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**MEMORANDUM**

**TO:** Interested persons

**FROM:** Daniel Gary Rogers, Board Chair

**DATE:** September 3, 2024

**RE:** Advisory regarding M.G.L. c. 148, s. 26G

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**Introduction**

Under M.G.L. c.148, s. 26G, the Automatic Sprinkler Appeals Board (“the Board”) has jurisdiction to hear appeals from orders issued by heads of the fire department who are charged with enforcing the law. Under the authority of M.G.L. c. 30A, s. 8, the Board is issuing this advisory guidance document to assist heads of fire departments and building owners to understand the basic requirements of this law.

In developing this document, the Board has used its best efforts in developing guidance consistent with the language of the statute, legislative intent, related cases and common sense. This document is not intended to be the final word on this matter or meant to be a substitute for a good faith, reasonable interpretation of the statute by the head of the fire department. In determining whether a building is subject to this law, the head of the fire department should make fair, consistent and well-reasoned determinations, based upon the reading of the law and the specific factors that exist for a particular building.

**1. Where does the law apply?**

The law applies to all municipalities on a statewide basis.

**2. In what instances will sprinklers be required?**

The law limits the installation of sprinklers to new buildings and buildings subject to major alterations or additions if said buildings feature more than 7,500 gross square feet in floor area. The law requires sprinklers to be installed based upon the building’s sum total of square feet (s.f.) in floor area “in the aggregate.” As an example, if you have an existing building that has 5,000 s.f. of floor area and you are constructing a 3,000 s.f. addition, you will be required to install an adequate sprinkler system throughout the building, since the building will now total over 7,500 s.f. in the aggregate (8,000 s.f.).

### **3. What type of buildings or structures are covered by the law?**

The law, in general applies to “every building and structure...” and does not specify which particular use groups or building classifications are subject to the law. However the law does include several specific exemptions. The law does not apply to:

- Buildings or additions used for residential purposes;
- Rooms or areas of a telephone central office equipment building when such rooms or areas are protected with an automatic fire alarm system;
- Open-air parking structures, defined as: buildings, structures, or portions thereof, used for parking motor vehicles and having not less than twenty- five per cent of the total wall area open to atmosphere at each level, utilizing at least two sides of the structure; and
- Buildings used for certain agricultural purposes, as defined in M.G.L. c. 128 s. 1A.

Additionally, the statute contains some exceptions, if certain conditions or circumstances exist. They include:

- Buildings or structures, or certain areas of such buildings or structures, where the discharge of water would be an actual danger in the event of a fire, the head of the fire department shall permit the installation of such other fire suppressant systems as are prescribed by the state building code in lieu of automatic sprinklers; and
- No such sprinkler system shall be required unless sufficient [access to] water and water pressure exists.

It should also be noted that buildings owned by the Commonwealth are generally not subject to the provisions of s. 26G. In accordance with long standing case law and confirmed by Opinion of the Attorney General (No. 00/01-1), buildings owned by the state are not subject to the statutory requirements of laws such as s. 26G, unless there is express statutory language indicating that the state is subject to the law. However, buildings that are owned by state authorities or other similar entities created by the Legislature, may not necessarily be considered “state owned” and therefore exempt. In such situations, the particular statute creating the authority or entity should be reviewed by the head of the fire department with the assistance of the town attorney to determine if an exemption exists.

### **4. Does the law apply retroactively to all existing buildings, which are within the scope of the law?**

No, the Legislature intended to give some protection to owners of existing or older buildings against the large expense of installing sprinklers by requiring the installation only upon some triggering event. The law is only triggered if: (1) a new building or structure is constructed or (2) an addition is built onto an existing building or structure or (3) major alterations or modifications are planned for an existing building. Additionally, it should be noted that the building must total more than 7,500 gross s.f. in floor area, in the “aggregate” (existing building and addition). In short, if you are not constructing a new building, adding onto an existing building or undertaking major alterations to an existing building, or if the building does not total more than 7,500 gross s.f. in the aggregate, you are not required to install sprinklers under this particular law.

