

CHAPTER 16

AUTOMATIC SPRINKLER AND FIRE PREVENTION SYSTEMS

16.01	Purpose
16.02	Scope
16.03	Application
16.04	Buildings Exempt From Requirements of This Chapter
16.05	State Regulations
16.06	Severability and Conflicting Ordinances
16.07	Design and Supervision
16.08	Owner's Responsibility
16.09	Plan Examination and Approval
16.10	Evidence of Plan Approval
16.11	Material and Test Certificates
16.12	Revocation of Approval
16.13	Expiration of Plan Approval
16.14	Extension of Plan Approval
16.15	Limitation of Liability
16.16	Enforcement
16.17	Appeals
16.18	Incorporation of Standards by Reference
16.19	General Design Requirements
16.20	Smoke/Heat Detection
16.21	Sprinkler Heads
16.22	Standpipes
16.23	Fire Department Connection
16.24	Fire Hydrant(s)
16.25	Pumper Pad
16.26	Strobe Light
16.27	Annual Inspections
16.28	Non-Hydrants Areas
16.29	Inspection Fees
16.30	Definitions
16.31	Other Requirements
16.32	Fees Related to Fire Protection System Plan Review and Inspections
16.33	Penalties

16.01 PURPOSE.

The purpose of this Chapter 16 (hereinafter "this chapter") is to protect the health, safety and welfare of the public and employees by establishing minimum standards for fire safety, through the standardization of design, installation, testing and maintenance requirements for automatic sprinkler systems in commercial buildings.

16.02 SCOPE.

The provisions of this chapter shall apply to all commercial buildings located within the Town of Somers, Wisconsin except those buildings excluded under §16.04. The provisions of this chapter are not retroactive and shall not apply to any building built prior to August 15, 1996 which has not been altered since August 14, 1996 in any of the ways mentioned under §16.03.

16.03 APPLICATION.

(A) **New Buildings and Additions.** The provisions of this chapter shall apply to all new commercial buildings, and to all existing commercial buildings receiving additions which are subject to the minimum building size requirements under §16.19. These provisions shall not apply to those buildings indicated under §16.04.

(B) **Alterations to Buildings.** The provisions of this chapter shall apply to all existing buildings receiving remodeling and/or alterations which are subject to the minimum building size requirements under §16.19. These provisions shall not apply to those buildings indicated under §16.04.

(C) **Change of Use.**

(1) **Reported.** If the use of an existing building is changed in accordance with the definition of §16.30, and the current requirements for the new use are more stringent than those for the previous use, the building shall be made to comply with the current requirements for the new use.

(2) **Unreported.** If, upon inspection of an existing building, it is found that its use has been changed in accordance with the definition of §16.30, and the current requirements for the new use are more stringent than those for the previous use. The building shall be made to comply with the current requirements for the new use.

16.04 BUILDINGS EXEMPT FROM REQUIREMENTS OF THIS CHAPTER.

(A) One-family and two-family dwellings and their related outbuildings (i.e. barns, private garages, etc.).

- (B) Buildings used exclusively for farming purposes.
- (C) Buildings used primarily for housing livestock or for other agricultural purposes located on research or laboratory farms of public universities or other state institutions.
- (D) Temporary buildings, used exclusively for construction purposes, not exceeding two (2) stories in height and not used for living quarters.
- (E) Buildings owned by the federal government. Buildings owned by other than the federal government and leased to the federal government are not exempt.
- (F) Bed and breakfast establishments as defined under §254.61(1), Wis. Stats.
- (G) Community based residential facilities located in existing buildings and providing care, treatment and services to three (3) to eight (8) unrelated adults.
- (H) An adult family home certified under §50.01(1)(a), Wis. Stats.
- (I) A one-family or two-family dwelling in which a home occupation or mixed occupancy is located. This exemption shall not apply to those dwellings which involve occupations deemed hazardous by the Somers Fire Department.

16.05 STATE REGULATIONS.

All building code requirements, rules and laws of the State of Wisconsin shall apply to all buildings located within the Town of Somers, Wisconsin. The requirements of this chapter shall not lessen any building code requirements, rules or laws of the State of Wisconsin. Should any conflict arise between this chapter and the codes, rules or laws, the more stringent regulation shall govern.

16.06 SEVERABILITY AND CONFLICTING ORDINANCES.

If in any section, clause or any part of this chapter, including those matters adopted from the Wisconsin Administrative Code or any other state law, rules or regulations, shall be judged unconstitutional or invalid by any court of law, the remaining provisions of this chapter shall remain in full force and effect.

16.07 DESIGN AND SUPERVISION.

- (A) **Design.** Every new building or alteration to an existing building shall be designed in compliance with this chapter.
 - (1) Plans, specifications and hydraulic calculations prepared within Wisconsin:

(a) **Buildings containing not more than fifty thousand (50,000) cubic feet total volume.** The plans, specifications and hydraulic calculations for every new building, or alteration to a building, containing not more than fifty thousand (50,000) cubic feet total volume, or addition to a building in which the volume of the addition results in the entire building containing not more than fifty thousand (50,000) cubic feet total volume, may be prepared by a registered fire protection designer, professional engineer, architect, fire protection contractor or authorized agent.

(b) **Buildings containing more than fifty thousand (50,000) cubic feet total volume.** The plans, specifications and hydraulic calculations for every, new building, or alteration to a building containing more than fifty thousand (50,000) cubic feet total volume, or addition to a building in which the volume of the addition results in the entire building containing more than fifty thousand (50,000) cubic feet total volume, shall be designed by a registered fire protection designer, professional engineer or architect.

(2) Plans, specifications and hydraulic calculations prepared outside Wisconsin:

(a) **Design.** The plans, specifications and hydraulic calculations for buildings under §16.07(A)(1)(b) may be prepared by a registered fire protection designer, professional engineer or architect registered outside the State of Wisconsin, provided the following conditions are satisfied:

(i) The Town of Somers shall be provided with a letter of recognition from the State of Wisconsin accepting the licensing authority of the agency or entity which registered the fire protection designer, professional engineer or architect that prepared the documents.

(ii) The plans, specifications and hydraulic calculations shall bear the signature and seal or stamp of the registered fire protection designer, professional engineer or architect that prepared the documents.

