# **DOOR ACCESS CONTROL SYSTEM SPECIFICATIONS**

#### 1, Door Access Controller

The preference for the door access controller will be an IP-based platform that operates on power provided by Power over Ethernet capable data ports. The door access controller units may either operate in a centralized architecture (multiple doors per controller), or a decentralized architecture (1-2 doors per controller).

The door access controller will require only one CAT6 cable connected to the Library provided network PoE+ switch port to function and will provide power for both the card reader and the door strike. The network switch port will provide up to 30 watts of power. The CAT6 cable that is provided will be Green in color. If more power is required for the door access solution to work, it will be the responsibility of the Vendor to provide additional power injector(s) as necessary. Any such additional equipment must be housed in the technology closet. Additional wiring components that are installed must be of the proper rating.

The controller must fit in an enclosure no larger than a standard two-gang electrical box. A controller will be installed at each door location. All doors and frame materials consist of metal and glass construction.

#### 2. Door Controller Enclosure Cover

The door controller enclosure cover will house the controller, and the card reader will mount on the enclosure cover. The enclosure will be a standard two-gang electrical box provided by others. The enclosure cover will be metal, tamper-resistant, and secured to structure with tamper-proof fasteners.

Exterior enclosures will meet IP66 standards.

#### 3, <u>Exterior Intercom</u>

All building main entrances will require am Aiphone (or equivalent) device for providing intercom to identify individuals requesting entry into the building. The exterior system must tie into the door access control system to allow building administrators to "buzz" individuals into the facility's main entrance when locked.

#### 4. Door Strike

The door strike will be of commercial quality and designed to function with the power provided by the controller. The strike will be designed to hold an unlock state for up to five (5) minutes. The actual unlock time required at each door will be determined by LAPL. The Vendor is responsible for selecting the correct type of door strike for each door shown on the drawings. The Vendor is responsible for installing the required wiring from the controller to the door strike.

#### 5. IP Multi-Reader

The multi-reader will be designed for both indoor and outdoor use. The reader will support HID proximity cards and iCLASS cards. The reader will provide visual indication through a change from Red to Green when a card is successfully scanned. The reader will be powered by the door controller and will be attached to the controller enclosure. All fasteners will be tamper.

#### 6. Accessible Door Access Control

The order of operations for unlocking and opening a door when the ADA button is depressed will be reviewed with the District and validated during the walkthrough with the awarded vendor. LAPL must sign-off on the agreed-upon method of access into the building with a DAC unit and ADA functionality.

#### 7. Access Control Management Software

The management software must support a minimum of six hundred (600) active card users. The software must have a GUI user interface and be remotely accessed via a web-based interface.

The software must be capable of assigning users to zones and allow each user to have access to specific doors.

The access control management system must allow remote triggers to unlock doors, programs for holidays, weekends, and special one-time occasions.

The access control management system must be able to perform an emergency lockdown from any authorized computer. The Vendor must identify the virtual server system resource (memory, CPU, storage, and network) requirements for the management system.

A standalone server-based management system will also be accepted. However, if a standalone management system or appliance is required, the vendor must include all the necessary hardware to operate the management system.

The access control management system must be licensed to allow a minimum of five (5) system administrators to manage the system simultaneously.

#### 8. Proximity Card Printer

The Vendor will provide and install a color proximity card printer designed to print up to five hundred (500) cards per year.

### 9. Proximity Cards (optional)

As an option, the Vendor will provide an HID proximity card for a quantity of 500 with additional pricing for increments of 100 cards.

### 10. Specification Sheets

The Vendor must provide specification sheets for all products proposed (e.g., door strikes, proximity cards, proximity readers, controller, and access control management software. All specification sheets must be submitted in an electronic form (PDF, XPS, or DOCX).

# **ENTERPRISE SECURITY CAMERA/VIDEO**

# 1. <u>Interior Cameras</u>

The standard video camera will be an HD IP interior camera and must meet or exceed the following specifications:

