

HILLTOWN TOWNSHIP BOARD OF SUPERVISORS  
B.O.C.A. APPEAL HEARING - OUR LADY OF SACRED HEART CHURCH/SCHOOL  
Monday, November 9, 1992  
7:00PM

The public hearing for the B.O.C.A. Appeal of Our Lady of Sacred Heart Church/School began at 7:00PM. In attendance were Chairman William H. Bennett, Jr., Vice-Chairman Kenneth B. Bennington, Supervisor Jack C. Fox, Township Manager Bruce G. Horrocks, and Code Enforcement Officer Eric D. Applegate.

Mr. Damon Kane of Diserode and Wolf Architects was in attendance to present the appeal. Mr. Kane is responsible for code compliance issues and has been trained by leading officials from the Code Enforcement community. Mr. Kane wished to explain the background of the provisions of the Code being discussed this evening to give the Board an overall understanding of their view.

The B.O.C.A. Code remains deliberately vague in terms of the issues concerning uses associated with stages and platforms, since a broad variety of uses can be applied to such building elements. Mr. Kane's conversations with engineers at B.O.C.A. have indicated that the wording of the Code is such to defer responsibility to the local governing bodies since local authorities are in a better position to understand the uses being proposed for construction within their jurisdiction.

Mr. Kane described the range of uses which are typically covered by the "Stages and Platform Provision" to help the Board understand where, in that spectrum, the applicant falls. Mr. Kane proposes for the Board's consideration that the applicant is in the least risky end of the spectrum with regards to uses that are proposed for this building. The Stage and Platforms Provision has sprinkler and standpipe requirements in order to protect occupants of a theatrical performance from undiscovered or concealed fires which might originate from behind a curtain or under a raised platform. There is a combination of elements which exists in legitimate theatrical performances which would be of concern to the fire safety community. Some of those concerns deal with a multitude of back rooms which might be typically associated with a legitimate theatre, the fire load associated with a theatre which may include scenery or other elements used as display for the production, and finally the activities which are taking place on the stage. This combination of elements can obviously provide a possibility for fire risk. The Code officials, when developing the basic provisions in the B.O.C.A. Code, have recognized that and instituted such things as sprinklers and standpipe provisions. In the specific wording of the Code, the provisions do not recognize there is a spectrum associated with those risks. At the other end of the spectrum, Mr. Kane asked the Board to consider that there are very few, if any, of the elements he previously described which would be present in Our Lady of Sacred Heart Church and School. In fact, the room in question is proposed to be used 98% of the

time as a gymnasium, with a very small portion of the time devoted to anything that might even resemble a performance.

Mr. Kane wished to call the Board's attention to the information he handed out this evening. As previously stated, the B.O.C.A. Code leaves this issue somewhat vague, however upon reading the commentary, which is a booklet published by the engineers at B.O.C.A., they explain their thinking behind the Code provisions. Mr. Kane cited a section of the hand-out he provided for the Board called "Sprinkler Provisions". This section states "Traditional theatrical stages are required to be protected with an automatic sprinkler system. The requirement is intended to imply to all stages of design for the presentation of plays, demonstrations, or other forms of entertainment. Non-theatrical stages or platforms, such as alters, are exempt from the requirement." The next paragraph goes on to describe some of the things Mr. Kane has mentioned, in terms of hazards and risks, and states these things might contain scenery and lighting above the stage, scenery on the sides and rear of the stage, shops located along the back and sides of the stage, storage, props, trap doors and lifts under the stage floor. The combination of fuel load and ignition sources increases the potential for a fire. The commentary goes on to state that "Stages and platforms which are not used for theatrical productions and do not have characteristics similar to those described above for traditional stages, are also exempt from the requirements for an automatic sprinkler system." The concluding statement is that this arrangement is often found in educational buildings where the room is used as a multi-purpose room. It is clear to Mr. Kane that B.O.C.A. officials have put on record, in terms of their commentary, that they recognize there is a range of options. Unfortunately, the Code wording itself and the actual Code is not clear on that distinction. Mr. Kane believes the intent is to leave that decision up to the local authorities.

Father McBride of Our Lady of Sacred Heart Church was present to describe their intentions to utilize the area which Mr. Kane spoke of. In the past, normally the only theatrical productions put on by Our Lady of Sacred Heart would be a talent show or a Christmas pageant. Other than that, the area would mostly be used for a dance which might be held in the gym, the platform being used for a band, or a speaker to address a group of people. As far as any intricate theatrical productions, Father McBride does not foresee any events taking place.

