

Access control: What architects need to know

You've likely flinched at the sight of it. Beautiful, ornate doors on the opening of a commercial building... with a card reader mounted on a bollard post right beside it... or surface-mounted wiring for added electrical locking devices. These solutions add access control to the opening, but in a manner that completely detracts from the architectural design.

Access control is being used in virtually every new commercial facility today. Whether in the form of standalone keypad locks or a fully integrated system, access control—now more affordable than ever—is giving building owners a higher level of security, as well as convenience and ease of maintenance. As a result, architects should consider access control as part of the design process—and plan for it early.

“Planning for access control upfront allows you to deliver more value and solidify your relationship with the owner,” says T.J. Gottwalt, Strategic Architectural Account Manager for Allegion. “If this element is not included in the build process, the owner will need to add it later, which can be more cumbersome and costly.”

Electronic vs. mechanical access control

Access control can be provided via mechanical or electronic door hardware. Deciding which one to choose, Gottwalt says, really comes down to security goals and preference.

“The big differentiator between mechanical versus electronic is really convenience. It's a lot easier to use and maintain cards or key fobs, for example, than mechanical keys,” he says.

Electronic solutions offer some security advantages as well. “If a card becomes lost, the building owner or manager can delete that card from the system—immediately reducing security risk,” Gottwalt says. “But if you lose a key, it still works—you just don't know where it is and who has it. Therefore, the facility is at risk.”

Additionally, while lockdown of a building can be achieved with both mechanical and electronic solutions, it is a lot faster—critical in an emergency—with electronic door hardware.

Questions to ask about access control design

An architect can effectively design for both access control and aesthetics by starting with some important questions:

- Is there a security consultant on the project team?
- What is the general level of security required for the facility (i.e., low, medium or high)?
- What is the usage?
- What are you protecting?
- How many access control users will there be?
- Is there an existing access control system in place? If so, who is the integrator and what card system is being used?
- Is there a preferred method of electric locking (i.e., electric locksets, electric strikes, magnetic locks, etc.)?
- Is concealing the credential readers important?





Early planning with the right stakeholders

With answers to these questions, the next step is to involve the right people in the planning process. Typically, that involves the architect, the hardware consultant, the security consultant, the integrator and possibly an electrical engineer. Ideally, access control should be planned for after the initial architectural plans and building layout is complete.

“Access control planning should occur in conjunction with the hardware design,” says Derek Ommert, PSP, Safety and Security Consultant at Allegion.

Bringing together stakeholders early, he says, eliminates a lot of surprises—not to mention delays and dissatisfaction.

“One of the biggest surprises is the length of time it takes to incorporate access control into design,” says Ommert. “That surprise usually comes when access control is treated as an afterthought—an add-on, after the design has been finalized.”

When access control is added later in the construction process, it often results in additional breakers, extra raceways, and power and conduit layout changes.

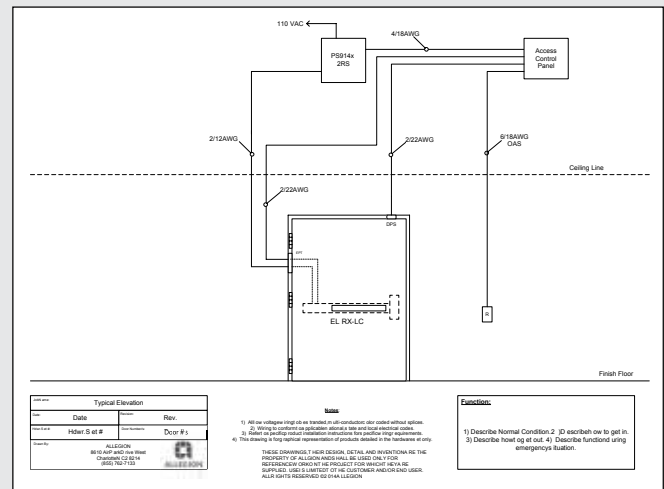
“This often leads to change orders—and more time and money,” he says.

When to involve a hardware consultant

Like many design decisions, the earlier you plan for access control, the better. The decision can be multi-layered and impact how an opening is constructed. In addition to involving a security consultant or integrator, you'll want to bring a hardware consultant into the process early. Access control solutions directly impact door specifications so you'll need an expert who is familiar with the mechanics of a door, including fire and life safety building codes.

Helpful hint:

Make sure you request electrical riser diagrams early in the process. This often-overlooked step can save much time and help facilitate smoother coordination.



Allegion can help you design for access control. Our electronic access control representatives will work hand-in-hand with architects, security consultants and integrators to ensure the access control solution protects the integrity of your design, the building's environment and the owner's building security goals.

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