Feature	Min. Requirement
Megapixel	3 MP / 2048 (H) x 1536 (V)
Image sensor	WDR 1/3" progressive scan CMOS
Lens	4.5 mm (H) x 3.4 mm (V) (0.177" (H) x 0.133" (V))
Minimum illumination color	35° - 105° 0.2 lux (F1.2) in color mode; 0.02 lux (F1.2) in monochrome mode 26° - 35° 0.4 lux (F1.6) in color mode; 0.04 lux (F1.6) in monochrome mode
Viewing angle	35° - 105° 3-9 mm, F1.2, P-Iris, remote focus and zoom 26° - 35° 9-22 mm, F1.6, P-iris, remote focus and zoom
Video compression	H.264 (MPEG-4 Part 10/AVC), Motion JPEG
Video streaming	Multi-stream H.264 and Motion JPEG
Frame Rate (H.264, Motion JPEG)	20 (at full resolution), 30 (at 1920 x 1080 or smaller)
Image settings	Wide dynamic range (WDR), manual shutter time, compression, color, brightness, sharpness, white balance, exposure control, exposure zones, backlight compensation, fine tuning of behavior at low light, rotation, text and image overlay, privacy mask to hide sensitive areas, image freeze on PTZ
Network interface	Min. of 1 100/1000Tx with RJ45 connector
External interfaces	External input / output interface for connecting external alarms and relays
Supported protocols	IPv4/v6, HTTP, HTTPS, TCP, ICMP, SNMP v1 / v2 /v3 (MIB-II), RTSP, RTP, UDP, IGMP, RTCP, SMTP, ARP, DNS, and NTP
Security	Password protection, IP address filtering, HTTPS encryption, IEEE 802.1X network access control
Application Programming Interface	Open API for software integration
Event triggers	Video motion detection, preset, temperature, memory card full
Camera Housing	IP66- and NEMA 4X-rated metal casing (aluminum), acrylic (PMMA) clear dome, sunshield (PC/ASA) Impact resistant plastic or metal

Input power	Power over Ethernet (PoE) IEEE 802.3af, max. 15 W (owner will provide PoE power)
Operating conditions	Temperature: 0 °C to 50 °C (32 °F to 122 °F) Humidity: 15 - 85% RH (non-condensing)

# 2. <u>Interior 180-degree Camera</u>

The standard interior 180-degree camera will be a HD IP interior camera and will meet or exceed the following specifications:

Feature	Min. Requirement
Megapixel	8.0-megapixel progressive scan
Image sensor	4 x 1/4" progressive scan CMOS
Lens	F2.0 / 4.4 mm
Minimum illumination color	0.6 lux (F2.0)
Viewing angle / Pan / Tilt /	Digital PTZ, presets, multipoint guard tour
Zoom	
Video compression	Multi-stream H.264 and Motion JPEG
Video streaming	Multiple, individually configurable streams in H.264 and Motion JPEG
Frame Rate (H.264, Motion JPEG)	Up to 30 fps
Image settings	Wide dynamic range (WDR), manual shutter time, compression, color, brightness, sharpness, white balance, exposure control, exposure zones, backlight compensation, fine tuning of behavior at low light, rotation, text and image overlay, privacy mask to hide sensitive areas, image freeze on PTZ
Network interface	Min. of 1 100/1000Tx with RJ45 connector
External interfaces	External input / output interface for connecting external alarms and relays
Supported protocols	IPv4/v6, HTTP, HTTPS, TCP, ICMP, SNMP v1 / v2 /v3 (MIB-II), RTSP, RTP, UDP, IGMP, RTCP, SMTP, ARP, DNS, and NTP
Security	Password protection, IP address filtering, HTTPS encryption, IEEE 802.1X network access control
Application Programming Interface	Open API for software integration
Event triggers	Video motion detection, preset, temperature, memory card full

Camera Housing	IP66- and NEMA 4X-rated metal casing (aluminum), acrylic (PMMA) clear dome, sunshield (PC/ASA) Impact resistant plastic or metal
Camera Mount	Tilt mount for low hanging ceiling environments
Input power	Power over Ethernet Plus (PoE+) IEEE 802.3at, max. 30 W (owner will provide PoE/PoE+ power)
Operating conditions	0 °C to 50 °C (32 °F to 122 °F) Humidity: 20 - 80% Relative humidity (non-condensing)

# 3. <u>Exterior Cameras</u>

The standard exterior camera for outdoor area such as sidewalks will be a HD IP exterior camera (non-PTZ) and will meet or exceed the following specifications:

