PART 1: GENERAL

1.01 A. Electronic Security Monitoring and Control Services Supported at UT Austin

1. Concealed duress button (panic switch) - depressing button sends silent message to police with location and specific alarm information. Example - cash handling counter, reception desk, counselor

2. Public duress button (panic switch) with signage - depressing button will initiate optional local audible alarm and message to police with location and specific alarm information. Example - chemical hazard area

3. Duress button with local annunciation - depressing button sends silent message to police with location and specific alarm information. Also generates alert and displays alarm information locally. Example - alert receptionist for suite of counselor offices of confrontational incident in a particular counselor’s office, lab situation emergency to remote lab supervisor office

4. Police Help call station - depressing button puts individual in direct voice contact with police dispatcher along with specific location information. Typical distinct yellow box or pole with red call button, Police Help signage and blue locator lamp. Can be interior or exterior. Example - parking lots, remote area where personal safety is a concern

5. Intrusion system - monitor area for unauthorized entrance using combinations of door monitor switches, motion detectors and window break detectors. System activated/deactivated by local keypad using programmable user code. Example - lab, office

6. Article protection system - monitors equipment attached to fiber optic loop. Remove or cutting loop will generated alarm message to police with location and specific alarm information. System activated/deactivated by local keypad using programmable user code to allow for authorized equipment removal for repair or reconfiguration. Provides protection for equipment that must be accessible to the public. Example - computers, lab equipment, office equipment, display items
7. Emergency delay exit system - operates as a fire code required emergency exit but will not open until 15 to 30 second delay period has expired. Local siren sounds immediately to alert local staff of attempt to exit and police receive message with location and specific alarm information. Local fire alarm immediately releases door(s). Local controls or programmable time schedules can be used to over ride the security function. Example - back or side code required exits to labs, exterior build emergency exit doors, stairwell doors.

8. Card access control door - allows entrance to individuals with authorized card and generates transaction history record. Same card can be utilized to access multiple card access controlled doors during specific time(s). Card users access privileges can be deleted or modified without retrieving issued access card. Local controls or programmable time schedules can be used to over ride the access control security function. Typical configuration is card control entry with free egress. Cards are issued by Locks & Keys using same procedures as keys. Access card issue is restricted to faculty, staff and graduate students. Examples - computer lab door, late night exterior entry door.

9. Video surveillance - UTPD dispatcher has the ability to remotely monitor local video surveillance systems. Dispatcher’s real time video surveillance monitoring is limited to supplemental incident information as a result of a previous security alert. UTPD reviews locally and remotely recorded security video tapes for criminal investigations.

1.02 B. U.T. Austin, Telecommunications Dept., Revised 8/17/99 WGS

The security system shall be comprised of a complete and functioning card access control system(s), emergency delay exit control system(s), room or area intrusion system(s), video surveillance system(s) and police notification system(s) as designated. These system(s) of remote sensors, control devices, conduit and wiring where applicable shall connect to Andover’s Infinity security monitoring and control field panel(s) in a manner which allows the owner’s existing Andover Infinity Campus Monitoring and Control System to interface with these devices. The installation shall be performed by an experienced security system installation firm licensed by the Texas Board of Private Investigators and Private Security Agencies and shall be bonded and insured. There are certain hardware and engineering services items in this project which are proprietary and can only be furnished and performed by an Andover Controls Certified Representative.
PART 2: PRODUCTS

2.01 Special Requirements

1. The security monitoring system shall consist of all appurtenances required for the control and monitoring of this project by the University of Texas Andover Infinity Campus Monitoring and Control System.

2. Use of common wires between zones is unacceptable. Configure all zones to be normally closed loop with end of line resistor (EOL) at most distant point of the zone.

3. Use concealed magnetic door contact switches. Door monitor hinges are unacceptable.

4. Use surface mounted electromagnetic door locks. Shear type electromagnetic door locks, electric strikes, and electric bolts are unacceptable.

5. All security conduit and wiring systems installation shall be per Section 16 of the Specifications.

6. Coordinate door schedule, doorframe preparation and hardware set schedule for proper mounting and operating of door security function and ADA requirements.

7. All expose J-boxes or enclosures shall have tamper resistant features and hardware.

8. For card access controlled doors with door operator or auto equalizer, use center case dogging style door hardware unless not allowed by code.

2.02 Access Control System:

The access control system(s) shall consist of remote sensors and control devices installed at designated door(s) per the security design specifications. See “Typical Access Control System Details” and “Typical Type Door Security Detail” germane to the door schedule type and security function. The sensor and control device(s) shall connect to an Andover field monitoring and control panel(s) and monitor and control the door per instructions programmed in the University of Texas Andover Infinity Campus Monitoring and Control System.
SECTION 16727 - SECURITY SYSTEM
CONSTRUCTION STANDARD

2.03  Intrusion System:

The intrusion system(s) shall consist of appropriate placed and zoned sensing and alarm control device(s) per the security design specifications. See “Typical Intrusion System Details” and “Typical Type Door Security Detail” germane to the door schedule type and security function. Alarm output(s) from these intrusion system(s) shall connect to alarm inputs on the Andover field monitoring panel(s) and report specific zone alarm information to the University of Texas Andover Infinity Campus Monitoring and Control System.

