefrom with a 4-hour fire division wall as specified in s. Comm 51.02 (13).
- (5) A membrane structure may be used as specified in this subchapter as a portion of a building of another type of construction, provided the following requirements are met:
- (a) Height and area limits shall be as specified for the type of construction and occupancy of the building.
- (b) A membrane structure used as a roof or skylight shall be at least 20 feet above any floor, balcony or gallery.
- (c) A flame-resistant membrane may not be used as a roof or skylight in Types 1 to 7 construction.

 $History: \ Cr. \ Register, September, 2000, No.\ 537, eff.\ 10-1-00.$ 

Comm 62.503 Membrane requirements. (1) GEN-ERAL. A membrane shall be either of the following, except as provided in sub. (2):

(a) Noncombustible as defined in s. Comm 51.01 (86).

- (b) Flame-resistant as determined in accordance with both the small-scale and large-scale tests in NFPA 701, and with the manufacturer's test protocol.
- (2) UNOCCUPIED GREENHOUSE. A membrane which has a thickness of less than 20 mils or which is less than 20 feet above the floor is not required to be flame resistant if used for an unoccu-

History: Cr. Register, September, 2000, No. 537, eff. 10-1-00.

- Comm 62.504 Exit requirements. (1) General. All exits from a membrane structure shall comply with the requirements of s. Comm 51.15 to 51.20, except as provided in sub. (2) and s. Comm 62.509.
- (2) REVOLVING DOORS. A membrane structure requiring the use of revolving doors for maintaining pressurization of the structure may utilize revolving doors for up to 50% of the required exit width if all of the following requirements are met:
- (a) The leaves of a revolving door shall be capable of collapsing into a book-fold position.
- (b) The two parallel egress paths formed in a revolving door when the leaves are in the book-fold position shall each have a width of at least 18 inches.
- (c) A revolving door shall not be within 10 feet of the top or foot of stairs or escalators. Under all conditions, there shall be a dispersal area between the stairs or escalators and the revolving
- (d) The revolutions per minute (RPM) of a revolving door shall not exceed the values specified in Table 62.504.

**Table 62.504** 

Inside Diameter, feet	Power–Driven Type Speed Control, RPM	Manual-Type Speed Control, RPM
6.5	11	12
7	10	11
7.5	9	11
8	9	10
8.5	8	9
9	8	9
9.5	7	8
10	7	8

(e) Each wall containing a revolving door shall have a sidehinged swinging door that complies with this code, within 10 feet of the revolving door.

History: Cr. Register, September, 2000, No. 537, eff. 10-1-00.

Comm 62.505 Equipment requirements. (1) The inflation system shall consist of one or more blowers and shall include provisions for automatic control to maintain the required inflation pressures. The system shall be designed to prevent over-

- (2) (a) In addition to the primary inflation system, in buildings exceeding 1,500 square feet in area, an auxiliary inflation system shall be provided that has sufficient capacity to maintain the inflation of the structure in case of primary system failure. The auxiliary inflation system shall operate automatically if there is a loss of internal pressure or if the primary blower system becomes inop-
  - (b) Blower equipment shall meet the following requirements:
- 1. Blowers shall be powered by continuous-rated motors at the maximum power required for any flow condition as required by the structural design.
- 2. Blowers shall be provided with inlet screens, belt guards, and other protective devices to provide protection from injury.

- 3. Blowers shall be housed within a weather–protecting structure.
- 4. Blowers shall be equipped with back-draft check dampers to minimize air loss when inoperative.
- 5. Blower inlets shall be located to provide protection from air contamination. The location of inlets shall be approved by the department or its authorized representative prior to installation. History: Cr. Register, September, 2000, No. 537, eff. 10–1–00.

**Comm 62.506 Support provisions.** A system capable of supporting the membrane in the event of deflation shall be provided for an air–inflated or air–supported structure having an occupant load of more than 50, or where covering a swimming pool regardless of occupant load. For a membrane structure used as a roof for a place of assembly of more than 100 persons, the support system shall be capable of maintaining the membrane at least 20 feet above the floor, seating area, or surface of the water. For all other membrane structures, the support system shall be capable of maintaining the membrane at least 7 feet above the floor, seating area, or surface of the water.

History: Cr. Register, September, 2000, No. 537, eff. 10-1-00.

**Comm 62.507 Standby power.** Whenever an auxiliary inflation system is required, an approved standby power–generating system shall be provided. The system shall be equipped with a suitable means for automatically starting the generator set upon failure of the normal electrical service and for automatic transfer and operation of all of the required electrical functions at full power within 60 seconds of such service failure. Standby power shall be capable of operating independently for a minimum of 4 hours.

History: Cr. Register, September, 2000, No. 537, eff. 10-1-00.

**Comm 62.508 Engineering design.** A membrane structure shall be structurally designed and constructed to sustain dead loads, loads due to tension or inflation, and live loads including wind and snow, and in accordance with ch. Comm 53.

History: Cr. Register, September, 2000, No. 537, eff. 10-1-00.

**Comm 62.509 Occupancy requirements.** A membrane structure shall comply with all other applicable provisions of the appropriate occupancy chapter.

