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## MEMORANDUM

**TO:** Belmont Planning Board

**FROM:** David L. Frizzell, Chief of Department

**DATE:** May 19, 2017

**SUBJECT:** Belmont Day School Fire/Emergency Access (Noone Letter)

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I have been copied in a letter from Attorney Joseph Noone, who is representing some of the abutters of the Belmont Day School (BDS) project. His letter, I believe well intentioned, identifies areas which are beyond the jurisdiction of the Planning Board and are vested in the Fire Chief. I must also note that the Belmont Day School and its project must be treated and held to the same standard as other public and private projects within the Town. I will attempt to answer Mr. Noone's point by point analysis he has provided.

The analysis, provided by Attorney Noone, is based on 527 CMR 1 the Massachusetts Comprehensive Fire Safety Code. This Code is a national code which has been adopted and amended by the Commonwealth of Massachusetts. The Commonwealth realized it was necessary to amend the Code as conditions found in Massachusetts are different than other parts of the country. Just like the national "one size fits all" approach did not fit Massachusetts a "one size fits all" does not work for communities across the Commonwealth. The Code allows the "AHJ" or Authority Having Jurisdiction a great amount of latitude, interpretation and discretion when administering the Code, at a local level.

The Fire Department will not opine on issues which are beyond our purview. Attorney Noone opines that "The BDS Plan Fails to Provide Adequate Emergency Access to the School." The Fire Department **does not agree** with his conclusion. The proposed access to the School will be greatly improved and ultimately enhance the safety of the students, faculty and visitors at the school. As mentioned previously, the BDS is being held to the same standard as other public and private projects presented for review by the Fire Department. The BDS must plan for expected emergencies not endless series of hypothetical emergencies. We could never plan nor expect an applicant to plan for any and all emergencies at the school. The basic principle of providing additional access to the school is a great foundation for safety, and endorsed by the Fire Department.

Currently, the BDS is served from a private road. The private road, Day School Lane, was accepted by the Board of Survey. As with other recent projects, in the area of the BDS, the Board of Survey has allowed standards which are less than the Town's street standards and below that of a Fire Access Road. They are allowed by statute to do this as the Board of Survey.

The Department feels that conditions or encumbrances to a plan which would require the alteration of the use of Day School Lane is beyond The Fire Department's authority or 527 CMR 1 and would be unenforceable on any party except the BDS. It is clear, and generally agreed by all parties, the BDS must install a Fire/Emergency Access Road to the proposed new building. The primary purpose of this Fire/Emergency Access Road is "access." The Fire Department must be provided access to the new building, which the proposed access does. The access to the remainder of the existing school is a "current condition" and the Department does not feel it has the authority to require access changes beyond what has been proposed.

***"The BDS Plan Fails to Provide Adequate Emergency Access to the School"***

The Fire Department does not reach the same conclusion.

***18.1.1.4 The fire apparatus access road plans must include and analysis and evaluation of fire apparatus maneuvers throughout the access roads created by swept path analysis and turn simulation software.***

The applicant has met the standard applied to similar applicants and in compliance with the regulation. A single drawing showing the flow path through the site with vehicle "turning & tracking" appropriately indicated. This plan was submitted using Belmont Fire Department supplied apparatus specifications for the piece of apparatus with the largest turning radius and apparatus length. The same standard, applied to other projects, was used for this review.

The Department looks at normal expected conditions. Again, to try and account for hypothetical conditions would be unreasonable. Having recently viewed traffic at the school to assess access cuing and delays, the Department is able to access the existing School without unreasonable delay given the current conditions. The Fire Department has had discussions with BDS to make modifications to the submitted plan to allow for an efficient flow through the property. The access to the proposed building had no issues. The Fire Department has determined that the access to the proposed building meets the requirements of 527 CMR 18.

***18.1.3.1 Fire Apparatus Access. Plans, where required, for fire apparatus access roads shall be submitted to the fire department for review and approval prior to construction.***

The Applicant has supplied appropriate documentation for the current stage of the process (as would be expected of any applicant). Any additional required documentation would be required and submitted "for review and approval prior to construction." The Applicant is in a conceptual review stage. Once approved they would move on to the formal construction review.