2.04  Article Protection System:

The article protection system(s) shall consist of appropriate placed and zoned owner provided and installed fiber optic protective loop interface device(s) and contractor provided and installed article protection alarm control device(s) per the security design specifications. See “Typical Article Protection System Details. Alarm output(s) from these article protection system(s) shall connect to alarm inputs on the Andover field monitoring panel(s) and report specific zone alarm information to the University of Texas Andover Infinity Campus Monitoring and Control System.

2.05  Emergency Delay Exit Control System:

The emergency delay exit control system(s) shall consist of remote sensors and control devices installed at designated door(s) per the security design specifications. See “Typical Emergency Delay Exit Control System Details” and “Typical Type Door Security Detail” germane to the door schedule type and security function. The system shall conform to NFPA 101 Life Safety Codes. The sensor and control device(s) shall connect to an Andover field monitoring/control panel(s) and operate per instructions programmed into the University of Texas Andover Infinity Campus Monitoring and Control System.
2.06 Police Notification System:

The police notification system shall consist one or more of 3 different types of reporting mechanisms: concealed duress button(s), public “Police Help” duress button(s) with signage and locator lamp and public “Police Help” intercom station(s) with signage and locator lamp. The police notification system(s) shall consist of appropriate placed and zoned notification devices per the security design specifications. See “Typical Police Notification System Details”. Alarm output(s) from the duress button(s) shall connect to alarm input(s) on the Andover field monitoring panel(s) and report specific duress alarm information to the University of Texas Andover Infinity Campus Monitoring and Control System. Police help intercom location(s) shall be provided with cable, conduit system and back boxes per “Typical Police Help Intercom Station Detail” with actual device installation and commissioning by owner.

2.07 Video Surveillance System:

The video surveillance system(s) shall render color images and consist of appropriately placed video camera(s), monitor(s) and remote recording and control devices per the security design specifications. See “Typical Video Surveillance System Details”. Typical coverage areas to include: stairwells, elevator lobbies, elevator cab interiors, pedestrian/vehicle entrance/exits and other areas warranting video surveillance. Images from these camera(s) shall be monitored and recorded locally in the building management office. The UT Police Department on the main campus shall also have the ability to select and view these images independently. Outputs from associated security devices and video motion detectors shall be utilized to alert personnel and initiate alarm mode action in monitor equipment for security related activity. Position, type and quantity of building lighting fixtures shall be coordinated to enhance the production of these video images. Provide UPS power for all video processing equipment to preserve set-up programming.

2.08 Andover System Field Monitor/Control Panel, Support Hardware and Programming

Provide the necessary hardware required to support the specified number of controlled and monitored security doors, intrusion systems, article protection systems and police notification systems. Furnish and install field monitoring/control panel(s) in communication closets or communication gateway rooms. See “Typical Building Primary Security Panel Details”. Coordinate exact location with UT Austin.

1. Access Control and Monitoring Hardware:
a. NEMA 1 rating enclosure with mechanical key locking hinged cover, back panel and passive ventilation sized appropriately for supplied equipment

b. Provide duplex service outlet inside enclosure on separated circuit

c. Include one (1) Andover Infilink 200

d. Includes One (1) Short Haul Modem as manufactured by Patton Electronics Company, model number. 10112ASFRJ45 (no substitutions) with surge protection.

e. Provide standard ACX 780 controller(s) and IDX 800i(s) as required

f. Provide panel of sufficient size to accommodate space for 2 ea. additional IDX 800i’s

g. Provide one (1) additional Andover Infilink 200 and one (1) short haul modem (Patton RJ-45 1012ASFRJ45) with surge protection for connection of that particular building to the applicable CX 9200 Network Communication Controller.

h. Owner will supply Infilink communication link

i. All wiring within enclosures shall be run in plastic “panduit” type track wire management system that is securely fastened to the enclosure panel board.

j. Adhesive type mounting clips for wiring is not acceptable.

2. UPS/Power Supply Enclosure to include:

a. NEMA 1 rating enclosure with mechanical key locking hinged cover, back panel and passive ventilation sized appropriately for supplied equipment

b. UPS and batteries sized to provide 6-hour back up for all equipment powered within the particular panel location

c. Duplex outlet inside enclosure on emergency power source for UPS power source
d. External batteries, where required, shall also be located inside UPS enclosure

e. Battery back-up electric lock power supply(s) to accommodate the quantities of electric door locks served from that particular panel location for 6 hours. Power supply shall be Altronix model SMP7 with M0M5 fire alarm disconnect module.

3. Security System Programming to include:

   a. Commissioning of all controllers, points and related devices

   b. Creation and animation of individual graphic for both the UTPD and maintenance workstations

   c. Attach alarms according to normal established practices

   d. Establish appropriate navigational links for each workstation

PART 3: DESIGN/DRAWING REQUIREMENTS

3.01 Submittals and Shop Drawings:

1. Provide three (3) submittals of all devices for approval. Revised and resubmit as required.
2. Provide enclosure fabrication and layout shop drawing for approval.
3. Provide floor plan drawings of panel(s) location(s) for approval
4. Provide riser drawing showing enclosure to enclosure routing of field devices, communications and power wiring.
5. Provide schedule detailing connected devices and controller channel terminations.
6. As-built drawings of all items.

