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The Commonwealth of Massachusetts
Executive Office of Public Safety and Security
Fire Safety Commission

Automatic Sprinkler Appeals Board

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AIME R. DENAULT
CHAIRMAN

MAURICE M. PILETTE
VICE CHAIRMAN

Docket # 2013-10
1218 Main Street
Worcester, Massachusetts

AUTOMATIC SPRINKLER APPEALS BOARD DECISION

A) Statutory and Regulatory Framework

This is an administrative appeal held in accordance with Massachusetts General Laws Chapter 30A, Chapter 148, § 26G, and Chapter 6, section 201, relative to a decision of the Worcester Fire Department, requiring the Our Lady of the Angels Church (hereinafter referred to as the Appellant) to install automatic sprinklers throughout a building that it owns/operates located at 1218 Main Street, Worcester, Massachusetts.

B) Procedural History

By written notice dated November 6, 2013 and received by the Appellant the same day, the Worcester Fire Department issued a determination requiring automatic sprinklers to be installed throughout the subject building. According to the notice, the determination was issued pursuant to the provisions of M.G.L. c. 148 § 26G. On November 26, 2013, the Appellant filed an appeal of the determination with the Automatic Sprinkler Appeals Board. The Board held hearings on two dates relative to this matter at the Department of Fire Services, Stow, Massachusetts.

Appearing on behalf of the Appellant at the December 11, 2013 hearing was: Rev. Charles Monroe, Pastor and Jordan O'Connor, Architect. Appearing on behalf of the Worcester Fire Department was District Chief John Powers and Captain Thomas Bull. Present for the Board at said hearing was: Aime R. DeNault, Chairman; Richard Magee, designee of the Commissioner of the City of Boston; Alexander MacLeod; Chief Thomas Coulombe; and George A. Duhamel. Peter A. Senopoulos was the Attorney for the Board. At the hearing it was determined by the Board, with agreement of the parties, that a continuance of this matter was necessary to obtain additional information.

The second hearing was held on January 8, 2014. Appearing on behalf of the Appellant was: Rev. Charles Monroe, Pastor; Jordan O'Connor, Architect; and Kurt Ruchala from FirePro. Appearing

on behalf of the Worcester Fire Department was District Chief John Powers and Captain Thomas Bull.

Present for the Board at the January 8, 2014 hearing was: Aime R. DeNault, Chairman; Richard Magee, designee of the Commissioner of the City of Boston; Alexander MacLeod; Chief Thomas Coulombe; and George A. Duhamel. Peter A. Senopoulos was the Attorney for the Board.

C) Issue(s) to be Decided

Whether the Board should affirm, reverse or modify the determination of the Worcester Fire Department requiring sprinklers in the Appellant's building, in accordance with the provisions of M.G.L. c. 148 § 26G?

D) Evidence Received

1. Application for Appeal by Appellant
2. Copy of Appeals Package dated 10/6/2010 that Appellant prepared but never filed with the Board
- 2A. Appeal Application
- 2B. Letter authorizing representation of Church by Rev. Msgr. Thomas J. Sullivan
- 2C. Order of Notice of the Worcester Fire Department (dated 7/8/2010)
- 2D. Letter from O'Connor & Associates to Rev. Charles Monroe, Pastor (9/30/10)
- 2E. Letter from O'Connor & Associates to Captain Metterville, Worcester Fire Department (11/2010)
- 2F. E-mail correspondences between Mr. O'Connor and Captain Metterville, Worcester Fire Department (11/30/10 to 1/11/11)
- 2G. Letter to Rev. Charles Monroe, Pastor from Captain Metterville, Worcester Fire Department (1/11/11)
- 2H. Plans regarding expansion of Our Lady of Angels Church
3. Letter authorizing representation of Church by Rev. Msgr. Thomas J. Sullivan (10/4/2010)
4. Letter in Support of Appeal (11/26/2013)
5. Order of Notice of the Worcester Fire Department
6. E-mail correspondence between Mr. O'Connor and Worcester Inspection Services Dept. (10/23-11/6/13)
- 6B. Copy of State Building Code regarding Fire Walls
7. Correspondence from Mr. O'Connor to Rev. Charles Monroe, Pastor (7/1/2013)
8. Correspondence from Mr. O'Connor to Rev. Charles Monroe, Pastor (11/25/2013)
9. Plans regarding expansion of Our Lady of Angels Church
10. Notice of Hearing to Appellant
11. Notice of Hearing to Worcester Fire Department
12. Copies of two Memoranda that accompany Hearing Notices
13. Submissions from the City of Worcester Fire Department (A-M)
- 13A. Narrative from Worcester Fire Dept. regarding Our Lady of the Angels Church
- 13B. Explanation regarding Fire Wall Separation from Worcester Fire Dept.
- 13C. Letter dated July 8, 2010 from Chief Dio, Worcester Fire Dept. to the Roman Catholic Bishop of Worcester (Order to install sprinklers)
- 13D. Copy of M.G.L. Chapter 148, s. 26G (from Mass. Legislature's website)

