

CHAPTER 5

Automatic Fire Sprinklers

<i>Section Number</i>	<i>Title</i>	<i>Ordinance Number</i>	<i>Date of Ordinance</i>
5-5-1	Definitions		
5-5-2	Installation Required		
5-5-3	Installation and Testing	2020-20	11/16/20
5-5-4	Applicability of Chapter		

SEC. 5-5-1 DEFINITIONS.

As used in this Chapter, the following words and phrases shall have the meanings as hereinafter set forth:

- (a) **Approved.** As applied to automatic fire sprinkler equipment means approval by the authority charged with the enforcement of this Chapter.
- (b) **Approved.** As applied to automatic fire sprinklers and devices means approval by a recognized testing laboratory.
- (c) **Area.** The maximum horizontal projected area on one (1) floor of buildings or structures within the exterior walls or between approved firewalls.
- (d) **Automatic Fire Sprinkler Equipment.** A system of piping connected to an adequate water supply provided with approved automatic fire sprinklers and devices so arranged and located as to discharge water automatically to the seat of the fire.
- (e) **Basement.** Any story where less than half the height between the floor and ceiling is above the average level of street, sidewalks or finished grade.
- (f) **Combustible.** A material or structure which can burn. Combustible is a relative term; many materials which will burn under one set of conditions will not burn under others, e.g., structural steel is noncombustible, but fine steel wool is combustible. The term "combustible" does not usually indicate ease of ignition, burning intensity or rate of burning, except when modified by a word as "highly" as in "highly combustible interior finish."
- (g) **Incombustible.** The same as noncombustible. Because it is subject to misunderstanding, noncombustible is preferred.
- (h) **Noncombustible (N.C.).** Not combustible.
- (i) **Nonflammable.** Not flammable.
- (j) **Fire Resistive.** The type of construction in which the structural members, including walls, partition, columns, floor and roof construction, are of noncombustible materials with fire-resistive ratings not less than those specified in the following table: [The two (2) classifications are identified by the required fire resistance as a matter of convenience.]

<u>Fire Resistance Rating of Structural Members in Hours</u>	<u>Classification 3 hour</u>	<u>Classification 2 hour</u>
Bearing walls, or bearing portion of walls, exterior or interior	4	4
Nonbearing walls or portions of walls, exterior or interior	NC	NC
Principal supporting members, including columns, trusses, girders and beams for more than one (1) floor or roof	4	3
Secondary floor construction members such as beams, slabs and joints not affecting the stability of the building	3	2
Secondary roof construction members such as beams, purlins and slabs not affecting the stability of the building	2	1 ½
Interior partitions enclosing stairways and other openings through floors	2	2

- (k) **Fire Walls.** A wall which has a fire-resistance rating of not less than four (4) hours and which subdivides a building or separate buildings to restrict the spread of fire, including a three (3) foot parapet wall.
- (l) **Multi-Family Home.** A building or portion thereof containing three (3) or more dwelling units, including a tenement house, apartment house or flat.
- (m) **Story.** That part of a building comprised between a floor and the floor or roof next above.

SEC. 5-5-2 INSTALLATION REQUIRED.

Approved automatic fire sprinkler equipment shall be installed and maintained in the following buildings or structures in the Town of Caledonia as follows:

- (a) **Buildings for the Manufacture, Storage or Sale of Combustible Goods or Merchandise.**
 - (1) Throughout every fire-resistive building occupied in whole for the manufacture, storage or sale of combustible goods or merchandise if:
 - a. Over ten thousand (10,000) square feet in area.
 - b. Over one (1) story in height and exceeding six thousand (6,000) square feet in average area.

