

**NC Department of Insurance
Office of State Fire Marshal, Engineering Division**

RE: Appeal of the July 1, 2019)
 Denial of an Alternate Material,)
 Design, or Method issued by)
 the City of Raleigh.) NCDOI DECISION

In accordance with GS 160A-434, Aaron Cole of Duke University System has appealed the City of Raleigh’s decision regarding the method for providing two separate water supplies from the City instead of an on-site 65,000-gallon water tank for a hospital addition located at 3400 Wake Forest Road, Raleigh, NC 27609.

GS 160A-434 allows general appeals from any order, decision, or determination by a member of a local inspection department pertaining to the State Building Code or other State laws to the NC Department of Insurance, Office of State Fire Marshal, Engineering Division.

PARTIES

Appellants: Aaron Cole
 Duke University Health System

Appellee: City of Raleigh Inspections Department
 1 Exchange Plaza, Suite 400
 Raleigh, NC 27601

BACKGROUND

The project in which the design is in question is a new 6–story addition for the hospital consisting of Type 1-A construction of 210,200 square footage. HOK Architecture and AEI Engineers are the design professionals on this project. An alternative material, design, or method was submitted and on May 22, 2019, the City of Raleigh denied the alternative method of using two separate water supplies.

ISSUE RAISED IN APPEAL

The following issue is raised in Appellants’ appeal:

“There has been very little documented seismic activity in North Carolina. The mitigating features of the redundant water supply connections and the inherent fire safety and structural design features of the facility should be considered to mitigate the need for on-site water storage to supply sprinklers in the building.”

FINDINGS

Based on information submitted by the appellant, the following findings are made:

1. The Denial of the Alternative Material, Design, or Method was included in the appeal.
2. The Code defines a high-rise building as a building having a floor located more than 75 feet above the lowest level of fire department vehicle access. The existing loading dock area off Executive Drive is the area in which first responders would access the building along side their vehicle. The FDC connection is located within the existing dock area. Shown on elevation drawings and stated by the architect, the 5th level is approximately 9.25 feet above 75 feet. The addition does meet the definition of a high-rise building.
3. In the 2018 NC Building Code, Section 403.3 requires a secondary water supply if required by Section 903.3.5.2. Section 903.3.5.2 requires a secondary on-site water supply for high-rise buildings assigned to Seismic Design Category C, D, E, or F. The addition is in a Seismic Design Category C according to the documentation provided.

CONCLUSIONS

Based on the forgoing findings of fact, the following conclusions are made:

Pursuant to G.S. 160A-434, the appellee is correct in denying the use providing two separate water supplies instead of an on-site 65,000-gallon water tank for the hospital addition. The intent of the on-site water supply is to provide a high level of reliability for fire protection systems if a seismic event disables the primary water supply to this high-rise building.

APPEAL DECISION

Based on the above findings and conclusions:

The decision to deny the use of an alternate material, design, or method in this case is upheld.

This 1st day of July 2019.

North Carolina Department of Insurance



FURTHER APPEAL RIGHTS

You have the right to appeal this decision to the NC Building Code Council. Please refer to GS 160A-434 and the NC Administrative Code and Policies, Section 202.9.2 for further appeal rights. You have 30 days in which to appeal this decision.

Cc:

Leon Skinner, City of Raleigh

John Fanning, City of Raleigh