**5. Does the Massachusetts State Building Code or the International Building Code mandate whether sprinklers will be required?**

No. The installation of sprinklers is mandated only by M.G.L. c. 148 s. 26G. The portion of the statute that states “in accordance with the provisions of the state building code” applies to the design and method of installation of the sprinkler system as prescribed by the State Building Code. The case of Pinecrest Village, Inc. v. Richard J. MacMillian, states that “the building code in fact has a lengthy section governing the design and installation of sprinkler systems, and it is to this the Legislature wanted to refer” when it included the language in s. 26G. Pinecrest Village, Inc. v. Richard J. MacMillian, 425 Mass. 70 at 74 (1997).

**6. What method is used to determine if a building totals, in the aggregate, more than 7,500 gross square feet in floor area?**

The statute specifically states that for the purposes of this law, “the gross square footage of a building or structure shall include the sum total of the combined floor areas for all floor levels, basements, sub-basements and additions, in the aggregate, measured from the outside walls, irrespective of the existence of interior fire resistive walls, floors and ceilings”. It should be noted that this calculation is unique and is somewhat different from the method used in the state building code, which in general, uses interior measurements to determine floor area.

**7. How is square footage calculated for a mixed-use property?**

The last sentence of M.G.L. c. 148, s. 26G, states “This section shall not apply to buildings or additions used for residential purposes”. In determining the significance of the s. 26G “residential” building exemption, as applied to a mixed-use building, which features both residential and non-residential portions, M.G.L. Chapter 148, section 1 applies. In accordance with said section, the definition of the word “building” states (in pertinent part): “shall be construed where the context allows as though followed by the words “or part or parts thereof.” In applying this definition to a building involving a mix of residential and non-residential portions, the Board has interpreted this exception to only apply to those parts or portions of the building used for residential purposes, rather than to the entire building. Accordingly, the non-residential parts or portions of the building remain subject to the sprinkler provisions for new buildings and buildings subject to major alterations or additions if said buildings feature more than 7,500 gross square feet in floor area.

**8. Is a sprinkler system always necessary when there is an addition to a building, which is within the scope of the law?**

It will depend upon how large the building will be after the addition is built. If an addition is being constructed to an existing building and the addition creates a building with a combined total of more than 7,500 s.f. “in the aggregate”, an adequate system of sprinklers will now be required throughout the building (addition and the existing building), without regard to the existence or extent of alterations, if any, to the previously existing building.

**9. Is a sprinkler system always required if renovations are taking place in a building, which is within the scope of the law?**

This depends upon whether the renovations are considered “*major*” alterations or modifications, as those terms are used in the statute. The Board realizes that the determination to install sprinklers, is often difficult and should be decided on a case-by-case basis, based upon the unique characteristics of

the building and the nature and extent of the work. However, the Board suggests that such decisions be made in a predictable and consistent manner throughout the Commonwealth. Therefore, the Board suggests that fire officials, in deciding if “major alterations or modifications” are taking place, should be guided by the Massachusetts Appeals Court case

*Congregation Beth Shalom & Community Center, Inc. v. Building Commissioner of Framingham et. Al., 27 Mass. App. Ct. 276 (1989).*

In this case, the Court discussed the meaning of the terms “major alterations” as those words are used in M.G.L. c. 148, s. 26G. (It should be noted that those terms remain in the law, notwithstanding the amendments to s. 26G). The Court said that the terms “major alterations” shall include “any work, not repairs, which is “major” in scope or expenditure, and which results in changes affecting a substantial portion of the building”. In its decision, the Court looked at the nature of the planned work and would require sprinklers throughout the building if “the extra cost of installing sprinklers would be moderate in comparison to the total cost of the work contemplated...” or “if the physical work being done is of such scope that the additional effort to install sprinklers would be substantially less than would have been if the building were intact.”

At this time, it is the intent of the Board to consider the following factors established in the Congregation Beth Shalom case, to determine whether “major” alterations or modifications are taking place, thus requiring sprinklers to be installed throughout a building in accordance with M.G.L. c. 148, s. 26G.