Feature	Min. Requirement
Megapixel	5 MP / 2560 (H) x 1960 (V)
Image sensor	WDR 1/3" progressive scan CMOS
Lana	28° - 84° 3-9 mm, F1.2, P-Iris, remote focus and zoom
Lens	12° - 28° 9-22 mm, F1.6, P-iris, remote focus and zoom
Minimum illumination color	28° - 84° 0.2 lux (F1.2) in color mode; 0.02 lux (F1.2) in monochrome mode
	12° - 28° 0.4 lux (F1.6) in color mode; 0.04 lux (F1.6) in monochrome mode
Viewing angle	28° - 84°
Tiewing ungle	12° - 28°
Video compression	Multi-stream H.264 (MPEG-4 Part 10/AVC) and/or Motion JPEG
Video streaming	Multiple, individually configurable streams in H.264 and Motion JPEG
Frame Rate (H.264, Motion JPEG)	20 (at full resolution), 30 (at 1920 x 1080 or smaller)
Image settings	Wide dynamic range (WDR), manual shutter time, compression, color, brightness, sharpness, white balance, exposure control, exposure zones, backlight compensation, fine tuning of behavior at low light, rotation, text and image overlay, privacy mask to hide sensitive areas, image freeze on PTZ
Network interface	Min. of 1 100/1000Tx with RJ45 connector
External interfaces	External input / output interface for connecting external alarms and relays
Supported protocols	IPv4/v6, HTTP, HTTPS, TCP, ICMP, SNMP v1 / v2 /v3 (MIB-II), RTSP, RTP, UDP, IGMP, RTCP, SMTP, ARP, DNS, and NTP
Security	Password protection, IP address filtering, HTTPS encryption, IEEE 802.1X network access control

Application Programming Interface	Open API for software integration
Event triggers	Video motion detection, preset, temperature, memory card full
Camera Housing	IP66- and NEMA 4X-rated metal casing (aluminum), acrylic (PMMA) clear dome, sunshield (PC/ASA), Moisture Resistant
Input power	Power over Ethernet (PoE) IEEE 802.3af, max. 15 W (owner will provide PoE power)
Operating conditions	Temperature: -30°C to +50°C (-22°F to 122°F) (with heater option) Humidity: 20 - 80% RH (non-condensing)

# 4. Exterior 180-degree camera

The standard exterior 180-degree camera will be a HD IP exterior camera and must meet or exceed the following specifications:

Feature	Min. Requirement
Megapixel	8.0-megapixel progressive scan
Image sensor	4 x 1/4" progressive scan CMOS
Lens	F2.0 / 4.4 mm
Minimum illumination color	0.6 lux ( F2.0)
Viewing angle / Pan / Tilt / Zoom	Digital PTZ, presets, multipoint guard tour
Video compression	Multi-stream H.264 and Motion JPEG
Video streaming	Multiple, individually configurable streams in H.264 and Motion JPEG
Frame Rate (H.264, Motion JPEG)	Up to 30 fps
Image settings	Wide dynamic range (WDR), manual shutter time, compression, color, brightness, sharpness, white balance, exposure control, exposure zones, backlight compensation, fine tuning of behavior at low light, rotation, text and image overlay, privacy mask to hide sensitive areas, image freeze on PTZ
Network interface	Min. of 1 100/1000Tx with RJ45 connector
External interfaces	External input / output interface for connecting external alarms and relays
Supported protocols	IPv4/v6, HTTP, HTTPS, TCP, ICMP, SNMP v1 / v2 /v3 (MIB-II), RTSP, RTP, UDP, IGMP, RTCP, SMTP, ARP, DNS, and NTP
Security	Password protection, IP address filtering, HTTPS encryption, IEEE 802.1X network access control
Application Programming Interface	Open API for software integration

Event triggers	Video motion detection, preset, temperature, memory card full
Camera Housing	IP66- and NEMA 4X-rated metal casing (aluminum), acrylic (PMMA) clear dome, sunshield (PC/ASA) Impact resistant plastic or metal
Input power	Power over Ethernet Plus (PoE+) IEEE 802.3at, max. 30 W (owner will provide PoE/PoE+ power)
Operating conditions	-30 °C to +50 °C (-22 °F to 122 °F) (with heater option) Humidity: 20 - 80% Relative humidity (non-condensing)

# 5. <u>Exterior 360-degree HD Camera</u>

The vendor is requested to submit samples of the camera images / video footage under normal daylight and night (low lux) conditions.

