



By Christopher W. Carlson, P.E.

Chris Carlson has been practicing structural engineering for over 24 years and is focused on the evaluation and repair of defects on existing buildings. He is the Chief Structural Engineer with ETC, Inc. and oversees the structural staff activities.

Beauty May Be Only Skin Deep



Water damaged wood sheathing under building wrap



Unsealed window head flashing under EIFS

Subtle defects will often not show up as a leak with-in a year or two on the visible building surfaces, but hidden damage to the sheathing can be occurring and will manifest itself years later.

Transition studies can be viewed, simplistically, as a very large-scale house inspection. The first step that a new condominium board should take is to retain legal counsel experienced in construction law to guide them through the process of reaching a negotiated settlement to address found defects with the developer. Developers are interested in providing a quality building, and most warranty claims are settled out-of-court, but a claim is a legal journey best navigated by an experienced attorney.

Given the complexity of modern multi-family housing construction, it is necessary to retain the services of a qualified engineering or architectural firm to perform the transition study. This consultant should be an experienced expert in the eyes of the court system. Sometimes it's tempting to rely on knowledgeable people within the community who are familiar with construction practices and standards, but they can be viewed as biased and hinder the process as it unfolds.

Often transition studies lack an in-depth review of a building, sometimes because the expert consultant was selected based on the attractive low price of the study without consideration of the firm's experience or proposed scope of work. Therefore, the association can accept a building with defects that were not identified and corrected as part of the transition settlement. While no study can locate all defects, short of dismantling the whole building, intrusive investigation (i.e., removing some siding, bricks, soil, roofing, windows, etc.) that peels back parts of the beautiful outer layer of a building can provide insight into the quality of the construction. After all, the majority of defects typically encountered are concealed behind the visible building surfaces.

Constructing a building is not easy; it requires the daily coordination of many craftsmen and includes hundreds of decisions. Sometimes the team is not in harmony. Installation details can change from day to day due to any number of reasons that were usually well intended at the time, but often can leave you wondering why a wall, window, or roof was installed the way that

it was. Intrusive study often reveals missing critical components or a lack of industry standard construction under a seemingly well performing, attractive façade. It has also confirmed the presence of proper construction techniques, provided peace of mind, and a better understanding of just how much care was taken in the construction process.

Often, leaking windows are not leaks from the window assembly, but related to installation errors or missing flashings, which are hidden from view and required by the Building Code. Vinyl siding, EIFS (Exterior Insulation Finish System), or bricks should be removed in select areas to observe the flashing details used to seal the window to the wall.

Transitions between brick veneer walls and siding (vinyl or wood) often allow water intrusion due to missing details under the cladding that were not coordinated between trades. Sometimes the weather barrier under the bricks is not lapped or sealed to the barrier under the siding. Subtle defects, like a missing seal around a dryer vent, will often not show up as a leak with-in a year or two on the visible building surfaces, but hidden damage to the sheathing can be occurring and will manifest itself years later.

Sampling should be performed at areas that show possible defects, as well as at areas that appear to be performing well. This approach typically shows what is working and what is not, as well as provides insights into why defects may be evident at only some locations. It can be reassuring to know that the building was generally well constructed and give comfort that the areas of concern are limited in nature, rather than a systematic problem lurking under the surface.

The correction of warrantable defects can cost hundreds of thousands of dollars, or more, and an in depth transition study costs a small fraction of that amount. While a new condominium may have limited funds, at a minimum, a targeted intrusive study should be performed as part of a transition study and is money well spent to help assure that the building will perform as expected.



Decayed wood under the facade.



Window head flashing on top of house wrap and not under it.

301-258-9750



Kevco1.com

Serving Community Associations, HOA's And Property Managers
Experts In Exterior Cleaning
Pressure Washing-Graffiti Removal-Window Cleaning-Garage Cleaning
Parking Lot Sweeping-Awning Cleaning-Gutter Cleaning



Don't neglect your Parking Lots and Monument Signs! First impressions are important!

