

CASE STUDY



Project | Hennepin County Medical Examiner Facility
Location | Minnetonka, MN
Architect | Leo A. Daly and MWL Architects
Product | Calla® DesignFlex®



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Colorful, Innovative Ceiling Helps Brighten Autopsy Suite

Medical examiners and staff spend 80% of their day in an autopsy suite which typically has no daylight. The recently constructed Hennepin County Medical Examiner Facility in Minnetonka, MN is an exception to tradition. Designed by Leo A. Daly, Minneapolis, MN in conjunction with MWL Architects, Wheaton, IL the new facility features an expansive autopsy suite that is bright, innovative, and inviting.

“We wanted to bring natural daylight into the autopsy suite,” Leo A. Daly national laboratory specialist Steven Andersen explains. As a result, a series of four angled skylights is installed high above the examination floor to illuminate the suite with natural light. “We placed the skylights so that neither direct daylight nor views would reach an autopsy station.

“We also wanted to create uplifting ways to humanize the space for the purpose of improving the staff’s wellbeing and giving them something greater than what they typically experience in an autopsy suite,” he continues.

“Our overall design vision was to create a space that supports both the forensic death investigation operations and the mental, emotional and social health of the staff that deals with the often challenging nature of that operation.”

Ceiling Is Eye-Catching Focal Point

The eye-catching focal point of the space is a colorful eight-foot-wide strip of acoustical ceiling that runs down the center of the space. Comprised of four 29-foot-long sloping sections, the ceiling features Calla® DesignFlex® triangular ceiling panels from Armstrong Ceiling & Wall Solutions.

The DesignFlex portfolio provides the opportunity to mix and match different shapes, sizes, colors, and materials to create a signature ceiling. The panels are also part of the Armstrong CleanAssure™ family of products that includes disinfectable panels, suspension systems, and trim, and the Armstrong Sustain® portfolio that meets the most stringent sustainability standards today.

Triangular shapes were chosen over traditional squares and rectangles to give the space a unique look. The 450 triangles are nominal 2' x 4' in size. Four panel colors were used -- white, sheer bliss, porcelain glaze, and requisite grey. They were chosen to coordinate with the colors on the suite's walls. The panels are installed in a stock DesignFlex geometric pattern that is also used in other parts of the facility but on a smaller scale.

ProjectWorks®, the complimentary Armstrong design and pre-construction service, assisted in the ceiling's design. "We worked closely with Armstrong because we needed to get the custom color variations we were looking for," Andersen notes. "And we needed the ceiling to perform acoustically, be cleanable, and have the aesthetic to support the building's theme."

As part of the support program, ProjectWorks provided CAD files, a complete drawing package with panel, suspension, and hub layouts, and a comprehensive bill of materials. "Because our team worked closely with the Armstrong team, we were able to find a balance of performance, acoustics, and design," Andersen states.



Acoustic Performance Was Critical

Acoustics was an important design element. "Acoustics were critical," Andersen states. "Most of the surfaces in the room are very hard and durable because they must be cleaned several times a day to keep them sterile. It means they are also highly sound reflective.

"When we ran our acoustical analysis," he continues, "we realized we needed to find a way to control sound and sound reverberation. Otherwise, excessive echoing would have been present in the space. The Armstrong ceiling panels addressed the issue. The ceiling sections essentially perform as sound traps." Calla DesignFlex panels feature Armstrong Total Acoustics® performance, meaning they both absorb sound (NRC = 0.85) and block sound (CAC = 35) in the same panel.

Overall, Andersen reports the new suite has been received very positively by medical examiners and technicians alike. "Everyone loves the skylights and the colorful ceiling pattern."

Material List, Shop Drawings Aid Installation

When it came to installation, Project Manager Derek Brinker of Twin City Acoustics, New Hope MN reports the ceiling sections float between the soffits rather than terminating at the drywall. "This made it a much more difficult installation because there's not a lot of room at the perimeter to work with the trim," he says, "but it does give a very nice reveal at the soffit line."

Brinker also reports that the collaboration with the Armstrong ProjectWorks service was extremely helpful and made it much easier to work with the system. "In the past, we would have had to order all the parts and pieces ourselves which was quite intimidating," he states. "Now ProjectWorks supplies us with a complete materials list and shop drawings so there is no guessing as to what's included and where it goes.

"It's rewarding from a project management perspective to see the intended design come to fruition," Brinker continues. "In our line of work, we get so tied up in the routine of viewing drawings on paper that we can forget to appreciate how great the finished product turns out."