

Stone, Mortar & Window Leak Inspection Trinity United Methodist Church September 14, 2013

On September 14, 2013, the Trinity United Methodist Church Trustees (P. Robinson and R. Dickson), the church Maintenance Engineer (R. Denkins) and a local restoration mason (Mark Haggar) inspected the stone and mortar to better understand the condition of the stone and masonry and the extent of the repairs that are needed. The inspection also included a careful check for the cause of water staining below the stained glass windows in the sanctuary. The inspection report was prepared by R. Dickson.

Stone and Mortar

Overall, the stone and mortar in Trinity Church are in good condition for being almost 100 years old. The greatest deterioration is in the mortar holding the coping stones in place in the parapet walls of the sanctuary. The deterioration is more evident in the parapet walls on the south side of the sanctuary than the north side. The mason suggested removing the coping stones from the walls, cleaning and buffing the stones, and removing mortar from the bottom of the coping stones and the top of the underlying course of stones. The silver-colored strapping material that has been placed over the horizontal joints between the coping stones will also need to be removed, although it may leave noticeable stains on the stones. To protect the coping stones from further weathering, the mason said that metal flashing could be placed over the coping stones to protect them (similar to the Education Wing), although this would alter the historical design of the sanctuary.

The pointing between the stones in the sills that project from the stone walls of the sanctuary has also deteriorated in many locations. The deep mortar on these stones is still in good condition, so only the pointing will need to be repaired on the sills.

A build-up white mineral deposits were noticed on some of the lower stones on the south side aisle wall. This may be by water from the sprinkler system or mist from road salts used during the winter months on Elm Street.

While checking the parapet wall on the south clerestory, the mason observed a possible bow in the wall (see Photo 1). The center buttresses appear to have an outward displacement estimated 1 to 3 inches, although the inspection team lacked appropriate tools to confirm this observation. No cracking or settling was observed in the stone or masonry, so it's uncertain if this condition has existed since the construction of the building.



Photo 1: View of south clerestory parapet wall showing possible outward bow.

Clerestory Windows

The inspection confirmed the observations of the April 2013 inspection. The silicon caulking around the perimeter of the plastic covers over the south clerestory stained-glass windows has deteriorated and needs to be replaced. The vent window moldings need to be scrapped, caulked and primed. The cause of the water staining below the stained-glass windows of the south clerestory could not be determined with certainty. The poor condition of the caulking around the plastic window covers, the deteriorated condition of the vent window moldings, and deteriorated caulking where the roofing membrane laps up on the wall under the concrete window sills may be contributing to the water stains observed inside the sanctuary.