Feature	Min. Requirement
Megapixel	8.0-megapixel progressive scan
Image sensor	4 x 1/4" progressive scan CMOS
Lens	F2.0 / 2.4 mm
Minimum illumination color	0.6 lux (F2.0)
Viewing angle / Pan / Tilt / Zoom	Digital PTZ, presets, multipoint guard tour
Video compression	JPEG2000
Video streaming	Multiple, individually configurable streams in H.264 and Motion JPEG
Frame Rate (H.264, Motion JPEG)	7 images per sensor
Image settings	Wide dynamic range (WDR), manual shutter time, compression, color, brightness, sharpness, white balance, exposure control, exposure zones, backlight compensation, fine tuning of behavior at low light, rotation, text and image overlay, privacy mask to hide sensitive areas, image freeze on PTZ
Network interface	Min. of 1 10/1000Tx with RJ45 connector
External interfaces	External input / output interface for connecting external alarms and relays
Supported protocols	IPv4/v6, HTTP, HTTPS, TCP, ICMP, SNMP v1 / v2 /v3 (MIB-II), RTSP, RTP, UDP, IGMP, RTCP, SMTP, ARP, DNS, and NTP
Security	Password protection, IP address filtering, HTTPS encryption, IEEE 802.1X network access control
Application Programming Interface	Open API for software integration

Event triggers	Video motion detection, preset, temperature, memory card full
Camera Housing	IP66- and NEMA 4X-rated metal casing (aluminum), acrylic (PMMA) clear dome, sunshield (PC/ASA)
	Impact resistant plastic or metal, vandal resistant
Input power	Power over Ethernet Plus (PoE+) IEEE 802.3at, max. 30 W (owner will provide PoE/PoE+ power)
Operating conditions	-30 °C to +50 °C (-22 °F to 122 °F) (with heater option) Humidity: 20 - 80% Relative humidity (non-condensing)

### 6. External Mounts

All internal and external cameras must be or installed in vandal resistant enclosures. The specifications below provide the minimum requirements for an external mount. The cost of the external mount must be included as a part of the base bid. The vendor may provide unit pricing for alternate / optional mounts using Appendix G, Proposed Schedule/Price Fee.

Feature	Requirement
Dimen	Bullet or pendant dome dependent on proposed camera; camera must
sions	comfortably accommodate the cameras
(H x	
W x L)	
Construction	Aluminum casing with silicone gaskets and stainless-steel hardware
Blower/Heater	Integrated 12V / 24V DC heater blower fan
Color	Gray or white; paintable surface preferable but not required
Window	Dependent on proposed camera
Locking clasps	Tamper-resistant screws provided
Camera mounting	Removable camera/lens tray, mounted with two screws
Mounting holes	Minimum of 2 x pair of mounting holes to securely fasten the housing to the building infrastructure
	Power-over-Ethernet Plus (PoE+) IEEE 802.3at or
Power supply	24 VDC / 12 VDC (compatible with external power supply if one is required)
Power consumption (housing only)	Maximum of 14 Watts
Power handling (housing + camera)	30 W max.
Operating	External: -30 °C to +50 °C (-22 °F to +122 °F)
temperature - external	Internal: -20 °C to +50 °C (-4 °F to +122 °F)
Certifications	Underwriters Lab (UL), FCC

### 7. <u>Power Transformers (optional)</u>

If the exterior camera housing enclosures requires additional power to support an optional heater and blower components, the Vendor will include pricing for a power supply (transformer) and necessary cabling. Power supplies (transformers) and cabling will only be required if power requirements for the external cameras are greater than what is deliverable by the IEEE 802.1at/802.1at standard. For the purpose of this RFP, for every external camera that requires an external power transformer, one will be included.

Even if an external power supply is not required, unit pricing for the specified power transformers is requested to accommodate any unique situations that may necessitate one. Please provide optional unit pricing in Appendix G – Proposed Schedule/Price Fee..

Feature	Requirement
Electrical	Input: 120 VAC, 60 Hz
	Output: 12 or 24 VAC, 60 Hz, 1.25 / 2 VA
	Optionally a model with multiple outputs of 12 or 24 VAC, 1.25 A, 30 VA is also requested
Connectors	Input: 2-prong, North American standard (non-polarized)
	Output: Two (2) screw terminals
Maximum Distance	305 m (1000 ft.) - 0.65 mm (22 AWG)305 m (1000 ft.) – 2 mm (18 AWG)Unshielded wire only
Operating conditions	Temperature: -10°C to 40°C (14°F to 104°F)
	Humidity: 30% to 85% relative

### **VIDEO MANAGEMENT SYSTEM SPECIFICATIONS**

For the proposed system, it is the responsibility of the vendor to ensure the all current cameras (IP and analog encoders) will work with the proposed VMS solution. The Video Management System will reside at Central Library. At a minimum, VMS system must support the existing number of cameras identified in **Appendix F.** 

The Video Monitoring/Management System (VMS) shall provide a system that allows the LAPL to view images from the cameras and manage the cameras from a single interface/application across the data network. The Vendor must provide the recommended specifications for Storage and Server hardware to support the entire system. There will be no bottlenecks inherent to the proposed system that impacts the performance and/or functionality of the system. For these components, the bill of materials and the pricing for the Base Bid will be presented using the forms **Appendix G Proposed Schedule/Price Fee.** The add alternate will include the incremental cost to add the features and functionality requested in Add Alternate-1.

