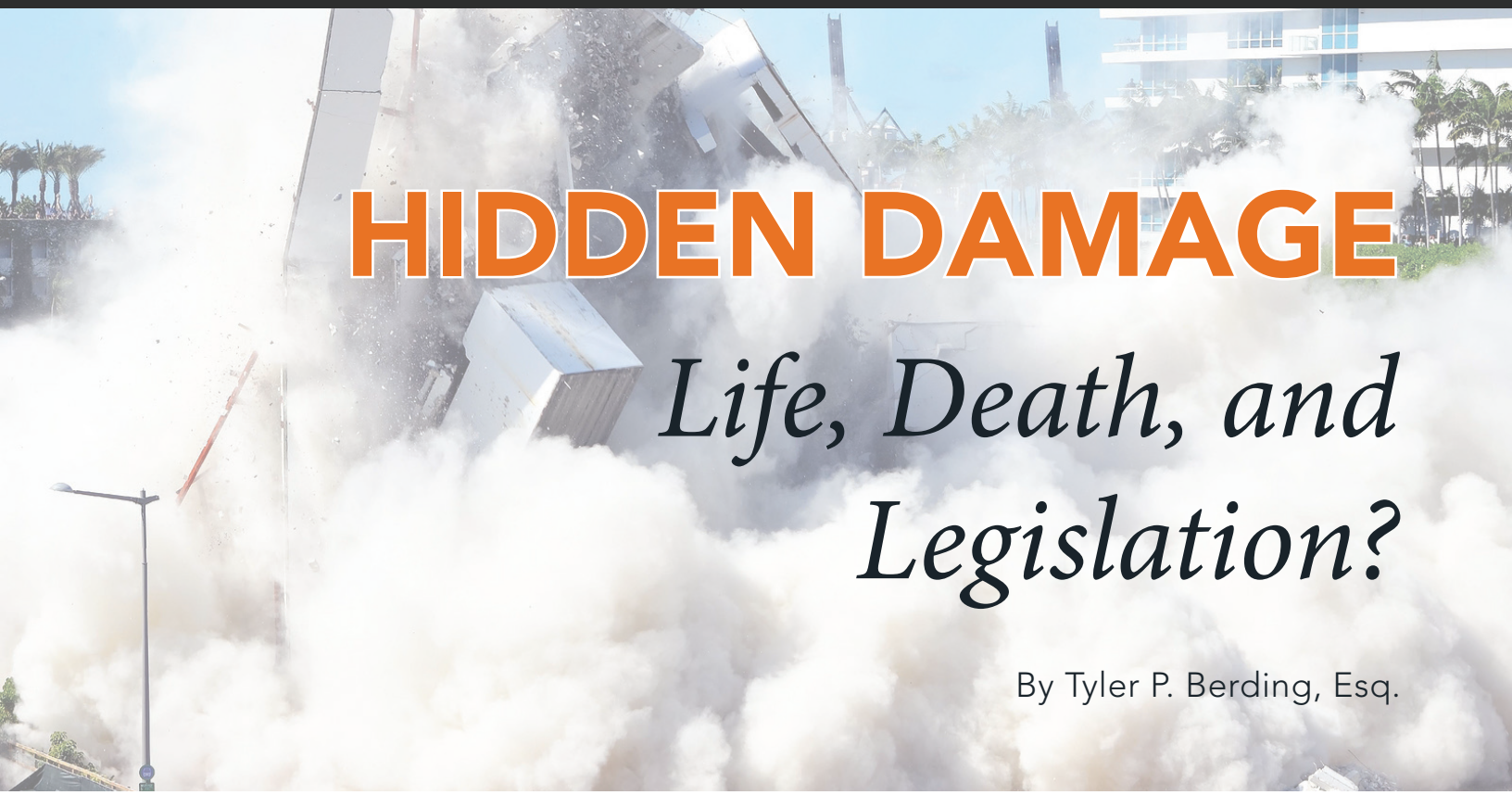

HIDDEN DAMAGE

Life, Death, and Legislation?

By Tyler P. Berding, Esq.

HIDDEN DAMAGE

When we first wrote on this topic twenty years ago, hidden damage—a cancer that can severely affect buildings but remain out of sight for decades—was primarily an economic problem. Community Associations found themselves deep in debt when the cost of repair of accumulated, but hidden, rot, corrosion, and other water damage, greatly exceeded cash reserves. Sometimes this damage was known but ignored, or "deferred," by Boards of Directors to keep owner expenses low. Frequently, however, the damage is unknown, has been for decades, and only after other work or a failure reveals its presence are the owners presented with a shocking repair cost.