(iii) The Town of Somers shall be provided with a certificate dated, signed and sealed or stamped by a fire protection designer, professional engineer or architect registered in Wisconsin. The certificate shall:

(a) Indicate that the plans, specifications and hydraulic calculations were prepared in a state other than

Wisconsin by a fire protection designer, professional engineer or architect registered in that state.

- (b) Describe the work performed by the Wisconsin registered fire protection designer, professional engineer or architect.
- (c) Include a statement to the effect that the plans, specifications and hydraulic calculations have been reviewed and comply with all applicable local and state building codes, and that the reviewing fire protection designer, professional engineer or architect will be responsible for the supervision of construction in accordance with the requirements of COMM 61.40.

(B) **Supervision**. All installations under §16.07(A)(1)(b) shall be supervised by a Wisconsin registered fire protection designer or fire protection contractor. The person responsible for supervision shall also be responsible for the construction and installation being in substantial compliance with the approved plans and specifications.

16.08 OWNER'S RESPONSIBILITY.

Owner may not construct or alter any building, or portion of a building, or permit any building to be constructed or built except in compliance with this chapter.

16.09 PLAN EXAMINATION AND APPROVAL.

(A) Fire protection system plans, specifications and hydraulic calculations prepared in accordance with this chapter shall be submitted to the Somers Fire Department for approval for all buildings located within the Town of Somers, Wisconsin except for those exempt buildings listed under §16.04 and §16.09(C). No installation or alteration shall begin until approval by the Somers Fire Department has been granted and a permit has been obtained from the Somers Building Inspector. Deviation from approved plans shall require permission of the Somers Fire Department. The quantity of documents submitted to the Somers Fire Department shall be as follows:

- (1) Plans = two (2) plus applicants copies.
- (2) Hydraulic calculations = two (2) plus applicant's copies.
- (3) Written description = two (2) plus applicants copies.

(B) Direct submittal of plans to the Department's Fire Protection Consultant may be arranged with the Somers Fire Department. With direct submittal, the submitter is responsible for all fees

to the Consultant at the time of submittal. Any consultant must be approved by the Department.

(C) Fire protection system plans submitted to the Somers Fire Department for approval shall comply with all provisions of §16.07 and shall include:

- (1) Signature, date and seal or stamp of the Wisconsin registered fire protection designer, professional engineer or architect responsible for the design.
- (2) Signature, date and license number of the Wisconsin registered fire protection contractor responsible for the installation.
- (3) Name of the owner of the building.
- (4) Name of the occupant(s) of the building.
- (5) Location of building, including street address.
- (6) Point of compass.
- (7) Scale of all drawings and details.
- (8) Full height cross section through the building.
- (9) Location within the building of the following:
 - (a) Partitions.
 - (b) Walls.
 - (c) Soffits.
 - (d) Fire walls.
 - (e) Ceilings.
 - (f) Concealed spaces .
 - (g) Closets.
 - (h) Attics.
 - (i) Bathrooms.
 - (j) Sprinkler heads.

- (k) Alarm bells.
- (l) Valves.
- (m) Fire pumps.
- (n) Jockey pumps.
- (o) Dram pipes.
- (p) Test connections.
- (q) Hangers and supports.

(10) Occupancy classification of each area or room within the building.

(11) Location and size of any small enclosures in which no sprinklers are to be installed.

(12) Municipal water supply information:

- (a) Static pressure.
- (b) Residual pressure.
- (c) Flow rate.
- (d) Date and time of flow test.
- (e) Elevation of flow test relative to building site.

(f) Municipal water supply main:

- (i) Size.
- (ii) Material type.
- (iii) Dead-end or circulating.
 - (a) If dead-end, list direction and distance to nearest circulating main.

(13) Other sources of water supply.

(14) Location and size of:

- (a) Above ground piping.
- (b) Underground piping.
- (c) Hose outlets.

(15) Total area protected by each system per floor.

(16) Number of sprinklers on each system per floor.

(17) Total system volume (gallons):

- (a) Dry systems.
- (b) Preaction systems.
- (c) Antifreeze systems.

(18) Material specifications:

- (a) Pipes.
- (b) Fittings.
- (c) Hangers.
- (d) Sprinkler heads.
- (e) Alarm bells.
- (f) Valves.
- (g) Fire pumps.
- (h) Jockey pumps.
- (i) Backflow preventers.
- (j) Antifreeze solutions.

(19) Pipe cut lengths or center-to-center dimensions.

(20) Piping provisions for flushing.

(21) For additions and alterations to existing systems, all information about the

existing system necessary to verify compliance with this chapter shall be provided.

(22) For hydraulically designed systems:

- (a) Remote area number.
- (b) Water density.
- (c) Remote area size.
- (d) System type.
- (e) Occupancy classification.
- (f) Hose allowances and points of application.
- (g) Remote area factor(s).
- (h) Sprinkler head K factor(s).
- (i) Pipe C factor(s).
- (j) Total system demand and point of application.

(23) If the room design method is used, all unprotected wall openings shall be shown.

(24) This includes but shall not be limited to:

- (a) Doors.
- (b) Windows.
- (c) Walkways.

(25) Name, address and telephone number of the Wisconsin registered fire protection contractor responsible for the installation.

(26) Elevations of:

- (a) Pipes.
- (b) Sprinkler heads.

- (c) Hydraulic reference points.
- (d) Supply points.
- (27) Settings of pressure reducing valves.
- (28) Settings of pressure relief valves.
- (29) Quantity of antifreeze solution used.
- (30) Other information that may be requested by the Somers Fire Department.

(D) When a project involves a single alteration or addition of ten (10) or less sprinkler heads, fire protection plans and specifications shall not be required to be submitted to the Somers Fire Department for approval or to be present at the job site provided the following conditions are satisfied:

- (1) Prior to installation, provide to the Somers Fire Department a written description of the type and scope of fire protection work to be performed. This document shall include the signature, date and license number of the Wisconsin registered fire protection contractor responsible for the work.
- (2) A copy of this document shall be present at the building site at all times. The document shall be open to inspection by an authorized representative of the Somers Fire Department.

Multiple alterations or additions which exceed ten (10) sprinkler heads within a one (1) year time period shall comply with all provisions set forth in this section, §16.09.