The following are the minimum requirements for the VMS that will be installed at Central and 72 Branch Libraries of LAPL.:

### 1. Camera / Device Connection Licensing

If system licensing is dependent on the number of cameras/devices connected/managed, system licensing shall be priced for the base and add alternate bids only. Licensing for the growth requirements must not be included at this time, but the system should have the ability to add more licenses to accommodate the growth while preserving the investment made by the LAPL.

### 2. Licensing Model

The cost for the VMS system and all components must be based on the annual license costs (exclusive of warranty costs). Additional cost for system upgrade and support must be included in the proposal.

### **3.** Map Navigation

Building floor plans will be imported into the VMS for easy camera navigation. The floor plans in JPEG and Microsoft Visio formats will be made available the Vendor. Selecting a camera on the building map will open either thumbnail and/or live streaming images from that selected camera.

#### 4. Camera Zones

The system shall have the ability to group cameras in a region (i.e., create zones). Each zone may consist of cameras in the same building or across multiple buildings.

### 5. <u>Archive / Stored Video Search</u>

The system will provide the ability to search video events such as motion

detection events, date/time stamp etc. The system must also be capable of performing searches on multiple cameras based on a given criteria. The Vendor will clearly state in detail the system archived video search capabilities.

#### **6.** Half/Full Duplex Live Audio

If the proposed or future cameras have full/half duplex audio capabilities, the video management system should support half/full duplex live audio capability. If audio feature capabilities are supported, the audio communications (transmit and receive) should across the IP/Ethernet infrastructure without the need for additional cabling.

# 7. <u>Matrix View Support</u>

The system shall have the capability for viewers to view images from multiple cameras simultaneously. The matrix layout shall, at a minimum, support 1, 2, 4, 8, and 16 simultaneous camera views. Users shall have the option to customize and save screen layouts for simple selection of cameras of interest. This feature must be available to "viewing mode only" clients also via an Internet browser such as Microsoft IE 10.x, Chrome 50, Opera 40, and Safari or higher.

# 8. <u>Camera Cycling</u>

The user logged in either a "viewing only" or "administrative mode" should have the ability to cycle through a predetermined set of cameras in order to setup automated viewing station.

### 9. Simultaneous Viewer Clients

The system shall support simultaneous camera(s) viewing by a minimum of **twelve** (12) clients via a client software or a compatible HTTP interface/browser such as Microsoft IE 10.x, Chrome 50, Opera 40, and Safari or higher. Each user shall have independent capability to use the matrix view and camera cycling described above. The viewing only capability will not provide for any administrative type functions.

### 10. Simultaneous System Administrative Clients

The system shall support simultaneous administrative access by a minimum of **four (4)** clients via a client software or a compatible HTTP interface/browser such as Google Chrome, Firefox and Microsoft Internet Explorer and Apple Safari. Administrative access functionality will be restricted to the class of service defined for that user. If tablet-based apps (IOS, Android or Windows) are available, the apps will be made available at no additional cost to the LAPL.

### 11. Remote Viewing (Internet & Mobile Data Terminals)

The VMS must provide the ability to view live video transmissions and archived videos across the Internet. Video must be viewable from mobile data terminals in public safety (police) vehicles without the use of proprietary client software. Remote viewing on the LAN and WAN via an Internet browser a requirement. The Vendor will include all and necessary equipment for the ability to view the video across the LAN and Internet (e.g. video transcoder gateway if necessary). The Vendor must clearly state the network/firewall rules to be created and the bandwidth requirements per

remote WAN session that the LAPL must provision for system access via the Internet.

Administrative access functionality will be restricted to the class of service defined for that user. If tablet-based apps (IOS, Android or Windows) are available, the apps will be made available at no additional cost to the LAPL.