- 13E. E-mail correspondence between Deputy Chief Powers and Architect, Jordan O'Connor (dated 10/2/2013)
- 13F. E-mail correspondence between Deputy Chief Powers and Architect, Jordan O'Connor (dated 10/2/2013)
- 13G. E-mail correspondence between Deputy Chief Powers and Architect, Jordan O'Connor (dated 10/2 and 10/3/2013)
- 13H. E-mail correspondence from Deputy Chief Powers to Architect, Jordan O'Connor (dated 10/4/2013)
- 13I. Copy of 2009 International Building Code – Section 105.6
- 13J. Copy of City of Worcester Property Record Card for Our Lady of the Angels Church
- 13K. Worcester Fire Department Fire Incident Narrative Report – regarding Plan Review
- 13L. Worcester Fire Department Fire Incident Narrative Report – regarding Plan Review
- 13M. Large scale plans for Our Lady of Angels Church
- 14. 2nd Notice of Hearing to Appellant
- 15. 2nd Notice of Hearing to Worcester Fire Department
- 16. 2nd set of copies of two Memoranda that accompany Hearing Notices
- 17. Correspondence from FirePro to the Worcester Fire Department
- 18. Existing Conditions Documentation submitted by Appellant
- 19. State Building Code 706.1 Firewalls

E) Subsidiary Findings of Fact

- 1) The Appellant is in the process of completing a one story structure, referred to as “an addition,” which is attached to Appellant’s existing 18,000 s.f. church. The additional building space, which consists of approximately 2,600 s.f., will feature accessible restrooms and will be used as a reception area with a capacity for approximately 130 persons. According to the Appellant, a system of automatic sprinklers will be installed in this new space. Since 2010, it appears that the Worcester Fire Department and the Appellant have had many conversations, correspondence, and conclusions about the applicability of M.G.L. c. 148 § 26G to this construction project.
- 2) By written notice dated November 6, 2013 and received by the Appellant the same day, the Worcester Fire Department issued a final determination requiring automatic sprinklers to be installed not only throughout the new additional space, but also in the existing church. The determination was issued pursuant to the provisions of M.G.L. c. 148 § 26G. On November 26, 2013, the Appellant filed an appeal of the determination with the Automatic Sprinkler Appeals Board. The Board held hearings on two dates at the Department of Fire Services, Stow, Massachusetts.
- 3) It is the position of the Appellant’s representatives that the determination of the Worcester Fire Department is in error for several reasons. Firstly, the Appellant contends that sprinklers are not required in the existing church structure since there is an apparent exemption for such structures in M.G.L. c. 148, s. 26A½. The Appellant also contends that the newly constructed space should not be considered an “addition” for M.G.L. c. 148 s. 26G purposes, as it appears to be a separate building based upon the provisions of 780 CMR, the State Building Code. The Appellant contends that the additional space is attached to the exterior wall of the existing

church structure and is separated by a two-hour rated fire wall. The representative of the Appellant indicated that the new structure and the existing church structure are independent, free standing buildings.