***18.1.1.5 The fire apparatus access plans shall bear the seal and signature of the responsible registered professional engineer.***

The Applicant has submitted stamped drawings by a registered professional engineer.

***18.2.3.4.1.1 Fire department access roads shall have an unobstructed width of not less than 20 feet.***

Attorney Noone seems to use different numbers throughout his letter which seem conflicting and inflated. As stated the student population is 250 students. Yet in his analysis he uses the figure of "400" and "500 parked and cued cars." Cars parked in designated parking spaces are accounted for in the access plan and do not impinge or impede access. There is some legitimate

concern about "cued" cars. Current observations revealed "cued" car operators stayed in their vehicles and there was sufficient space within the current BDS to move cars if they somehow blocked emergency access to the current BDS property. The Department believes that through proper signage and education this issue is an acceptable and reasonable part of the traffic plan at the BDS. The condition of "cued" cars is not unique to the BDS and is commonly found at schools, and regularly at all of Belmont's schools, public and private. The Department must hold the BDS to the same standard applied to other similar facilities. The proposed access to the new building meets the requirement of "unobstructed width of not less than 20 feet".

***18.2.3.3 Multiple Access Roads. More than one fire department access road shall be provided when it is determined that access by a single road could be impaired by vehicle congestion, condition of terrain, climatic conditions, or other factors that could limit access.***

The Department reaches different conclusions than Attorney Noone. The addition of new access to the BDS property enhances the access to the property in general and specifically to the proposed new building. Although, the proposed project alters the flow of traffic through the project we don't believe an additional access road, beyond existing and proposed, is required. Having personally reviewed the existing traffic flow it would be reasonable for the Fire Department to have a second or "multiple" emergency access via the bidirectional Day School Lane. As previously stated there will be no changes to the current conditions on Day School Lane. Any hypothetical future encumbrances, limitations, or conditions, which could occur on Day School Lane, could exist or happen regardless of any expansion or projects at the BDS therefore are irrelevant in the analysis of "Multiple Access Roads." Adding an additional access via a new driveway/roadway only improves the safety of BDS its students, faculty, and visitors.

***18.2.3.4.8 Travel in the Opposing Lane. The use of the opposite travel lane is prohibited in the design of all new fire apparatus access roads.***

The Fire Department does not reach the same conclusion as Attorney Noone. The intent of this portion of the regulation is to prohibit the requirement of emergency responders to travel in an opposite direction to traffic in order to meet the access requirements. An example would be having to use an "exit" or egress road/driveway as the Fire/Emergency Access Road to a project or development. It is common for responding emergency apparatus to temporarily cross into oncoming traffic to effectuate a response and navigate around temporary obstructions or conditions. At best, the proposed route may cause the largest of piece of apparatus (the ladder truck), for some turning movements, to cross into opposing traffic. This is worst case scenario as all other equipment is shorter and has lesser turning radius. We do not feel the design is in conflict with the Regulation as travel is not designed or intended to be in the "opposite travel lane."

The argument raised about traffic on Day School Lane and Concord Avenue, as it relates to Fire/Emergency Access Roads, is beyond the jurisdiction of the Fire Department. As previously stated Day School Lane and Concord Avenue are both accepted streets/roads in the Town of Belmont. Under normal circumstances responding to emergency calls, in the general vicinity, could require the Department apparatus to travel in the opposing traffic lane. It should be noted that on all emergency calls Police Department units are assigned. If there was such an emergency that would require "ambulances trying to transport injured children in an emergency on the campus and on Day School Lane" access to Day School Lane, at both the BDS property

and at Concord Avenue, would be closed by the Police Department. This would allow free and unrestricted access and egress to the emergency. The use of the Police Officers to control traffic at emergency scenes is a normal practice and would not be a new concept at the BDS or an emergency on Day School Lane.

