

CASE STUDY

Safer Church Services with UV Air Disinfection

UV-C fixtures from UV Resources
Help Safeguard Worshipers



UVR
UV RESOURCES



Founded in 1867, the Church of the Foothills United Church of Christ is the oldest Protestant church in Ventura County, California.

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When a congregant suggested that the Church of Foothills in Ventura, California, could quickly and affordably leverage the same UV disinfection technology as LAX International Airport, Louis Vigorita was immediately sold.

It helped that the congregant was both a respected physician and public health researcher who was fresh from discovering the technology while passing through New York's Syracuse Airport on a trip.

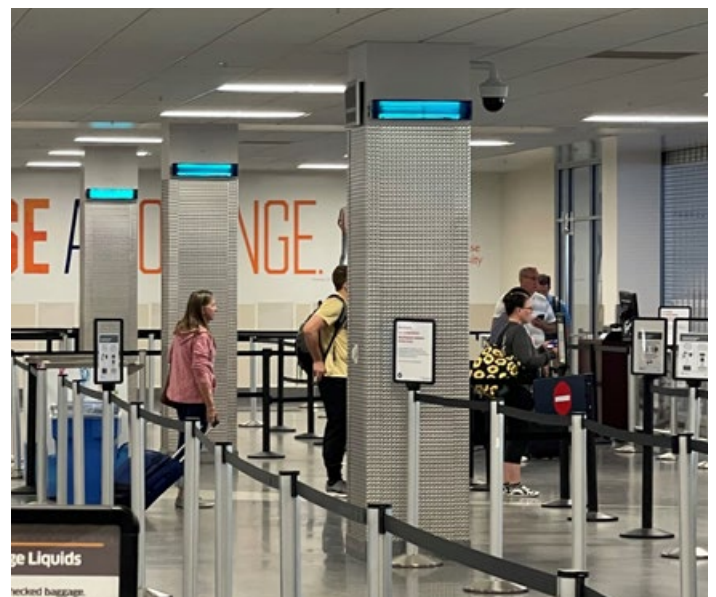
While traveling to a family wedding, long-time church member Nancy Merrick, MD, MSPH, spotted the UV disinfection fixtures—about the size and length of two shoeboxes—mounted near the ceiling throughout the TSA security screening area at Syracuse Hancock International Airport (SYR)

AIRPORT-INSPIRED DISINFECTION

Dr. Merrick spoke with TSA staff about the blue-light fixtures mounted near the ceiling of the Airport's security checkpoint. She learned that germicidal UV-C fixtures could be found in many hospitals, municipal facilities, sports arenas, commercial lobbies, and other high-traffic communal areas.

Upon returning home to Ventura, Dr. Merrick conducted further research that showed UV-C had been used successfully for decades to disinfect air, water and surfaces. It has also proven effective in reducing the transmission of TB and Measles. It's also endorsed by the U.S. Centers for Disease Control & Prevention to reduce infectious aerosols.

When Dr. Merrick approached Vigorita, she had already identified UV Resources, the California-based manufacturer of UV disinfection technology used at the Syracuse, Dallas Fort Worth and Los Angeles International Airports. In fact, UV Resources' founders pioneered the application of UV C energy in HVAC equipment nearly 25 years ago to address a different pandemic-of-sorts, sick building syndrome, in the early 1990s.



Syracuse Hancock International Airport (SYR) utilizes UV-C disinfection systems from UV Resources, which are mounted near the ceiling in TSA security screening areas and some terminals.



The UV disinfection fixtures are active when congregants are in the sanctuary and during choir practice.



Installers used the GLO-1500 Open-Fixture's adjustable "director" to prevent any reflection of UV-C energy by the Church's decorative chandelier lighting.

PROTECTING CONGREGANTS

"Like any facility manager, we wanted to safeguard our parishioners, clergy and lay leadership from airborne viruses and get back to our in-person fellowship," notes Vigorita, former president of the Church's Board of Facilities. "Nancy brought us an effective and affordable method for reducing COVID-transmission that was swiftly approved by our governing board."

Everyone was frustrated that the COVID-19 Pandemic forced parishioners into their home computers and away from our close-knit community, explains Vigorita.

"When in-person services resumed, Nancy would bring a carbon dioxide monitor into the sanctuary to help us measure ventilation levels and safeguard our congregants," explains Vigorita. "When CO₂ levels rose to a certain level, we would open windows and doors and adjust portable fans to improve the room's ventilation levels. Sometimes these actions proved unpopular and uncomfortable, especially on very hot or cold days."

UV-C INACTIVATES PATHOGENS IN NEAR CEILING

Once church administrators approved the use of UV disinfection, Vigorita turned to germicidal specialist Jim Edson, with Santa-Clarita-based NUVView Environmental, who recommended the GLO™ series of Upper Room UV-C fixtures from UV Resources.

After conducting a site visit, Edson specified two types of upper-room UV-C units to protect the church's 50x37-foot, 200-person sanctuary.

Two GLO-225 baffled or louvered-type luminary were mounted above occupants' heads on either side of the rectangular sanctuary. At the same time, a GLO-1500 open-ended fixture was installed at the rear of the worship area, where UV-C energy blankets the upper air in the cathedral ceiling. Both fixtures utilize an exclusive, high-spectral parabolic reflector system to maximize germicidal output levels.

HOSPITAL-GRADE DISINFECTION

"It's the same type of UV disinfection technology that we've installed extensively at nine Los Angeles community colleges," explains Edson. "While hospitals and schools have used UV disinfection technology since the 1930s to control airborne infectious diseases, its application in houses of worship, dormitories, restaurants and courthouses is relatively new."



Protecting worshipers from infectious diseases is a primary goal accomplished by ultraviolet germicidal energy (UV-C), and these systems also reduce energy use and lower HVAC maintenance.

One installation challenge was positioning the fixtures so the UV-C energy was safely above the church's 30-member choir loft. Edson and his team adjusted the angle of the UV fixture closest to the choir loft and used a UV radiometer to ensure no stray light entered the occupied portion of the sanctuary. All fixtures were then safety tested to meet CDC guidelines.

The upper-room fixtures leverage the continuous natural rise-and-fall of convection or mechanical air currents to lift airborne infectious agents overhead, where they are inactivated by UV-C energy.

"The safety of our church community is our top priority and we've taken multiple measures to mitigate risks to our congregants," says Vigorita. "Since we installed the UV disinfection systems, our congregation has had no outbreaks. UV disinfection is a proven and nontoxic means of reducing the risk of airborne disease so the air we breathe is safer."

LEARN MORE

Reach out to our UV-C disinfection experts today to learn how ultraviolet energy in the 253.7 nm wavelength can help improve your indoor air quality, whether in a classroom, commercial office, restaurant, or community center. See why HVAC researchers and infection preventionists view germicidal UV airstream (in-duct) disinfection and Upper-Room UVGI technologies as an extremely promising [control strategy against infectious diseases](#). Call us today at 877.884.4822 or email UVR.info@UVResources.com.



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