- 4) The representatives for the Appellant also contend that the church has unique and significant architectural characteristics. They stated that the Church was built in 1927 and is principally constructed of ornate, hand crafted masonry and marble with a unique wooden timber truss roof, which is nearly 70' in height (measured from the interior). They further indicated that the use and design characteristics of said existing structure creates a minimal fire load and that the great height of the roof and marble/masonry construction material would make the installation of a full sprinkler system in this area difficult. It would also be inefficient from a fire protection standpoint. They also indicated that the installation of such a system would detract from the church's unique and ornate architectural aesthetic characteristics.
- 5) In support of the Worcester Fire Department's determination, District Chief Powers testified that the fire department determined that the new structure is clearly an "addition" as that term is used in M.G.L. Chapter 148, section 26G. He noted that s. 26G has specific language that includes the total area of the main structure and any addition "in the aggregate," as measured from the outside walls to calculate the total gross square footage of a building or structure. Chief Powers also noted that s. 26G specifically disregards the existence of fire resistive walls from the calculation. He did concur with the Appellant's conclusion that the church features significant and unique architectural characteristics, which are no longer employed in today's newly constructed buildings. Chief Powers did not present any evidence that would contradict Appellant's contention that the use and construction design of the church structure presents a minimal fire load. He agreed that the great height of roof and marble/masonry construction would make the traditional installation of a full sprinkler system in this area difficult and impractical, from a fire protection standpoint, due to the great expanse of the truss roof. He was of the opinion that a beam smoke detection system in the high areas of the structure may be more practical, but indicated that the Worcester Fire Department believes it does not have the authority to waive the sprinkler system or approve a modified system. It was his opinion that the Board has the ability to modify requirements and that it should probably do so, based upon the unique architectural characteristics of the existing church structure.

F) Ultimate Findings of Fact and Conclusions of Law

- 1) The provisions of M.G.L. c. 148, s. 26G, state, (in pertinent part): "Every building or structure, including any additions or major alterations thereto, which totals, in the aggregate, more than 7,500 gross square feet in floor area shall be protected throughout with an adequate system of automatic sprinklers in accordance with the provisions of the state building code." This law, as stated, reflects recent amendments to the statute enacted by Chapter 508 of the Acts and Resolves of 2008. The new provisions apply to "the construction of buildings, structures or *additions* or major modifications thereto, which total, in the aggregate, more than 7,500 gross square feet permitted after January 1, 2010" (emphasis added) (Sec. 6, Chapter 508 of the Acts of 2008).

