SECTION 08 74 00 – ACCESS CONTROL HARDWARE

PART 1 – GENERAL

PASS Systems is the primary vendor for all security related systems at the Medical Campus. The Director of Protective Services in conjunction with PASS Systems is responsible for design review of all security related systems. The WUSM project manager will coordinate review of security access issues with the architect, engineers, Protective Services and PASS.

WUSM Protective Services requires all perimeter doors be wired to the central system.

WUSM Protective Services has the following levels of control/security for exterior doors:

1) Full access
2) Card reader access only
3) Door monitoring plus camera
4) Electronic locking only
5) Door monitoring only

At interior of building, WUSM Protective Services provides the following security:

Card reader in all elevator cabs to control individual floor access
Card reader to each floor from inside stairs
Card reader to move from lobby areas to office lab area per floor
Department of Comparative Medicine to define/request areas of CCTV
Protective Services to define areas of CCTV and end user may request areas of CCTV. Locks for individual doors are end user defined as:

1) with mechanical lock and key
2) Omni mechanical lock
3) Schlage electro mechanical lock for internal doors in specialized research areas only
4) All electro mechanical locks will be keyed to Best and through Facilities Engineering for coring

Code blue – all intercoms should be stentophone (this includes code blue, door intercom and emergency phones). Code Blue phones are digital (similar to digital camera system).

WUSM Protective Services prefers touch sensor bars over motion sensors for door release. Protective Services or designee to provide requirements for security systems within communications closets, specification requirements, size of area required, power requirements, etc.

Each intercom location needs one fiber of cable. This system transfers to the central station via the backbone system rather than via internet.

Protective Services defines exterior Pan/Tilt/Zoom locations and exterior monitoring. End users can request CCTV.

Protective Services to provide information on preferred lighting of exteriors.

Intrusion/Panic alarms may be called for by Protective Services or required by the user. Preferred configuration is connection to access control system and voice dialer both monitored by Protective Services Communications Center. Where connection to access control is not feasible, dual voice dialers are preferred; one to Washington University Protective Services Communications Center and one to PASS central station monitoring facility.

PART 2 - PRODUCTS

Access Control
Reasons for Sole Source: Existing system consists of over 60 door control panels located throughout the campus. Currently only the manufacture of the door control panels offer the software required to run the system. It is cost prohibitive to replace the existing system, which would include replacing all door control panels, access control server software and all workstation software.
Access Control Panel: Continental Instruments SuperTerm
Communications Adapter: Preferred method using Lantronix UDS-10. If network connections are not feasible or practical, Fiber Options 220D-1 fiber converters may be used.
Card Reader: Magnetic Stripe American Magnetics 30TD.
Door Lock Power Supply: Securitron BPS-24 Series.
Request to Exit Device: Detection Systems DS-150I request to exit motion detector. Where magnetic locks are used, Securitron TSB-3 or TSH touch sense bar/handles shall be used.
Door Position Switches: Preferred method using Sentrol 1078-CW flush mounted magnetic contacts. Other methods acceptable depending on application.
Door Locks: Preferred method using electric doors strikes, 24 VDC fail secure, from manufactures such as HES, Von-Duprin. Where door strikes are not possible or practical, Securitron M32/M62 maglocks shall be used.
Electrified Locking Hardware
Protective Service's preferences for electronic locking hardware; from best solution to least favorite:

1. Von Duprin Electrified Panic (Rim, or vertical rod – top rod only where applicable). Please note, hardware vendor to supply backup battery accessory (873-BB) with power supply. Von Duprin Electrified trim also acceptable on non-ADA doors.
2. Electrified Locksets.
3. Electric Strikes.
4. Wireless integrated reader/locks where cylindrical or mortise hardware can be used.
5. Maglock with Touch Sense Bar and Emergency Request to Exit Pushbutton. Securitron M32 Maglock only.
6. Maglock with REX Motion and Emergency Request to Exit Pushbutton. Securitron M32 Maglock only.

Notes for all locking hardware:

1. Fail secure operation always preferred where allowed by code.
2. 24VDC continuous duty ratings on locking hardware.
3. TCM (Temperature Control Module) modules to be supplied whenever Best Electrified Locksets are used.
4. Door closers required on access controlled doors.
5. Latchguards required on all exterior doors with electric strikes; may be required on some interior doors.
6. Maglock doors must be interfaced with the building's Fire Alarm System. Typically only one connection is required at the Main Access Control Panel location.

