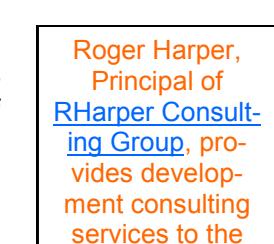




# **RHarper Consulting Update**

## **The Envelope, Please.....**



Over the past year I have had the opportunity to review, as well as propose on, several facility audits. In reviewing the typical industry facility audits, I found an area that has generally been overlooked or at best mentioned only in passing: the building envelope - roofing, wall assemblies, windows, insulation and flashing. Most audits do a great job of listing the mechanical equipment, remaining expected life, preventive maintenance, and cost of replacement. Detailed budgets for capital reserves are prepared, and ultimately a comprehensive set of recommendations is submitted along with the report, while deterioration of the building envelope is only addressed briefly, if at all.

**Roger Harper, Principal of RHarper Consulting Group, provides development consulting services to the senior housing industry.**

The building envelope represents over forty percent of a typical structure's value – far in excess of the mechanical systems. Further, the envelope, or its failure, has more impact on resident safety, comfort, and indoor air quality than does the air conditioning system. The liability exposure from microbial growth (the industry euphemism for mold), and impact to indoor air quality as a result of envelope or plumbing leaks far outweighs the cost of maintaining these components. Yet, typically they are only addressed “on condition” - in other words, “once we can see the mold, we will come find the source and repair the damage.” Would you wait until your air conditioning filters are so clogged that they shut the units down? No, we change those and lubricate the mechanical units on a preventative maintenance schedule. Treat the building envelope the same way.

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I spent a significant part of the past decade in condominium development and homeowner association formation and management. During that period, the condo industry became an extremely litigious environment as plaintiffs' attorneys convinced homeowner associations that they could easily sue their developers and contractors. Many suits were filed, and indeed, many associations won big judgments against developers and contractors, primarily due to lack of adequate documentation on the part of the builders. Consequently, the industry developed a number of risk management and mitigation tools that have proven to be effective. The senior housing and multi-family sectors have every bit as much exposure as we assume the responsibility for providing a safe living environment for our residents; we just haven't been sued enough yet to elevate the issue to the same level, so we don't employ the same risk mitigation techniques as other segments of the housing industry.

So, your first steps to create and implement a good risk management system for your building envelope:

**Establish a Baseline** – Bring in a qualified consultant with trained personnel and moisture detection equipment such as infrared cameras and moisture meters to conduct an overall assessment of your facility. Include not only the building envelope, but also selected wall cavities, under-sink locations, laundry connection boxes, and other high-probability sites for moisture presence. If significant microbial growth is present, employ the proper mitigation, remediation and restoration procedures including proper documentation.

**Develop an Envelope Preventive Maintenance (PM) Program** – Base this program on the manufacturer's recommendations for every element of your building envelope, including windows, roofing, caulking, flashing, paint, unit leak inspections, and insulation. Develop a comprehensive checklist, incorporate the task and costs into your facilities management budget, and build these into your overall PM budget and work schedule.

**Educate Your Maintenance Staff** - Provide basic building maintenance guidelines for the staff to implement during the regular operation of your facility. Most issues can be avoided by knowing what to look for and how to respond to a problem.

**Educate Your Residents** – Let your residents know the proper way to recognize and report leaks or other evidence of moisture in their units, how to set their thermostats if they plan on being away from their units for an extended period (don't just turn them off, please!), and remind them that they should provide access to their units to allow the facilities management team to employ the proper procedures.

Developing a comprehensive building envelope maintenance program is a significant undertaking and requires some specialized knowledge, as well as significant research relative to the materials and components of your facility. However, the tools to create and implement these programs are readily available in the market today. Further, both the immediate and long term health of our residents are directly impacted by these issues. Having no building envelope maintenance program today because your organization did not have one in the past is not going to provide much of a defense. Get moving now – it's the right thing, and the smart thing, to do.

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*RHarper Consulting Group provides development consulting, program management, and owner representation services focused on the senior living and mixed use sectors.*

*In addition, Mr. Harper is also a listed mediator and arbitrator providing dispute resolution services for the construction and real estate industries.*