History: Cr. Register, September, 2000, No. 537, eff. 10-1-00.

#### **Subchapter V — Outdoor Theaters**

**Comm 62.52 Scope.** The requirements of this part shall apply to all outdoor theaters now in existence and to outdoor theaters hereafter constructed, except as provided in s. Comm 62.56. **History:** Cr. Register, January, 1980, No. 289, eff. 2–1–80.; correction made under s. 13.93 (2m) (b) 7., Stats., Register, August, 1985, No. 356.

- **Comm 62.53 Entrances and exits.** All entrances and exits for outdoor theaters shall comply with the regulations of the department of transportation for driveways from property abutting state highways and the following additional requirements:
- (1) NUMBER OF ENTRANCES. Not more than one entrance shall be provided for each access road but each such entrance may be divided into 2 roadways and channelized to properly provide for vehicles turning right or left from the highway.
- (2) HIGHWAY RIGHT-OF-WAY. That portion of an entrance or exit lying within the highway right-of-way shall comply with the regulations of the authority in charge of the maintenance of the highway or, in the event this authority has no regulation, it shall comply with regulations prescribed by the state department of transportation.
- (3) NUMBER OF EXITS. Not more than one exit shall be provided for each access highway but such exit may be suitably channelized to provide for right and left turns to the highway, and not more than one traffic lane shall be permitted for each traffic lane on the highway available to vehicles leaving the theater.

History: Cr. Register, January, 1980, No. 289, eff. 2–1–80.

- **Comm 62.54 Vehicle storage. (1)** AREA NEEDED. A storage area for vehicles, equal to not less than 10% of the theater capacity, shall be provided between the highway and the ticket booth. In all cases, sufficient storage space shall be provided so the vehicles will not back up on the traveled way of the highway. Storage area shall be calculated on the basis of 162 square feet per vehicle.
- (2) HOLD-OVER AREA. A hold-over storage area having sufficient capacity to accommodate not less than 15% of the theater capacity shall be provided between the ticket booth and the ramp area.

History: Cr. Register, January, 1980, No. 289, eff. 2-1-80.

**Comm 62.55 Tower construction.** The tower supporting the motion picture screen shall be designed to resist a horizontal wind pressure of not less than 30 pounds for every square foot of exposed surface.

History: Cr. Register, January, 1980, No. 289, eff. 2–1–80.

**Comm 62.56 Location of tower.** The screen shall be so oriented that the picture is not visible from any major highway. This requirement does not apply to towers erected prior to January 1, 1952.

History: Cr. Register, January, 1980, No. 289, eff. 2-1-80.

Comm 62.57 Concession and motion picture machine booth. (1) MOTION PICTURE BOOTH. The motion picture booth and equipment shall comply in all respects with the requirements of ss. Comm 55.40 through 55.49.

(2) CONCESSION BUILDINGS. Concession buildings in connection with outdoor theaters shall comply with the requirements of ch. Comm 54.

History: Cr. Register, January, 1980, No. 289, eff. 2–1–80.

- **Comm 62.58 Sanitary facilities. (1)** Tollet Rooms. Outdoor theaters and other occupancies under this chapter shall be provided with separate toilet rooms for each sex. Toilet rooms and equipment shall comply with the requirements of ss. Comm 52.50 through 52.64.
- (2) Sanitary fixtures. Toilet fixture ratios shall be provided as required by s. Comm 55.32. In determining the number of fixtures required for toilet rooms in connection with outdoor theaters, the capacity of the theater shall be established by using 2½ persons for each vehicle accommodated, exclusive of vehicles parked in the waiting or hold–over area. The total number of persons will be considered equally divided between men and women.
- (3) ACCESSIBILITY. Where toilet rooms are provided for the public and are so located that the patrons must cross the ramp area in order to reach the toilet rooms, a suitable approach or passageway leading to the toilet rooms shall be maintained. Such passageways shall be properly lighted and unobstructed.

**History:** Cr. Register, January, 1980, No. 289, eff. 2–1–80; r. and recr., Register, August, 1993, No. 452, eff. 3–1–94.

- **Comm 62.59 Ramps and speaker equipment.**(1) RAMP SPACING. Ramps shall be spaced not less than 38 feet apart. The ramps shall be so designed that any vehicle can move from its parked position to the exit driveway without being required to back up.
- (2) SURFACE REQUIRED. All ramps, parking areas, entrance and exit driveways shall be properly surfaced with a gravel surfacing or better, adequate to withstand the weight of the vehicles accommodated.
- (3) PUBLIC TRANSPORTATION SPEAKER FACILITIES. Where additional seating space is provided in the theater enclosure for patrons using public transportation facilities, the speaker arrangement shall be such that the sound will be confined to the immediate seating area and not broadcast beyond the theater enclosure.
- (4) SPACING OF SPEAKER POSTS AND ELECTRICAL WIRING. There shall not be less than 18 feet distance between speaker posts, measured parallel to the ramps, except in seated areas for patrons using

public transportation. All electrical wiring and electrical equipment shall be installed in accordance with the provisions of the Wisconsin state electrical code, volume 2, ch. Comm 16. Each speaker post shall be wired with wire approved for underground use laid in trenches not less than 12 inches in depth.

