Challenge:
To build a boutique hotel on a major city intersection with limited space and where scaffolding use was not feasible.

Solution:
Dryvit’s Backstop® NT was used to seal in 45,000 square feet of sheathing and rough openings, allowing interior work to begin earlier than planned. An Outsulation® Plus MD panelized system was applied for a significantly faster, more cost-effective installation.

The 13-story Le Méridien Columbus, The Joseph boutique hotel was designed by architect Arquitectonica with modern architectural features, including conventional stucco on its 10 topmost floors and a brick veneer accented with metal panels.

However, the stucco exterior posed several issues – it did not comply with ASHRAE state requirements for continuous insulation (CI) and could not be adhered to the specified light gauge metal frame. Another huge factor was that the property was located on a major city street that could not be blocked off for the extended time needed to construct the building materials on site.

As a solution, Dryvit recommended applying its Outsulation® Plus MD high-performance exterior insulation and finish system (EIFS) to Fedderlite® panels. These panels can be finished with any Dryvit texture, including Custom Brick, Reflectit and Lymestone finishes, which were all used on this project.

“There is a huge difference in the wind load requirements of Dryvit’s Outsulation systems and the dead weight of the foam compared to the stucco,” said Rob Little, vice president of Little Construction. In fact, at about one pound per square foot, an Outsulation system is more than...
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- Robert Aitcheson, Project Manager for Arquitectonica

An Outsulation® system is more than 75 percent lighter than stucco.

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Additionally, the tight construction site was too small for a field-applied cladding system. As a result, scaffolding could only be used behind and in front of the building for a short period of time.

“To the north and the south, we were actually working over someone else’s building,” Little explained. “The city wasn’t going to allow us to close the two roads down for eight months, which is how long it would have taken if we went with a field-applied EIFS.”

Nearly 45,000 square feet of Backstop® NT was applied immediately after the sheathing was installed to provide an air- and water-resistive barrier. An AquaFlash® liquid-applied flashing system was applied at all rough openings, as well. This allowed interior work on the 13-story hotel to begin much sooner than if another type of panelized or modular method had been used.

“The number-one thing that developers want to achieve is critical path shell dry-in quickly, so they can start work on the interior,” said John Powers, a technical sales associate for Dryvit.

Once the windows were set, Little Construction took field dimensions and fabricated the Fedderlite exterior wall panels at its factory, saving time and assuring quality control.

“You do all the steps, the back wrap, base coats, primer and finish in your warehouse,” explained Little.

The panels were constructed with extruded aluminum channels, which were installed into routed joints in the insulation foam boards. At upwards of nine by five feet and just 90 pounds each, the panels – 1,250 in total – were easily installed over the Backstop® NT barrier in just three months by two workers using Z-clip fasteners and Dryvit’s AP Adhesive™.
“It was a very fast job. It seemed slow in the beginning because they were getting measurements, but then all of a sudden they would set 20 to 30 panels in a day.”

A final component of the Outsulation® Plus MD panelized system was the acrylic-based exterior finish, which included 15,000 square feet of Custom Brick, 12,000 square feet of Reflectit and 5,000 square feet of Lymestone.

Prior to starting the project, Arquitectonica tasked Dryvit with creating a Custom Brick finish color to match the Endicott Brick specified for the first two floors of the hotel. Based on specified samples of the brick and mortar, the Custom Brick finish and grout were a perfect match. The panels featuring the Reflectit finish created the look of metal panels. You’d be hard pressed to tell the difference at street level.

In addition, the three-inch rigid foam in the Fedderlite panels provided superior energy efficiency for the hotel – exceeding code requirements with a R-12 energy rating.

Compared to a brick and metal panel façade, the Outsulation® Plus MD panelized system provided a significantly faster installation process, resulting in time and cost savings.

“(Outsulation) was a lot easier to install, especially because they created quite large panels,” said Robert Aitcheson, project manager for Arquitectonica. “It would have taken a lot more time and been more difficult to do with brick veneer and metal panels, and thus more expensive.”