

mwConnect Teams with High Lighting Service Company to Bring Historic Trinity Lutheran Back to the Future

Historic Trinity Lutheran Church, active in Detroit for more than 150 years, needed a robust, future-proof lighting control system that would be easy enough for pastors to use during worship services and provide a foundation for future changes. mwConnect teamed with High Lighting Service to provide a customized LED fixture upgrade with embedded proprietary Bluetooth mesh controls for a cost-effective and dynamic solution.

Connecting the Past with the Future

Historic Trinity Lutheran has been a vibrant faith community in the metropolitan Detroit area for more than 150 years. Founded in 1850 as the first Missouri Synod Lutheran Church in Detroit, Historic Trinity soon became the Mother Church of Detroit Lutheranism as she began thirteen mission congregations throughout the City of Detroit, which eventually grew to 132 different Lutheran parishes.

The current church, the third structure in the congregation's history, was completed in the early 1930s. The building is constructed of vari-colored granite and Indiana limestone, with slate roof and floor, oak woodwork and stained glass. Its style is 16th Century Pier-and-Clerestory Gothic, with a triforium gallery similar to those seen in Old World cathedrals. The dramatic structure features dozens of wood and stone carvings and stained-glass windows designed to enrich worship services. The church was listed on the National Register of Historic Places in 1983 and designated a Michigan State Historic Site in 1981.

In 2019, the church leadership realized that its aging theatrical dimming system was failing, with interior lights sometimes turning off during services. A comparable replacement system would be extremely costly and the leadership engaged local lighting experts Parker Reed Lighting and High Lighting Service to help identify a solution. The firms proposed retrofitting some of the historic fixtures with custom-built 300-500W equivalent LED light fixtures with embedded mwConnect Bluetooth mesh control modules and mwConnect LED drivers, powered by proprietary Casambi software. The solution would preserve the historic fixtures, and deliver new, powerful, flexible fixtures with control capabilities to the liturgical team.



Installation and Commissioning the Bluetooth Mesh Control Network

The project team began work on the retrofit/new fixture installation in late 2019. High Lighting Service performed the retrofit installation, removing the legacy 300W halogens from the interior fixtures and replacing them with a total of 109 custom-built 50W, 38W and 25W LED fixtures with control devices. The project team had selected a 3000K color temperature throughout the interior spaces. They worked closely with the liturgical team to create a wide range of control zones and pre-set scenes using the smartphone app. The design resulted in 15 control zones ranging across the entire interior of the worship space, including zones to highlight specific spaces, such as the lecterns and pulpits as well as uplighting zones that highlight the ceiling. Numerous pre-set scenes ensure fingertip access for special worship events such as weddings, baptisms and funerals



as well as for public events such as tours. "The ease of the system means the pastor can access scenes from the app on his iPad during services if desired," notes Josh Farlow, Owner of High Lighting Service, "he can also adjust scenes or program new ones on the fly, which gives them a lot of flexibility."

Farlow notes that there are numerous unique lighting scenes, including six scenes specifically for use during worship services. For instance, one worship service scene includes dimming the general lighting down to minimal levels and increasing pulpit spotlighting to 100% output to help worshippers visually focus on the liturgical speaker. Other types of scenes include tour scenarios, since the church frequently hosts tour groups interested in the art and architecture of the historically-significant structure. For the tour scenario, pew and general lighting is dimmed to 20% while ceiling uplighting and alterpiece spotlighting is raised to 100% to showcase those aspects of the building. Scenes are created by grouping each fixture in the software according to the intent of the scene.

A total of 160 WCM-50 Control Modules and LED drivers of mwConnect control modules were used, along with the Casambi iOS app.

The installation and commissioning were completed early in 2020. While the project goal was not focused on energy savings, the team does anticipate some savings, by utilizing LEDs with lighting controls. Selecting the proprietary Bluetooth mesh system from mwConnect rather than replacing the failing theatrical dimming control system with a similar system realized a first cost of investment savings that exceeded \$100,000.





Project Team

High Lighting Services Josh Farlow, Owner

Historic Trinity Lutheran Church Rev. D. Lee Andrzejewski

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