16.10 EVIDENCE OF PLAN APPROVAL.

Except as provided under §16.09(D), the Wisconsin registered fire protection contractor responsible for the work shall keep at the building site at all times one (1) set of plans bearing the stamp of conditional approval from the Somers Fire Department and a copy of the specifications. The plans shall be open to inspection by an authorized representative of the Somers Fire Department.

16.11 MATERIAL AND TEST CERTIFICATES.

All fire protection systems installed in the Town of Somers, Wisconsin shall be tested in accordance with the requirements of the most recent Wisconsin state code and NFPA pamphlets. In the event that a conflict between these documents occurs, the fire protection contractor shall comply with the most stringent requirements. Two (2) copies of each Material and Test Certificate shall be provided to the Somers Fire Department before an occupancy permit will be granted.

16.12 REVOCATION OF APPROVAL.

The Somers Fire Department may revoke any approval, issued under the provisions of this chapter, for any false statements or misrepresentation of facts upon which the approval was based.

16.13 EXPIRATION OF PLAN APPROVAL.

Plan approvals issued by the Somers Fire Department shall expire two (2) years after the approval date indicated on the fire protection plans, unless extended as provided below.

16.14 EXTENSION OF PLAN APPROVAL.

Upon written request and payment of the fees specified under §16.32, the expiration date described under §16.13 may be extended for a single two (2) year period provided the written request and fee is submitted prior to the expiration date of the original approval and the originally approved plans are revised to comply with the requirements of this chapter at the time that the request is made.

16.15 LIMITATION OF LIABILITY.

A conditional approval of a fire protection design by the Somers Fire Department shall not be construed as an assumption of any design responsibility.

16.16 ENFORCEMENT.

The provisions of this chapter shall be enforced by the Somers Fire Department or its authorized representatives.

16.17 APPEALS.

Whenever the Chief shall disapprove an application or refuse to grant a permit applied for or when it is claimed that the provisions of the Code do not apply, the applicant shall proceed as set forth in §1.17 of the Code of Ordinances of the Town of Somers.

16.18 INCORPORATION OF STANDARDS BY REFERENCE.

The most current edition of all NFPA documents are hereby incorporated by reference into this chapter.

16.19 GENERAL DESIGN REQUIREMENTS.

(A) Approved automatic fire sprinkler systems shall be installed and maintained in all of the following classifications of buildings which are located within the Town of Somers, Wisconsin, subject to the exemptions contained in §16.03 and §16.04 of these ordinances, in accordance with the following criteria:

(B) **Occupancy Classification**. The occupancy of a building or structure, or portion of a building or structure, shall be classified in accordance with (1) through (19). Occupancy classification shall be subject to the ruling of the Somers Fire Department where there is a question of proper classification in any individual case.

(1) **Assembly Occupancy**. An occupancy used for a gathering of fifty (50) or more persons for deliberation, worship, entertainment, eating, drinking, amusement, awaiting transportation, or similar uses or used as a special amusement building, regardless of occupant load.

(a) **Fire Resistive Construction**.

(i) **One story (not exceeding eight thousand (8,000) square feet in total area)**. An approved automatic fire sprinkler system shall be installed and maintained throughout the following areas:

- (a) Below stage.
- (b) Above stage.
- (c) Below stage roof.
- (d) Gridiron.
- (e) Fly galleries.
- (f) Catwalks.
- (g) Dressing rooms.
- (h) Workrooms.
- (l) Property rooms.
- (j) Crawl spaces.
- (k) Stage side of proscenium opening.

(l) Hidden spaces.

(m) Bath rooms.

(ii) **One story.** All areas of all buildings exceeding eight thousand (8,000) square feet in total area.

(iii) **More than one story.** All areas of all buildings.

(b) **Non-Fire Resistive Construction.** All areas of all buildings.

(2) **Educational Occupancy.** An occupancy used for educational purpose by six (6) or more persons for four (4) or more hours per day or more than twelve (12) hours per week. Other occupancies associated with educational institutions shall be in accordance with the appropriate parts of this Code.

(a) **Fire resistive construction.**

(i) **One story.** All areas of buildings exceeding ten thousand (10,000) square feet in total area.

(ii) **Two story.** All areas of buildings exceeding ten thousand (10,000) square feet in total area or having a single floor area exceeding five thousand (5,000) square feet.

(iii) **More than two stories.** All areas of all buildings.

(b) **Non-fire resistive construction.** All areas of all buildings.

(3) **Day-Care Occupancy.** An occupancy in which four (4) or more clients receive care, maintenance, and supervision, by other than their relatives or legal guardians, for less than twenty-four (24) hours per day.

(a) All areas of all buildings.

(4) **Health Care Occupancy.** An occupancy used for purposes of medical or other treatment or care of four or more persons where such occupants are mostly incapable of self-preservation due to age, physical or mental disability, or because of security measures not under the occupants' control.

(a) **Buildings of fire resistive construction not exceeding twelve thousand (12,000) square feet in total area.** An approved automatic fire sprinkler system shall be installed and maintained throughout the following areas:

- (i) Basements.
- (ii) Workshops.
- (iii) Laboratories.
- (iv) Stairways.
- (v) Corridors.
- (vi) Stage areas of auditoriums.
- (vii) Janitor's closets.
- (viii) Kitchens.
- (ix) Gift shops.
- (x) Laundries.
- (xi) Cafeterias.
- (xii) Hidden spaces.
- (xiii) Crawl spaces.
- (xiv) All areas where combustible materials are handled or stored.

(b) **Buildings exceeding twelve thousand (12,000) square feet in total area.** All areas of all buildings.

(c) **Non-fire resistive construction.** All areas of all buildings.

(5) **Ambulatory Health Care Occupancy.** A building or portion thereof used to provide services or treatment simultaneously to four (4) or more patients that provide, on an outpatient basis, one (1) or more of the following: (1) treatment for patients that renders the patients incapable of taking action for self-preservation under emergency conditions without the assistance of others, (2) anesthesia that renders the patients incapable of taking action for self-preservation under emergency conditions without the assistance of others, (3) emergency or urgent care for patients who, due to the nature of their injury or illness, are incapable of taking action for self-preservation under emergency conditions without the assistance of others.