When this plan was recommended for approval by the Planning Commission, Chairman Bennett asked if it included the requirement of sprinklers, per the B.O.C.A. Code. Supervisor Fox stated that was not part of the Planning Commission's recommendations, and was not previously discussed. Mr. Kane noted that plan indicated construction of a stage from the initial plan

submission and he felt it is now a matter of when the plan was given the scrutiny to determine the applicable B.O.C.A. Code provisions. Mr. Horrocks believes B.O.C.A. provisions come into play after the Planning Commission makes their recommendations, and is enforced by the Code Enforcement Officer. These issues are never addressed prior to the review of the plan by the Planning Commission or the Board of Supervisors. Chairman Bennett felt it should be part of the plan approval process.

Chairman Bennett asked the approximate cost of the proposed addition. Father McBride replied the addition will cost approximately 1.44 million dollars. If the church was required to comply with the B.O.C.A. Code for sprinkler systems, Chairman Bennett asked how much more that might cost. Mr. Kane estimates the cost to be as much as 10% additional. Also, there have been indications the local authorities are not willing to accept the limited sprinkler system that was proposed to be run off the existing supply system. In order to design a supply system to provide full sprinkler flow to all of the heads, it would require a substantial storage system, such as what was done with South Junior High School. Therefore, the concept of providing sprinkler systems where there is no public water supply becomes a difficulty. If public water was available to the site, Chairman Bennett asked what the cost estimate might be. Mr. Kane felt the cost would be under \$10,000.00 if that were the case. The applicant is prepared to offer a limited sprinkler system, however the problem is local authorities have not been willing to accept the concept that it can be serviced off the existing supply system. The building in question does have a large storage tank, and Mr. Kane's calculations have indicated that a reasonable flow for a limited number of heads for a time that should be sufficient to control any sort of fire in this area presently exists. Estimates have been provided for three heads to run for thirty minutes. Supervisor Fox asked how many sprinkler heads are involved. Mr. Kane replied the concept is for ten heads, though experience has proven that generally not all of the heads installed will be needed. Mr. Kane felt this was a modest risk for a very small area, and according to their calculations, believes that three heads would operate at full capacity for thirty minutes.

Due to information gathered by the Emergency Management Team and local fire companies, Chairman Bennett advised the Board is considering adoption of a Sprinkler Ordinance in the development district of this community. Both the Emergency Management Team and the fire companies feel that for new dwellings, approximately 1% additional would be required to install sprinkler systems, which is fairly reasonable. Chairman Bennett believes public water will have to be brought into the Village Center district within the next five or ten years. It is Chairman Bennett's personal feeling that if the Board is seriously considering running public water into the

Village Center district in the future, sprinkler systems should be considered now, not after the fact. He is also concerned about panic situations which may take place during a fire at any school.

Supervisor Bennington asked Mr. Grunmeier, Emergency Management Coordinator, for his recommendations on the project. Mr. Grunmeier explained sprinkler heads will require 26 gallons per minute, a Group II classification, however the applicant presently has a well pump capable of only 20 gallons per minute total. Therefore, they would have to be flow rated at two heads at full flow, which would be a maximum of 26 gallons each. The existing pump would not service two heads, contrary to the engineering report which states it would be able to service three heads. Mr. Grunmeier felt the storage is adequate, however the pumping capacity is not.

Mr. Marty Hannon, who is a sprinkler technician as well as the captain of the Hilltown Fire Company, was in attendance to answer any questions. Mr. Hannon noted an additional 2,000 gallon tank would be needed to sustain what is proposed. On sites without public water, a storage tank with a pump is required. The pump will handle approximately 250 gallons per minute. Mr. Grunmeier has also obtained prices from sprinkler companies, and their estimate would be approximately \$45,000.00, not 10%, which is what the applicant has estimated. Also, according to the applicant's plans, they have proposed a 2 hour fire rated wall, which does not include diffusible link doors.

Chairman Bennett asked Mr. Grunmeier's opinion on the comments made by the applicant regarding the nature of the stage area, in that it could be exempt from being sprinklered, depending on interpretation. Mr. Grunmeier understands what Father McBride is attempting to accomplish, however he cannot condone deletion of the sprinkler system for obvious safety reasons. Chairman Bennett felt the applicant does have a few advantages, including the fact that the building is a single story structure, and that the Hilltown Fire Company, which is located right around the corner from the site, has a brand new pumper capable of 3,000 gallons. Also, since a school is basically used from 8:00AM to 3:00PM, and is closed during the summer months, it is not quite the same as a commercial use or an establishment which has a night shift. Mr. Grunmeier commented one thing for the Board to keep in mind is that there has already been a fire on this site in the past, though fortunately it was fought successfully. Mr. Grunmeier was surprised that the applicant had attempted to appeal the issue of sprinkler systems when the building has already experienced a fire. Further, Mr. Grunmeier noted, the applicant has also suggested establishing a dry system which would be connected to a tanker truck. A dry system, however, is defined by NFPA as a system filled with air, and backed up with a water supply. NFPA 1231 gives minimum total water supply for certain size buildings. Mr. Grunmeier has

calculated that this project would require 26,000 gallons of water, if just the proposed addition was involved in fire. The Hilltown Fire Company's tanker carries only 3,000 gallons. With the impending adoption of the Sprinkler Ordinance, Mr. Grunmeier is concerned with the precedence that will be set if Our Lady of Sacred Heart is allowed to go ahead with their proposal, as planned.

