

## Case Study

# MedStar Georgetown University Hospital: Designing the Medical and Surgical Pavilion

The construction of the new MedStar Georgetown University Hospital medical/surgical pavilion will transform the way personalized care is delivered, deploy new technologies and meet the needs of families throughout the region and beyond. By bringing innovative therapies from the laboratory to the patient's bedside, the new building's overall acoustics will help them embody *cura personalis*—care of the whole person.

Cerami, part of Trinity Consultants, developed and provided acoustic design criteria, with the goal of bringing a sense of calm to all areas of the patient experience—from the underground parking garage to the emergency department which can be directly accessed from a rooftop helipad.

Cerami also collaborated with the structural engineers to ensure specific vibration criteria were met throughout the building in sensitive equipment areas, including the operating room, imaging suites and laboratories.



### Challenge

The guiding question when designing the new MedStar Georgetown University Hospital was: How can we make our emergency room big enough to save more lives, yet quiet enough for private conversations?



### Solution

Our team of acoustic experts provided extensive construction noise monitoring and careful acoustic design criteria.



### Result

The finished product is an environment that prioritizes patient privacy in sensitive spaces with minimized external noise disturbances.

## Challenge

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## Solution

Our team of experts provided careful acoustic design criteria for the project. In addition, Cerami provided construction noise monitoring services for the MedStar site throughout all phases of construction.

Located in a highly populated residential area, Cerami performed extensive monitoring to ensure noise disturbances to the surrounding community were kept at a minimum. Construction noise monitoring on site was particularly challenging due to the size of the site and its proximity to the surrounding community and residents' townhouses.

Normally housed offsite, a concrete batch plant was brought to MedStar for increased efficiency, contributing to noise disturbances. To combat the disruption from the additional trucks, sifters and debris, the Cerami team conducted extensive sound studies on off-site batch plants. Through our findings, we were able to create 3-D models to present to stakeholders demonstrating the impact and associated mitigation strategies.

Some of our noise mitigation strategies included the evaluation of equipment and the recommendation of less noisy alternatives, the implementation of physical noise barriers around the site perimeter, and when residents opted in, the direct installation of noise-reducing window treatments to surrounding homes.

## Result

The key to our noise monitoring approach at MedStar was communication. With transparent messaging, we worked with all project stakeholders. From client decision makers to the construction team members and affected community, we ensured comprehensive mitigation strategies were in place, thus securing long-term project success. Through monitoring efforts at all stages of construction, the Cerami project team was able to avoid noise-induced scheduling delays, ensuring the project stayed on track and on budget.

*The community noted how the monitoring program was an effective tool to manage expectations and expressed their gratitude for all of your hard work and attention to detail on the project. – EMILY EMRICK, SENIOR PRINCIPAL, Shalom Baranes Associates, MedStar Georgetown University Hospital Surgical Pavilion Project*

### About Trinity Consultants

Trinity Consultants, a leading global environmental consulting firm, provides services and solutions in the EHS Regulatory Compliance, Built Environment, Life Sciences, and Water & Ecology markets. Founded in 1974, Trinity has the technical expertise, industry depth, and capabilities to help clients achieve their goals across the natural and built environments.