

ST. JOSEPH'S CATHOLIC CHURCH – PARISH HALL

LENA, ILLINOIS

The Parish Hall building at St. Joseph's Church was visited to observe cracked exterior plaster walls. Further investigation was deemed necessary, so specific finish materials (i.e. exterior plaster, interior wainscoting, exterior grade, etc.) were removed to expose the existing structural wall system, and existing foundation system.

As a result, it was discovered that the rubble/limestone foundation wall extended only 30" into the ground. The exterior surface was roughed. The joints between the limestone pieces were loose. And, there was no footing beneath the wall. Current building code standards dictate that foundations should extend at least 42" below grade with a smooth surface to avoid seasonal frost heaving. The existing foundation system was not capable of withstanding the forces imposed by cyclical freeze-thaw of the saturated clay soils. The freezing caused the foundation wall to heave and move in unpredictable ways.

The brick exterior wall exhibited cracks, spalls, loose mortar, and unusually soft bricks as a result of prolonged exposure to moisture. It appeared that a plaster wall was adhered to the brick wall in the past as a means to cover and reinforce an already water damaged brick wall. While the plaster was able to patch the brick wall, it did not address the root problem, which was the moving foundation wall. Over time, the foundation wall continued to move creating cracks within the plaster, allowing water to infiltrate, and starting the cycle of deterioration all over again.

To save the building "as is", it would be necessary to replace the existing foundation walls, and rebuild the exterior brick walls. Considering the age of the existing Parish Hall, MSA recommended that it would most-likely be more cost effective to replace the building with a new facility constructed of modern materials/techniques, and capable of matching current needs.