- 2) Based upon this language the law is only triggered if: (1) a new building or structure is constructed, (2) an addition is built onto an existing building or structure, or (3) major alterations or modifications are made to an existing building.
- 3) The Appellant's principal argument that sprinklers are not required in church's over 70' in height in accordance with the provisions of M.G.L. c. 148, s. 26A½ is without merit as applied to this case. The provisions of s. 26A½, first enacted in 1986, required the mandatory installation of automatic sprinklers in certain buildings over 70' in height that were built prior to the effective date (January 1, 1975) of the State Building Code. The requirement to install sprinklers was on a mandatory, retroactive basis, requiring no "triggering" activity or event. Churches were specifically exempted from the provisions of said s. 26A½ requirement. However, the provisions of M.G.L. c. 148, s. 26G, are separate and distinct from s. 26A½. The Board notes that the Legislature did not include churches within the enumerated exemptions of s. 26G for certain non-residential buildings. Additionally, the provisions of s. 26G require the occurrence of an event for existing buildings (addition or major alteration) before the enhanced sprinkler requirement is triggered. Accordingly, the Board finds that the church exemption of s. 26A½ does not extend to the provisions of s. 26G, as applied to this case.
- 4) The Appellant's contention that the construction of the additional function area should not be considered "an addition" for s. 26G purposes is likewise without merit. Although the erection of the new structure may be considered a separate building under the provisions of the State Building Code, due to the existence of independent firewalls, the Board finds that the provisions of s. 26G, as applied to this building, does not warrant such a determination. A finding that any addition to an existing free standing building that merely employ a "fire wall" at the point of attachment to the existing building would frustrate the life safety intent of s. 26G, which was to require enhanced protection in certain existing buildings that were undergoing addition or major alterations. This conclusion is supported by the concise language of s. 26G used to calculate the gross square footage of a building. It includes "... 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," (emphasis added). The Board realizes that there are limited circumstances involving the construction of an addition where, as a practical matter, the "addition" and existing building may be considered separate buildings. In such instances, the Board will examine such factors as: plot and property boundary lines; building ownership and control; configuration of exterior walls and fire walls; the characteristics, dimensions and combustible fire load at the point of "connection" of two or more buildings, structures or portions thereof; the operational use relationship between said buildings, structures or portions; the nature and extent of existing fire protection and detection systems and the nature of smoke and fire behavior. However, based upon the wording of the statute, the symbiotic use of the additional space with the existing structure, building ownership and control and location of outside walls, the Board finds that the space is an "addition" for s. 26G purposes and where combined with existing church, totals more than 7,500 s.f. in the aggregate.
- 5) The Board finds that the Appellant's claim about the church's unique architectural characteristics has merit. Chief Powers confirmed that the Church, built in 1927, is principally constructed of unique ornate, hand crafted masonry and marble with a unique 70'

high, wooden timber truss roof. Both parties indicated that the installation of traditional sprinklers would detract from aesthetics; be technically difficult to install and would prove impractical from a fire protection standpoint due to the great height and low fire load of the church areas.

G) Decision of the Automatic Sprinkler Appeals Board

The Board finds that the additional space added to the existing building is “an addition,” which triggers the s. 26G installation of sprinklers throughout both the new additional space and throughout the existing church areas.

However, based upon the evidence, the Board finds that the installation of a sprinkler system throughout the existing church area is not warranted due to the unique architectural characteristics of the church and the great height of church roof. These factors make the installation of a traditional sprinkler system in this area difficult, impractical and inefficient from a fire protection standpoint. However, the Board finds that there was inadequate technical information provided at the hearing to determine the nature and extent of a modified or alternative fire protection system that will provide an adequate level of safety for this area.

Accordingly, the Order of the Worcester Fire Department to install an adequate system of automatic sprinklers throughout the entire existing church structure is hereby **modified**. The Appellant shall install an adequate sprinkler system throughout the new additional area and shall install a modified sprinkler system or alternative system of fire protection throughout the existing church structure that will provide an adequate level of life safety protection. The nature and extent of such system shall be determined by the fire department. This decision does not preclude the Appellant from filing a separate appeal with this Board limited to the technical aspects of the fire department’s determination relating to the nature or extent of said modified or alternative system.

H) Vote of the Board

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|-------------------------------|----------|
| Aime DeNault, Chairman | In Favor |
| Chief Richard Magee, designee | In Favor |
| Chief Thomas Coulombe | In Favor |
| Alexander Macleod | In Favor |
| George Duhamel | In Favor |

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I) Right of Appeal

You are hereby advised that you have the right, pursuant to section 14 of chapter 30A of the General Laws, to appeal this decision, in whole or in part, within thirty (30) days from the date of receipt of this order.

SO ORDERED,



Aime R. DeNault, Chairman

Dated: March 11, 2014

A COPY OF THIS DECISION AND ORDER WAS FORWARDED BY CERTIFIED MAIL, RETURN RECEIPT REQUESTED TO:

Jordan O'Connor, AIA
Jordan O'Connor & Associates
90 Grove Street, 3rd Floor
Worcester, Massachusetts 01605

District Chief John P. Powers
Worcester Fire Department, Fire Prevention Division
141 Grove Street
Worcester, Massachusetts 01605