Integrating Security Into Architectural Design

Written by: Paula Balmori, Global Director of Security Design and Integration, Brivo

A crucial paradigm shift needs to occur in the field of architecture. The analogy is simple yet profound - just as plumbing and power are integral aspects of building design, security needs to hold a similar position.

In an evolving world where threats are becoming more complex, retrofitting security measures is no longer a feasible solution. It's time to prioritize security from the outset.

EARLY LESSONS: THE VALUE OF PLANNING

The early lessons we learn often shape our approach to various disciplines. In the world of architecture and design, planning is critical. You can't design a structure and then think about how to integrate plumbing and electrical. That would be an impractical approach. Mechanical, electrical, and plumbing components are seamlessly integrated into the design process, converting empty spaces into comfortable, functional environments.

A SHIFT IN FOCUS: INTEGRATING SECURITY

Curiously, while plumbing and power are treated as foundational elements, security has often been an afterthought in the architectural world, even though keeping spaces safe is a huge priority. This approach no longer suffices. The rapid advancement of security technology and knowledge necessitates a holistic integration of security systems.

Today, there are many principles that exist to help design spaces for better security. Too often, these principles are seen as lower priority or have to wait long after many of the different considerations that go into building design, something that can be slotted in later. So, for example, if a design creates a blind spot with no natural surveillance, there's a good chance that it will be solved by placing cameras, rather than trying to create a design without a blind spot.

MODERN PRINCIPLES FOR SAFER SPACES

The modern era offers us principles that can guide us toward designing secure spaces. Yet, these principles often lack other design considerations, leading to last-minute adjustments.

How can this be tackled? One way is through crime prevention through environmental design, which aims to reduce crime by creating environments that deter criminal behavior. However, if applied solely to mitigate issues, it can lead to designs that prioritize security over welcoming aesthetics - a concept termed "hostile architecture." A great example is putting up metal fences or spikes on top of walls to deter homeless camps. It creates a design that makes people uneasy since the design is counterintuitive to creating an environment that makes people want to spend time in it.

It's about making sure a place feels inviting, cared for, and at the same time, secure from the start, versus throwing solutions together to stop a problem once it starts. You wouldn't accept pinned cables to a wall or portable heating units as a result of poor integrated planning. Shouldn't you expect the same with security?

A NEW APPROACH: HOLISTIC INTEGRATION

Architects and designers need to balance their designs between deterrence and invitation. A parallel can be drawn with the evolution of cybersecurity, where the focus has shifted from reactively installing antivirus software to intrinsically safeguarding essential data and business continuity.

Similarly, integrating security into architectural designs should be approached with the intention of enhancing business continuity, asset protection, and resilience. Everyone wants to know that where they work is safe, not just because security was added on, but because it was built in. Security strategies need to be woven into the design process as a foundational piece.

Just like how designers and architects think about the dangers of extreme weather and disasters, they also need to think about smaller everyday risks and make sure their designs can handle those. They should prepare for big events like hurricanes and floods, but they should also think about common problems that security technology helps with, like phishing or soliciting. Instead of guessing how to solve problems, they can use data to make better designs - but this works best if they use data analytics in tandem with integrated security measures from the beginning.

BENEFITS BEYOND SAFETY

Integrated security extends beyond safety - it influences business efficiency and environmental goals. Planning security measures from the outset eliminates the need for later revisions or retrofits. Thoughtful design, like prioritizing natural surveillance, can reduce the reliance on cameras and monitoring systems, thereby cutting costs, and enhancing efficiency.

Furthermore, integrated security data can contribute to environmental, social, and governance goals. For example, access control insights can facilitate energy-saving measures and optimize building usage. It can even transform delivery practices to be safely conducted outside of working hours - known as dark deliveries - potentially reducing the cost of delivery vehicles that sit in peak traffic.

SECURITY AS A FOUNDATION

It's necessary to consider security as a cornerstone of architectural design. Plumbing, power, and security must coexist harmoniously from the inception of a project. A holistic integration of security strategies at the design stage not only protects against threats but also enhances the functionality, efficiency, and sustainability of the built environment. As approaches to architecture evolve, security becomes as crucial as the fundamental physical elements holding a building up.

About the Author

Paula Balmori is the global director of security design and integration at Brivo.

About the Article

Any views and opinions expressed in this article may or may not reflect the views and opinions of the Construction Management Association of America (CMAA). By publishing this piece, CMAA is not expressing endorsement of the individual, the article, or their association, organization, or company.