

ELECTRONIC DOOR ACCESS CONTROL SYSTEM

Coordination of Design: AE shall coordinate design of the electronic door access control system with the U of I Systems & Controls Electrical Shop once the floor plans with door locations have been developed for the Project.

Exterior Door(s): Each new or remodeled building shall be equipped with an Andover electronic door access control and monitoring system on each of its exterior doors, including at least one that is also automated/ accessible (see *Section 08 42 29 – Automatic Entrances* and *Drawing 08 42 29-1, Automatic Door Opener Control Station*). The Andover system shall be interfaced with the automatic door operator and the door actuator control stations. Contact Owner in regard to the Capital Project Brand Name Policy.

Interior Doors: Consideration shall be given to providing door access systems, not only at exterior doors, but also at selected interior doors, to provide increased security for specific limited-access areas such as computer labs, research labs, etc. Specific options and information shall be obtained from F&S Engineering Services.

Installation: Contractor is responsible for installing electronic door access raceway, cable, panels, and the insurance of a complete, functional, and operational system.

Operating Force in Manual Mode: To ensure that the required exit doors will be able to be opened readily in the manual mode of operation, the closing mechanism of the electronic door access device shall be adjusted in accordance with requirements of the NFPA 101 Life Safety Code, the International Building Code (IBC) and the Illinois Accessibility Code.

For delayed egress door hardware, special signage shall also be provided on the egress side of such doors. The sign shall be readily visible and use lettering of at least 1 inch height on a contrasting background to convey the following message: "IN EMERGENCY, PUSH TO OPEN".

Specific Requirements: Electrical contractor shall:

Provide a 6"X6" trough with a screw cover spanning the length of the panel configuration above Andover System for all low voltage and data to travel through to get to one 3" nipple at the top right of each 30"X42" Andover Panel. See *Drawings 28 13 00-5 and 28 13 00-6*.

Provide two (2) 110 Vac Emergency Power circuits to lower left corner of Andover Panel (see *Drawings 28 13 00-5 and 28 13 00-6*) with 15 ampere fused din-rail mounted disconnect.

1. Provide 100 series 250 V/A Topaz Isolation transformer (minimum or equivalent). Note: 110 Vac circuit from Topaz shall be dedicated for Andover Controller power supply located in Andover cabinet.
2. Provide a second 110 Vac circuit to be used for all other external electronic door hardware power supplies located within panel area.

Raceway: All electronic door access system wiring shall be installed in conduit or cable tray with future available fill capacity.

Provide a 8"X10"X4" (minimum) J-box above drop ceiling on secured side of door for card reader, door position, electric power transfer, request to exit, ADA push buttons and other low voltage wiring to door area. Provide a 1" conduit from this same J-box to nearest cable tray or Andover panel location.

Provide a 1" conduit for Ethernet communication from each Andover panel location to nearest cable tray or U of I CITES Hub location with two (2) Ethernet cables to each Andover.

All electronic door access system wiring shall be installed in a minimum 3/4" EMT conduit except to an electric power transfer (EPT-10) at door frame (see *Drawing 28 13 00-10*). All conduits shall be continuous and be connected to a box or fitting (not stopped inside a wall or door frame). Card reader, remote I/O or any other communication/data cable shall not be spliced between controller and device.

Cable: All input cables and card reader cables shall be grounded at the

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NetController-II panel while taped and insulated at the device.

Cables from inside and outside push buttons for a handicap door with electronic door access shall run to an Andover input and not to the door operator.

Card Reader Location: All card readers shall be off set by a minimum of 12" if mounted on opposite sides of wall.

Commissioning: All systems shall be commissioned by the Owner. A minimum of 72 hours in advance notice is required.