DESIGN FOR LIFE

Paula Balmori *considers how close we are to 'security by design'*

Planning, designing and constructing a building without thought to heating, lighting and other amenities would be seen as madness. No serious building planner would wait until after construction and then say: "now we need to decide where the elevators should go."

And yet, until recently, this was how physical security in building design was treated. Rather than considering security as a key component of the design, it was 'patched' later. Cameras were added in post-build to cover areas with no natural surveillance. Planters were added to create extra security where needed. Some buildings even added security guard patrols, which could have been avoided if there was more consideration for security at the design stage.

This approach is changing. Practitioners regard MEP (Mechanical, Electrical and Plumbing) to be a vital part of design, turning buildings from empty rooms into comfortable spaces that are welcoming and liveable. Best practice today is to regard physical security in the same way, to ensure 'security by design'. But best practices don't always become a reality. How close is the architecture, engineering, and construction (AEC) community to making certain that security is a key consideration in building design?

The good news is that the need for security to be integrated from the beginning of a project is well understood. Unfortunately, this understanding doesn't always make its way into practice and there are some gaps between the best approach and reality.

Brivo surveyed architectural and engineering decision makers across the US and Europe to better understand if security was a priority for these practitioners and if this was reflected in practice. We also wanted to know if a lack of integration was having an effect on projects and whether this was inflating costs or affecting deadlines.

Security is a priority for both clients and practitioners

CHANGING PRIORITIES

A striking result from our research was just how much security has changed as a priority over the last decade. Ten years ago, the top priorities in building design were safety, reliability and the materials used. Today, the top three concerns are: sustainability, safety and security.

The new role of sustainability as the top priority is unsurprising given that we've had a decade of education and campaigning around the need for more sustainability both in construction and the finished building. Security has not had nearly the same level of attention as sustainability when it comes to regulations and campaigning, yet it has become one of the top priorities for practitioners in building design. It is only beaten to the top spot by sustainability and safety.

What has driven this change in priority? One element is a rise in customer demand. Almost nine in ten AEC practitioners reported that client briefs now regularly emphasise security, with half stating that every brief they receive has some form of security component. Security has become a top priority, in part, because of demand. The global AEC decision-makers we spoke to were divided roughly in half between those who saw this demand as a "slight rise", and those who saw it as a "major increase". While the rate of change varies, security is a growing concern among AEC professionals, across both the US and Europe.

Increasingly practitioners are responding to this rising demand. Just over half have a security integration process in place, while the remainder fully intend on implementing such a plan. This is a positive step and it means security will be part of the planning process. As a result, AEC practitioners won't be responding ad-hoc to briefs that happen to mention security as it will be built into the planning process.

Overall, this progress seems very positive. Security is a priority for both clients and practitioners. But there are problems when the rubber meets the road.

Despite a shift in attitudes to security from both customers and the AEC practitioners, this shift is not always reflected in outcomes. Even after construction, AEC stakeholders bear some responsibility for addressing emerging issues, including security flaws. Just as a heating or lighting issue that needs addressing after construction is the responsibility of the design and construction team, unplanned security issues that are revealed along the way will need to be fixed. This can lead to delays and overspend. The overspend may seem high when compared with the total cost of design and construction, but delays are another matter. AEC firms report that an average of seven days is spent fixing security issues post-build, with a quarter spending two weeks.

These types of delays and missed milestones can trigger negative contractual clauses and lead to financial damages. Plus, any time spent fixing issues post-build is time that would be better spent on other projects.

Why are these delays happening? It's important to remember that security is a new priority for both AEC practitioners and their customers. It is well understood that security should be an integral part of design. Yet even though nearly all AEC practitioners see briefs where security is a key consideration, a large minority are only planning to make security integration part of their planning process.

MOST BRIEFS INCLUDE SECURITY REQUIREMENTS, BUT THERE ARE STILL SOME THAT DON'T

It's clear that there is a time lag here. AEC practitioners understand the issue and they are acting on it. The problem is they haven't been able to go as far as they would like. Almost all practitioners who have not yet placed an emphasis on physical security in their design process anticipate this changing within the next five years.

Fundamentally, our research reveals a positive picture. There is a growing inclination towards 'security by design'. As President of the Secure Building Council, creating the first security certification for buildings, I see it and hear it during all of our SBC meetings. End users, manufacturers and integrators of some of the top global organisations in the World are making sure that they enact more proactive security design strategies. The end result allows us to create more secure and smart spaces, while helping save money and time.

The divide is between those who both understand this issue and have done the work to integrate it and those who understand it, but are still on the path to making this important change. The challenge is in making sure that this work results in positive outcomes and the need for post-build call-outs decreases. Only then can we say that we are close to security by design.

How can AEC practitioners ensure they are integrating security into design in an effective way that reduces the probability of post-build problems? The first way is to examine the processes they already have in place or those they plan to put in place. Post-mortems that examine what went wrong and what went right with a new process are invaluable. For those that are still implementing these processes, peer networks can be crucial in understanding where others have gone wrong and how they have fixed it.

Practitioners can also turn to their physical security vendors. Providers of access control, CCTV and other smart security solutions will have advice on how to best implement their technology and make it effective. A good understanding will put AEC practitioners in a good position to implement it. And just as all projects have a lighting consultant involved, projects must have a security consultant as well – or at least a Subject matter expert.

THE NEED FOR SECURITY TO BE INTEGRATED FROM THE BEGINNING OF A PROJECT IS UNDERSTOOD

Of course, there is always room for better communication with customers. As previously noted, while most briefs will include security requirements, there will still be some that don't. Interrogating briefs closely and communicating with customers to refine and enhance a brief lead to better results. This is especially true of physical security, where there has been such a big change in recent years. Customers may know what they want, but unlike other parts of a design brief their ideas may not be as complete. Conversations will mean education running both ways, with customers understanding better what they need in a brief and practitioners developing a keener sense of the physical security that will meet all of their customers' needs.

While there are many ways to improve the situation, there is no one way that is internationally recognised right now. ISO standard certification ensures that a company is up to date with the cyber security standards, but there is nothing like that for the physical world. The Secure Building Council is working on changing this.

Security by design remains a work in progress. We can be happy with the progress that has been made to date in understanding what is needed and the increased priority of the vital aspect of building design. But we cannot stop improving until security is on an equal footing with the likes of heating and lighting in both building design and delivery ●

Paula Balmori is the Global Director of Security Design and Systems Integration at Brivo, as well as Board President of the Secure Building Council. She is also the US president of CPTED, which promotes Crime Prevention Through Environmental Design principles, a way for architects and designers to make buildings secure from the outset, rather than fixing problems post-build.

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