**History:** Cr. Register, January, 1980, No. 289, eff. 2–1–80; correction in (4) made under s. 13.93 (2m) (b) 7., Stats., Register, December, 1996, No. 492.

**Comm 62.60 Lighting.** All entrance and exit driveways shall be adequately lighted and properly marked to avoid congestion and confusion and shall remain lighted throughout the performance and until the audience has left the area.

History: Cr. Register, January, 1980, No. 289, eff. 2-1-80.

**Comm 62.61 Speed limit.** In every outdoor theater, notices of a permanent character shall be prominently displayed designating the maximum speed limit permitted for cars driven within the area. Parking lights shall be used when cars are moving in the theater enclosure.

History: Cr. Register, January, 1980, No. 289, eff. 2-1-80.

**Comm 62.62 Running of engines.** At each performance, an instructive trailer shall be shown on the screen informing the patrons of the danger of carbon monoxide poisoning when the engine is running and stating that when it becomes necessary to run the engine, the windows of the vehicle should be opened at least one inch.

History: Cr. Register, January, 1980, No. 289, eff. 2-1-80.

#### Subchapter VI —Assembly Seating Facilities

**Comm 62.70 Scope.** The requirements of this subchapter apply to all assembly seating facilities and stadiums intended primarily to support persons for the purpose of spectator seating.

**History:** Cr. Register, December, 1981, No. 312, eff. 1–1–82; am., Register, August, 1993, No. 452, eff. 3–1–94.

#### Comm 62.71 Approval and supervision.

- (1) APPROVAL OF PLANS. Plans and specifications shall be submitted to the department in accordance with the applicable provisions of ch. Comm 50. The following information shall also be included with each submittal:
- (a) A plot plan for outdoor seating facilities showing location of facility relative to property lines and adjacent buildings or structures on the same premises; or a floor plan for indoor seating facilities showing location of seating relative to all required exits, aisles and passageways;
- (b) Location and size of all structural members, seating area and number of seats, aisles and guardrail assemblies and number and spacing of all rows; and
- (c) Structural calculations or a test report made by an independent testing agency and certified by a Wisconsin registered architect or engineer showing that the dead and live load in the open or partially open position and dead load in the closed position can be safely carried by the supporting structure.
- 1. Exception. The information specified in this paragraph need not be submitted if the seating facility has been granted a materials approval as specified in sub. (2).
- **(2)** APPROVAL OF DESIGN. The design of each type or model of a seating facility may be approved by the department prior to installation for designs that are structurally repetitive in nature. **Note:** See s. Comm 50.19 for further information.
- (3) INSTALLATION SUPERVISION. (a) The installation of all permanent seating facilities having more than 5 rows in height shall be erected under the supervision of a Wisconsin registered architect or engineer.
- (b) Every temporary seating facility shall be inspected for proper erection in accordance with the manufacturer's instructions prior to initial public occupancy.

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

**Comm 62.72 Inspection and maintenance.** Every seating facility shall be inspected at least annually. Any loose connections, defective or broken members shall be repaired before the facility is used. All repairs and maintenance shall conform with the provisions of chs. Comm 50–64.

Comm 62.73

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

**Comm 62.73 Design loads. (1)** DEAD LOADS. All seating facilities shall be designed and constructed to support the actual dead weight of all component members.

(2) LIVE LOADS. All seating facilities shall be designed and constructed to support the superimposed minimum live loads specified in Table 62.73. In every case where the live load is greater than the minimum, the actual load shall be used. The most severe distribution, concentration and combination of design loads and forces shall be taken into consideration.

TABLE 62.73 MINIMUM STRUCTURAL LOADINGS

Component or Load Orientation	Load*
Vertical loads:	
Seating structure with load applied over the horizontal projected area	100 PSF
Seats and footboards	120 PLF
Seating platforms	100 PSF
Nonseating areas, such as aisles and passageways	100 PSF
Sway loads in combination with vertical loads:	
Acting parallel to seating	24 PLF
Acting normal to seating, such as front to rear and rear to front	10 PLF
Wind loads in combination with live, dead and sway loads:	
Vertical projected area when occupied	15 PSF
Vertical projected area when unoccupied	30 PSF
Guardrail loads:	
All rail members with load acting vertically and horizontally	50 PLF
Floor and ground loadings:	
Floors supporting seating facilities	See Table 53-I
Ground supporting seating facilities	See ch. Comm 53-Part II

\*PSF = Pounds per square foot: PLF = Pounds per linear foot

- (3) PARTIAL LOADING. (a) Except as provided in par. (b), structural members in which the stresses are greater under a partial loading than under full loading shall be designed to meet the conditions of greatest stress.
- (b) Allowable stresses due to dead and live loads combined with either the wind or sway load or both, may be increased  $33^{1}/_{3}\%$  provided the structural capacity of the component used is not less than that required for dead and live loads alone.
- (4) ANCHORAGE LOADS. Folding or telescoping seating facilities that are attached to a floor or wall shall be anchored to withstand all impact loads in addition to the required live and dead loads
- **(5)** STRUCTURAL MEMBER OMISSION. All seating facilities shall be designed and manufactured so that if any structural member essential to the strength and stability of the structure is omitted during erection, the absence of such unused member will be self–evident.
- **(6)** FOUNDATIONS, BASE PLATES AND MUDSILLS. (a) Where provided, foundations for seating facilities shall comply with the requirements of ch. Comm 53, Part II.
- (b) Mudsills of approved material sized to prevent settlement shall be provided when seating facilities rest directly on the ground. All bearing surfaces between mudsills and base plates shall be in full contact with each other.