### 12. View & Download Archived Video

Users authorized for live or archived image viewing only will **NOT** have the capability to download archived video. Users with privileges to view archived video shall not automatically have the capability to download archived video unless the user has specific privileges to do so. Several users may have the ability to view archived video only and a very few select users will be provided with the capability to view and download archived video. It may also be desirable to restrict how much that a user with appropriate privileges may have access to the archived video (i.e., number of hours or days that a user can go back into the archives). The granular ability to control user-based access to archived video and the ability to restrict download capabilities is considered to be an important functional requirement of the system.

#### 13. DVD Type Controls

Authorized users with archived video playback privileges shall be able to access the archived video with DVD type controls.

### 14. <u>Video Export Functionality</u>

The system will provide the functionality to export archived video in a tamper proof manner that is acceptable by the judicial system. Exported video will be minimum support **H.264** or **MJPEG** standards video. Only system authorized accounts will have the ability to export the video and if possible, from a defined workstation or server only. If licensing is required to view the recorded video, the Vendor will provide the appropriate number of licenses equivalent to the simultaneous viewing only and administrative users count. If the system can export to other video formats, please specify.

#### 15. Alarm Monitoring and Logging

The system shall provide real-time alarm monitoring interface that provides real-time text viewing of events such as motion detection, camera connectivity, recording server status, and other related system wide events. The system will provide the ability to click on an event that will be hyperlinked to that instance or device. All of the events will be logged, and the user shall have the capability to perform simple and advanced searches based on events in the log.

# 16. <u>Administration HTTP/HTTPS Interface</u>

All of the administrative features described shall be accessible via an intuitive Graphical User Interface (GUI) via a client software or a secure (https) internet browser such as Microsoft IE 8.x or higher.

### 17. Expansion Capabilities

The VMS hardware (servers and storage) shall be configured at a minimum to support all existing and added cameras. It is desirable that the storage system be capable of expansion by adding additional internal or external disk drives and shelves.

### 18. <u>Time Lapse & Motion Detection Recording</u>

During inactive periods in the buildings (off hours), when there are no changes to the image/frame, the system will cease recording until a change in image has been noticed (i.e. motion detection). The system will have the intelligence to automatically start recording images from a camera once a change in frame has been noticed. It is desirable that the motion detection sensitivity can be adjusted. Please state if camera-based motion detection is supported. The system will support time lapse recording (i.e., system record periodically rather than continuously). The time lapse interval must be configurable. Other techniques to conserve on disk space and bandwidth should be stated.

### 19. Schedule/Event Recording & Playback

The system will allow for the definition of a schedule for recording based on time and/or an event. The system will allow for the playback of archived video based on time, data, camera, or event type.

### 20. Recording Frame Rate & Resolution

It is desirable that the system allows the capability to configure the recording of the frame rate and resolutions of the video images received from the camera (i.e., the live video streaming frame rate and resolution may be different from the actual recorded video). This must be configurable on an individual camera basis.

#### 21. Recording Capabilities

Recording capabilities must include the following:

- Picture recording for the included cameras shall be capable of recording up to the maximum resolution of the camera.
- The recording provides a date and time stamp option
- Capable of providing video data in a manner consistent with the handling and conveyance of video forensic evidence (tramper proof).
- Video must be reasonably accurate in representing what it depicts. It must be self- verifying, providing enough of a detailed picture of the scene for a witness to confirm the area is accurately depicted.
- Real-time playback without interrupting recording
- Adjustable frame rate and resolution recording camera by camera
- Allows authorized users to capture still pictures in multiple formats
- Allows authorized users to record live streaming video or download

archived video in an industry recognized format

The system will have a DVD writer to provide the ability to transfer archived/recorded video.

### 22. Archiving

The system will have the ability to automatically rotate out old stored video when needed, utilizing a FIFO queuing method. The archiving period must be user definable. A backup device is not required at this time. The LAPL requires that 30 days of archives are maintained for historical purposes.

#### 23. Camera Configuration

The various configuration parameters of the cameras should be controllable from the proposed monitoring & management system.

### 24. Watermark

The system shall have the ability to add a digital watermark to the video for authenticity purposes.

#### 25. System Load Sharing and Redundancy

If the proposed solution requires the use of multiple servers to monitor and manage the surveillance system, it is desirable that load sharing and redundancy must be taken into consideration when the system is implemented.