3.02 Operation and Maintenance Manual:

1. Provide 3 copies of the O &M Manual which conform to the following requirements:

   a. Ring binder with project title and contractor’s name on cover and spine.
b. Name, address, phone number of nearest representative of each project contractor and sub-contractor

c. Table of contents

d. Tabbed sections including:

1) Theory of operation, design philosophy, specific functions
2) System block diagram
3) List of system associated mechanical locking keys and tamper resistant hardware types with key codes (rack doors, camera power supply cabinets and camera housings)
4) Equipment list, including a brief description, model, and the total number of each item used in the project
5) A separate list of serial numbers for all items used in the project
6) Camera schedule including: number, location, camera model/manufacturer, view, lens, power source, multiplexer/input
7) Copies of all programming specific to the job, including new code, initial parameters, settings entered on site, etc.
8) Rack elevation layout
9) Manufacturers’ data sheet and O &M manual
10) Maintenance requirements for equipment, inspections and preventative maintenance schedules.
11) Loose leaf pocket containing: as-built drawings for each floor. Each drawing shall show: cable type and identifier, actual cable routing pathway, device number (camera, etc.), and device input/output number.
12) Final test data (measured video levels and other significant operating parameters).

3.03 System Check Out and Verification:

1. Verify continuity of cabling between field devices and controllers
2. Power up and establish communication with existing Andover Infinity Monitoring and Control System.
3. Commission all controlled doors, i.e., card reader, door position switch, request to exit device and electric lock from field to front end.
4. For all inputs, verify monitoring of open, short, alarm and normal point states
5. Contractor supplied "As Built" Drawings shall show security conduit routing and end of line resistor location for each zone.
6. Review all as-built documentation and Operation and Maintenance manuals with owner. Revise and reissue as required.
7. Demonstrate proper sequence of operation for all connected points and access hardware.

3.04 Training:

Provide three (3 ea.) user-training sessions for operators and one (1 ea.) technical operation and maintenance training session for maintenance staff. Deliver operation, maintenance and technical manuals one week prior to training sessions for review.

1. Operator training to include:
   a. Printed reference material which documents and explains in layman’s terms:
      1) System block diagram
      2) Normal day to day operation
      3) Operator selectable features
   b. Provide a hands-on training with Q & A session for operators.

2. Technical Operations and Maintenance training to include:
   a. Technical explanation shall be sufficiently thorough that staff can perform following:
      1) Make any programming changes required
      2) Analyze malfunctions and make equipment substitutions or bypasses necessary to maintain system operation except for the malfunctioning equipment or circuits.
   b. Provide printed reference material that documents and explains in technical terms:
      1) System block diagram with technical features
      2) System equipment technical operation, adjustments and programming
   c. Review of as-built drawings.
   d. Hands-on training with Q & A session for technicians.
1. Andover Infinity monitoring and control panel enclosure (passive vented NEMA type 1 enclosure with key locking hinged cover and panel board) sized to accommodate field monitoring and control panel(s).
2. Wall mounted painted plywood panel for mounting building security enclosure(s).
3. Wiring pathway to telecommunication cable tray for connections to building security monitoring devices.
4. Building fire detection panel.
5. Conduit and wiring from fire detection panel for electrically locked door(s) release signal to the building security primary panel.
6. Duplex power outlet on building emergency power located inside enclosure.
7. Andover Infinity Infilink communication cable and pathway.
8. UPS enclosure (passive vented NEMA type 1 enclosure with key locking hinged cover) sized to accommodate UPS equipment.
9. Service duplex power outlet located inside enclosure.
1. Wiring (22AWG 4 cond. str. CL2P) and pathway to "area collector junction box" via either 3/4" EMT conduit or conduit and telecommunication cable tray (See Security System Riser).

2. Covered junction box, 4" x 4", located near door, above ceiling on the secure side.

3. Concealed door-status electromagnetic switch and 3/4" EMT conduit - Sentrol 1076D switch (1" dia.) with DPDT contacts and Sentrol 1078 (1" dia.) magnet (See "Typical Concealed Magnetic Door Switch Detail" and "Typical Conduit Installation Detail for Concealed Door Monitor Switch"). Extend switch wiring to Keynote 2.