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

- **Comm 62.74 Construction requirements. (1)** AREA LIMITATIONS. (a) *Combustible construction.* Seating facilities constructed entirely of combustible construction shall not exceed 10,000 square feet in ground area or 200 feet in length.
- (b) Partially noncombustible construction. Seating facilities shall not exceed 20,000 square feet in ground area or 400 feet in length when constructed of any of the following:
- 1. Noncombustible framing and combustible seatboards or footboards;
  - 2. Entirely of fire retardant treated wood; or
- 3. Entirely of members conforming to dimensions for heavy timber construction as specified in s. Comm 51.03 (4).
- (c) *Noncombustible construction*. Seating facilities constructed of totally noncombustible construction shall not be limited in ground area or length.
- **(2)** HEIGHT LIMITATION. (a) *Combustible construction*. Seating facilities constructed entirely of combustible materials shall not exceed 20 feet above the ground or floor.
- (b) *Noncombustible construction.* Seating facilities constructed of totally or partially noncombustible construction shall not be limited in height.
- (c) Within tents. The highest level of seat platforms of any portable seating facility within a tent shall not exceed 12 feet above the ground or floor.
- (d) Folding or telescoping. The highest level of seat platforms of any folding or telescoping seating facility not attached to a wall shall not exceed 12 rows or 11 feet above the floor, whichever is lower
- **(3)** CLEARANCE LIMITATIONS. A minimum of 7 feet vertical clearance shall be provided between any platform, seatboard or footboard and any ceiling or projection beneath the ceiling.
- **(4)** LOCATION AND SETBACK. Outdoor seating facilities shall be located at least 10 feet from any other building or adjoining property line unless the exterior walls of such adjacent building are of one–hour fire–resistive construction or better and all openings therein are protected with fire–resistive doors and windows as specified in ss. Comm 51.047 and 51.048.
- **(5)** Barrier-free requirements. Permanent, elevated seating facilities such as bleachers and grandstands shall provide accessible seating in accordance with the applicable requirements in ch. Comm 69.

**History:** Cr. Register, December, 1981, No. 312, eff. 1–1–82; r. and recr. (5), Register, November, 1994, No. 467, 12–1–94.

- **Comm 62.75 Means of egress. (1)** TYPE OF EXITS. (a) Except as provided in par. (b), all required exits from any part of a seating facility shall be doorways, stairways or ramps conforming to the requirements specified in ss. Comm 55.08 through 55.10.
- (b) Doorways, stairways and ramps are not required for assembly seating facilities when aisles are not required.
- **(2)** NUMBER OF EXITS. (a) *Outdoor seating*. Every outdoor seating facility, and every balcony or tier considered separately, shall be provided with at least 2 exits located as remote from each other as practicable and leading directly to the outside at grade. If the capacity of any such facility, balcony or tier exceeds 1,000 persons, there shall be at least 3 exits and where the capacity exceeds 4,000 persons, there shall be at least 4 exits.
- (b) *Indoor seating*. The number of exits for every indoor seating facility shall comply with the requirements as specified in s. Comm 55.07.
- (3) DISTANCE TO EXITS. Exits shall be distributed uniformly to prevent congestion and shall be so located that the line of travel to an exit or to a street, alley or open court is not greater than 150 feet.

- **(4)** AGGREGATE WIDTH OF EXITS. (a) *Outdoor seating*. The total clear width of exits from any outdoor seating facility shall be not less than 22 inches for each 500 persons, or fraction thereof.
- (b) *Indoor seating*. The total clear width of exits off of any indoor seating facility shall be not less than 22 inches per 100 persons, or fraction thereof. The required exit width of the room and building shall be determined under the specific occupancy chapter and s. Comm 51.15.
- **(5)** EXIT LIGHTS AND SIGNS. Exit lights and signs shall comply with the requirements as specified in s. Comm 55.11.
- **(6)** AISLES REQUIRED. (a) Except as provided in par. (b), aisles shall be required in all seating facilities.
- (b) Aisles may be omitted provided all of the following conditions exist:
  - 1. Seats are without backrests;
  - 2. The rise between rows does not exceed 12 inches;
- The number of rows does not exceed 20 for outdoor seating facilities or 16 for indoor seating facilities;
  - 4. The row spacing does not exceed 28 inches; and
- 5. The first seatboard is not more than 20 inches above the ground or floor.
- (7) AISLE WIDTH. Aisles having seats on both sides shall be not less than 42 inches in width and aisles having seats on one side only shall be not less than 36 inches wide.
- **(8)** AISLE LOCATION. (a) *Outdoor seating*. For seating not within a building, the number of seats between any seat and an aisle shall not be greater than 20 when the seats are without backrests and 11 when the seats have backrests.
- (b) *Indoor seating*. Except as provided in par. (c), the number of seats between any seat and an aisle for seating within a building, shall not be greater than 9 when the seats are without backrests and 6 when the seats have backrests.
- (c) Continental seating. The number of seats between any seat and an aisle may be increased to 49 where:
- 1. A minimum unobstructed passage of 22 inches is provided between rows of unoccupied seats; and
- 2. The unobstructed passage between rows leads to a side aisle on each end of the rows where exit doors are located at no more than 20 foot intervals leading to an exit corridor or exit court.
- **(9)** CROSS AISLES. Where provided, aisles parallel to the seat rows shall be not less than 48 inches in width.
- (10) UNOBSTRUCTED MEANS OF EGRESS. No aisle, stair, door or other way of ingress or egress shall be obstructed in any manner while the seating facility is occupied by the public.

