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Electronic Safety, Access Control and Security

NOTE: Significant revisions or additions to the previous standards are highlighted in italics

GENERAL

Designers shall verify that all applicable portions of these standards are incorporated into the project's design, drawings, specifications and final construction. Requests for variances from these standards shall be submitted in writing to the FPD Project Manager, using the KU Standards Variance Request Form found in [Appendix A1.1](#), for review and written approval or rejection as indicated on the form.

RELATED DOCUMENTS & REQUIREMENTS

Refer to the following for requirements that also apply to work of this section.

- ☐ **Division 1 - General Requirements:** refer to sections regarding construction testing and field quality control requirements.
- ☐ **Division 8 – Openings:** Designers shall coordinate access control provisions with the hardware schedule and other provisions of this Division.
- ☐ **Division 26 - Electrical**
- ☐ **Division 27 - Communications**
- ☐ **Appendix A28.1 - Fire Alarm Standard of Practice:** Designers shall develop each project's fire alarm system in accordance with these guidelines.
- ☐ **Appendix A28.2 - Standard Fire Alarm Specification:** Designers are required to download and use this as the basis of each project specification, edited as required to reflect each project's specific needs.
- ☐ **Appendix A28.3 - Fire Alarm Standard Graphic Symbols:** Designers are required to download and use these KU-standard symbols as the basis of their construction document graphics and symbols.
- ☐ *KU Policy Library [Policy Admin Client Portal Home](#)*
 - ☐ *Implementation and Use of Video Technologies for Safety and Security Purposes*
 - ☐ *Key and Electronic Lock Policy*

GENERAL

Scope of Systems: *Requirements for video technologies and building access control should be reviewed for each construction or renovation project that impacts changes to building access. Requests for security alarm systems will be reviewed on project-by-project basis.*

The Designer should understand policies and meet with University personnel to determine project requirements. All systems shall be based solely on hardware, software, devices and installers, as approved by LASTS.

Initial Design Review Meeting: The FPD Project Manager will schedule a meeting to review the proposed scope of security, video technologies, and access control systems for each KU project, typically during the Design Development phase. Attendees should include representatives from the following:

- ☐ University Code Compliance Coordinator
- ☐ KU LASTS Representatives
- ☐ KU client group (including departmental facility managers)
- ☐ A/E Project Designer (typically architect and electrical engineer)

System Design and Installation: Access control and CCTV surveillance systems shall be installed by approved KU vendors.

- ☐ **Security/Intrusion Detection:** *Upon approval by FPD on case by case basis.*
- ☐ **Access Control:** CBORD equipment; designed & installed by approved vendors.
- ☐ **CCTV Surveillance:** *Avigilon compatible; designed & installed by approved vendors.*

ACCESS CONTROL – 281300

General: Project Designers are responsible for coordinating the provision of access control components with related building components, including rough-in or hardware preparation in walls, doors, ceilings and other building elements, so access control systems are integrated and concealed within building construction to the greatest extent possible. Access control systems shall not be part of the fire alarm communications network.

SECURITY ALARM SYSTEMS/ INTRUSION DETECTION – 281600

General: Security systems are not permitted except as reviewed and approved on case by case basis.

Departments requesting security/intrusion detection systems shall be responsible for providing designated people who will receive automated alarm notifications from the system, and who will be immediately available to respond to alarms, or to assist the KU Police Department as requested, for each event, on a 24 hour/7 day per week basis.

ELECTRONIC SURVEILLANCE – 282000

General: Provide CCTV surveillance systems as approved by LASTS and in alignment with policy.

Designers shall cooperate and assist KU personnel with the design and installation of these systems and shall incorporate rough-in and power requirements to serve systems, as needed. Designers and the CCTV vendor shall consult with LASTS.

Retail Area CCTV Systems: *should be installed in alignment with CCTV policy.*

DIGITAL ADDRESSABLE FIRE ALARM SYSTEM – 283111

General: The University has a negotiated procurement contract in-place for the provision of fire alarm systems on all University buildings. *Johnson Controls (JCI)* shall provide a turnkey installation including the electrical sub-contractor's work *for all projects, unless otherwise approved by FPD*. JCI shall provide a bid to the contractor for this work.

Local Fire Dept. Coordination: Although the AHJ for the majority of projects on State-owned land is OFPM (State of Kansas, Office of Facilities and Property Management), the local entity charged with responding to fire and safety emergency situations should be consulted per campus location.

- ☐ As the designated initial responders for the Lawrence campus, Lawrence Douglas County Fire Med (LDCFM) should be consulted to determine the appropriate locations for Knox boxes, fire alarm control panels/annunciators, primary and secondary Fire Department Access, fire lanes and fire hydrants. It is the Designer's responsibility to obtain approval through FPD to consult with LDCFM.

Design Requirements: All new installations, and all system upgrades should be designed as active multiplexed systems, with addressable appliances and devices. Building control panels should be designed to link by fiber-connection to, and be monitored by, an existing campus-wide fire alarm system communications network.

- ☐ Specific design requirements for fire alarm system projects are described **Appendix A28.1 - Fire Alarm Systems – Standard of Practice**.

Basis for Design: The Designer should use the following documents as basis for design:

- ☐ NFPA 72 - *2016 Edition*, National Fire Alarm Code
- ☐ NFPA 70 - *2017 Edition*, National Electrical Code
- ☐ NFPA 101 - Life Safety Code
- ☐ NFPA 13 – *2016 Edition*
- ☐ NFPA 45 – *2015 Edition*
- ☐ Current IBC version approved by State of Kansas or local jurisdiction
- ☐ *Kansas Fire Prevention Code- State Fire Marshal's Handbook*
- ☐ *Kansas State Boiler Code*
- ☐ *2010 ADA Accessibility Guidelines*

Responsibilities for Design: The Designer is responsible for development of a code-compliant system design that meets the specific needs of the site and/or building location of the project. JCI provides a bid to the general contractor and installs the system under that contract.

Coordination with Other Disciplines: The Designer should be aware of the following typical coordination requirements for fully-functioning, code-compliant campus fire alarm systems:

- ☐ Designers shall consider including a framed, permanently mounted reduced graphic floor plan directory with room numbers adjacent to the remote annunciator panel, to orient firefighters to the building.

- ❑ Specifications for door hardware should require that magnetic door holders are a part of the fire alarm system and furnished by the fire alarm manufacturer in lieu of the door hardware manufacturer.
- ❑ Designers shall provide magnetic hold-open devices on all doors within corridors, exit stairs and exit passageways in general, where they preserve desirable openness and more convenient accessibility of programs and spaces. Verify with FPD Project Manager and building occupant/user representatives.
- ❑ Designs in project areas served by the University building automation control system (BACS) should include an interface module.
- ❑ Designers shall show interface with Mechanical for duct detection locations and Fire Protection for fire sprinkler control and monitoring locations.

Submittals: Refer to [Appendix A28.1](#) for code compliance submittal requirements.

Record “As Built” Documents: Contractor shall provide record documents of the fire alarm installation to the Owner. Refer to A28.1 for requirements.

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