(a) **Buildings of Fire Resistive Construction not exceeding twelve thousand (12,000) square feet in total area.** An approved automatic fire sprinkler system shall be installed and maintained throughout the following areas:

- (i) Basements.
- (ii) Workshops.
- (iii) Laboratories.
- (iv) Stairways.
- (v) Corridors.
- (vi) Stage areas of auditoriums.
- (vii) Janitor's closets.
- (viii) Kitchens.
- (ix) Gift shops.
- (x) Laundries.
- (xi) Cafeterias.
- (xii) Hidden spaces.
- (xiii) Crawl spaces.
- (xiv) All areas where combustible materials are handled or stored.

(b) **Buildings exceeding twelve thousand (12,000) square feet in total area.** All areas of all buildings.

(c) **Non-fire resistive construction.** All areas of all buildings.

(6) **Detention and Correctional Occupancy.** An occupancy used to house four (4) or more persons under varied degrees of restraint or security where such occupants are mostly incapable of self-preservation because of security measures not under the occupants' control.

(a) **Buildings of Fire Resistive Construction not exceeding**

twelve thousand (12,000) square feet in total area. An approved automatic fire sprinkler system shall be installed and maintained throughout the following areas:

- (i) Basements.
- (ii) Workshops.
- (iii) Laboratories.
- (iv) Stairways.
- (v) Corridors.
- (vi) Stage areas of auditoriums.
- (vii) Janitor's closets.
- (viii) Kitchens.
- (ix) Gift shops.
- (x) Laundries.
- (xi) Cafeterias.
- (xii) Hidden spaces.
- (xiii) Crawl spaces.
- (xiv) All areas where combustible materials are handled or stored.

(b) **Buildings exceeding twelve thousand (12,000) square feet in total area.** All areas of all buildings.

(c) **Non-fire resistive construction.** All areas of all buildings.

(7) **Lodging or Rooming House.** A building or portion thereof that does not qualify as one- or two-family dwelling, that provides sleeping accommodations for a total of sixteen (16) or fewer people on a transient or permanent basis, without personal care services, with or without meals, but without separate cooking facilities for individual occupants.

(a) **Fire Resistive Construction.**

(i) Sprinklers to be installed in accordance with NFPA 13D on all buildings exceeding eight thousand five hundred (8,500) square feet living area.

(ii) Attached garages and finished basements will be included in the living area.

(b) **Non-fire Resistive Construction.**

(i) Sprinklers to be installed in accordance with NFPA 13D on all buildings exceeding three thousand five hundred (3,500) square feet living area.

(ii) Attached garages and finished basements will be included in the living area.

(8) **Hotel/Motels.** A building or groups of buildings under the same management in which there are sleeping accommodations for more than sixteen (16) persons and primarily used by transients for lodging with or without meals.

(a) **One story (not exceeding eight thousand (8,000) square feet in total area).** An approved automatic fire sprinkler system shall be installed and maintained throughout the following areas:

- (i) Basements.
- (ii) Workshops.
- (iii) Stairways.
- (iv) Corridors.
- (v) Stage areas of auditoriums.
- (vi) Janitor's closets.
- (vii) Kitchens.
- (viii) Gift shops.
- (ix) Laundries.
- (x) Cafeterias.
- (xi) Hidden spaces.

(xii) Crawl spaces.

(xiv) All areas where combustible materials are handled or stored.

(b) **Two stories (not exceeding eight thousand (8,000) square feet in total area or four thousand (4,000) square feet on a single floor).** An approved automatic fire sprinkler system shall be installed and maintained throughout the following areas:

(i) Basements.

(ii) Workshops.

(iii) Stairways.

(iv) Corridors.

(v) Stage areas of auditoriums.

(vi) Janitor's closets.

(vii) Kitchens.

(viii) Gift shops.

(ix) Laundries.

(x) Cafeterias.

(xi) Hidden spaces.

(xii) Crawl spaces.

(xiii) All areas where combustible materials are handled or stored.

(c) **One story.** All areas of all buildings exceeding eight thousand (8,000) square feet in total area.

(d) **Two stories.** All areas of all buildings exceeding eight thousand (8,000) square feet in total area or having a single floor area exceeding four thousand (4,000) square feet.

(e) **More than two stories.** All areas of all buildings.

(9) **Dormitory.** A building or a space in a building in which a group sleeping accommodations are provided for more than sixteen (16) persons who are not members of the same family in one room, or a series of closely associated rooms, under joint occupancy and single management, with or without meals, but without individual cooking facilities.

(a) **One story (not exceeding eight thousand (8,000) square feet in total area).** An approved automatic fire sprinkler system shall be installed and maintained throughout the following areas:

- (i) Basements.
- (ii) Workshops.
- (iii) Stairways.
- (iv) Corridors.
- (v) Stage areas of auditoriums.
- (vi) Janitor's closets.
- (vii) Kitchens.
- (viii) Gift shops.
- (ix) Laundries.
- (x) Cafeterias.
- (xi) Hidden spaces.
- (xii) Crawl spaces.
- (xiv) All areas where combustible materials are handled or stored.
- (xv) Laboratories.

(b) **Two stories (not exceeding eight thousand (8,000) square feet in total area or four thousand (4,000) square feet on a single floor).** An approved automatic fire sprinkler system shall be installed and maintained throughout the following areas:

- (i) Basements.

- (ii) Workshops.
- (iii) Stairways.
- (iv) Corridors.
- (v) Stage areas of auditoriums.
- (vi) Janitor's closets.
- (vii) Kitchens.
- (viii) Gift shops.
- (ix) Laundries.
- (x) Cafeterias.
- (xi) Hidden spaces.
- (xii) Crawl spaces.
- (xiii) All areas where combustible materials are handled or stored.
- (xiv) Laboratories.

(c) **One story**. All areas of all buildings exceeding eight thousand (8,000) square feet in total area.

(d) **Two stories**. All areas of all buildings exceeding eight thousand (8,000) square feet in total area or having a single floor area exceeding four thousand (4,000) square feet.

(e) **More than two stories**. All areas of all buildings.

(10) **Apartment Building/Condominium**. A building or portion thereof containing three (3) or more dwelling units with independent cooking and bathroom facilities.

(a) An approved automatic fire sprinkler system shall be installed and maintained in all areas of multi-family buildings which meet any one of the following criteria:

- (i) Total area of building exceeds six thousand (6,000)

square feet.

(ii) Building contains three (3) or more dwelling units.

