



Artist's rendering courtesy of Perkins + Will  
Inset photo courtesy of First Exteriors LLC



**PROJECT SNAPSHOT**

**Harnett Health System  
Central Campus**  
Lillington, N.C.  
122,000 ft<sup>2</sup> New Construction  
(32,000 ft<sup>2</sup> Outsulation X System)

**Scheduled Completion**  
Fall 2012

**Architect**  
Perkins + Will,  
Research Triangle Park, N.C.

**General Contractor**  
Brasfield & Gorrie, Raleigh, N.C.

**EIFS Applicator**  
First Exteriors LLC, N. Charleston, S.C.

**Dow/Partner Products Used**  
DOW™ XNERGY™ Rigid Insulation  
Dryvit Outsulation® X™ System

**R<sub>x</sub> FOR HIGH R-VALUE**  
**OUTSULATION® X™ WITH DOW™ XNERGY™**  
**RIGID INSULATION AT HARNETT HEALTH SYSTEM**  
**CENTRAL CAMPUS**

When completed in the fall of 2012, the new Harnett Health System Central Campus in Lillington, N.C., will provide comprehensive acute services, diagnostic procedures and general health services. And serving the building itself is the durable, energy-efficient Outsulation® X™ system with DOW™ XNERGY™ rigid insulation. Outsulation X is a high-performance cladding system that yields 39 percent greater energy efficiency and 36 percent better impact resistance compared with similar systems based on expanded polystyrene (EPS) with comparable weight-reinforcing mesh. DOW™ XNERGY™ rigid insulation is key to the system's excellent energy efficiency, durability and moisture resistance.

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## GETTING BETTER ALL THE TIME

Harnett Health System Central Campus is designed to serve the needs of Harnett County and the surrounding region in a comfortable, caring environment for years to come. And it will do so in an energy-efficient manner thanks to the efforts of Dow Building Solutions and Dryvit Systems, Inc.

Dow Building Solutions teamed up with Dryvit Systems, a leading manufacturer of exterior insulation and finish systems (EIFS), in providing DOW™ XENERGY™ rigid insulation, a key component of the Outsulation X system.

The decision to use Outsulation X on the hospital project came after the architect was challenged to find a lower cost, high-performance and aesthetically pleasing exterior wall solution in place of the glass and metal façade in the original design.

“We initially looked at a traditional hard coat stucco assembly,” said Perkins + Will senior technical coordinator Jerry Merritt. “But it had several individual components from different manufacturers. Since it wasn’t a complete system, we were unable to get the system warranty we wanted for our client.”

According to Adam Smith, assistant project manager for general contractor Brasfield & Gorrie, having the reassurance a single-source warranty offered was a shared concern from his firm’s perspective, as well. “It all comes down to performance,” said Smith. “And we were not finding a system that was tested and warranted to deliver the thermal and moisture benefits we needed.”

During the bid process, news of the Outsulation X system reached the waterproofing consultant and general contractor and, subsequently, the architect. While hesitant about changing designs again, especially for a new system, Merritt was impressed by the detail drawings and samples of Outsulation X and DOW™ XENERGY™ rigid insulation.

“I was intrigued by the waterproofing consultant’s presentation, but I had some lingering concerns about performance – particularly durability and the intersection of materials,” said Merritt. “So we worked with the general contractor and EIFS applicator to construct an exterior wall mockup on the building site and performed water-resistance testing. That and the full system warranty combined to give us the peace of mind we needed to proceed. I am very happy with how installation is going.”

Smith agreed. “The installation process has gone smoothly – I am really happy with how it has come together. With a warranty that covers every system component from the waterproofing substrate on the exterior sheathing out to the finish coat – including the insulation board – Outsulation X put us in a much better position to provide a long-lasting building envelope for our client,” he said.

**Outsulation X with DOW™ XENERGY™ rigid insulation is suitable for new construction and renovation, and it meets both current and proposed ASHRAE design standards and IGCC/IECC code requirements for the use of exterior continuous insulation.**

## SPECIAL TREATMENT NOT REQUIRED

Outsulation X provides architects designing EIFS assemblies with a single-source solution for the air and water-resistive barrier, continuous insulation and exterior wall finish. A single professional subcontractor can install the engineered, fully tested, code-compliant system.

“In more than 30 years of installing EIFS, this is one of the most exciting developments to come along for architects and applicators – especially with new continuous insulation requirements,” said Carl Ulm, owner and manager of First Exteriors, the EIFS applicator. “You can’t meet the higher R-values with standard EPS – the insulation typically used in EIFS – unless you use much thicker foam. With Outsulation X and DOW™ XENERGY™ rigid insulation, we can meet the same R-value with just a two-inch thickness of insulation. The product is superior.”

