

<sup>rd</sup> parties.

2.03 It is the responsibility of the access control integrator or company to generate an exceptions list prior to bidding or installation that itemizes exceptions taken with door hardware schedules, components or designs being used which may hamper their ability to provide a secure and compliant access control product.

2.04



- 3.15 All access control system equipment (controllers and readers) must be fully warranted against defects in workmanship for a minimum of one year from date of installation, with an optional four-year extended warranty quote. All hardware must be fully supported for a minimum of five years from date of installation (not obsolete), or replaced at no cost to SHSU with supported hardware.

## 4.0 Standardized Hardware

- 4.00 The following hardware is specified hardware for access control integrations. No substitutions are allowed.
- 4.01 Controllers  
*iSTAR Intelligent Network Controllers*  
STAR008W64ANPS -8-reader controller without power supply.  
STAR 016W64ANPS -16-reader controller without power supply.  
ESTAR002 iSTAR Edge – 2-reader controller
- 4.02 Readers  
  
Schlage MTM S15 Card Reader/ Multi and mag reader track 3 with XF7710 proximity sticky disk
- 4.03 Exit Devices (Mechanical)  
*Von Duprin 98/99 Series*
- 4.04 Electric Strikes  
*Von Duprin Series 6000 24 Volt*  
HES 1006 Strike

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DIVISION 08 OPENINGS

SECTION 087400-

specific hardware requires a localized power supply. When possible a trunk conduit/raceway

- 6.10.3 All wiring runs will be in a star configuration or home run from RM board to the panel box. DaisyChain reader communication loops are not permitted. Each door will have an RM Reader board for inputs/outputs and future expansion of door devices.
- 6.10.4 All devices must be hardwired. Unless approved by the SHSU Access Control Shop Residence Life, all wiring must be installed in EMT, cable tray or rigid conduit. Conduit must be installed square and plumb to building structure in a good workmanship manner. Installation of conduit must be in accordance with the National Electrical Code and SHSU written standards for 120-VAC circuits. NOTE: When approved by the SHSU Access Control Shop or Residence Life, only plenum rated low cable wiring may be run without conduit provided the cable is run square and plumb with the building structure. Plenum cable must be supported by an SHSU approved means on 4 ft. centers.
- 6.10.5 Power to the access control panel power supplies will be concealed hard wired, on a dedicated circuit with a proper ground. This circuit will be on emergency power where available.
- 6.10.6 All wire terminations in the panel and field devices must be clearly labeled. Labels must be manufactured for low voltage wiring and the information on the labels must include both source and designation terminal information.
- A. All wires are to include the following information
1. A number to correspond to what panel is connected to
  2. A number on the wire to correspond to panel schedule
  3. A location of final destination of the wire termination in relation to true north
  4. Door number assigned to the door as designated by the card reader address and which in turn will be assigned in the software and designated on the door by the assigned number (label)
- B. All panels are to include a panel schedule which will include the following information
1. The terminal block number at which the wires are terminated followed by the above mentioned information.
- 6.10.7 Wiring which contacts metal edges will be buffered with bushings or rubber grommets to prevent damaged wires and shorts. Examples include wiring meeting conduit ends, panel and junction box holes.
- 6.10.8 Conduit must be strapped within 24" of junction boxes.
- 6.10.9 All junction boxes must be covered, painted green, labeled with destination and source. Contents shall be included on the label when appropriate (ex. junction box with relay for handicap button).
- 6.10.10 Gang boxes must match device being mounted (ex. double gang reader mounted on a double gang box).
- 6.10.11 Setscrew conduit fitting are not allowed. Compression fitting must be used.

- 6.10.12 Maximum usage for conduit will be 40% of total square inch internal capacity. Minimum conduit size is ¾ inch.
- 6.10.13 The card access conduit system and cabling installed must be distinct and separate from the wire way/conduit system housing voice/data cables in campus buildings.
- 6.10.14 Connections to devices must be secured, so that no cords may be easily disconnected from the devices and no cords are left exposed to unauthorized tampering.
- 6.10.15 Wiring will be done in strict accordance with manufacturer's guidelines with the following exception; wire diameter will be one gauge size larger than the minimum required in the manufacturer's guidelines.
- 6.10.16 Low voltage shields will be terminated in accordance with manufacturer's guidelines. Should "noise" in the building ground reference interfere with or prevent the device from operating properly, the Contractor will install a dedicated ground for the card access system in that particular building. FLOATING SHIELDS WILL NOT BE ALLOWED.
- 6.10.17 Isolation relays will be used for all outputs to field devices.
- 6.10.18 Field wiring must be one piece from source terminal to destination terminal. Splices in field wiring will NOT be allowed.
- 6.10.19 The construction procedure for wiring routed thru door mullion will be submitted to SHSU for approval. All wiring in and around door mold will be done in a good workmanlike manner. (6.10.18EMC /P <</MCID 12(lo)56(pr)-3D [(AL)[oo-2.3(u)11.7( (6.10.1a)-n3.9(m)17.1

6.11.7 No hinge contacts are ~~to~~ used.

## 6.12 Door Hardware

6.12.1 Door hardware will be ~~fail~~ secure with mechanical manual ~~access~~ from the secured side.

6.12.2 All electronic hardware will be 24V and powered via independent 24V power supply for door hardware.

6.12.3 Door switching and power will reside in the access control panel location.

6.12.4 Not Used

6.12.5 Power supply will be connected to building emergency circuits when possible.

6.12.6 Power supplies will have a 7amp hour battery backup or higher.

6.12.7 The location of power supplies when located away from access control panel will be fully documented via ~~As~~ Built drawings.

6.12.8 No more than 2 doors with exit devices per independent 24v power supply.

6.12.9