(iii) Total floor area, excluding all dwelling units, exceeds the following limits:

- (a) Fire Resistive Type A: 12,000 sq. ft.
- (b) Fire Resistive Type B: 10,000 sq. ft.
- (c) Metal Frame Protected: 8,000 sq. ft.
- (d) Heavy Timber: 8,000 sq. ft.
- (e) Exterior Masonry Protected: 5,600 sq. ft.
- (f) Exterior Masonry Unprotected: 5,600 sq. ft.
- (g) Metal Frame Unprotected: 5,600 sq. ft.
- (h) Wood Frame Protected: 5,600 sq. ft.
- (i) Wood Frame Unprotected: 4,800 sq. ft.

(11) **Residential Board and Care Occupancy**. A building or portion thereof that is used for lodging and boarding of four (4) or more residents, not related by blood or marriage to the owners or operators, for the purpose of providing personal care services.

(a) All areas of all buildings.

(12) **Mercantile Occupancy**. An occupancy used for the display and sale of merchandise.

(a) **Fire resistive construction**.

(i) **One story**. All areas of buildings exceeding ten thousand (10,000) square feet in total area.

(ii) **Two story**. All areas of buildings exceeding ten thousand (10,000) square feet in total area or having a single floor area exceeding five thousand (5,000) square feet.

(iii) **More than two stories**. All areas of all buildings.

(b) **Non-fire resistive construction.**

(i) **One story:** All areas of buildings exceeding five thousand (5,000) square feet in total area.

(ii) **More than one story.** All areas of all buildings.

(13) **Business Occupancy.** An occupancy used for account and record keeping or the transaction of business other than mercantile.

(a) **Fire resistive construction.**

(i) **One story.** All areas of buildings exceeding ten thousand (10,000) square feet in total area.

(ii) **Two story.** All areas of buildings exceeding ten thousand (10,000) square feet in total area or having a single floor area exceeding five thousand (5,000) square feet.

(iii) **More than two stories.** All areas of all buildings.

(b) **Non-fire resistive construction.**

(i) **One story:** All areas of buildings exceeding five thousand (5,000) square feet in total area.

(ii) **More than one story.** All areas of all buildings.

(14) **Industrial Occupancy.** An occupancy in which products are manufactured or in which processing, assembling, mixing, packaging, finishing, decorating, or repair operations are conducted.

(a) **Fire resistive construction.**

(i) **One story.** All areas of buildings exceeding ten thousand (10,000) square feet in total area.

(ii) **Two story.** All areas of buildings exceeding ten thousand (10,000) square feet in total area or having a single floor area exceeding five thousand (5,000) square feet.

(iii) **More than two stories.** All areas of all buildings.

(b) **Non-fire resistive construction.**

(i) **One story**: All areas of buildings exceeding five thousand (5,000) square feet in total area.

(ii) **More than one story**. All areas of all buildings.

(15) **Storage Occupancy**. An occupancy used primarily for the storage or sheltering of goods, merchandise, products, vehicles or animals.

(a) **Fire resistive construction**.

(i) **One story**. All areas of buildings exceeding ten thousand (10,000) square feet in total area.

(ii) **Two story**. All areas of buildings exceeding ten thousand (10,000) square feet in total area or having a single floor area exceeding five thousand (5,000) square feet.

(iii) **More than two stories**. All areas of all buildings.

(b) **Non-fire resistive construction**.

(i) **One story**: All areas of buildings exceeding five thousand (5,000) square feet in total area.

(ii) **More than one story**. All areas of all buildings.

(16) **Hazardous Occupancies**. This subsection shall also apply to commercial and industrial buildings, and industrial garages and service centers where flammable and explosive materials are manufactured, used, sold or stored.

(a) All areas of all buildings exceeding three thousand (3,000) square feet in total area.

(b) All areas of all buildings with a high hazard occupancy, regardless of area.

(17) **Multiple Occupancy**. A building or structure in which two (2) or more classes of occupancy exist.

(a) **Mixed Occupancy**. A multiple occupancy where the occupancies are intermingled. Where one of the mixed uses is single or two family residential, the predominant occupancy shall be presumed to be single or two family residential.

(i) Where incidental to another occupancy, areas used as

follows shall be permitted to be considered part of the predominant occupancy and shall be subject to the provisions of the code that apply to the predominant occupancy:

- (a) Mercantile, business, industrial, or storage use.
- (ii) The following accessory occupancies shall not be required to be separated from the primary occupancy.
 - (a) An area used solely as a public dining room having an occupant load of not more than three hundred (300) persons and accessory to a retail sales area.
 - (b) An assembly room not over seven hundred fifty (750) square feet where not accessory to an occupancy with high hazard contents.
 - (c) Administrative, clerical, or other office rooms that, in the aggregate, are not more than twenty-five (25%) percent of the principal occupancy, where not accessory to an occupancy with high hazard contents.
- (b) **Separated Occupancy.** A multiple occupancy where the occupancies are separated by fire resistance-rated assemblies.
 - (i) Each portion of the building shall be classified as to its use in accordance with §16.19(B)(1) through (19).
 - (ii) Where separated occupancies are provided, each part of the building comprising a distinct occupancy, as described in this chapter, shall be completely separated from other occupancies by approved existing separations.

(18) **Attic Spaces in Non-single or two-family residential.**

- (a) **Multi-family buildings.**
 - (i) Attic spaces shall be subdivided into sections containing two (2) dwelling units by a one (1) hour fire rated partition.
 - (ii) All openings in the attic space partitions shall have a one (1) hour fire rated self-closing door.
 - (iii) The requirements of §16.19(B)(20)(a)(i) and §16.19(B)(20)(a)(ii) shall not apply when the building, including all

attic spaces, is completely protected by an approved automatic fire sprinkler system.

(b) **Commercial, industrial governmental and institutional buildings.**

(i) Buildings with a combustible roof shall have attic spaces subdivided into areas not exceeding three thousand (3,000) square feet by a one (1) hour fire rated partition.

(ii) All openings in the attic space partitions shall have a one (1) hour fire rated self-closing door.

(iii) All combustible attic spaces and all attics used for storage shall be completely protected by an approved automatic fire sprinkler system.

(iv) The requirements of §16.19(B)(20)(b)(i) and §16.19(B)(20)(b)(ii) shall not apply when the building, including all attic spaces, is completely protected by an approved automatic fire sprinkler system.