CCTV System

Reason for Sole Source: The campus has standardized on all new installations to be digitally recorded. This eliminates the use of videotape, enhances reliability, increases the amount of video "history" and eliminates the need for fiber between remote buildings and FMC. Existing head-end monitoring software accepts integral Technologies product only.

Digital Video Recorder (DVR): March 4316C Model number. Quantity and accessories to match the number of cameras, desired expansion capabilities and expected activity. DVR shall be a rack-mounted version.

Fixed Cameras, Indoor, not exposed to outside light: Cameras must be color high-resolution models. Electronic iris is acceptable. Lenses sized for the required field of view.

Fixed Cameras, Indoor or Outdoor, exposed to outside light: Cameras must be color high-resolution models, and shall be equipped with Varifocal, Auto-iris lenses. Lenses sized for the required field of view.

Pan/Tilt/Zoom Cameras: Shall be color Pelco Spectra IV models to match existing.

Intercom/Emergency Phones

Reason for Sole Source: The campus has standardized on one common platform for all intercom and emergency phone communications. The current systems serves all emergency phones and all new intercom stations throughout the campus and reports back to a single console located in FMC. The system will only accept stations made by the manufacture.

Headend Equipment: Stento Alpha-Com.

Interior Intercom Station: Stento 6291.

Exterior Intercom Station: Stento 62917 with appropriate backbox (62991 backbox for surface applications).

Emergency Phone, Freestanding: Code Blue Model 2-E equipped with a Stento 6292 with 96890 Strobe Interface.

Emergency Phone, Wall or Pedestal Mounted: Code Blue Model 5 with Safety Blue finish and equipped with a Stento 6292 with 96890 Strobe Interface.

Communication Interface: Provide American Fibertek interface as required for designated intercom station. Where the number of stations exceed four in any one building, add a stand-alone Alpha-Com Intercom Exchange for the building. Equip the Exchange to handle the number of stations plus designated spares.

Intrusion and Panic Alarms

PART 3 – EXECUTION

Installation Notes – All Security Systems

1. Typically a minimum of 48" of horizontal wall space is required for the installation of the headend equipment. Typically found in one of the following (in order of preference – Communications Room, Electric Room of Mechanical Room).
2. Typically one dedicated 20A, 120VAC circuit is required for the headend equipment. EMERGENCY Circuit strongly recommended. Typically no 120VAC power is required in field. Exceptions include ADA doors (120VAC required for the operator) and doors with Electrified Panics, as a special power supply must be located by the door.
3. Complete conduit systems not required. Rough-in boxes and device stubs for new construction/remodel projects preferred.

4. One campus network connection required for each of the following: for every five Access Control Panels, for each NVR, for each Intercom Cabinet; for each stand alone Intercom not wired to a cabinet; for each PTZ.
5. One analog phone line required for each Intrusion Detection system. Analog line must be capable of being dialed from off campus.

Intercom System

Interfaces to other Systems:

Communications: Provide one network connection (and IP address) where the Lantronix UDS-10 is used. Network communication must be possible with the server at 128.252.223.161. Where a fiber connection must be used, provide one multimode fiber between the new panel location and the Becker Library basement security room. The fiber shall be multimode 62.5 micron and shall be terminated with ST connectors.

Fire Alarm Interface: Provide one set of normally closed Fire Alarm General Alarm contacts from the buildings Fire Alarm Control Panel.

Power: Provide one 120 VAC, 20 Amp Emergency circuit to the control panel location. Where emergency power is not available, standard power is acceptable.

Electrical Closet or Voice/Data Closet Space: Provide at least 3' of horizontal space for mounting **all** Security equipment. Where multiple floor buildings are involved, provide space on each floor in each stacked electrical closet or voice/data closet. Provided horizontal space directly above and below to facilitate wiring where possible.

Interfaces to other Systems:

Communications: Provide one network connection (and IP address) for the Digital Video Recorder (DVR). Network communication must be possible with the server at 128.252.223.161.

Power: Provide one 120 VAC, 20 Amp Emergency circuit to the control panel location. May be shared with the Access Control System. Where emergency power is not available, standard power is acceptable.

Electrical Closet or Voice/Data Closet Space: Provide at least 6 RU in the 19" Telco/Data rack for mounting the DVR. Provide at least 3' of horizontal space for mounting **all** Security equipment. Where multiple floor buildings are involved, provide space on each floor in each stacked electrical closet or voice/data closet. Provided horizontal space directly above and below to facilitate wiring where possible.

END OF SECTION