**History:** Cr. Register, December, 1981, No. 312, eff. 1–1–82; am. (4) (b), Register, January, 1994, No. 457, eff. 2–1–94.

Comm 62.76 Seating. (1) SEATING ARRANGEMENTS. A minimum 12—inch spacing shall be provided between the back of each seat and the front of the seat immediately behind it. The seating arrangement shall comply with the spacing requirements specified in Table 62.76. Where the same level is used for both seats and footrests, the width of this level shall be not less than 26 inches.

TABLE 62.76 ROW SPACING REQUIREMENTS

Type of Seating	Minimum Back-to-Back Spacing <sup>1</sup>
Seats without backrests	22
Seats with backrests	30
Chair seating	32

<sup>1</sup>All measurements are taken between plumb lines.

(2) FOOTRESTS. Where the same level is not used for both seat-board and footboard, independent footrests shall be provided.

- (3) SEATBOARDS AND FOOTBOARDS. (a) Seatboards and footboards (footrests) shall have a minimum width of 9 inches.
- (b) All seatboards and footboards shall be fastened in place in such a manner that they cannot be accidently displaced.
- **(4)** SEAT OCCUPANT WIDTH. The seating capacity shall be established by allowing one sitting or seat to each 18 inches of length.
- **(5)** RISE BETWEEN ROWS. The maximum rise between seat rows shall not exceed 16 inches unless the horizontal row spacing is 40 inches or more.
- **(6)** STEPS. Where the rise between rows exceeds 12 inches, intermediate steps shall be provided the full width of the aisles. Such steps shall have a uniform rise of not more than 8 inches and a tread of not less than 10 inches in width. In no case shall the angle of seating exceed 45 degrees.
- (7) OPENINGS. The design of the seatboards and footboards shall be such that a sphere with a diameter larger than 9 inches will not pass from the seating area to the area beneath the seating where seatboards are more than 5 rows above the ground or floor.

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

- **Comm 62.77 Guardrails. (1)** FRONT RAIL. Where the front footrest or cross aisle is more than 2 feet above the ground or floor, a guardrail with a midrail shall be provided at the front of such footrest or cross aisle.
- (a) At front footrest. When required, the rail at the front footrest shall be not less than 30 inches in height.
- (b) At front cross aisle. When required, the rail at the front cross aisle shall be not less than 36 inches in height.
- (2) BACK AND SIDE RAILS. (a) Except as provided in par. (b), a guardrail not less than 42 inches in height above the aisle surface or footrest or above the center of the seatboard surface, whichever is adjacent, shall be provided along the back and sides of seating where the seats are more than  $4^{1}/_{2}$  feet above the ground or floor.
- (b) When a wall or fence is within 6 inches of seating and affords protection equivalent to that required under par (a), guardrails may be omitted.
- **(3)** OPENINGS BELOW TOP RAIL. All back, side and front cross aisle guardrails shall have intermediate rails or an ornamental pattern between the footboard or cross aisle and the top rail to prevent the passage of a sphere with a diameter larger than 6 inches.
- **(4)** CROSS AISLE RAIL. A guardrail not less than 30 inches in height with a midrail shall be provided along the front edge of cross aisles where the backs of the seats in front of the cross aisle are less than 24 inches above the cross aisle surface.
- **(5)** LOADING. All guardrails shall be designed and constructed to withstand a vertical and horizontal load of 50 pounds per linear foot. Loads need not be applied simultaneously.

**History:** Cr. Register, December, 1981, No. 312, eff. 1–1–82; am. (3), Register, January, 1994, No. 457, eff. 2–1–94.

- **Comm 62.79 Sanitary facilities. (1)** Toilet Rooms. All spectator assembly facilities shall be provided with toilet rooms and sanitary fixtures as specified in s. Comm 55.32. Toilet room construction and equipment shall comply with the requirements as specified in ss. Comm 52.50 through 52.64.
- (2) SANITARY FIXTURES. In determining the number of sanitary fixtures required for spectator assembly facilities under this subchapter, the capacity shall be considered equally divided between men and women. The number of sanitary fixtures shall be determined using Table 52.32–A but not less than the number determined from Table 52.32–B.
- (3) ACCESSIBILITY. Where toilet rooms are provided for the public and are located that the patrons must cross a ramp area in order to reach the toilet rooms, a suitable approach or passageway

leading thereto shall be maintained. Such passageways shall be properly lighted and unobstructed access shall be provided.