The Department cannot find any portion of the proposed traffic plan where "the use of opposite travel lane" is required as a part of the design. Actual real life situations may be encountered where travel in the opposite lane may be required due to current or presented situational conditions.

***18.2.3.5.2 A marked fire apparatus access road shall also be known as a fire lane.***

The Fire Department concurs with this requirement. The new access will require appropriate pavement markings and signage to identify it is a "Fire Lane". Such requirements or any additional requirements shall not be required of Day School Lane. Any additional requirements, for Day School Lane would have to be put forth to the Board of Selectmen for action. It should be noted the current access to the BDS is via Day School Lane and it appears to work.

***18.2.4.1.1 The required width of a fire department access road shall not be obstructed in any manner, including by parking of vehicles.***

Again, the Fire Department agrees with this requirement. The proposed plan does not obstruct the Fire Department's access by the parking of vehicles, as indicated on the proposed plan. The Fire Department does not have control over parking on Day School Lane today or in the future. The allowance of parking on Day School Lane is an existing condition.

***18.2.4.1.2 Minimum required widths and clearances established under 28.2.3.4 shall be maintained at all times.***

Attorney Noone makes an inaccurate conclusion that Day School Lane is subject to the requirements of this section. The Department disagrees with his conclusion. Day School Lane is an accepted way for which the BDS, Fire Department, nor the Planning Board has any authority. If the Day School was going to propose expansion, without the addition of an access road, I would assert that they would have to design a Fire/Emergency Access Road from the public (private) way (Day School Lane) to the proposed new building. I would further acknowledge that there would have to be "No Parking" on Day School Lane. Fortunately this is not the case and BDS has proposed a Fire/Emergency Access Road to the proposed new building.

The proposed access, to the proposed new building, is being designed to an "H-20" Standard. This standard is sufficient to support the loads of fire apparatus. Mr. Noone raises a concern about the terminology being used for the emergency access road as being a "driveway." The Fire Department regards the proposed access to the new building as meeting the requirements of the Code regardless of what it is being called.

***"Truly Safe Emergency Access Requires a Dedicated Emergency Access Road"***

In a perfect world, this is a wonderful concept. The reality is there are very few "dedicated emergency access road[s]." It is common to have driveways and roadways serve as both regular and emergency access to structures. The Department has found in places where dedicated fire or emergency access was instituted, as part of an approval process, they ultimately didn't/don't work. Access which is not used on a regular basis does not get maintained. Defects in the

pavement are not addressed and they often lack timely clearing during inclement weather. Items, other than signage, are ineffective in making emergency access road accessible. Gates do not receive the maintenance required, delay response to occupancies and limit snow clearing. Removable bollards freeze in the winter making their removal impossible.

Attorney Noone's letter raises a lot of unfounded or unsubstantiated issues. He and by reference the neighbors he represents agree that the Fire or Emergency Access Road is required and we concur. The use of this access road, beyond the Fire Department's needs and regulations, is not up to the Fire Department. The Fire Department has no objections to the shared use of the Fire or Emergency Access Road as a driveway to the BDS. The Fire Department does not feel a multipurpose access will have a detrimental effect on the safety of the BDS. The Fire Department finds that a shared driveway will have benefits of the access being maintained and ultimately in the overall safety of the Belmont Day School Campus.

The Fire Department does not and cannot reach the same conclusions as Attorney Noone. **The Fire Department finds the proposed unimpeded, by gates or other obstructions, fire or emergency access road, regardless of the terminology used (driveway, roadway, road), which addresses reasonable and expected emergencies, but not all hypothetical emergencies, anticipated on the BDS Campus, and the proposed design addresses such needs and meets the requirements under 527 CMR 18.00.**

In summation, the proposed Belmont Day School project will have a modern fire alarm system and will be protected throughout by an automatic fire sprinkler system. The proposed access to the building meets the standards. The project will be subject to further review, by the Fire Department, for compliance with applicable codes and regulations, if it moves forward in the process.

If you have any further questions feel free to reach out to me.