“With the Outsulation X system, Dow and Dryvit hit a home run. The higher density of DOW™ XNERGY™ rigid insulation plus heavier mesh and a double base coat all add up to make a much stronger EIFS assembly.”

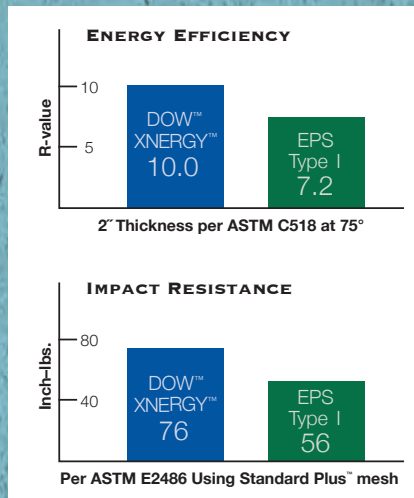
– CARL ULM, FIRST EXTERIORS



Lightweight DOW™ XNERGY™ insulation is applied to the air/water-resistive barrier with adhesives and supplemental fasteners.

## THE X FACTOR

DOW™ XNERGY™ rigid insulation is an integral component of the Outsulation X system. It provides the code-required continuous layer of insulation, eliminates thermal breaks and moderates the temperature of the wall cavity, reducing the potential for dew point condensation. DOW™ XNERGY™ rigid insulation provides long-term thermal performance, outstanding energy efficiency, moisture resistance and durability. Backed by a 50-year limited thermal warranty, DOW™ XNERGY™ rigid insulation is manufactured with foaming agent technology that has zero ozone-depletion potential.



An adhesive/drainage medium is applied to the surface of DOW™ XNERGY™ insulation boards, which come planed for optimal adhesion.

Ulm has seen a resurgence in demand for EIFS among his customers in recent years. It offers the look of traditional stucco, the oldest exterior siding in the world, with the added benefits of continuous insulation and tremendous design versatility in a quick and efficient application.

“With the Outsulation X system, Dow and Dryvit hit a home run,” said Ulm. “The higher density of DOW™ XNERGY™ rigid insulation plus heavier mesh and a double base coat all add up to make a much stronger EIFS assembly. This system absolutely works for medical facilities and other commercial buildings where high R-value, durability and impact strength are required.”



After installation, the surface of DOW™ XNERGY™ insulation is rasped to create a level surface for the application of base coat, mesh and finish layers.

Photo courtesy of First Exteriors LLC



## CONTRIBUTING TO A HEALTHIER BOTTOM LINE

By reducing project requirements for concrete, structural steel and HVAC, the lightweight and energy-efficient Outsulation X system can help streamline the construction process and minimize material costs, as well as lower heating and cooling expenses. That all adds up to a healthier bottom line over the long term for Harnett Health System Central Campus.

“DOW™ XNERGY™ rigid insulation gave us the R-value we were looking for, the mesh added impact resistance – and our client will get a full system warranty,” said Merritt.



Outsulation X with DOW™ XNERGY™ rigid insulation is available exclusively through approved Dryvit distributors and applicators. Contact Dryvit at 1-800-556-7752 or visit [www.dryvit.com](http://www.dryvit.com) for more information.

### THE DOW CHEMICAL COMPANY

Dow Building Solutions . 200 Larkin . Midland, MI 48674

1-866-583-BLUE (2583)

[www.dowbuildingsolutions.com](http://www.dowbuildingsolutions.com)

[www.dowanddryvit.com](http://www.dowanddryvit.com)

### DRYVIT SYSTEMS, INC.

One Energy Way . West Warwick, RI 02893

1-800-556-7752

[www.dryvit.com](http://www.dryvit.com)

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**WARNING: Rigid foam insulation does not constitute a working walkable surface or qualify as a fall protection product.**

#### DOW™ XNERGY™ Rigid Insulation

CAUTION: This product is combustible and shall only be used as specified by the local building code with respect to flame spread classification and to the use of a suitable thermal barrier. For more information, consult MSDS, call Dow at 1-866-583-BLUE (2583) or contact your local building inspector. In an emergency, call 1-989-636-4400.

Building and/or construction practices unrelated to building materials could greatly affect moisture and the potential for mold formation. No material supplier including Dow can give assurance that mold will not develop in any specific system.



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