**History:** Cr. Register, December, 1981, No. 312, eff. 1–1–82; am. (1), cr. (2) (3), Register, August, 1993, No. 452, eff. 3–1–94.

# **Comm 62.80 Illumination and emergency lighting.** Illumination and emergency lighting of seating facilities shall comply with the provisions as specified in chs. Comm 16 and 73.

History: Cr. Register, December, 1981, No. 312, eff. 1–1–82; correction made under s. 13.93 (2m) (b) 7., Stats., Register, December, 1995, No. 480; correction made under s. 13.93 (2m) (b) 7., Stats., Register, December, 1996, No. 492.

- **Comm 62.81 Fire prevention. (1)** FLAMMABLE MATERIALS. (a) Except as provided in par. (b), the space under a seating facility shall be kept free from flammable materials and shall not be occupied or used for other than exit purposes.
- (b) The space under a seating facility may be used for nonhazardous purposes provided the use is approved in writing by the department and the area is enclosed with at least one-hour fire-resistive rated construction.
- (2) COMBUSTIBLE AND FLAMMABLE LIQUIDS. Combustible and flammable liquids shall be isolated in accordance with s. Comm 51.08

**History:** Cr. Register, December, 1981, No. 312, eff. 1–1–82; cr. (2), Register, March, 1991, No. 423, eff. 4–1–91; correction in (2) made under s. 13.93 (2m) (b) 7., Stats., Register, March, 2000, No. 531.

#### Subchapter VII — Greenhouses

**Comm 62.90 Scope. (1)** GENERAL. The requirements of this subchapter shall apply to all permanent greenhouses, including free standing, attached and lean—to greenhouses.

Note: See s. Comm 62.10 (4) for definition of term "permanent".

**(2)** LIMITATIONS. The requirements of this subchapter do not apply to temporary greenhouses, cold frames and shade covers; solar domes; skylights; greenhouse type structures not used for cultivating plant life; and production greenhouses used as farm operations as specified in s. 102.04 (3), Stats.

**History:** Cr. Register, December, 1983, No. 336, eff. 1–1–84.

- **Comm 62.91 Classifications.** Greenhouses shall be classified as production greenhouses or mercantile or teaching greenhouses as follows:
- (1) PRODUCTION GREENHOUSES. Production greenhouses are used for growing plant life on a production basis or for research and public access is restricted.
- (2) MERCANTILE OR TEACHING GREENHOUSES. Mercantile or teaching greenhouses are used for growing plant life for direct sale or for research, and public access for the purpose of viewing or purchasing the various products is permitted.

**Note:** Examples of mercantile or teaching greenhouses include but are not limited to nursery greenhouses and greenhouses used by colleges or universities for teaching purposes.

History: Cr. Register, December, 1983, No. 336, eff. 1-1-84.

- **Comm 62.92 Construction.** (1) Frame. Greenhouse frames shall be constructed of concrete, corrosive—resistant metals, heavy timber or fire—retardant treated wood or other approved materials.
- (2) LIGHT-TRANSMITTING PANEL. Greenhouse roof coverings, exterior walls or interior partitions of glass or approved light-transmitting plastic glazing materials having a minimum of CC 2 rating as specified in s. Comm 51.065 (1) (b) 1. may be used without limitation.

History: Cr. Register, December, 1983, No. 336, eff. 1-1-84.

# Comm 62.93 Hazard enclosures and separations. (1) HAZARD ENCLOSURES. Hazards shall be enclosed in accordance with s. Comm 51.08.

(2) NONCOMBUSTIBLE CONSTRUCTION. Greenhouses of non-combustible construction do not require separation from any other

occupancy or from any building of a different class of construction.

- **(3)** COMBUSTIBLE CONSTRUCTION. (a) Greenhouses of combustible construction shall be separated from any other occupancy or from all buildings of a different class of construction by at least 2–hour fire resistive construction in accordance with ss. Comm 51.04 to 51.049.
- (b) All openings in the fire-resistive construction shall be protected by self-closing fire-resistive doors in accordance with s. Comm 51.047.

**History:** Cr. Register, December, 1983, No. 336, eff. 1–1–84; r. and recr., Register, December, 1995, No. 480, eff. 4–1–96; r. and recr. December, 1996, No. 492, eff. 4–1–97; r. and recr. Register, March, 2000, No. 531, eff. 4–1–00.

# **Comm 62.94 Height and allowable area. (1)** Height. Greenhouses shall be of one story design only.

- **(2)** ALLOWABLE AREA. (a) 1. Except as provided in subd. 2., the area of mercantile or teaching greenhouses and production greenhouses shall comply with the requirements of s. Comm 54.01 for the class of construction utilized.
- 2. The area of production greenhouses may be unlimited if the building is entirely surrounded and adjoined by public space, street or yards not less than 60 feet in width.
- Air inflated films may be used over a greenhouse of noncombustible construction without affecting the class of construction of the greenhouse.