#### 26. User Groups & Rights

The system should support a multi-level user environment with the ability to create unlimited user accounts. The granular ability to control user based functions and access to the system is considered to be an important functional requirement of the system. By user and/or by group, the access (privileges) to resources should be controllable such as:

- Camera viewing access
- Recording & Downloading access
- Day and Time for access to the system
- Other configurable 'class-of-services' will be described

User accounts will be password protected and a user historical activity log is a requirement.

### 27. <u>Error Notification</u>

The system will provide email notification of system and other user defined alerts (e.g., unreachable camera, storage capacity thresholds) via email. The system will utilize existing email systems to provide notification.

#### 28. Other Features

Other features and functionality desired in the system are:

- Full system event log for support, diagnosis and system usage monitoring
- When possible support and diagnosis of attached cameras.
- Ability to support redundant recording if there is a failure on the primary server
- System configuration backup utility.
- Support for internal storage, Network Attached Storage (NAS), Direct Attached Storage (DAS), Storage Area Networks (SAN), and iSCSI storage systems.
- Access Control System integration Please define the proposed system's ability to integrate with the access control system.
- Other features of significance that the Vendor would like to draw attention to the Library should be stated in a clear and concise manner in the project summary document.

### 29. Advanced VMS Features (Add Alternate – 1)

The following advanced features for VMS are being requested. If these features are NOT a part of the base solution and are offered as "Add on Modules" to the base VMS solution, the cost to add these features should be shown as a part of the Add Alternate-1 solution and not in the base bid solution. If the licensing for these features is based on the number of cameras, then the vendor should use the existing camera counts identified in **Appendix F** as the baseline. To allow for flexibility, the vendor must provide unit cost (per camera cost) to add these features. If the "per unit cost" is different than the cost based on the cumulative quantiles, this must be clearly identified. If not specifically identified, the resulting unit cost based on the cumulative quantiles will be used to determine the pricing if desired quantities change. The advanced VMS features requested are:

- Events based recording pre and post buffer recording up to 10 minutes
- Video analytics Ability to detect on live and recorded video to support missing object, object tracking, camera tampering, zone intrusion, stopped vehicle, vehicle tracking, and image enhancement of tracked objects.
- Object tracking Object tracking between cameras on live and recorded video.

Where applicable, line item pricing should be provided for each of these features. If these features are stated to be a part of the base bid the vendor will provide these features at no cost to LAPL.

### 30. VMS Server and Storage System

As an Optional item, the proposed solution should be a turnkey solution where all necessary equipment is provided to ensure the functionality of the video surveillance system. The necessary server(s) hardware required to perform daily activities should be included.

#### a. System Sizing

The recommended sizing of the Library's provided server's CPU, memory, network interfaces, storage IOPS, storage capacity, etc. is the responsibility of the vendor.

#### b. System Redundancy

Redundancy shall be incorporated in all server and storage hardware. At a minimum the server should have redundant power supply units and network interface cards. It is required that the server software (hypervisor, operating system and application) drives shall be either mirrored or configured in a RAID-5 for redundancy.

#### c. Server and Storage System Expansion / Growth

The specifications for servers / storage units will be required to accommodate all existing cameras. Please see **Appendix F** for estimated counts, storage sizing based on recording parameters.

In addition to the counts provided in **Appendix F**, the server and storage specifications must be sized to accommodate an additional **15% growth in camera count** (i.e., if the proposed solution requires 400 cameras and spans across 6 servers, the provided server hardware must have the capacity (CPU and RAM) to accommodate a total of 460 cameras (400 x 1.15)). Similarly, the storage system must the additional capacity included to support the identified growth percentage (e.g., if the storage requirement for the 400 cameras to archive 31 days of archived video calculates to 24TB, the proposed storage system must include 27.6TB (24 x 1.15) of useable space for the video footage).

As the future needs of the video surveillance system increases, solutions that allow the increase the system capacity without any loss of investments will be preferred (i.e., a modular server/storage system to which additional capacities can be added at a later date).

The specifications must be sized to accommodate the quantity of cameras specified in Appendix F. The camera count growth is based on the highest resolution and performance requirement.

#### d. Hypervisor and Operating System

If the proposed solution operates in a virtual server environment requiring commercial hypervisor, the cost to provide the hypervisor and operating system must be included in the cost of your proposal. The costs for the hypervisor and operating systems.

LAPL will provide the necessary hypervisor and/or operating system under their current enterprise agreements. The Library has standardized on the use of Windows Server 2012 for the operating system.