**A. What is the nature of the actual work?**

- Is the planned physical work the type of work that would make the effort to install sprinklers substantially less than it would have been if the building were intact?
- Is the work merely minor repairs or cosmetic vs. major alterations?  
Examples of “major” alterations or modifications, include, but may not be limited to:
  - The demolition or reconstruction of existing ceilings or installation of suspended ceilings;
  - The removal and/or installation of sub flooring, not merely the installation or replacement of carpeting or finished flooring;
  - The demolition and/or reconstruction or repositioning of walls or stairways or doorways; or
  - The removal or relocation of a significant portion of the building’s HVAC, plumbing or electrical systems involving the penetration of walls, floors, or ceilings.

**B. What is the scope of the work or cost/ benefit of sprinkler installation?**

This involves a review of the scope of the major alterations or modifications. Does it affect a substantial portion of the building? This requires a review to determine how much of the building is being affected by the work; **or** a determination that the cost of installing sprinklers is moderate in comparison to the total cost of the work.

To assist fire officials, building owners and construction project managers in making decisions, the Board has established the following two presumptions that may be used to determine if the scope or the cost of the planned alterations or modifications are “major” thus requiring sprinklers to be installed throughout a building.

- 1) Major alterations or modifications are reasonably considered major in scope when such work affects thirty-three (33) % or more of the “total gross square footage” of the building, calculated in accordance with section 26G.
- 2) Major alterations or modifications are reasonably considered major in scope or expenditure, when the total cost of the work (excluding costs relating to sprinkler installation) is equal to or greater than thirty-three (33) % of the assessed value of the subject building, as of the date of permit application.

It is the conclusion of the Board, at this time, that if the nature of the work is the type of work described in **A** and also meets at least one of the two presumptions described in **B** above, then it can be reasonable to conclude that the alterations or modifications are “major”, thus requiring sprinklers throughout the building.

The Board is aware that buildings and circumstances vary from one project to another and that it would be unreasonable to expect that a single set of criteria could reasonably apply to all situations. Therefore, this list of described factors is not necessarily all-inclusive, but is meant to provide a common sense guideline for fire departments and building owners to determine if a sprinkler system is probably required under the provisions of this particular law.

**10. Is a sprinkler system required if there is a renovation or expansion of an existing mezzanine area inside the building?**

This depends on whether the renovation or expansion changes the existing square footage, and it creates a building with a combined total of more than 7,500 s.f. “in the aggregate”, an adequate system of sprinklers will now be required throughout the building (to include the mezzanine and the existing building). M.G.L c. 148 s. 26G states “for the purposes of this section, the gross square feet of a building or addition shall include the sum total of the floor areas “for all floor levels”, basements and sub-basements, measured from outside walls, irrespective of the existence of interior fire resistive walls, floors and ceilings.” The Board has previously determined that mezzanine level areas of this building are considered a “floor level”, as that term is used in section 26G. Therefore, the floor area on a mezzanine level should be included in calculating the gross floor area of the subject building for the purposes of s. 26G. While other industry standards may not require, or utilize, the including of the mezzanine level in calculating square footage, the Board does include the mezzanine area in the calculation when determining whether a sprinklers will be required.

In determining whether the renovation or expansion changes the existing square footage, the Board makes their decision on a case-by-case basis, based upon the unique characteristics of the building and the nature and extent of the work.

**11. What if the work is not “major” in scope for this particular permitted project, but appears to be part of a long-range plan?**

If the specific permitted alterations or modifications are not considered “major,” as described, but appear to be one phase of a series of modifications being conducted over a reasonably short period (i.e. 5 years or less), it may be reasonable to conclude that such work could be part of a long range

project resulting in “major alterations” to the entire building, or a substantial portion of it, thus triggering the sprinkler requirements. Although this occurrence may be rare, fire officials should be aware of future and past recent projects to determine if there is a series of planned projects that, taken together, may be considered “major” alterations or modifications, which would trigger the sprinkler requirements.

