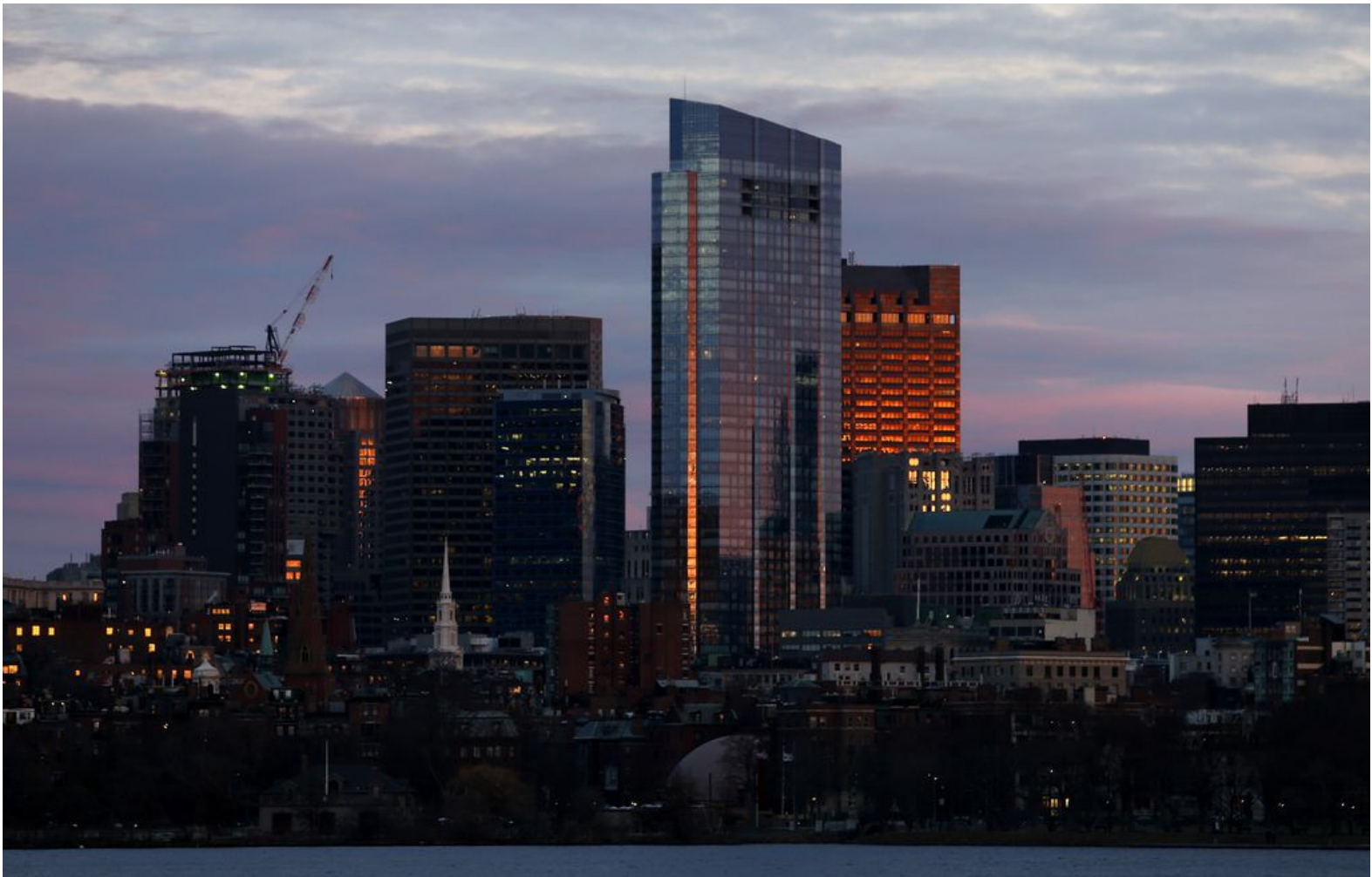


# Following catastrophic collapse in Florida, Boston building officials outline city safety measures

By [Laura Crimaldi](#) and [Elizabeth Koh](#) Globe Staff, Updated June 25, 2021, 5:49 p.m.



