EIFS Solves
Turn-of-the-Century Church’s Exterior Wall Problems

The Southeastern Massachusetts Catholic Diocese was seeing St. Michael’s Church in Fall River, Massachusetts, built in 1902, crumble before its eyes. The brick exterior was cracking and pulling away from the concrete back-up, causing numerous stability and water-leakage problems. The Diocese, as well as the church congregation, consulted with an architectural firm whose final recommendation was to stabilize the existing masonry with pins and epoxy and retrofit the church with an exterior insulation and finish system (EIFS) manufactured by Dryvit Systems, Inc., of West Warwick, Rhode Island.

This project scenario is typical of what is seen as a growing trend toward the use of EIFS in the construction and retrofitting of buildings used for religious worship. An EIFS offers this market a relatively low-cost building material alternative with the design flexibility to create or match the ornate designs and shapes typical of religious structures.

"Much of the existing brick was in terrible shape, and it would have been a long and expensive process to restore it," said Jim Edwards, principal with the architectural firm of Holmes & Edwards located in Quincy, Massachusetts. "In addition to the cost factor, we dropped the restoration option because the extensive damage to the brick meant extensive patch work. It simply wouldn’t have looked good."

General contractor, Eastern Construction Company Inc. of Providence, Rhode Island, who was originally contacted for an estimate on brick restoration, assisted in educating the members of the Diocese on EIFS technology. "We brought them around to other Dryvit jobs in the area; and they were quite impressed with the architectural shapes, textures and colors," said Al Motta, Eastern’s estimator. "They also came to understand that, in addition to realizing savings in construction costs, they could receive an exterior wall system with an extremely high insulation value."

Once the brick was stabilized, the church’s 9,000 sq. ft. exterior wall area was retrofitted with the

The finished St. Michael’s Church retrofit in Fall River, Massachusetts, utilizing an EIFS system from Dryvit. Architectural firm: Holmes & Edwards, Quincy, Massachusetts; General Contractor: Eastern Construction Company, Providence, Rhode Island; EIFS Contractor: Cape Cod Lathing and Plastering, Inc., North Dartmouth, Massachusetts.
Since EIFS work was done on the outside of the building, church activities could continue inside without interruption.

Dryvit® Outsulation® System by Cape Cod Lathing and Plastering, Inc., North Dartmouth, Massachusetts. Molded Expanded Polystyrene (MEPS) insulation board, with a 1-1/2 inch thickness, was adhesively attached to the prepared brick with Dryvit Primus®.

As the brick walls had bowed and buckled, Cape Cod Lathing and Plastering, Inc. had to put down “snap lines” on the insulation board and sand the MEPS until plumb. “We did an awful lot of sanding on that job,” said John Nelson, the company’s estimator. “In certain places, the wall came out as much as 3/4 of an inch. We made sure the walls were flat and the corners were tight and crisp.”

A base coat was then applied over the insulation board. Glass fiber reinforcing mesh was embedded into the base coat immediately thereafter. The durable Dryvit Panzer® 20 Mesh was installed on the base of the building to 12 feet above grade—the recommended procedure for high-traffic areas.

The EIF system’s design flexibility aided the architect in capturing the ornamentation desired. Cast stone buttress caps, in various stages of disrepair, had existed on top of a number of piers. The system went right over the existing cast stone piers, keeping them as a shape and design element. Cape Cod Lathing and Plastering, Inc. fabricated new 1’ x 2’ caps out of MEPS to maintain the historical design integrity of the church.

A 1-inch thick MEPS banding was also incorporated as a design element.

To match the original style and color of the church, an acrylic-based, open-textured Quarzputz® finish was applied in Red Rock, Van Dyke and Feather Grey colors. The quartz aggregate Stone Mist® finish in Desert color was spray-applied over an existing stone window surround above the main entry.

Eastern supplanted the dead concrete at the base of the building with new concrete and installed a hand-cut granite skirt around the church. A flat tar and gravel roof was also replaced with one that was pitched wood and shingle.

St. Michael’s Church Pastor Luciano Pereira is as pleased as the Diocese and his congregation with the new exterior look of the building. “I’m already planning on featuring the church’s new face on this year’s Christmas cards!” Pereira added that since all EIFS work was done on the outside of the building, church activities and services continued without inconvenience or interruption.