**12. The statute states that “no such sprinkler system shall be required unless sufficient water and water pressure exists”. How is it determined if there is a lack of sufficient water and water pressure?**

This language, creating an apparent exemption for situations involving lack of sufficient water and water pressure, has remained unchanged in the new amendments. In determining cases in which this issue has been raised, the Board has been guided by the Massachusetts Appeals Court case of *Chief of the Fire Department of Worcester v. John Wibley, et al.* 24 Mass. App. Ct. 912 (1987).

In that case the court concluded that:

“The term “sufficient water and water pressure exists” means that the owner of a building or addition to which the statute applies must have access to a source of water sufficient to operate an adequate system of sprinklers, or the exemption applies. The source may be either on the land on which the new building or addition is constructed or off the land, provided that it is legally available to the owner of the building or addition.”

In the *Wibley* case, the court, in agreeing with the fire chief, concluded that sufficient water and water pressure existed, notwithstanding the fact that the source of water was not on the owner’s land, but was legally available by means of a connection requiring the excavation to a legally available water main located 500 yards away.

However, sufficient water supply does not include making upgrades or altering an existing municipal water supply, even when one is legally accessible. The statute implicitly requires that the existing municipal water system must be capable of providing adequate water supply and pressure to operate an automatic sprinkler system effectively. The term "sufficient" means that the existing system should be capable of meeting the needs of the sprinkler system without the need for significant infrastructure enhancements. The statute does not impose an obligation of upgrading municipal infrastructure, as this goes beyond the intent of ensuring that buildings have sufficient water and water pressure for sprinkler systems.

**13. Who has the responsibility to enforce the sprinkler installation requirements of this law?**

The head of the fire department is given the statutory authority to enforce the law. Once the head of the fire department determines that a planned building construction project is subject to s. 26G, the building owner/construction manager should be informed of the determination and the reasons for it by a written notice signed by the head of the fire department. The notice should also contain the information about the ability to appeal such determination to the Commonwealth’s Automatic Sprinkler Appeals Board within forty-five (45) days of the receipt of such notice.

**14. How are appeals filed with the Board?**

The law allows for any person aggrieved by an interpretation, order, requirement or direction of the

head of the fire department, (or the failure to so act) to file an appeal with the Automatic Sprinkler Appeals Board. Such appeals must be filed ***within 45 days*** after receiving service of notice of the head of the fire department's determination. The Board has a formal application form that must be completed by the person seeking the appeal. In addition to the application form, a detailed statement of the basis for the appeal, a copy of the chief's determination and an appeal application fee (\$100.00) must accompany each application. Automatic Sprinkler Appeals Board application forms may be obtained by calling: 978-567-3181 or on the web at <https://www.mass.gov/doc/automatic-sprinkler-appeals-board-application-fillable-2020/download>

**15. What are the Board hearings like?**

Members of the Commonwealth's Fire Safety Commission hold hearings of the Automatic Sprinkler Appeals Board. The hearings are informal and the strict rules of evidence used in a court of law are not used. The hearings require the presence of the appellant and the head of the fire department or their agent or attorney. The parties should be fully prepared to present their positions at the hearing. All plans, drawings, photographs expert findings/analysis or any other documents, information and testimony and arguments should be presented at the hearing to assist the Board in making its findings and determination.

**16. Where can I review prior Automatic Sprinkler Appeals Board decisions?**

Prior decisions of the Automatic Sprinkler Appeals Board can be found on the web at: <https://www.mass.gov/service-details/massachusetts-fire-safety-commission-and-automatic-sprinkler-appeals-board> under the heading "*Recent Decision of the Automatic Sprinkler Appeals Board*" or can be provided by calling 978-567-3181.

*\*\*\*This document is meant to incorporate and serve as an update to the Board's October 14, 2009 Advisory regarding M.G.L. c. 148, s. 26G. The information contained herein is advisory in nature and does not bind the Automatic Sprinkler Appeals Board.*