The Boston skyline gleams in the light of the setting sun. JESSICA RINALDI/GLOBE STAFF

One day after the world watched a high-rise, residential building near Miami crumble to the ground, officials in Boston rushed Friday to publicly outline the steps taken here to ensure that the city's tallest buildings are safe.

Most high-rise buildings in Boston are required to undergo a checkup every five years to assess the

structural integrity of their exterior walls, said Sean Lydon, interim commissioner of the city's inspectional services department. "Quite frequently," he added, those close inspections identify problem areas that must be corrected immediately.

"We are very proactive on the structural integrity of the buildings," said Lydon, who is certified as a building inspector. "It's an eye opener for people. Keep your eye out. Your eyes will tell you a lot. ... Look at your building."

Speaking to reporters [a day after a 12-story oceanfront condo building partially collapsed in Surfside, Fla.](#), Lydon expressed confidence in the city's approach to checking the safety of Boston's tallest structures.

The cause of the Florida building collapse remained unknown Friday afternoon. Four people were confirmed dead and as many as 159 people were unaccounted for, officials said.

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In Boston, officials adopted an ordinance in 1995 requiring high-rise owners to give the city every five years an inspection report that documents the condition of their building's exterior walls. The requirement applies to buildings that are at least 70 feet high, or about five stories.

The inspection report must be authored by an architect or engineer, according to the ordinance. Meanwhile, unoccupied high-rise buildings are inspected annually.

Lydon estimated the rules cover at least 50 buildings in the city. He noted there are some properties currently under orders to repair problems identified during the inspection process.

Lydon couldn't provide details Friday about the specific properties that are required to make repairs, but said none of the buildings had to be evacuated and none of the conditions are life-threatening.

When repairs are needed to unsafe walls, the city may order the building owner to install netting around the property or close surrounding streets, Lydon said.

Donald Dusenberry, a forensic expert in structural engineering, told the Globe that structural issues can sometimes escape scrutiny and noted the distinction between exterior wall checkups and interior issues.

"Most of those inspections are intended to evaluate whether there are hazards to people outside the building. They're not so much focused on whether the structure of the building itself has still had integrity," said Dusenberry, a former president of the Structural Engineering Institute.

Since 2010, city of Boston inspectors have issued more than 200 violations for unsafe structures, and 27 of those tickets are currently considered open, according to data posted on a city website. Four of the open tickets for unsafe structures were issued in 2017 to two different properties in South Boston, the data show.

On Friday, an ISD spokeswoman said the agency was reviewing the data and expected to have more information about the open violations by early next week. The department also provided photographs showing telltale signs of unsafe conditions, including loose nails and screws in brick walls, crumbling mortar, and foam used to seal large gaps.

Mehrdad Sasani, a Northeastern University professor who has studied building collapses, said tragedies like the one in Surfside are rare. Catastrophes are often caused by several factors such as design and construction issues, long-standing deterioration, or excessive use that overloads a building's structural capacity, he said.

"It's rarely just one thing that could lead to collapse," said Sasani, who teaches civil and environmental engineering

In 1971, Boston experienced a building collapse on a similar scale to the one in Surfside, Sasani said. Most of a 16-story apartment building on Commonwealth Avenue fell to the ground during the last phase of construction. The collapse — which occurred when concrete was being poured for the top floor of the building — killed 4 and injured dozens more.

Even when buildings are under structural stress, they should be designed to give enough warning that something is wrong rather than fail catastrophically at once, he said.

“You’d see some cracks somewhere, some vibration, something that would lead to the idea that there’s something wrong here,” Sasani said.

While building codes have improved over time, he said, retrofitting old buildings to comply is usually prohibitively expensive and rarely happens unless a building is already being upgraded for other reasons.

Lydon, Boston’s inspections commissioner, said visual inspections are among the most effective ways to detect unsafe conditions, though radio waves can also be used to identify defects, according to Lydon.

“The exterior will tell you a lot,” he said. “If you see a watermark, you could have some problems.”

In the Northeast, rain and snow are most commonly to blame for causing water damage that compromises a building’s structural integrity, Lydon said.


Portions of the city like Back Bay, the South End, and Fenway, were constructed on filled tidelands with wood pile foundations that could be damaged if groundwater levels drop.

The city has adopted a Groundwater Conservation Overlay District to make sure builders in those neighborhoods have a plan for preserving groundwater levels there, Lydon added.

*Material from the Associated Press was used in this report.*

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