(19) **Other Buildings.** The Somers Fire Department shall be consulted for the requirements of all non-exempt buildings that are not included in the other categories listed under this subsection.

16.20 SMOKE/HEAT DETECTION.

Smoke and heat detection systems shall be installed throughout the following buildings. These systems shall be monitored twenty-four (24) hours per day by a remote central station service. When activated, the systems shall send an alarm signal to the central station service who shall then notify the Kenosha County Dispatch Center immediately.

- (A) Theaters and Assembly Buildings.
- (B) Hospitals.
- (C) Nursing Homes.
- (D) Convalescent Homes.
- (E) Homes for the Aged.
- (F) Adult Living Centers.

- (G) Adult Day Care Facilities.
- (H) Community-Based-Residential-Facilities.
- (I) Schools and Other Places of Instruction.
- (J) Hotels.
- (K) Motels.
- (L) Dormitories.
- (M) Fraternities.
- (N) Sororities.
- (O) Child Day Care Facilities.
- (P) Multi-Family Buildings.

16.21 SPRINKLER HEADS.

(A) **Spacing**. All building code requirements, rules and laws of the State of Wisconsin and the requirements of all applicable NFPA documents shall apply with the following exceptions:

- (1) For all hazards requiring a design density less than 0.25 gpm/sq. ft. the maximum head spacing shall be one hundred thirty (130) square feet.
- (2) For all buildings which qualify for NFPA 13R designs, the spacing requirements of these documents shall be used except that:
 - (a) Maximum head spacing for all areas outside of the dwelling units, excluding attic spaces, shall be one hundred thirty (130) square feet.

16.22 STANDPIPES.

(A) **Dry Standpipes**. All buildings of three (3) stories or more and up to sixty (60) feet in height shall be provided with a dry standpipe system. The system shall comply with all requirements of the State Code, NFPA 14 and the following list:

- (1) **Pipe**.
 - (a) ANSI/ASTM A53 or ASTM A1 35 Schedule 40 black steel.

(2) **Fittings.**

- (a) Standard weight cast ductile iron grooved fittings with standard weight cast ductile iron grooved couplings.
- (b) Segmentally welded grooved fittings and lightweight grooved couplings shall not be used.

(3) **Mechanical outlets.**

- (a) Mechanical tee bolted branch outlet with female threaded or grooved outlets.

(4) **Welded outlets.**

- (a) Forged steel with female threaded or grooved outlets.

(5) **Minimum pipe sizes.**

- (a) All pipe except for that noted in §14.49(1)(E)(2) = four (4) inches.
- (b) Nipples connecting fire hose valves to four (4) inch feed mains = two and one-half (2½) inches.

(6) **Fire hose valves.**

- (a) Two and one-half (2½) inch fire hose valve with two and one-half (2½) inch cap and chain.

(B) **Wet Standpipes.** All buildings exceeding sixty (60) feet in height shall be provided with a wet standpipe system. The system shall comply with the requirements of the State Code and NFPA 14.

16.23 FIRE DEPARTMENT CONNECTION.

(A) The distance between Fire Department Connections (FDC) for either sprinkler or standpipe systems and the pumper pad shall be no greater than forty (40) feet.

(B) The minimum distance of the pumper pad from the building shall be equal to the height of the building plus ten (10) feet.

(C) All FDC's shall be equipped with an automatic ball drip. Location and arrangement shall be approved by the Fire Department prior to installation.

16.24 FIRE HYDRANT(S).

(A) A minimum of one (1) fire hydrant (approved), as defined in §16.30, shall be installed on all properties where a sprinkler system or standpipe system is installed.

(1) This hydrant shall be located remote from the building and curbside to a street or driveway capable of providing safe access for fire department vehicles.

(2) The minimum distance from the building shall be equal to the height of the building plus ten (10) feet.

(B) Additional hydrant(s) shall be provided around the perimeter of the building so that no two (2) hydrants are more than three hundred (300) feet apart measured by normal access routes.

(C) All fire hydrant locations shall be approved by the Fire Department and shall be installed in compliance with the requirements of the Town of Somers and NFPA. All fire hydrants shall be installed in such a manner and location so as to be accessible at all times to the Fire Department.

(D) All fire hydrants shall be capable of providing a minimum of one thousand five hundred (1500) gpm at twenty (20) psig.

16.25 PUMPER PAD.

(A) A single pumper pad shall be provided at each fire department connection location.

(B) Access to the pumper pad shall be maintained at all times.

(C) Location, size and arrangement of pumper pad(s), fire department connections(s) and fire hydrant(s) shall be approved by the Fire Department prior to installation.

16.26 STROBE LIGHT.

(A) A strobe light shall be placed above the audible water flow alarm. The light shall be activated by the flow from a single sprinkler head. Additional strobe lights shall be required on buildings that have multiple sprinkler systems (risers in multiple locations).

(B) **Strobe specifications.** The following model strobe lights are acceptable for use:

(1) Federal, Model 131 ST/DST.

(2) Whelan, Model 1550.

(3) Equal.

16.27 ANNUAL INSPECTIONS.

All fire protection systems and system components shall be inspected and maintained in accordance with COMM 14.13.

16.28 NON-HYDRANTS AREAS.

(A) Any building which is subject to the requirements of this chapter pertaining to automatic fire sprinkler systems or an automatic fire suppression system and which is located in a non-hydrant area of the Town of Somers (an area without public water mains), shall be provided with an approved source of water supply capable of providing a maximum pressure of fifty (50) psi to the building's automatic fire sprinkler system(s) and/or automatic fire suppression system(s).

(B) Should a public water main be installed at the site of an existing building which is protected by either an existing automatic fire sprinkler system or an existing automatic fire suppression system, the owner shall connect the existing system(s) to the public water main within six (6) months of the date that the public water main is installed at the building site.

16.29 INSPECTION FEES.

(A) **Automatic Sprinkler and Fire Prevention Systems Fees.** The schedule of inspection fees contained in Appendix A of this chapter are minimum fees for each category of inspection. However, when the Chief determines that additional outside consultants are necessary to adequately review and approve the plan or design, the fee shall be the actual cost of such service.