But it has become a much more severe problem—a matter of life and death. In 2015, a fourth-story balcony in Berkeley, California, collapsed, and six exchange students lost their lives. On June 24, 2021, at 1:25 in the morning, the fourteen-story Champlain Towers South condominium building in Surfside, Florida, collapsed without warning, entrapping nearly 150 souls. As of this writing, the final count of the victims is pending, as is a final judgment of the cause.

The balcony collapse and loss of life in Berkeley resulted in stringent inspection requirements at the municipal and state levels. These inspections will be expensive, but surveys have shown that they are needed to uncover serious problems that otherwise remain unseen. The legislation that followed applies to apartment and condominium complexes, but only wood frame buildings, mostly low-rise. High-rise buildings built of concrete and steel, like Champlain Towers, are not included in the California legislation. Should they be?

No one knows for sure, but the forty-year-old building in Surfside, Florida, likely collapsed due to a confluence of factors. I'm not a structural engineer, but I've worked with engineers throughout my career, pursuing hundreds of construction claims and following the engineers' opinions about the Surfside incident with great interest. That there was a catastrophic structural failure is self-evident.

Also evident from prior reports and subsequent pictures were failures of the waterproofing intended to protect the massive concrete slabs and columns that supported most of the building. There has also been speculation that the concrete reinforcing steel that connected elevated slabs to columns may have been inadequate. Unknown but possibly involved was seawater incursion into the foundation concrete supporting the building. Other causes may also exist.

Some of this was identified in an engineer's report done in 2018. "Timely" action to correct the deficiencies was recommended. Unfortunately, the price tag for the work eventually climbed to $18 million, according to reports. As anyone who has worked with community associations will tell you, there are few, if any, associations that have cash reserves anywhere close to that amount Almost none could raise those funds by only assessing members.

There were arguments between the Board of Directors and members over which of the engineer's recommendations would be implemented and how the funds would be raised, delaying the project. But here's a disturbing thought—was it already too late? From the engineer's report, much of the repair was to re-establish the waterproofing and fix the obvious spalling of concrete—but it is unknown how much unseen damage to structural members had occurred over the last forty years. The $18 million waterproofing project might not have saved the building.

Other than sifting through the wreckage to locate victims and eventually attempting to determine the cause, nothing can be done now to save the victims of Champlain Towers South. But there is a lot that Boards of Directors can and should be doing to avoid another tragedy. What follows is an outline to prevent disaster, economic and human.

INSPECT

Engineers can investigate hidden portions of a building in several ways. "Non-destructive" testing (NDT) is often used to map the extent of damage—particularly rot or corrosion. There is a technology that can determine the extent of moisture intrusion using infrared cameras in certain types of buildings. Another is a borescope, a small camera inserted through a hole in the outer skin. Concrete and steel buildings often require more sophisticated methods of detecting internal damage. For example, ground-penetrating radar can assess corrosion in rebar or beams covered in concrete.

"Destructive" testing, where portions of the building are removed or opened, gives the inspector a direct view of framing, shear walls, and waterproofing. Hidden decay or corrosion of metal components may also appear during a routine repair of other elements. Concrete can be cored to reach and inspect embedded and corroded rebar. Outward signs of decay or corrosion, to a trained engineer, can help direct intrusive inspections.

Inspections must start early in a building's life when water intrusion leading to deterioration can be identified and repaired economically. Waiting until a building is thirty or forty years old, after rot and corrosion have taken over to look for critical damage, is almost a guarantee that the inspection will find a lot of it.

CONVINCE THE BOARD OF DIRECTORS

No inspection methods will help unless they are employed, and they won't be unless the Board members understand that a visual inspection alone, the type used to prepare most reserve studies, is not enough. As we saw in Florida, concrete and steel buildings, if left uninspected for long periods, can develop internal structural damage that will compromise critical support and lead to a costly repair project at best and a life-safety disaster at worst. Voluntary inspections that depend on the whims of a volunteer board with limited expertise and a more limited budget are usually not sufficient. It's too easy to defer inspections and easier still to delay repairs that exceed an annual budget.

CONVINCE THE MEMBERS

Management and board members may be convinced to inspect periodically and perform necessary repairs properly, but without member support, the effort may fail, lacking funding. Members have to be informed of inspection plans and their cost. But more important, members have to understand that with hidden damage, what you see is not always what you get. Townhall meetings where members can hear and meet the experts who do the inspections open up lines of communication and instill confidence. The Board or the experts can explain why the inspections are necessary, either to comply with statutes or good industry practice. Photos of damage can be shown. The Board can offer the budget for these inspections so owners understand why some assessment increases

may be necessary. And suppose the inspections identify damaged components that compromise the safety of the residents. In that case, the Board and management can explain the emergency plan for dealing with it and the funding necessary.