- c. Over four (4) stories in height, regardless of area.
- (2) Throughout every nonfire-resistive building occupied, in whole or in part, for the manufacture, storage, sale of combustible goods or merchandise if:
 - a. Over seven thousand (7,000) square feet in area;
 - b. Over one (1) story in height and exceeding four thousand (4,000) square feet per floor in average area; or
 - c. Over three (3) stories in height, regardless of area
- (b) **Garages.**
 - (1) In fire-resistive buildings over ten thousand (10,000) square feet in total area exceeding four (4) stories in height;
 - (2) In nonfire-resistive buildings over six thousand (6,000) square feet in total or exceeding four (4) stories in height;
 - (3) Basement and sub-basement garages and garages above or below other occupancies in excess of three (3) passenger vehicles; and
 - (4) Garages used as passenger terminals.
- (c) **Basements.** Basements having an area exceeding two thousand five hundred (2,500) square feet when for the sale or storage of combustible goods or merchandise (not including garages):
 - (1) Where automatic sprinklers are required in a basement only, the supply shall be from a city water main. Where there is no city water supply, such basement sprinklers need not be installed, but at such time as a city water supply becomes available, such required basement sprinklers shall be installed.
 - (2) Every basement sprinkler system shall also include sprinklers in all shafts (except elevator shafts) leading to the story above.
- (d) **Multi-Family Houses.**
 - (1) In fire-resistive buildings in basements, stairways and all corridors.
 - (2) In nonfire-resistive buildings in:
 - a. Basements, stairways and all corridors.
 - b. Throughout entire buildings if over two (2) stories.
- (e) **Theaters and Assembly Halls.**
 - (1) Throughout all buildings of nonfire-resistive construction; and
 - (2) In buildings of fire-resistive construction in such places as the stage, under the roof of the stage, gridiron, fly galleries and bridges, in dressing rooms, work rooms, property rooms and on the stage side of the proscenium opening.
- (f) **Hospitals.**
 - (1) Throughout all buildings of nonfire-resistive construction; and
 - (2) In buildings of fire-resistive construction throughout all basements, kitchens, shops, laundries, laboratories, stairways, corridors and throughout all other areas where combustible materials are handled.
- (g) **Nursing, Convalescent, Old Age and Other Like Institutional Buildings.** Throughout all nursing, convalescent, old age and other like institutional buildings.
- (h) **Schools, Colleges and Universities.**
 - (1) Throughout all buildings of nonfire-resistive construction.
 - (2) In buildings of fire-resistive construction throughout basements, workshops, laboratories, stairways, corridors, stage area of auditoriums, janitor closets, kitchens, cafeterias and throughout all other areas where combustible materials are handled or stored. An Underwriters' Laboratory-approved automatic fire or smoke

detection system wired to fire stations may be substituted for automatic sprinkler protection.

- (i) **Dormitories, Fraternities and Sorority Houses.**
 - (1) Throughout all buildings of nonfire-resistive construction; and
 - (2) In buildings of fire-resistive construction in such places as linen rooms, storage rooms, boiler rooms, kitchens, stairways, corridors and throughout all other areas where combustible materials are handled or stored.
- (j) **Hazardous Properties.** In buildings or structures, the occupancy or use of which involves a highly combustible, highly flammable or explosive material or that has characteristics that constitute a special fire hazard, including among others:
 - (1) Aluminum powder factories.
 - (2) Cellulose nitrate plastic factories.
 - (3) Cereal mills.
 - (4) Distilleries.
 - (5) Explosives and pyrotechnics and manufacturing.
 - (6) Flour and feed mills.
 - (7) Gasoline bulk plants.
 - (8) Grain elevators.
 - (9) Lacquer and paint factories and paint shops, linseed oil and varnish works.
 - (10) L.P.G. bulk plants.
 - (11) Mattress factories.
 - (12) Waste paper plants.
 - (13) Aircraft hangers.
 - (14) Chemical works.
 - (15) Linoleum and oil cloth, shade, cloth manufacturing.
 - (16) Oil refineries.
 - (17) Pyroxlin plastic manufacturing and processing.
 - (18) Other occupancies involving the processing, mixing, storage and dispensing of volatile liquids.
- (k) **Condominiums.** Throughout all buildings of nonfire-resistive construction.

SEC. 5-5-3. INSTALLATION AND TESTING.

- (a) **Installation.** Approved automatic fire sprinkler systems and equipment shall be installed in accordance with National Fire Protection Association guidelines, 13, 13D and 13R, Wis. Adm. Code, SPS 362, as well as any other guidelines that are in effect, which deal with the proper installation of such equipment.
- (b) **Reinstallation of equipment.** The installation of used sprinkler heads is prohibited. The use of any other secondhand sprinkler system equipment shall be approved, in writing, by the Fire Chief prior to installation.
- (c) **Test Requirements.**
 - (1) Each fire sprinkler system shall be tested prior to occupancy of the building.
 - (2) Tests shall be scheduled with the Fire Department at least 24 hours in advance of the requested test time.
 - (3) In the event the test is scheduled prior to the completion of work on the fire sprinkler system, there shall be a re-inspection fee, as provided in s. 15-1-22 (3)(d).

- (4) In the event the test does not commence within 30 minutes of the scheduled inspection time, the Fire Inspector shall leave the site and a re-inspection fee shall be charged, as provided in s. 15-1-22(3)(d).

SEC. 5-5-4 APPLICABILITY OF CHAPTER.

- (a) This Chapter shall apply to all new buildings and structures listed in Section 5-5-2 hereof, to existing buildings which the Fire Chief shall determine a severe life hazard exists to the occupants and users thereof with automatic sprinklers, subject to appeal to the Town Board of such determination.
- (b) Nothing contained herein shall be construed as requiring the installation of automatic fire sprinklers in (1) safe deposit or other vaults; (2) places where the application of water may cause or increase combustion; or (3) in any other location where the installation of sprinklers may increase the hazard. Nor shall it be construed in any way to prohibit the substitution of other automatic protective equipment when approved by and under conditions acceptable to the Fire Chief and the Town Board.