4. Door and hardware per door schedule.

U.T. Austin, Telecommunication Dept., Revised 9/10/99 WGS
1. Wiring (1 ea. 14AWG 2 cond. str. CL2P, 1 ea. 18AWG 2 cond. str. CL2P, 2 ea. 18AWG 6 cond. str. shld. CL2P), 3 ea. 22 AWG 4 cond. str. CL2P and pathway to "security area collector junction box" via either 1" EMT conduit or conduit and telecommunication cable tray.
2. Concealed 6" x 8" x 3" covered junction box located near door.
3. Concealed door-status electromagnetic DPDT switch and 3/4" EMT conduit (See door hardware schedule and Telecommunications security drawing details) with wiring extended to Keynote 2. Connect 1 ea. NC switch section to card access control panel and the other 1 ea. NC switch section to Keynote 8. Wiring to be 2 ea. 22AWG 2 cond. str. CL2P cable.
5. Exit push bar device (see door hardware schedule) with electrical DPDT monitor switch for request to exit signal to access control system and release of electromagnetic lock with wiring connected to Keynote 6. Extend one switch section of exit device NC contacts to card access control panel via 22AWG 2 cond. str. CL2P cable and the other switch section to Keynote 2 via 18AWG 2 cond. str. CL2P cable.
6. Electrical power transfer with J-box and mortar shield (see hardware schedule) with wiring extended to Keynote 2 via 18AWG 4 cond. str. CL2P cable.
7. Double gang deep masonry junction box (Steel City GW-235C or equivalent) and conduit (3/4" EMT) with insert type card access reader head (HID model 312119-0) with brushed stainless steel dual gang mounting plate). Extend wiring to card access control panel via 18AWG 6 cond. str. shld. CL2P cable. Position out of pathway of opening door.
8. Same as Keynote 7 with insert type card access reader head (HID model 312119-0) and brushed stainless steel dual gang mounting plate) for local user control of switching between card access control and free push/pull operation. Extend wiring to card access control panel via 18AWG 6 cond. str. shld. CL2P cable.
9. Standard square deep outlet box (Steel City 52171-3/4 or equivalent) with double gang device ring (Steel City 52C18 or equivalent) and security door management system (DSI Systems Inc. Model ES411) which functions as a local door prop alarm. Extend wiring to Keynote 2 via 1 ea. 18AWG 2 cond. str. CL2P and 1 ea. 22 AWG 4 cond. str. CL2P cable.
10. Standard square deep outlet box (Steel City 52171-3/4 or equivalent) with single gang device ring (Steel City 52C-14 or equivalent) with blank stainless steel cover plate for future owner provided and installed approaching occupant door release sensor.
11. Door closer per door schedule. Coordinate closer position to prevent interference with Keynote 4.
12. Door and hardware per door schedule.
TYPICAL TYPE DOOR B+LX+I SECURITY MONITORING DETAIL

1. Wiring (1 ea. 14AWG 2 cond. str. CL2P, 1 ea. 18AWG 2 cond. str. CL2P and 2 ea. 18AWG 6 cond. str. shld. CL2P), 2 ea. 22 AWG 4 cond. str. CL2P and pathway to "security area collector junction box" via either 1" EMT conduit or conduit and telecommunication cable tray.
2. Concealed 6" x 8" x 3" covered junction box located near door.
3. Concealed door-status electromagnetic switch and 3/4" EMT conduit - Sentrol 1076D switch (1" dia.) with DPDT contacts and Sentrol 1078 (1" dia.) magnet (See "Typical Concealed Magnetic Door Switch Detail" and "Typical Conduit Installation Detail for Concealed Door Monitor Switch") with wiring extended to keynote 2. Connect one NC switch section to card access control panel and connect other NC switch section to keynote 9. Wiring to be 22AWG 4 cond. str. CL2P cable.
5. Exit lever trim per door schedule with electrical sensor switch (DPDT switch) for request to exit signal to access control system and release of electromagnetic lock. Extend switch wiring via 18AWG 4 cond. str. CL2P cable to Keynote 6. Extend one switch section of exit device NC contacts to card access control panel via 22AWG 2 cond. str. CL2P cable and the other switch section to Keynote 2 via 18AWG 2 cond. str. CL2P cable.
6. Electrical power transfer with J-box and mortar shield (Von Duprin EPT1024 or equivalent) with wiring extended to Keynote 2 via 18AWG 6 cond. str. CL2P cable.
7. Double gang deep masonry junction box (Steel City GW-235C or equivalent) and conduit (3/4" EMT) with insert type card access reader head (HID model 312119-0) with brushed stainless steel dual gang mounting plate. Extend wiring to card access control panel via 18AWG 6 cond. str. shld. CL2P cable. Position out of pathway of opening door.
8. Same as Keynote 7 with insert type card access reader head (HID model 312119-0) and brushed stainless steel dual gang mounting plate for local user control of switching between card access control and free push/pull operation.
9. Same as Keynote 7 with insert type card access reader head (HID model 312119-0) and brushed stainless steel dual gang mounting plate for local user control of switching between card access control and free push/pull operation. Extend wiring to card access control panel via 18AWG 6 cond. str. shld. CL2P cable.
10. Standard square deep outlet box (Steel City 52171-3/4 or equivalent) with single gang device ring (Steel City 52C-14 or equivalent) with blank stainless steel cover plate for future owner provided and installed approaching occupant door release sensor.
11. Door closer per door schedule. Coordinate closer position to prevent interference with Keynote 4.
12. Door and hardware per door schedule.