Bank loans are increasingly more common. Over the past decade, our firm alone has helped over two hundred associations obtain loans to repair unexpected damage. But when substantial additional contributions must come from owners, the challenge is handling the political pushback that will invariably occur. The present owners have a short-term interest in the condition of the building. Their primary goal is keeping expenses low. But the association has a very long-term interest and must maintain the structure properly, in perpetuity, according to law and most governing documents. These two interests are rarely compatible, and a Board of Directors often finds itself in a conflict between the interests of present and future members. Shall they keep expenses low and defer inspections and maintenance, or assess as necessary now to maintain the building properly? A Board should not sacrifice the interests of owners who will come later to the interests of just those who live there now. Reconciliation of these competing interests by relieving the Board of inherent conflicts may require legislation.

It's not a question of if, but when.

LEGISLATION

Transparency and information sharing by the Board may fail in the face of a six-figure special assessment. Legislation is likely needed to ensure that all multi-family buildings constructed of wood or concrete and steel, low-rise and high-rise, have structural elements inspected periodically. Legislation should require both visual and destructive testing or NDT to assess the performance of critical components and the need for repairs.

Engineers and architects who appear at town hall meetings to convince owners of the need to perform an extensive rehab project will not always succeed. And that's assuming a board has hired experts, done the inspections, and identified the work to be done. Unfortunately, many, if not most, boards do not take those steps voluntarily. What is needed to ensure uniformity and compliance is often state legislation. California took that step in 2019 after the Berkeley tragedy. The state legislature enacted a bill that mandates all elevated structures, like balconies, on wood-frame, low-rise buildings are inspected within the first ten years and every six or nine years after that depending on whether they are apartments or condominiums.

But now we have a catastrophic failure of a concrete and steel high-rise. There are thousands of similar buildings across the country. All may not be subject to the environmental stresses encountered in Florida. Still, they all have similar structures that are susceptible to other environmental conditions like a marine or tropical environment, flooding, heat, tornadoes, and earthquakes.

Let's be clear, legislation addressing what happened in Florida ***will happen*** in many states. It's not a question of if, but rather when will legislatures act? When they do, what should legislation require? For example, California's "balcony bill" requires ***direct visual inspection*** of any hidden structural components that support elevated exterior structures using NDT or destructive testing methods. That same requirement could be extended to high-rise concrete and steel buildings that rely on elevated slabs and columns to support the building, as in Florida. Buildings built on "podium slabs" are elevated above the ground over perhaps one or two underground garage levels. The columns and slabs which support these buildings are constructed of concrete reinforced by steel. When exposed to water or salt air, steel corrodes, often expanding to several times its original size. That expansion can crack the surrounding concrete, introducing what's known as "spalling," where pieces of the concrete break off. If enough expansion and spalling occur, the reinforced concrete component can fail, losing the ability to support the structures above it.

Early Detection Means Less Costly Repairs.

Engineers can use cores to directly view encased rebar, or a NDT method, such as radar, to view the condition of the steel. These methods are not routinely done but could be mandated when a building is in its first ten years and every ten years after that. Visible damage like leaks through cracks, signs of efflorescence (white powdery material that seeps from cracks), rust or spalling in garage ceilings that are the underside of a structural slab should trigger further internal inspections.

Some states, like California, have more robust building codes due to earthquakes, and depending on the construction and absent any outward signs of deterioration, an engineer looking at a concrete and steel building in those states might pass on more extensive inspections. Wood-frame buildings, however, should not be given a similar pass. In states which lack the intrusive inspection requirements of critical structural components, as in California, they should be mandated.

In our forty-plus years of litigating construction defects for building owners, we have found numerous instances of decay in wood-frame buildings in just the first ten years of their lives. The collapsed balcony in Berkeley was in an eight-year-old building. Signs of water intrusion that will lead to decay can be easily identified in newer buildings using inspection techniques. Early detection means less costly repairs.

Legislatures often balk at imposing requirements on homeowners that significantly increase the cost of ownership. But that expense, whether incurred in an inspection or to correct a problem, is already embedded in the building. By covering it up, ignoring it, or deferring repairs, a community association can avoid, albeit temporarily, this added expense. But if it is ignored or delayed, repair costs get passed to subsequent owners and grow exponentially with time. Or, if left unaddressed long enough—a catastrophic failure can occur, resulting in injury or death as we have seen.

Routine intrusive or NDT Inspections are critical first steps. But new legislation cannot stop there. It must also mandate anomalies be repaired. Boards of directors must take whatever steps are needed to raise funds and commence repairs within specified time limits. Disputes among members, or between members and the Board, as to what constitutes a life-safety defect, what to do about it, or disagreements over cost, cannot continue to be roadblocks to proper repair. Experts and local building officials should decide these disputes. They must be notified of the inspector's findings and recommendations and the association's plans. Failure to timely correct structural deficiencies that could cost lives may justify evacuation or condemnation of the building.

A harsh result, perhaps, but the alternative is not pretty.

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