(B) **Overtime Test and Inspection Fee.** Testing and occupancy inspections, which shall be required to be made before 8:00 a.m. or after 5:00 p.m. Monday through Friday of each week, will be charged the minimum fee set forth above, plus 1½ times the hourly rate of the inspecting officers, and on Town Holidays, the rate shall be minimum stated rate plus two (2) times the normal hourly rate of the inspecting officer, and for weekends and holidays, there shall be a minimum charge of two (2) hours.

(C) **Professional Service Fees.** In the event that the Building Inspector or the Fire Chief shall determine that prior to issuing a permit, that the professional services of an architect, engineer, attorney or other professional consultant is required, the cost of such consulting service shall be paid by the applicant. There shall be deposited with the Town one and one-half (1½) times estimated cost for such services, if said estimated sum is not sufficient, applicant shall deposit additional sums as may be required and any excess shall be refunded to the applicant.

(D) **Additional Fees For Late Permit.** If any person shall commence any construction, installation or work prior to obtaining a permit required by any section of this code, the fee for

such permit shall be three (3) times the scheduled amount.

16.30 DEFINITIONS.

As used in this chapter, the following definitions shall apply:

(A) **Approved**. Approved by the authority charged with enforcement of this ordinance and whenever required by a recognized testing laboratory for automatic sprinkler systems and devices.

(B) **Area (gross)**. The maximum horizontal projected area within the perimeter of the outside surface of walls or supports of the building or structure. Exterior cantilevered open balconies are not included.

(C) **Area (net)**. The occupied or usable floor area in a building but not including space occupied by columns, walls, partitions, stairways, mechanical shafts or ducts.

(D) **Attic**. The space not used for human occupancy located between the ceiling of uppermost story and the roof.

(E) **Automatic Closing Devices**. As applied to a fire protective device, is one which functions without human intervention and is actuated as a result of a predetermined temperature rise, rate of the rise of temperature, combustion products or smoke density, such as an automatic fire door, automatic fire shutter or automatic fire event.

(F) **Automatic Fire Sprinkler System**. For fire protection purposes, means an integrated system of underground and overhead piping designed in accordance with fire protection and engineering standards. The word system includes a suitable water supply, such as a gravity tank, fire pump, reservoir or pressure tank of connection beginning at the supply side of an approved gate valve located at or near the property line where the pipe or piping system provides water used exclusively for fire protection and related appurtenances and to standpipes connected to automatic sprinkler systems. The portions of the sprinkler system above ground is a network of specially sized or hydraulically designed piping installed in a building, structure or area, generally overhead, and to which sprinklers are connected in a systematic pattern, and includes a controlling valve and a device for actuating an alarm when the system is in operation. The system is usually activated by heat from a fire and discharges water over the fire area.

(G) **Automatic Fire Suppression System**. A mechanical system designed and equipped to detect a fire, actuate an alarm and suppress or control a fire using water, water spray, foam, carbon dioxide, or other approved suppression agent.

(H) **Basement**. A basement floor that is level below the first or ground floor level, with its entire floor below exit discharge grade.

(I) **Change of use (reported)**. A change in the use of property, which has been

made known by the owner to the Somers Fire Department through procedures established by the Town of Somers.

(J) **Change of use (unreported)**. A change in the use of property which has not been made known by the owner to the Somers Fire Department through procedures established by the Town of Somers.

(K) **Closing Device (Fire Door)**. A closing device is one which will close the door and be adequate to latch or hold, or both, hinged or sliding door in closed position.

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

(2) Self closing device is one which will maintain the door in a closed position.

(L) **COMM**. The Wisconsin Administrative Code designation for various chapters of such code under the administration of the Department of Commerce.

(M) **Dwelling**. Any building that contains one (1) or more dwelling units.

(N) **Dwelling Unit**. Any building, structure or part thereof, which is used or intended to be used as a home, residence, or sleeping place by one (1) or more persons, maintaining a common household and designed as a unit for occupancy by not more than one (1) family. Dwelling shall also mean a living unit in any enclosed floor space constituting one (1) or more inhabitable rooms with or without accessory rooms and used by a person or family.

(O) **Fire Chief**. The Executive Officer of the Somers Fire Department or the Fire Chief's designate.

(P) **Fire Department Connection (FDC)**. A connection through which the Fire Department can pump an auxiliary supply of water into the sprinkler and/or standpipe systems for the purpose of maintaining sufficient volume and pressure.

(Q) **Fire Hydrant (approved)**. An approved fire hydrant shall mean a water hydrant connected to a municipal water main which has one (1) four and one-half (4.5) inch (Kenosha Thread) connection and two (2) two and one-half (2.5) inch connections. The connecting water line between the municipal water main and the approved fire hydrant shall not be less than six (6) inches.

(R) **Fire Resistive**. The type of construction in which the structural members, including walls, partitions, columns, floor and roof construction, are of non-combustible materials, with fire resistive rating of at least four (4) hours.

(S) **Fire Wall**. A wall which has a fire resistance rating of not less than four (4) hours

and which subdivides a building or separates building to restrict the spread of fire, including a three (3) foot parapet wall beyond the furthest point of the sides and roof.

(T) **Ground Floor**. That level of a building on a sloping or multi-level site, which has its floor line at, and not more than three (3) feet, above existing discharge grade for at least one-half (½) of the required exit discharges.

(U) **High Hazard Occupancy**. Any building which by reason of its construction or combustible occupancy is deemed a severe hazard to life or property by the Fire Chief.

(V) **ILHR**. The Wisconsin Administrate Code designation for the Department of Industry, Labor and Human Relations.

(W) **Multi-Family Dwelling**. All apartment building, rowhouse, town house, condominium or manufactured building, that does not exceed sixty (60) feet in height or six (6) stories, and that consists of three (3) or more attached living units, or two (2) or more living units with a business occupancy attached, the initial construction of which is begun on/or after January 1, 1995, and excludes a multi-dwelling facility licensed under the State of Wisconsin as set forth in COMM Chapter 50.

(X) **NFPA (National Fire Protection Association)**. A copy of NFPA Standards shall be on file at the Somers Fire Department.

(Y) **Pumper Pad**. An area approved by the Fire Chief and designated for fire engine access to a Fire Department Connection (FDC) and fire hydrant combination. Said site may be a shared portion of the pavement but shall not cause driveway access to be blocked when in use.