U.T. Austin, Telecommunications, Revised 11/10/99 WGS
1. Wiring (1 ea. 14AWG 2 cond. str. CL2P, 1 ea. 18AWG 2 cond. str. CL2P, 2 ea. 18AWG 6 cond. str. shld. CL2P), 3 ea. 22 AWG 4 cond. str. CL2P and pathway to "security area collector junction box" via either 1" EMT conduit or conduit and telecommunication cable tray.
2. Concealed 6" x 8" x 3" covered junction box located near door.
3. Concealed door-status electromagnetic DPDT switch and 3/4" EMT conduit (See door hardware schedule and Telecommunications security drawing details) with wiring extended to Keynote 2. Connect 1 ea. NC switch section to card access control panel and the other 1 ea. NC switch section to keynote 8. Wiring to be 2 ea. 22AWG 2 cond. str. CL2P cable.
5. Exit push bar device (see door hardware schedule) with electrical DPDT monitor switch for request to exit signal to access control system and release of electromagnetic lock with wiring connected to Keynote 6. Extend one switch section of exit device NC contacts to card access control panel via 22AWG 2 cond. str. CL2P cable and the other switch section to Keynote 2 via 18AWG 2 cond. str. CL2P cable.
6. Electrical power transfer with J-box and mortar shield (see hardware schedule) with wiring extended to Keynote 2 via 18AWG 4 cond. str. CL2P cable.
7. Double gang deep masonry junction box (Steel City GW-235C or equivalent) and conduit (3/4" EMT) with insert type card access reader head (HID model 312119-0) with brushed stainless steel dual gang mounting plate). Extend wiring to card access control panel via 18AWG 6 cond. str. shld. CL2P cable. Position out of pathway of opening door.
8. Same as Keynote 7 with insert type card access reader head (HID model 312119-0) and brushed stainless steel dual gang mounting plate) for local user control of switching between card access control and free push/pull operation. Extend wiring to card access control panel via 18AWG 6 cond. str. shld. CL2P cable.
9. Same as Keynote 7 with security door management system (DSI Systems Inc. Model ES411) which functions as a local door prop alarm. Extend wiring to Keynote 2 via 1 ea. 18AWG 2 cond. str. CL2P and 1 ea. 22 AWG 4 cond. str. CL2P cable.
10. Standard square deep outlet box (Steel City 52171-3/4 or equivalent) with single gang device ring (Steel City 52C-14 or equivalent) with blank stainless steel cover plate for future owner provided and installed approaching occupant door release sensor.
11. Door closer per door schedule. Coordinate closer position to prevent interference with Keynote 4.
12. Door and hardware per door schedule.

U.T. Austin, Telecommunications Dept., Revised 11/10/99 WGS
1. Wiring (1 ea. 14AWG 2 cond. str. CL2P, 1 ea. 18AWG 2 cond. str. CL2P and 2 ea. 18AWG 6 cond. str. shld. CL2P), 2 ea. 22 AWG 4 cond. str. CL2P and pathway to "security area collector junction box" via either 1" EMT conduit or conduit and telecommunication cable tray.
2. Electrical power from building emergency power circuit via 3/4" EMT for door operator.
3. Concealed 6" x 8" x 3" covered junction box located near door for auto equalizer equipment wiring.
4. Concealed 6" x 8" x 3" covered junction box located near door for door security system wiring.
5. Concealed door-status electromagnetic DPDT switch and 3/4" EMT conduit (See door hardware schedule and Telecommunications security drawing details) with wiring extended to Keynote 4. Connect one NC switch section to card access control panel and connect other NC switch section to keynote 11. Wiring to be 2 ea. 22AWG 2 cond. str. CL2P cable.
7. Exit push bar device (see door hardware schedule) with electrical DPDT monitor switch for request to exit signal to access control system and release of electromagnetic lock with wiring connected to Keynote 6. Extend one switch section of exit device NC contacts to card access control panel via 22AWG 2 cond. str. CL2P cable and the other switch section to Keynote 2 via 18AWG 2 cond. str. CL2P cable.
8. Electrical power transfer with J-box and mortar shield (see hardware schedule) with wiring extended to Keynote 2 via 18AWG 4 cond. str. CL2P cable.
9. Single gang deep masonry junction box (Steel City GW-235C or equivalent), conduit (3/4" EMT) and 1 ea. 18AWG 2 cond. str. CL2P with handicap push plate for operating auto equalizer. Position out of pathway of opening door.
10. Double gang deep masonry junction box (Steel City GW-235C or equivalent) and conduit (3/4" EMT) with insert type card access reader head (HID model 312119-0) with brushed stainless steel dual gang mounting plate). Extend wiring to card access control panel via 18AWG 6 cond. str. shld. CL2P cable. Position out of pathway of opening door.
11. Same as Keynote 7 with insert type card access reader head (HID model 312119-0) and brushed stainless steel dual gang mounting plate for local user control of switching between card access control and free push/pull operation. Extend wiring to card access control panel via 18AWG 6 cond. str. shld. CL2P cable.
12. Standard square deep outlet box (Steel City S2171-3/4 or equivalent) located on the secure side with double gang device ring (Steel City S2C13 or equivalent) and security door management system (DSI Systems Inc. Model E5411) which functions as a local door prop alarm. Extend wiring to Keynote 4 via 1 ea. 18AWG 2 cond. str. CL2P and 1 ea. 22 AWG 4 cond. str. CL2P cable.
13. Standard square deep outlet box (Steel City S2171-3/4 or equivalent) with single gang device ring (Steel City S2C14 or equivalent) and approaching occupant sensor (Optex OA-30 series or equivalent) for request to exit signal to access control system. Extend wiring to Keynote 4 via 22AWG 4 cond. str. CL2P cable.
14. Door operator (LCN electronic auto equalizer model 2600/4600 or equivalent) per door schedule.
15. Door and hardware per door schedule.