Note: Typical greenhouse construction satisfies either type 6-metal frame unprotected or type 8-wood frame unprotected construction. Type 6 construction greenhouses consist of metal or other noncombustible material framing and glass covering. Type 8 construction greenhouses consist of wood or other combustible material framing or utilize light-transmitting plastic covering.

**History:** Cr. Register, December, 1983, No. 336, eff. 1–1–84.

**Comm 62.95 Exits. (1)** NUMBER OF EXITS. (a) Except as provided in par. (b), every greenhouse shall have at least 2 exits.

- (b) Greenhouses with 3,000 or less square feet gross floor area may have one exit.
- **(2)** EXIT DISTRIBUTION. (a) Exits shall be distributed or located so that no part of any greenhouse will be more than 150 feet distant from an exit.
- (b) Where an approved automatic fire sprinkler system is provided throughout the greenhouse, the exit distance may be increased to  $300 \; \text{feet}$ .
- **(3)** TYPE OF EXITS. (a) In production greenhouses, at least one–half of the exits required by this section shall be standard exit doors to grade. The other exits may be sliding doors.
- (b) In mercantile or teaching greenhouses, the required exits shall be standard exits to grade as specified in s. Comm 51.15.

**History:** Cr. Register, December, 1983, No. 336, eff. 1–1–84; emerg. am. (2) (b), eff. 9–6–86; am. (2) (b), Register, November, 1986, No. 371, eff. 12–1–86.

**Comm 62.96 Design loads.** (1) DEAD LOADS. In addition to normal dead loads as described in s. Comm 53.10, special consideration shall be given to any permanent loads such as, but not limited to, hanging baskets, planters and similar items, that are to be supported by structural members for a continuous period of 30 days or more, and the loads shall be included as part of the dead load.

- (2) CONCENTRATED LOADS. (a) All roof members, such as but not limited to, purlins, rafters and truss top members, shall be capable of safely supporting a minimum concentrated live load of 100 pounds applied downward and normal to the roof surface at their midspan. In addition, each bottom chord panel point of the roof trusses shall be capable of safely supporting a minimum concentrated live load of 100 pounds.
- (b) Maximum allowable deflection for structural members of greenhouses may not exceed 1/120 of span.
- **(3)** ROOF LOADS. (a) *Definitions*. The following definitions apply only to the provisions of this section:
- 1. "Thermal resistance (R)" means a factor which measures the resistance of a material to the transmission of heat.

Note: The smaller the R value, the greater the amount of heat a material will transmit.

2. "Continuously heated single glazed greenhouse" means a single glazed greenhouse which has a constantly maintained interior temperature of at least 50°F, measured at 3 feet above the floor surface, a maintenance attendant is on duty at all times or the greenhouse is equipped with a temperature alarm system to provide warning in the event of a heating system failure and the roof material has a total thermal resistance of less than 1.0.

**Note:** Air inflated double film greenhouse roof materials and air inflated double film over rigid light-transmitting material satisfy the intent of this definition.

- 3. "Continuously heated double glazed greenhouse" means a double glazed greenhouse which meets the requirements specified in subd. 2. except that the roof material may have a total thermal resistance of greater than 1.0, but less than 2.0.
- 4. "Intermittently heated or unheated greenhouse" means any greenhouse that does not meet the requirements specified in subd. 2. or 3.
- (b) *Roof loads*. 1. Except as specified in subd. 3., roof structural members subject to snow accumulation shall be designed for the following roof load distributions:

THERMAL CONDITION	MINIMUM ROOF LOAD
Continuously heated single glazed greenhouse	15 Pounds Per Square Foot
Continuously heated double glazed greenhouse	20 Pounds Per Square Foot
Intermittently heated or unheated greenhouse	See s. Comm 53.11 (4) (a)

- 2. The minimum roof load shall be distributed over the entire area and shall be applied to the horizontal projection of the roof.
- 3. Free-standing, single glazed, Quonset-type greenhouses not over 4,500 square feet gross ground area shall be designed for a minimum roof load of 10 pounds per square foot.
- (c) *Heat transfer barriers*. Heat transfer barriers installed in the interior of the greenhouse may be used in winter months if they are automatically or manually retractable with a 20 minute time period. Permanent heat transfer barriers may not be used.
- (d) *Wind loads*. Except as provided in subds. 1. and 2., greenhouses shall be designed to withstand the wind loads specified in s. Comm 53.12.
- 1. Greenhouses with a maximum height of 30 feet shall be designed to resist a minimum of total wind load of 15 pounds per square foot.
- Quonset-type greenhouses not over 15 feet in height shall be designed to resist a minimum total wind load of 10 pounds per square foot.

**History:** Cr. Register, December, 1983, No. 336, eff. 1–1–84; am. (3) (b) 2., Register, January, 1994, No. 457, eff. 2–1–94.

#### Subchapter VIII — Pedestrian Access Structures Connecting Buildings

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

History: Cr. Register, August, 1985, No. 356, eff. 1-1-86.

