



Eagle's Landing Apartments

Burlington, Vermont



Challenge

The architect perspectives of Champlain College's Eagle's Landing apartments make Burlington, Vermont, seem almost like the perfect town. The building's 600 windows look out over clean, tree-lined streets; smiling couples holding hands; a woman gardening; the neighborhood mailman making his rounds. Across the street from an old, white house, a brick building—large, pristine, modern—soaks in golden twilight. This is Eagle's Landing Apartments, a \$36 million student housing project designed to be home to 314 students of Champlain College.

Its construction, though, was far from carefree. As contractors learned, lots of windows meant lots of

rough openings, and potential challenges to sheathing installation. And, to add to their troubles, space was tight.

Saving Time in Tight Quarters

On paper, the Eagle's Landing site may look winsome and endearing, almost Mayberry-esque. In truth, it is located downtown at the intersection of two busy streets, and surrounded by businesses.

"The project was in the city so working space along the exterior of the building was limited," noted Michael Hulbert, Senior Project Manager at General Contractor **HP Cummings**. With the excessive amount of electrical and telephone wires and poles close to the building, the drywall contractor, **Optimum Building Systems LLC**, felt the DensElement™ Barrier System was a great fit with its reduction of a complete step in the installation process."

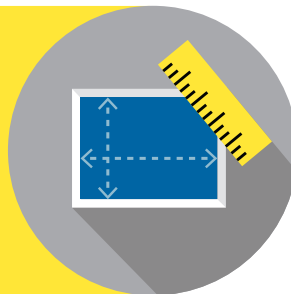
With very little elbow room for crews to stage equipment and work on the building's exterior, they realized they had to find a smarter system. Lack of space wasn't the only challenge faced during construction.

A Complicated Installation, A Call for Innovation

Once a city-owned parking lot, this Burlington complex, designed by Vermont-based **Gardner Kilcoyne Architects**, spreads across six floors, as

"A self-adhered flashing membrane often reduces the window rough opening size creating potential problems with inserting the window into the wood buck."

– Jim Lockerby, St. Albans Glass



Component Quantities:
60,000 sq. ft. of
DensElement™ Sheathing

1600 sausages of R-Guard®
FastFlash® liquid flashing

Key Companies:
Architect:
Gardner Kilcoyne Architects

General Contractor:
HP Cummings Construction

Sub Contractor:
Optimum Building
Systems LLC

Distributor:
Kamco Supply

Building Envelope
Consultant: Zero by
Degrees

well as 5,200-square-feet of ground-floor commercial space. There is an average of five windows for each of the building's 105 apartments.

Meeting the continuous insulation (CI) energy requirement meant there would be 2 ½ inches of rigid exterior insulation applied over the DensElement™ Barrier System. Given the complexity of multiple rain screen claddings, **Gardner Kilcoyne Architects** needed the window to be extended out beyond the exterior sheathing, more than 3 inches to accommodate the design.

To meet this requirement, **Gardner Kilcoyne Architects** had to frame out the rough openings with wood. This design is becoming more common, especially in the Northeast, where self-adhered membranes are often used to wrap the extended opening. But Jim Lockerby, with glazing contractor **St. Albans Glass**, discerned that traditional water-resistive and air barriers (WRB-AB's), such as a self-adhered flashing membrane as originally specified, could complicate installation. Had each of the building's 600 windows been a repeat of the same membrane-related frustrations, considerable time could have been lost.

"A self-adhered flashing membrane often reduces the window rough opening size creating potential problems with inserting the window into the wood buck," he said.



After seeing the DensElement™ Barrier System, with PROSOCO R-Guard® FastFlash® liquid flashing in application, they realized there was a solution that was superior to a traditional self-adhered membrane.

"The general contractor felt the FastFlash® was easier to visually inspect versus peel-and-stick," added Brian Kelly, Estimator and Project Manager at **Optimum Building Systems LLC**. "It conforms to the corners on openings and directional change with the wood bucks in the windows."

A Shared Challenge, and a Collective Solution

During the bidding process, after Georgia-Pacific Sales Rep, Kurt Ouellette, approached **HP Cummings** with the idea of using the DensElement™ Barrier System, it became a collective answer to the contractors' problems,

due to a robust science and integrative design that fuses a WRB-AB into the gypsum core. A liquid flashing membrane—PROSOCO R-Guard® Fast Flash®—seals up joints, fasteners, openings, penetrations, transitions and rough openings of structured walls to finish the installation.

"He was at the right place at right time," said Kelly. "They talked about product, looked at it and said it's the way to go."

This simplification of the integrated WRB-AB sheathing became a win for everyone involved. "DensElement™ streamlined and reduced installation time needed for sheathing and a WRB-AB," said Hulbert.

"It's one and done. It's a real time-saver, with cost savings to the owner and to everyone. We saved a significant amount of money, the owner was very happy, and they achieved what they wanted to achieve at a lower cost. It was a win-win for everyone."

– Brian Kelly, Estimator and Project Manager,
Optimum Building Systems LLC

St. Albans' Jim Lockerby felt their installation process was going faster due to a lack of the typical issues associated with a self-adhered membrane. Additionally, the vapor-permeable FastFlash® allowed wood frames to dry to help prevent them from rotting around the windows. Kelly described the amount of time saved as substantial, gaining at least two months.

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Creating an Element of History

Champlain College, founded in 1878, has been a part of the Burlington, Vermont, history for almost 140 years. Now the Eagle's Landing apartment complex, slated for completion in the summer of 2018, is a part of that history. Within its walls, so is the DensElement™ Barrier System.

Visit DensElement.com



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Rev 01/18
Lit # 622913