**IMPORTANCE OF PERFORMANCE MOCK-UPS**

**PART 1 - Why a Mock-up?**

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How can the Owner be assured his building is being properly built? Use the building industry’s “Crash Test Dummy” – the Performance Mock-up.

The performance mock-up can validate the design, product selection, and proper installation of materials before the installation of final materials on the actual building. Would you build a car for your 16-year-old to drive on the expressway at 70 MPH in your backyard? If you answered no, why would you expect a unique combination of design, materials, and installers to successfully provide an Owner with a leak-free building on their first try? Remember, every building is UNIQUE. Even if you design and select the exact same materials for two identical buildings, there is no feasible way they could be built in the same weather conditions or with the same labor force. It is impossible!

The performance mock-up can be built and tested in various configurations and at different cost levels. The most crucial part is that they account for the high-risk areas of a building (foundation to wall, wall to window, wall to roof, expansion joints, penetrations, etc.) and are tested - for water leakage, air leakage, thermal concerns, and durability.

Also, ensure the people installing the materials on the mock-up will be working on the actual building. What good does it do the project if the knowledge gained by the mock-up is not available for the actual construction?

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**Question:** How many architectural firms have chemists, research and development labs, or full-scale testing facilities?

**Answer:** Very few, but the industry is asking the architects to provide product choices in specifications and to provide builders with accurate designs and details. All of this with the full knowledge that the construction industry and development of enclosure materials are continually changing.

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This white paper is an overview of a four-part series on performance mock-ups. For more information on Performance Mock-ups, please read:

- **Part 1** - Why a Mock-up?
- **Part 2** - Types of Mock-ups
- **Part 3** - Testing of Performance Mock-ups
- **Part 4** - Project Specific Education from Mock-up Lessons Learned