

Recognizing Excellence in Restoration

By Jessica Shea Choksey & Patricia L. Harman



The Phoenix Award for Innovation in Restoration is awarded to an ASCR member contractor for a restoration project, personal property or building, which does not include building reconstruction.

This year's recipient was the Kelmann Corporation, who received the award for their successful restoration of St. Hyacinth Church, a 120-year-old structure in Milwaukee, Wisconsin, that was severely damaged during underground construction in the area.

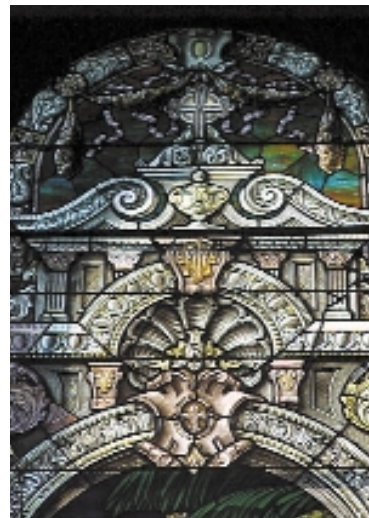
Kelmann Corporation was founded in 1973 by its two principles – Richard D. Niggemann and Jerome P. Kelly – and is based in Wauwatosa, Wisconsin. The company specializes in fire restoration and reconstruction, and has extensive experience in church renovations.

In this case, a multi-year underground project for the city of Milwaukee involved digging a 30-

foot wide and 60-foot deep tunnel excavation that would redirect storm and sewer water to help create a cleaner Lake Michigan, while also improving the quality of the city's water supply. The vibrations from the work caused the interior walls and ceilings to shift and pull apart, leaving gaps in some areas up to two inches wide. As the trench stretched out in front of the church, the vibrations from sheet piling, excavation machines and water pumps caused the building to crack substantially. Ultimately, under the constraints of the continuous pumping of subsoil and silt by the city, the church, street and sidewalks surrounding it literally began to sink and lean. To prevent further damage, the entire southwest corner of the church had to be supported by shoring, scaffolding and telescopic braces. These early efforts would result in only 50 percent of the church's walls and 20 percent of ceilings requiring repair later on in the process.

The foundation was already fragile since the rubble stone walls did not have footings or defined mortar joints. As the excavation continued, the water table dropped, causing the clay beds to dry out and further reducing the building's stability.





Although the excavation project was delayed, the City managed to continue with its project. The church structure continually moved, requiring constant monitoring and support for approximately one year. Kelmann used geotechnical exploration to determine the amount and locations of the ground loss. They concluded that a “compaction grouting” system would be the best way to stabilize the shifting ground, while saving St. Hyacinth at the same time. Caissons were installed to bedrock around the perimeter of the church and concrete grout was injected into them to ensure permanent stability. The process involved raising the caissons and injecting more grout until they reached a “point of refusal.”

Other restoration efforts included the mending of exterior brick, stone, concrete, woodwork, stained glass, gutters and interior walls and ceiling. The stained glass was salvaged from damaged window frames and was reworked to fit the settled window openings. The church had over a dozen painted wall murals, but the bracing Kelmann installed resulted in only one mural requiring repair. And, amazingly enough, they were able to find the original painter of the 1930’s ceiling art who was able to advise them on the materials he had used and what would be required to restore the

artwork. The costs were reduced and history was saved by these graces.

The restoration of the St. Hyacinth church was a successful project that prevented further damage to the structure and restored it to nearly its original state. It was also an effort to manage restoration costs and keep them to a minimum. For both the self-insured church and the tunnel contractor’s insurer, this was a huge undertaking. However, with the concentrated efforts and thoughtful response of the Kelmann Corporation, costs were carefully considered throughout the project. The company even worked with the tunnel contractor’s insurer in the hope that the St. Hyacinth’s insurer would later be able to subrogate and recover its money.

“It is extremely satisfying to be able to save an historical church and return it to its community,” said Dick Niggemann, president of Kelmann Corporation.

“And to win the Phoenix Award from the National Institute of Disaster Restoration is just an additional ‘thank you’ for our efforts,” said Mike Heuser, the project manager. ■

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