**Comm 62.98 General requirements. (1)** Construction. All pedestrian access structures shall be of one of the following classes of construction as specified in s. Comm 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. "Totally noncombustible construction" in this usage includes but is not limited to compliance with the following subdivisions:
- 1. Any class A roof may be used if the pedestrian access structure is protected by an automatic sprinkler system as specified in s. Comm 51.23 and the buildings or structures connected to the pedestrian access structure are of Type 6 construction or better.
- 2. Wall panels consisting of a foam plastic core covered with metal, and complying with the provisions of s. Comm 51.06 (4) (b) 2. b., may be used if the pedestrian access structure is protected

by an automatic sprinkler system as specified in s. Comm 51.23 and the buildings or structures connected to the pedestrian access structure are of Type 6 construction or better.

- 3. Wall and ceiling finishes with a Class A rating and floor finish material with a Class I rating, as specified in s. Comm 51.07, may be used if the pedestrian access structure is protected by an automatic sprinkler system as specified in s. Comm 51.23.
- (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 1½-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) SEPARATION EQUIVALENCIES. Pedestrian access structures complying with this subchapter may be utilized as division walls, party walls, class of construction separations and occupancy separations.
- (5) 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 <sup>3</sup>/<sub>4</sub>-hour fire-resistive rated door or window assembly, or the sidewalls of the structure shall be of at least noncombustible one-hour rated construction for a distance of 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 <sup>3</sup>/<sub>4</sub>-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.
- **(6)** LOT LINES. Pedestrian access structures which are constructed over lot lines and connecting buildings with different owners shall conform with subs. (3) and (4).
- (7) FIRE DEPARTMENT ACCESS. (a) Except as provided in par. (b), fire department access openings as specified in s. Comm 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.

**History:** Cr. Register, August, 1985, No. 356, eff. 1–1–86; r. and recr. (5), Register, March, 1991, No. 423, eff. 4–1–91; r. and recr. (1) (a), renum. (4) to (6) to be (5) to (7) and am. (5) (a), cr. (4), Register, January, 1994, No. 457, eff. 2–1–94.

- **Comm 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. Comm 51.16, or a fire escape to grade constructed as specified in s. Comm 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.

**History:** Cr. Register, August, 1985, No. 356, eff. 1–1–86.

**Comm 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. Comm 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. Comm 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. Comm 53.11 (4).
- (c) The pedestrian access structure shall be designed and constructed to withstand the wind loads specified in s. Comm 53.12.

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

History: Cr. Register, August, 1985, No. 356, eff. 1-1-86.

#### Subchapter IX — Amusement Facility & Specialty Event Centers

Comm 62.992 Specialty event centers. (1) APPLICATION. Specialty event centers are assembly halls or places of assembly which include, but are not limited to stadiums, zoos, state or local parks, amusement or theme parks or facilities, state fair grounds, county or local fairgrounds, and specialty event centers

(2) Sanitary facilities. A sufficient number of permanent or temporary sanitary facilities shall be provided as determined from Table 55.32, but in no case shall the ratio of the number of fixtures to the number of occupants or capacity be less than those specified in Table 54.12–A. The total capacity shall be considered equally divided between men and women unless a different ratio is established and submitted to the department.

History: Cr. Register, August, 1993, No. 452, eff. 3-1-94.

#### Subchapter X — Mini-Storage Buildings

**Comm 62.995 Mini-storage buildings. (1)** Scope. This subchapter provides the minimum requirements for the design and construction of mini-storage buildings.

**(2)** HEIGHT, AREA AND CLASS OF CONSTRUCTION. Mini-storage buildings shall be limited to one story and shall not exceed the class of construction and the corresponding area limitations of Table 59.12–1 or 59.12–2 for one story storage garages.

- **(3)** COMPARTMENTALIZATION. Mini-storage buildings shall be divided into areas not greater than 3,000 square feet by 2-hour fire-resistive walls extending from the noncombustible floor to the underside of the roof deck.
- **(4)** CONTENTS. Mini-storage buildings may be utilized for low or moderate hazard material and motor vehicle storage. Storage of high hazard material is prohibited. Uses other than for storage are prohibited except that a rental or manager's office for the storage facility may be provided, subject to the provisions of ch. Comm 54.

Note: See s. A52.011 of Appendix A for further explanatory material.

- **(5)** NUMBER AND LOCATION OF EXITS. (a) Each compartment of a mini–storage building shall be provided with at least one standard exit or overhead door to the outside.
- (b) One exit is permitted from a mezzanine floor level, provided the mezzanine is:
  - 1. Open on at least one side to the floor below;
  - 2. Not more than 12 feet above the floor below; and
- 3. Served by a stairway as specified in s. Comm 51.16, except that the stairway width may be reduced to 3 feet 0 inches.
  - (c) Exits shall be provided and distributed as follows:
- 1. No area of a mini-storage building may be more than 100 feet from an exit, unless the entire building is protected by an automatic sprinkler system.
- 2. No area of a mini-storage building entirely protected by an automatic fire sprinkler system may be more than 200 feet from an exit.

**History:** Cr. Register, January, 1994, No. 457, eff. 2–1–94; r. (6), Register, December, 1995, No. 480, eff. 4–1–96; r. and recr., March, 1997, No. 495, eff. 4–1–97.