



From The Home Inspector

Cultured Stone Update 2011

We began this series on Cultured Stone in the September 2009 newsletter article titled, "Is Cultured Stone the new EIFS." Our intent in relaying this information was to alert Realtors to the moisture intrusion problems that we as home inspectors were beginning to encounter as a result of the improper installation and detailing (caulking, flashing, etc.) of cultured stone. We related the arising problems with cultured stone to the moisture intrusion problems encountered with EIFS (synthetic stucco) because almost everyone in our industry remembers and was probably affected in some way by that situation, not least of which was the EIFS manufacturers who produced a perfectly good product but ended up paying out over a billion dollars in class action law suits for the errors of EIFS system installers and faulty, leaky windows.

Check out the pictorial investigations by the Journal of Light Constructions at the end of this article.

Although an excellent standard was developed by the Masonry Veneer Manufacturer's Association for the installation of cultured stone in 2009, most if not all of the stone manufacturers, dealers, and installers ignored this installation standard and stuck to their own installation standards, which were being proven to be inadequate and faulty with regard to leakage. The Masonry Veneer Manufacturer's Association's installation manual can be viewed in its entirety at <http://www.culturedstone.com/literature/docs/InstallationAdheredConcreteMasonryVeneer.pdf>

We updated the cultured stone situation in another 2010 newsletter article relaying the fact that the NC State Building Code had adopted most, if not all of the Masonry Veneer Manufacturer's Association installation guidelines as building code which was to start being enforced in January of 2010. Yet most installations inspected by home inspectors across the country remained the same with a few modifications in caulking, but a continuation of ignoring required methods of wall surface drainage and flashing, the primary causes of rot damage to and mold growth within wood wall and floor structures.

Since the 2010 newsletter update, home inspectors are still encountering stiff resistance to entering improper installation and detailing of the stone on their inspection reports as defective conditions. In many cases reported conditions on specific properties has resulted in on-site meetings between builders, installers, manufacturer representatives, and local building inspectors, to discuss the findings listed on the inspector's reports. These meetings produced another underlying condition that was allowing improper installations to continue. The building inspectors were unclear as to what their responsibilities were to inspect and enforce, with regard to cultured stone installations, and where the statutes were in the 2010 code. This was brought to the attention of the NC Department of Insurance (the department that is ultimately responsible for all building codes and enforcement in North Carolina) by the state building inspector(s) requesting a clarification of the code and the responsibilities of the local inspectors to inspect and enforce the state mandated requirements for the installation of any "Adhered Masonry Exterior Wall Cladding", (Cultured Stone being within this classification). On November 11, 2010 the NC Department of Insurance and the Office of the State Fire Marshall's "Evaluation Services" unit produced a complete evaluation of the NC Building Code as it applies to cultured stone. This evaluation document can be viewed in its entirety at www.ncdoi.com/osfm/engineering/documents/evaluations/adhered%20masonry%20veneer

This "evaluation document" clears up most, if not all of the questions of building inspector responsibility for knowing and enforcing the applicable code covering cultured stone materials and installation. It also details where the specific code requirements can be found through out the code book. So...here we are at the end of the 2nd month in 2011. The industry as a whole has been alerted in detail to the problems and moisture intrusion ramifications of improper installations of cultured stone (primarily by the industrious investigations of home inspectors and engineers proficient in exterior wall claddings/moisture intrusion). The problems with materials and installations have been clearly outlined. An acceptable standard has been produced by the Masonry Veneer Manufacturer's Association. The NC Department of Insurance has acknowledged the problems and taken action in the form of enacting building codes to assure proper material use and proper installation and given the authority to the building inspectors to enforce the code. The NC Department of Insurance and the Office of the State Fire Marshall have gone the extra mile and explained the required code and detailed where to find it in the code book(s) in the "Evaluation" document. The ongoing process and positive infusions of information and action on the individual entities involved within this problem tend to be encouraging. So...Problem Solved? We will just have to wait and see.

I have encountered two situations of improperly installed and inadequately detailed stone installations already this year. I spoke with several other home inspectors who have also encountered the same problems in the first two months of this year. Granted the installations were performed in 2010, which may explain why the same inadequacies exist in these homes. I, as well as the inspectors I spoke with in preparation of this article, am wondering if the builders and installers have made the effort to obtain and understand the new building codes. We wonder because the responses from the builders and stone installers remain the same as in 2008 forward: "the stone is installed in accordance with the manufacturer's standards, "there are different methods for installing the stone", "we guarantee this stone not to leak (usually for one year)". Hopefully the local building inspectors will be instrumental in relaying the required codes for the installation of cultured stone to the home builders and their installers, and I am sure that they will enforce the code now that they have a clear understanding of it.

For you the REALTOR®, we as home inspectors recommend that you continue to be vigilant in assuring that your clients are well represented and protected when they select a home that has cultured stone on it. Recommend a home inspector that has experience in dealing with the cultured stone problems of the past. If stiff resistance is encountered from builders and/or stone installers in lieu of your home inspectors findings, consult a professional engineer proficient in the proper materials, proper installation and detailing, and experienced with the causes of moisture intrusion and the subsequent damage that can be incurred from such moisture intrusion. *It really doesn't matter if the installations were acceptable when the home was built, or if the particular stone manufacturer's installation guidelines were adhered to, if there is any possibility that the stone cladding system is going to leak, there is a good chance that there are going to be problems in the future.*

Other than the legal liabilities that could be related to the failure of cultured stone to keep moisture from reaching the wooden structure of a home our client buys, as professionals in our fields, our first duty is to protect the interest of our clients. I hope that these continuing articles on the problems and problem solving progress related to cultured stone have been helpful to you. Local inspectors will continue to report on this ongoing saga and I will keep you posted as to the changes in stone installation progress in resolving past problems.

Respectfully Submitted by, Bill Dillon, Dillon Residential Services, Inc.

Journal Light Construction Article:<http://www.wsrar.com/2011/HI%20Articles/JLC%20stone%20article.pdf>

Rescuing A Manufactured-Stone Wall Article: <http://www.wsrar.com/2011/HI%20Articles/Rescuing%20a%20man%20made%20stone%20wall.pdf>

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