Catholic University of America - Opus Hall

Washington, D.C.

"We were nervous about the panels at first because we had all seen the earlier generation of brick covered precast that did not look like real brick at all. On a traditional campus like Catholic we were very concerned that this would be obvious and look commercial and artificial. I have to say that our panels are beautiful. They look exactly like hand set masonry. There are even slight variations in the planes of the individual bricks."

— Beth Buffington
Little & Associates
Project Architect

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Catholic University had a vision to create a new Residential Life Facility that could integrate technology with state-of-the-art amenities into their "collegiate Gothic" architectural design. The new 7-story facility houses 400 students and registered as a "green" (environmentally friendly) facility with such things as a thermally efficient building envelope as well as energy efficient appliances and heating and cooling systems.

The walls are pre-insulated, with edge-to-edge insulation with the layers of concrete tied together using a non-conductive connectors, allowing the walls to be free of any thermal bridges. This results in a wall with a material R-value of R-14.25 ci, greatly exceeding the required R-value imposed by ASHRAE 90.1-2004 of R-5.7 ci. The overall thickness of wall panel is 8 ½" which maximized floor space. (4" interior structural concrete, 2" continuous insulation, and 2 ½" architectural concrete face). The insulation and non-conductive connectors are manufactured by Thermomass Building Systems. These sandwich panels were designed to be structural, architectural, exposed interior concrete surface and the sole source for thermal and moisture protection. The walls were constructed with an insulation possessing a water vapor perm rating of 0.03 (according to ASTM C1289). This qualifies as a vapor barrier according to the IBC.