

Quantifying the Savings from Building Code Victories

BY STEVE ORLOWSKI

For a number of years, powerful lobbying groups representing product manufacturers and specialty service providers have used the code process

as a means to promote their services or write mandatory language requiring their products. Many of these proposed changes are portrayed as provisions necessary to improve safety and quality in the built environment. More often than not, the data shows that these proposals are solutions looking for problems. BOMA International defends the commercial real estate industry by working with code officials to ensure that only necessary changes are approved.

Following each cycle, BOMA International's codes team compiles a list of code changes, along with the financial implications, to illustrate the impact the code process has on construction costs for new and existing buildings. Working with a team of estimators, BOMA recently authored a cost analysis report that identifies the most significant changes in the most recently published codes — the International Code Council's 2015 *I-Codes* — and the cost implications associated with each. This analysis reveals that the smallest changes can add up to significant savings for a commercial property.

For instance, under specific circumstances, ductwork no longer needs to be enclosed or wrapped in a fire-resistant assembly to meet fire safety requirements. No longer requiring encapsulation in drywall or listed fire wraps should result in savings ranging from \$3.01 to \$15.90 a linear foot for building owners.

In buildings taller than four stories without occupied roofs or elevator equipment, the latest codes will allow the roof to be accessed by means other than a stairwell. Building owners could save as much as \$17,000 by eliminating the stair from the highest occupied floor to the roof. Instead they can install a more economical fixed ladder, alternating tread device or ships ladder. In addition to removing the stair to the roof, the 2015 *I-Codes* also allows the removal of the fire-rated door and rated wall assembly between an interior exit stairwell and the exit passageway, provided there are no unprotected openings or penetrations in the exit passageway. This code change could save owners as much as \$2,574 for each intersection between the exit passageway and the stairwell.

The 2012 *I-Codes* required most existing elevators intended for use by the fire service or assisted rescue to be equipped with emergency operation controls. The latest revision carves out an exception to this rule: Any building that is equipped throughout with an automatic suppression system meeting the National Fire Protection Association's *NFPA 13* or *NFPA 13R* standards and does not have an occupied floor greater than 55 feet above or 25 feet below the lowest level of fire department vehicle access can forego the installation, thereby saving building owners \$6,203 per elevator cab.

Due to the increasing use of rooftops as places of assembly for tenants, code officials wanted to make sure anyone using these spaces would be safe in case of fire inside the building. The newest code revisions now set a limit on the number of people who may occupy a roof in a non-sprinklered building. For assembly occupancies (such as a bar, lounge or restaurant with an occupant load greater than 100 people), the 2015 *I-Codes* requires that all

floors between the occupied roof and the exit level must be equipped with sprinklers. Most office buildings built in the past two decades already have sprinklers, since they allow building owners to take advantage of increased height and area allowances. Buildings that do not have them should consider

THE CODES HAVE NEW REQUIREMENTS for sprinkler systems in buildings with occupied rooftop areas.

the cost of making this change before allowing tenants to use the roof. The cost for installing a sprinkler system in an existing building ranges from \$10 to \$13 per square foot, not including the costs associated with designing the sprinkler systems, cutting and patching walls, and remedying existing site conditions. However, installing a suppression system has the added benefit of providing potential savings on insurance policies.

During each code development cycle, thousands of code changes are deliberated, debated and voted on. BOMA International's codes team advocates on behalf of the commercial real estate industry throughout the process. The recent cost analysis underscores the quantifiable value of these efforts and their direct cost savings. BOMA will continue to serve on the front lines in efforts to preserve safe, achievable and cost-effective building codes and standards for commercial properties, including during the current development cycle for the 2018 *I-Codes*. ■

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