

Oregon State Legislature
Chair Holvey & Committee Members
900 Court Street NE
Salem, OR 97301

May 9th, 2019

Chair Holvey & Committee Members:

This letter provides some of my opinions regarding the proposed House Bill #3432, which follow:

Challenges Surrounding Construction Defects

Most construction defects remain undetected by homeowners and building owners because they are typically concealed by exterior cladding components. This is one of the primary reasons that they are not detectable by owners. It is also one of the largest challenges our company faces when confronted with evaluating an existing structure. No one has a crystal ball. Even the most sophisticated investigation equipment, such as an infrared camera, cannot shed light on how the underlying elements are constructed. That is why it is necessary to conduct an invasive investigation to physically see the defect(s), which requires removal of small portions of the exterior cladding.

To make things more complicated, an invasive investigation is a luxury that only a building owner possesses. When a building is sold to a new buyer, the purchaser(s) are not usually given an opportunity to perform an invasive investigation. Nobody wants to authorize a potential buyer to remove exterior cladding just to see if there are defective conditions underneath. Instead, the buyer(s) have to rely strictly on a visual investigation. Hence, defective conditions remain concealed and therefore unknown.

Some argue that the defective conditions can be eliminated by diligent maintenance. Usually, this means maintenance of the exterior sealants that are used at dissimilar material junctions. While diligent maintenance is very important (and expected of any building Owner), this argument is flawed because the defective condition still exists underneath the cladding. Sealant alone is not meant to prevent all water entry. You see, almost all exterior cladding systems over framed walls incorporate a weather-resistant barrier (WRB) underneath the cladding (see Chapter 14 in the International Residential Code [IRC] or Chapter 14 of the International Building Code [IBC]). Most exterior cladding designs accept the fact that at least some water will gain access behind the cladding (see the Code Commentary books). The WRB and flashing elements are then meant to protect the moisture sensitive wall materials by intercepting incidental water that gains access behind the cladding and shed it out. If the concealed WRB and/or flashing elements possess defects, the building is at risk.

Another consideration is that water entry due to a defective condition typically requires a few things in order to cause damage, some of which follow:

1. A water source.
2. Materials that can decay or are affected adversely by the presence of water.
3. Heat (it has to be warm enough for decay to occur).
4. Time. Severe decay doesn't happen overnight.

That means many construction defects are not readily evident right away. It takes time before many defects become obvious. Sometimes years. There are many, many, buildings we have evaluated where



an Owner discovers defective conditions after a 6 or 8 year period. That is because the defective condition and adverse results were not evident until after the 6-8 year period. Decreasing the statute of limitations doesn't cure the fact that the defective condition exists. It only limits the risk for those responsible for the creating the defective conditions. It also decreases an Owners ability to hold those responsible for the construction defects accountable.

Proposed Revisions to 12.135

Education is needed for contractors, and more importantly, education for their employees. Verification that they (everyone who work on the project) understand the basics (including the drawings, product manufacturers' installation instructions, and applicable industry standards) and the intended design, is needed. The contractors, and their employees, construct buildings that many consider their greatest asset. The proposed revisions to ORS 12.135 do not go far enough. A few examples follow:

- There are no stipulations for requirements of contractors' employees and their level of competency.
- There are no requirements describing how many inspection site visits are required during construction. Someone that validates that the construction is proper, must be present often enough, and at critical benchmarks, in order to ensure that the construction will function as designed.
- There are no requirements (or consequences) specified for correction of defective conditions identified during construction. This is compounded by the fact that in most instances, correction of a defective condition will require removal of installed materials, which costs the contractor money or impacts the schedule adversely. We find that it is rare to find a contractor who voluntarily corrects all defective conditions, even after we point them out to them.
- The worst general contractors take very little, or no, responsibility for monitoring the actions of their sub-contractors. Often times they are driven almost entirely by schedule and budget. If something costs too much or will cause the schedule to lag, that means money out of their pocket. They (almost) universally take the cheaper or faster option that only they benefit from. Benefit to the owner or function of the building is (almost) always their last consideration.
- Architects (and to a lesser degree, engineers) are often times not engaged to provide adequate designs, which leaves the design in the hands of the installers. Many only provide the basic code-required minimum, which does not focus on how dissimilar materials adjoin or function.

Forensic is certainly interested in participating in developing a solution that will serve all that are involved. However, there are many parts of the proposed revisions to House Bill #3432 that fall short of implementing a pragmatic solution to eliminate, or at least minimize, construction defects that plague the construction industry.

Respectfully submitted,
FORENSIC BUILDING CONSULTANTS



Toby C. White,
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