U.T. Austin, Telecommunication Dept., Revised 11/10/99 WGS
1. Wiring (1 ea. 14AWG 2 cond. str. CL2P, 1 ea. 18AWG 2 cond. str. CL2P and 2 ea. 18AWG 6 cond. str. shld. CL2P), 2 ea. 22 AWG 4 cond. str. CL2P and pathway to "security area collector junction box" via either 1" EMT conduit or conduit and telecommunication cable tray.

2. Electrical power from building emergency power circuit via 3/4" EMT for door operator.

3. Concealed 6" x 8" x 3" covered junction box located near door for auto equalizer equipment wiring.

4. Concealed 6" x 8" x 3" covered junction box located near door for door security system wiring.

5. Concealed door-status electromagnetic DPDT switch and 3/4" EMT conduit (See door hardware schedule and Telecommunications security system drawing details) with wiring extended to Keynote 4. Connect one NC switch section to card access control panel and connect other NC switch section to keynote 11. Wiring to be 2 ea. 22AWG 2 cond. str. CL2P cable.


7. Exit push bar device (see door hardware schedule) with electrical DPDT monitor switch for request to exit signal to access control system and release of electromagnetic lock with wiring connected to Keynote 6. Extend one switch section of exit device NC contacts to card access control panel via 22AWG 2 cond. str. CL2P cable and the other switch section to Keynote 2 via 18AWG 2 cond. str. CL2P cable.

8. Electrical power transfer with J-box and mortar shield (see hardware schedule) with wiring extended to Keynote 2 via 18AWG 4 cond. str. CL2P cable.

9. Single gang deep masonry junction box (Steel City GW-235C or equivalent), conduit (3/4" EMT) and 1 ea. 18AWG 2 cond. str. CL2P with handicap push plate for operating auto equalizer. Position out of pathway of opening door.

10. Double gang deep masonry junction box (Steel City GW-235C or equivalent) and conduit (3/4" EMT) with insert type card access reader head (HID model 312119-0) with brushed stainless steel dual gang mounting plate). Extend wiring to card access control panel via 18AWG 6 cond. str. shld. CL2P cable. Position out of pathway of opening door.

11. Same as Keynote 7 with insert type card access reader head (HID model 312119-0) and brushed stainless steel dual gang mounting plate) for local user control of switching between card access control and free push/pull operation. Extend wiring to card access control panel via 18AWG 6 cond. str. shld. CL2P cable.

12. Standard square deep outlet box (Steel City 52171-3/4 or equivalent) located on the secure side with double gang device ring (Steel City S2C18 or equivalent) and security door management system (DSI Systems Inc. Model ES411) which functions as a local door prop alarm. Extend wiring to Keynote 4 via 1 ea. 18AWG 2 cond. str. CL2P and 1 ea. 22 AWG 4 cond. str. CL2P cable.

13. Standard square deep outlet box (Steel City S2171-3/4 or equivalent) with single gang device ring (Steel City S2C-14 or equivalent) and approaching occupant sensor (Optex OA-30 series or equivalent) for request to exit signal to access control system. Extend wiring to Keynote 4 via 22AWG 4 cond. str. CL2P cable.

14. Door operator (LCN electronic auto equalizer model 2600/4600 or equivalent) per door schedule.

15. Door and hardware per door schedule.

U.T. Austin, Telecommunication Dept. Revised 11/10/99 WGS
TYPICAL TYPE "D+I" DOOR SECURITY MONITORING DETAIL

1. Wiring (22AWG 4 cond. str. CL2P) and pathway to "area collector junction box" via either 3/4" EMT conduit or conduit and telecommunication cable tray (See Security System Riser).
2. Covered junction box, 4" x 4", located near door, above ceiling on the secure side.
3. Concealed door-status electromagnetic switch and 3/4" EMT conduit - Sentrol 1076D switch (1" dia.) with DPDT contacts and Sentrol 1078 (1" dia.) magnet (See "Typical Concealed Magnetic Door Switch Detail" and "Typical Conduit Installation Detail for Concealed Door Monitor Switch"). Extend switch wiring to Keynote 2.
4. Door and hardware per door schedule.

U.T. Austin, Telecommunication Dept., Revised 11/10/99 WGS
1. Duress button, USP model HUB-2B with EOL (end of line supervision resistor) typically mounted under service counter or in the knee space of desk furniture. Position where concealed but accessible to staff.
2. Telephone patch cord with 8 pin modular connector on one end and connected to keynote 1 on the other end.
3. Telecommunications outlet/connector, Ortronics Series 2 shared with other communication facilities and dedicated single RJ45 module (OR-60950008) for duress system use supplied by telecommunications contractor.
4. Dedicated Category 5 - 4 pair UTP cable for duress system use by telecommunications contractor.
5. Lucent Technologies 110 cross connect system by telecommunications contractor. One or more duress buttons maybe zoned together and report as the same alarm by connecting the reporting cable pair in series and forming a closed loop monitoring circuit.
6. Jumper wire between 110 termination (keynotes 5) and keynote 7.
7. Andover Infinity Campus Monitoring and Control System's security field monitoring and control panel(s).