(Z) **Standpipe**. An arrangement of piping, valves, hose connections, and allied equipment installed in a building or structure with the hose connections located in such a manner that water can be discharged in streams or spray patterns through attached fire hose and nozzles, for the purpose of extinguishing a fire, and so protecting a building or structure and its contents, in addition to protecting the occupants. This is accomplished by connections to water supply systems or by pumps, tanks, and other equipment necessary to provide an adequate supply of water to the hose connections.

(AA) **Story**. The space in a building between the surfaces of any floor and the floor next above, or below, or roof next above, or any place not defined as basement, ground floor, mezzanine, balcony, penthouse or attic.

(BB) **Stories, Number of**. The number of stories of a multi-story building includes all stories except the basement, ground floor, attic, or interior balcony or mezzanine floor.

(CC) **Structures**. An assembly of materials forming a construction for occupancy or use, meeting the definition of place of employment or public building.

(DD) **Waterflow Alarm**. A listed device constructed and installed so that the flow of water from a single automatic sprinkler head of the smallest orifice size installed on the system will result in

an audible and visual alarm, and send such notification to a Central Station within one (1) minute after such flow begins.

16.31 OTHER REQUIREMENTS.

(A) The owners of all buildings located within the Town of Somers shall maintain, throughout the year, a solid road base with hard surface capable of supporting Fire Department vehicles and providing adequate access to the site. Snow removal shall provide passages with a minimum width of twenty (20) feet.

(B) An occupancy permit must be approved by the Somers Fire Department before any building can be occupied.

(C) A Knox Box shall be installed by the main entrance of all buildings subject to the requirements of this Chapter. For buildings with multiple tenants, each served by a separate entrance, the Somers Fire Department shall be consulted to determine the number and location of Knox Boxes. The middle of the Knox Box shall be located within ten (10) feet above finished grade.

(D) No parking is allowed in front of fire hydrants. Owners shall maintain a minimum clearance of fifteen (15) feet from fire hydrants in all directions.

(E) No parking is allowed in fire lanes.

(F) Sprinkler systems shall be monitored twenty-four (24) hours a day by a Central Station Service.

(G) Hydrostatic tests of sprinkler systems shall include the Fire Department Connections. The Fire Department shall be notified at least twenty-four (24) hours in advance of all final hydrostatic tests.

(H) All Fire Department Connections shall be located within one hundred (100) feet of a fire hydrant.

(I) Strobe/horn alarms shall be mounted above the Fire Department Connection.

(J) The owner shall keep the area surrounding Fire Department Connections clear at all times. Bushes, shrubs, snow, etc. shall not block Fire Department Connections.

16.32 FEES RELATED TO FIRE PROTECTION SYSTEM PLAN REVIEW AND INSPECTIONS.

(A) For plan review fees see Appendix A of this Chapter.

(B) For inspection fees see Appendix A of this Chapter.

16.33 PENALTIES.

(A) Any person, either as owner, agent, occupant, contractor or employee, who shall be convicted of violating this Code, or of any permit issued hereunder, shall upon conviction, forfeit not less than One Hundred (\$100.00) Dollars nor more than Five Hundred (\$500.00) Dollars for the first violation, and not less than Two Hundred (\$200.00) Dollars nor more than Five Hundred (\$500.00) Dollars for the second violation under the same permit, together with the costs of prosecution.

(B) Each day of continued violation shall be a separate and specific violation of this Chapter.

(C) In default of any judgment rendered herein, the defendant may be confined in the County Jail of Kenosha County for a period of not less than ten (10) days nor more than thirty (30) days for each violation.

(D) Bond - Citations issued for any violation of this Code shall carry a bond of One Hundred Fifty (\$150.00) Dollars, plus court costs, penalty and assessment fees.

APPENDIX "A"
Fees for Plan Review and Inspections

Sprinkler Systems NFPA 13 and 13R			
		Plan Review*	Inspections**
1 to 20 Heads		\$207.00	\$185.00
21 to 100		\$437.00	\$420.00
101 to 200		\$582.00	\$615.00
201 to 300		\$667.00	\$655.00
301 to 500		\$982.00	\$690.00
Over 500		\$982.00 plus \$1.09 for each head over 500	\$690.00 plus \$1.20 for each head over 500
Sprinkler Systems NFPA 13D Residential			
		Plan Review*	Inspections**
1 to 25 Heads		\$187.00	\$130.00
26 to 50		\$222.00	\$155.00
51 to 100		\$232.00	\$180.00
Over 100		\$232.00 plus \$1.16 for each head over 100	\$205.00 plus \$1.55 for each head over 100

Fire Detection and Alarm Systems			
		Plan Review*	Inspections**
1 to 25 Devices		\$202.00	\$190.00
26 to 50		\$437.00	\$345.00
51 to 75		\$702.00	\$370.00
76 to 100		\$852.00	\$395.00
101 to 125		\$1,020.00	\$420.00
Over 125		\$1,022.00 plus \$5.70 for each device over 125	\$420.00 plus \$8.40 for each device over 125
Restaurant Wet Chemical Systems			
		Plan Review*	Inspections**
1 to 15 Nozzles		\$282.00	\$195.00
16 to 30		\$392.00	\$265.00
31 to 50		\$502.00	\$335.00
Over 50		\$502.00 plus \$10.00 for each nozzle over 50	\$335.00 plus \$16.70 for each nozzle over 50
Other Systems			
		Plan Review*	Inspections**
Standpipe Systems		\$222.00	\$325.00
Fire Pumps		\$202.00	\$200.00
Restaurant Mechanical Hood and Duct Systems		\$392.00	\$380.00
		\$197.00 for each additional system reviewed at the same time and at the same building	\$190.00 for each additional system reviewed at the same time and at the same building
Smoke Control Management		\$752.00	\$750.00

Clean Agent Suppression System or Dry Chemical System

		Plan Review*	Inspections**
	0 to 5,000 sq. ft.	\$467.00	\$400.00
	5,001 to 10,000	\$582.00	\$400.00
	Over 10,000	\$582.00 plus \$.05 per cubic foot over 10,000	\$400.00 plus \$.10 per cubic foot over 10,000

* All plan review fees shall be paid when plans are submitted for review.

** All inspection fees shall be paid before occupancy is granted.

Processing fee to be paid for each plan submitted – \$10.00 per plan