Also, Mr. Grunmeier noted, the applicant is required to construct a two hour fire rated wall between the gymnasium and the common area, however in the plans it was not originally shown as fusible link doors. If the applicant were to install a sprinkler system, a two hour fire rated wall would not be necessary. A combination of these circumstances would result in less cost to install a sprinkler system.

Mr. Hannon, who does designing and installation of sprinkler systems, made some comments for the Board's review. When contacting B.O.C.A. concerning sprinkler systems, they directly refer you to NFPA 13. B.O.C.A. addresses limited systems, however those limited systems are not recognized in NFPA 13. It does address the fact that there needs to be a 30 to 60 minute allotment of water supply in order for the sprinkler heads to go off. Mr. Hannon stated the grouping that the stage area falls into is "Ordinary Hazard - Group II", which is where the requirement for 26 gallons per minute per head comes from. Without completing a hydraulic calculation on the entire job, it is Mr. Hannon's educated guess that an additional 2,000 gallons of water supply would be required, and a pump capable of 200-250 gallons per minute to flow that much water. In "Ordinary Hazard - Group II", NFPA directly groups "stages" in this classification. NFPA is very specific about what they require for sprinkler systems.

Another point Mr. Hannon wished to address was the materials to be used to construct the stage. Throughout the rest of the school, construction materials are made up of metal joists and ceiling tiles, which does have a nominal rating. The stage floor itself is to be constructed of wood, which is certainly combustible. Mr. Hannon commented the dispatch time from Bucks County requires the Hilltown Fire Company to respond within a four minute period of time. Their tanker is not capable of pumping it's own water, so therefore an engine must be dispatched as well. Indeed, 3,000 gallons is probably most likely to stop a fire in it's incipient stage, if it is not free burning by the time the tanker arrives.

Supervisor Bennington appreciates the expertise of Mr. Hannon and Mr. Grunmeier, who obviously knows more than he concerning the B.O.C.A. Code, however he feels the question before the Board this evening is whether or not the "stage" that is proposed is really considered a stage in reference to the B.O.C.A. Code. Further,

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Supervisor Bennington is very concerned about the safety issue. He quoted a section of the B.O.C.A. Code which states "Hazards associated with traditional stages include scenery and lighting suspended overhead, scenery in the back and sides of the stage, shops and dressing rooms located around the stage, and storage located underneath the stage, etc." This is not what Our Lady of Sacred Heart is proposing, however. The applicant is proposing a simple stage to be used for public speaking, and Christmas or Easter pageants, etc. Supervisor Bennington does not feel that what the applicant is proposing is a "stage" in the sense of the B.O.C.A. Code's definition.

With the equipment now available on the site, including a tank and a pump, Supervisor Fox asked how much water will be pumped per minute. Mr. Kane replied approximately 20 gallons per minute. Supervisor Fox would not call what is proposed a "theatrical stage" either, however, he has a concern for the safety of the children in the school.

For the Board's consideration, Mr. Kane proposed a series of options to be explored. One option would be to remove the curtain from the stage opening. An issue that the B.O.C.A. Code is concerned about is the development of a fire on the concealed side of a curtain, whereby an audience would not be aware of that relative risk. Once the curtain is removed, the B.O.C.A. Code no longer calls this platform a "stage", because the distinctive elements described in the Code for all stages is "movable curtains". This will, in turn, present a lower level of risk because a fire could not develop concealed from the audience. That, in conjunction with the fact that little or no scenery is proposed for this stage, leads Mr. Kane to believe that the relative risks are very, very modest, and believes the Code has provisions to recognize this.

Chairman Bennett suggested installing a basic sprinkler system which would not be connected until such a time as public water was available to the site. Mr. Kane replied the applicant would be willing to install the necessary heads and connect them to the existing system, mindful of the limitations the existing system places on the capacity of the heads. Chairman Bennett suggested that this matter be taken under advisement. A decision will be rendered at the next Board of Supervisor's meeting on November 23, 1992. The Board of Supervisors was in agreement.

The B.O.C.A. Code Appeal Hearing for Our Lady of Sacred Heart Church/School adjourned at 7:50PM.

Respectfully submitted,

*Lynda S. Seimes*

Lynda Seimes, Township Secretary