U.T. Austin, Telecommunications Dept., Revised 8/20/99  WGS
1. Wiring (1 ea. 14AWG 2 cond. str. CL2P, 1 ea. 18AWG 2 cond. str. CL2P and 2 ea. 22AWG 4 cond. str. CL2P) and pathway to "security area collector junction box" via either 1" EMT conduit or conduit and telecommunication cable tray.

2. Concealed 12" x 12" x 4" covered junction box located near door on secure side with Securitron model XD-12 emergency delay exit controller and wire termination strips.

3. Concealed door-status electromagnetic switch and 3/4" EMT conduit (See door hardware schedule and Telecommunications security drawing details) with wiring extended to Keynote 2.


5. Exit push bar device (see door hardware schedule) with electrical DPDT monitor switch for activation of emergency delay exit control equipment and signaling campus security monitoring system with wiring connected to Keynote 9. Extend exit device NC contacts to emergency delay exit controller inside Keynote 2 via 22AWG 4 cond. str. CL2P cable.

6. Double gang deep masonry junction box (Steel City GW-235C, Raco 680 or equivalent) with emergency delay exit system status indicators and programmable digital key pad (Corby series 6000) for system reset. Extend wiring, 20AWG 8 cond. str. CL2P cable to Keynote 2.

7. Standard 4" square outlet box (Steel City 52171-3/4) with single gang device ring (Steel City 52C-14) and blank stainless steel cover plate for future owner use.

8. Standard 4" square outlet box (Steel City 52171-3/4) with double gang device ring (Steel City 52C-17) for delay exit system siren (New Line model SIR-15) and 18AWG 4 cond. str. CL2P cable to emergency delay exit controller in Keynote 6.

9. Electrical power transfer with J-box and mortar shield (see door hardware schedule) with 22AWG 4 cond. str. CL2P wiring extended to Keynote 2.

10. Door closer per door schedule. Coordinate closer position to prevent interference with Keynote 4.

11. Door and hardware per door schedule.

U.T. Austin, Communications Dept., Revised 11/10/99 WGS
1. Wiring (1 ea. 14AWG 2 cond. str. CL2P, 1 ea. 18AWG 2 cond. str. CL2P, 1 ea. 18AWG 6 cond. str. shld CL2P and 2 ea. 22AWG 4 cond. str. CL2P) and pathway to "security area collector junction box" via either 1" EMT conduit or conduit and telecommunication cable tray.
2. Concealed 12" x 12" x 4" covered junction box located near door on secure side with Securitron model XD-12 emergency delay exit controller and wire termination strips.
3. Concealed door-status electromagnetic switch and 3/4" EMT conduit (See door hardware schedule and Telecommunications security drawing details) with wiring extended to Keynote 2.
5. Exit push bar device (see door hardware schedule) with electrical DPDT monitor switch for activation of emergency delay exit control equipment and signaling campus security monitoring system with wiring connected to Keynote 9. Extend exit device NC contacts to emergency delay exit controller inside Keynote 2 via 22AWG 4 cond. str. CL2P cable.
6. Double gang deep masonry junction box (Steel City GW-235C, Raco 680 or equivalent) with emergency delay exit system status indicators and programmable digital key pad (Corby series 6000) for system reset. Extend wiring, 20AWG 8 cond. str. CL2P cable to Keynote 2.
7. Standard 4" square outlet box (Steel City 52171-3/4) with single gang device ring (Steel City 52C-14) and blank stainless steel cover plate for future owner use.
8. Standard 4" square outlet box (Steel City 52171-3/4) with double gang device ring (Steel City 52C-17) for delay exit system siren (New Line model SIR-15) and 18AWG 4 cond. str. CL2P cable to emergency delay exit controller in Keynote 6.
9. Electrical power transfer with J-box and mortar shield (see door hardware schedule) with 22AWG 4 cond. str. CL2P wiring extended to Keynote 2.
10. Door closer per door schedule. Coordinate closer position to prevent interference with Keynote 4.
11. Doors and hardware per door schedule.
TYPICAL TYPE "K+I" DOOR SECURITY MONITORING DETAIL

EXIT VIEW (SECURE SIDE)

1. Cables (1 ea. 22AWG 4 cond. str. CL2P and 1 ea. 18AWG 6 cond. str. shld. CL2P) and pathway to "security area collector junction box" via either 3/4" EMT conduit or conduit and telecommunication cable tray.
2. Standard 4" square outlet box (Steel City 52171-3/4 or equivalent) with cover plate located near door, above the ceiling on the secure side.
3. Concealed door-status electromagnetic switch and 3/4" EMT conduit (See door hardware schedule and Telecommunications security drawing details) with wiring extended to Keynote 2.
4. Standard 4" square deep outlet box (Steel City 52171-3/4 or equivalent) located on the secure side with: double gang device ring (Steel City 52C18 or equivalent) and Caddx model NX148 LCD keypad with wiring extended to Keynote 2.
5. Door and hardware per door schedule.

U.T. Austin, Utilities Division, Revised 11/10/99 WGS
1. Cables (1 ea. 22AWG 4 cond. str. CL2P and 1 ea. 18AWG 6 cond. str. shld. CL2P) and pathway to "security area collector junction box" via either 3/4" EMT conduit or conduit and telecommunication cable tray.

2. Standard 4" square outlet box (Steel City 52171-3/4 or equivalent) with cover plate located near door, above the ceiling on the secure side.

3. Concealed door-status electromagnetic switch and 3/4" EMT conduit (See door hardware schedule and Telecommunications security drawing details) with wiring extended to Keynote 2.

4. Standard 4" square deep outlet box (Steel City 52171-3/4 or equivalent) located on the secure side with: double gang device ring (Steel City 52C18 or equivalent) and Caddx model NX148 LCD keypad with wiring extended to Keynote 2.

5. Door and hardware per door schedule.

U.T. Austin, Utilities Division, Revised 11/10/99  WGS
1. Wiring (1 ea. 22AWG 4 cond. str. CL2P) to "area collector junction box" via either 3/4" EMT conduit or conduit and telecommunication cable tray.
2. Covered junction box, 2" x 4", located near door.
3. Door-status electromagnetic switch - Sentrol 2507AD with DPDT contacts and stainless steel armored cable. Secure any loose armored cable.
4. Door-status switch activating magnet - Sentrol 2500 series.
5. Door-status electromagnetic switch mounting brackets (Sentrol 1912/1940 or equivalent) or custom fabricate brackets from minimum 3/16" steel.

U.T. Austin, Telecommunications Dept., Revised 10/15/98
1. Wiring (1 ea. 22AWG 4 cond. str. CL2P) to "security area collector junction box" via 3/4" EMT conduit or conduit and telecommunications cable tray.
2. Covered 2" x 4" junction box located near hatch door.
4. Secure any loose armored cable with clamps.
5. Switch activating magnet, Sentrol 1920, with spacer(s), Sentrol 1968, as required for positioning.

U.T. Austin, Telecommunications Dept., Revised 8/20/99  WGS
General: The article protection system shall be design to detect unauthorized removal or tampering of items (computers, laboratory, etc.) connected to the system. Local arming/disarming of system shall be controlled by a local telephone style keypad via user cryptic numeric code(s). Alarms shall produce changes of state on input(s) of the Andover Infinity field monitoring panel(s) and report specific zone alarm information to the University of Texas Andover Infinity Campus Monitoring and Control System.

1. Fiber optic protective loop interface(s) furnished and installed by owner. Contractor to install fiber optic protective loop interface power, alarm signaling wiring (22AWG 4 cond. str. CL2P) and EOL (end of line supervision resistor) at protected article(s) location(s). The fiber optic protective loop interface has a dry NC contact alarm output and requires 12 VDC at 100ma power. Exact number and location of interface(s) to be coordinated with owner.

2. Security panel LCD remote control keypad(s), Caddx model9060E and wiring (18 AWG 4 cond. str. shld CL2P) connected to keynote 3.


4. Security control system relay output expander, Caddx model 9008. Require if security control panel is partition into more than 2 alarm zone.

5. Alarm output(s) of the security control panel connected to supervisory input(s) of the Andover Infinity Campus Monitoring and Control System's field security monitoring panel.

6. Power to keynote 3 from building emergency power circuit.

7. Auxiliary power supply in NEMA 1 enclosure with hinged key locking cover (Altronix AL400UL or equivalent), powered from building emergency circuit and mounted adjacent to keynote 3. Size power supply to support fiber optic protective loop interface(s) with power requirements beyond capacity of keynote 3. Provision for 6 hours of battery back-up.

8. Use plenum cable where required.

U.T. Austin, Telecommunication Dept., Revised 7/14/99 WGS
General: The intrusion detection system shall be designed to detect unauthorized entry into a specific area or volumetric space within a building. Local arming/disarming of system shall be controlled by a local telephone style keypad with user cryptic numeric code(s). Intrusion alarms shall produce changes of state on input(s) of the Andover Infinity field monitoring panel(s) and report specific zone alarm information to the University of Texas Andover Infinity Campus Monitoring and Control System.

1. Magnetic door monitor switch(s) per “Typical Concealed Door Monitor Switch Detail”, EOL (end of line supervision resistor) and cable (22AWG 4 cond. str. CL2P) as required and connected to zone(s) input(s) of keynote 7.
2. Combination infrared and ultrasonic motion detector(s) Visonic model Duet, and EOL (end of line supervision resistor) and cable (22AWG 4 cond. str. CL2P) connected to a zone input of keynote 7.
5. Security panel LCD remote control keypad(s), Caddx model 9060E and cable (18AWG 4 cond. str. shld. CL2P) connected to keynote 7.
7. Security control panel/communicator operable by a remote digital keypad, Caddx model 9000E. Mount in communication terminal room.
8. Intrusion system relay output expander, Caddx model 9008. Require if security control panel is partition into more than 2 alarm zone.
9. Alarm output(s) of the security control panel connected to supervisory input(s) of the Andover Infinity Campus Monitoring and Control System’s field security monitoring panel.
10. Power to keynote 7 from building emergency power circuit.
11. Auxiliary power supply in NEMA 1 enclosure with hinged key locking cover, powered from building emergency circuit and mounted adjacent to keynote 7. Size power supply to support security system device(s) with power requirements beyond capacity of keynote 7. Provision for 6 hours of battery back-up.
12. Use plenum cable where required.