#### e. Video Storage System

A storage system will be provided by LAPL. Vendors shall note any concerns

with the sizing of the LAPL storage environment and provide pricing for any other components necessary for a complete solution.

### f. LAPL -Provided Server / Storage

The LAPL provided equipment will meet or exceed the specifications provided by the Vendor.

The Vendor may include the server and storage hardware as a part of the optional costs in Appendix F.

### g. Rackmount Systems

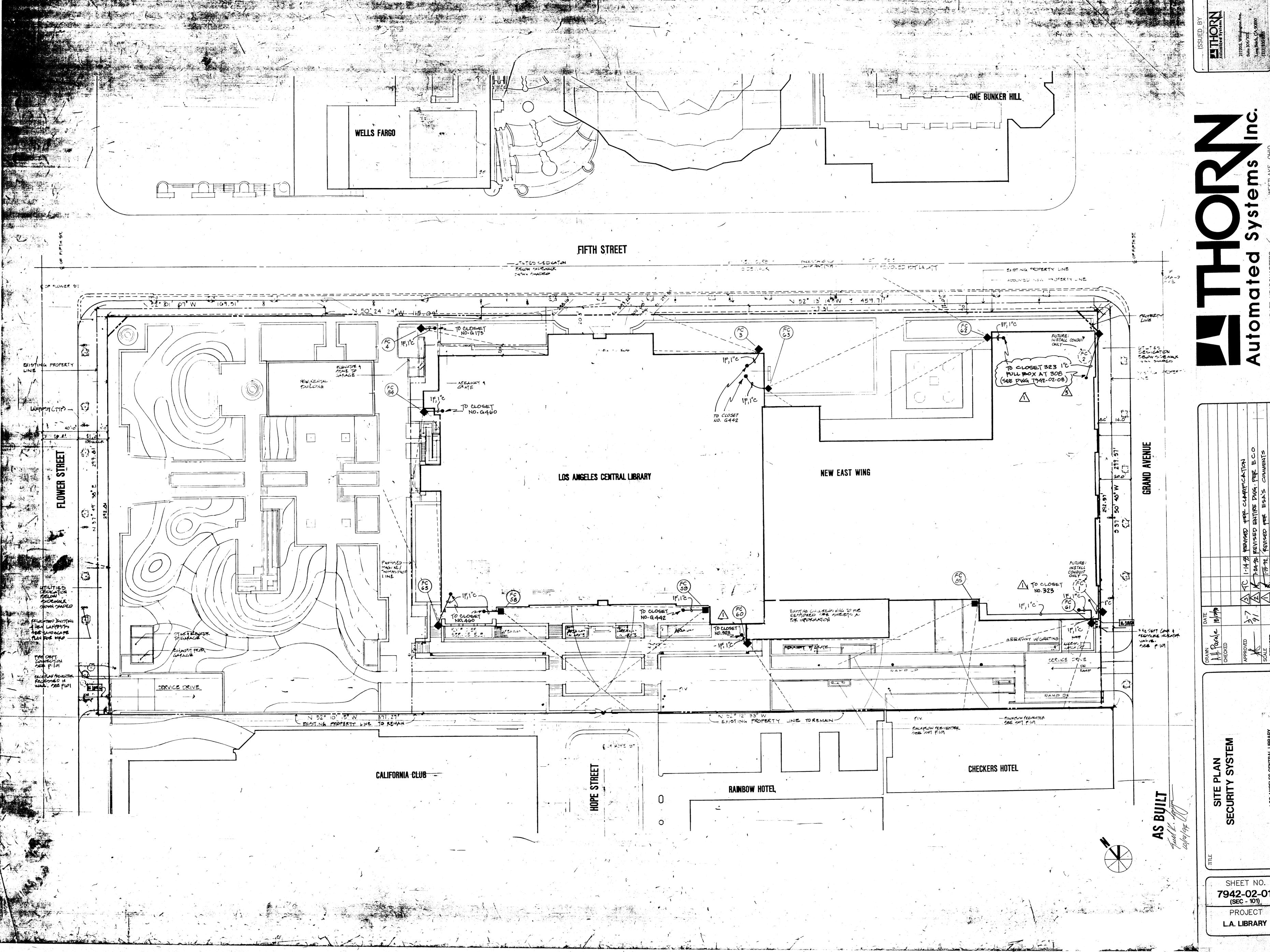
A rack mountable server and system is required. The equipment will be installed in a LAPL provided rack. The equipment must have slide out rails to be installed in a 36" deep rack.

### h. KVM System

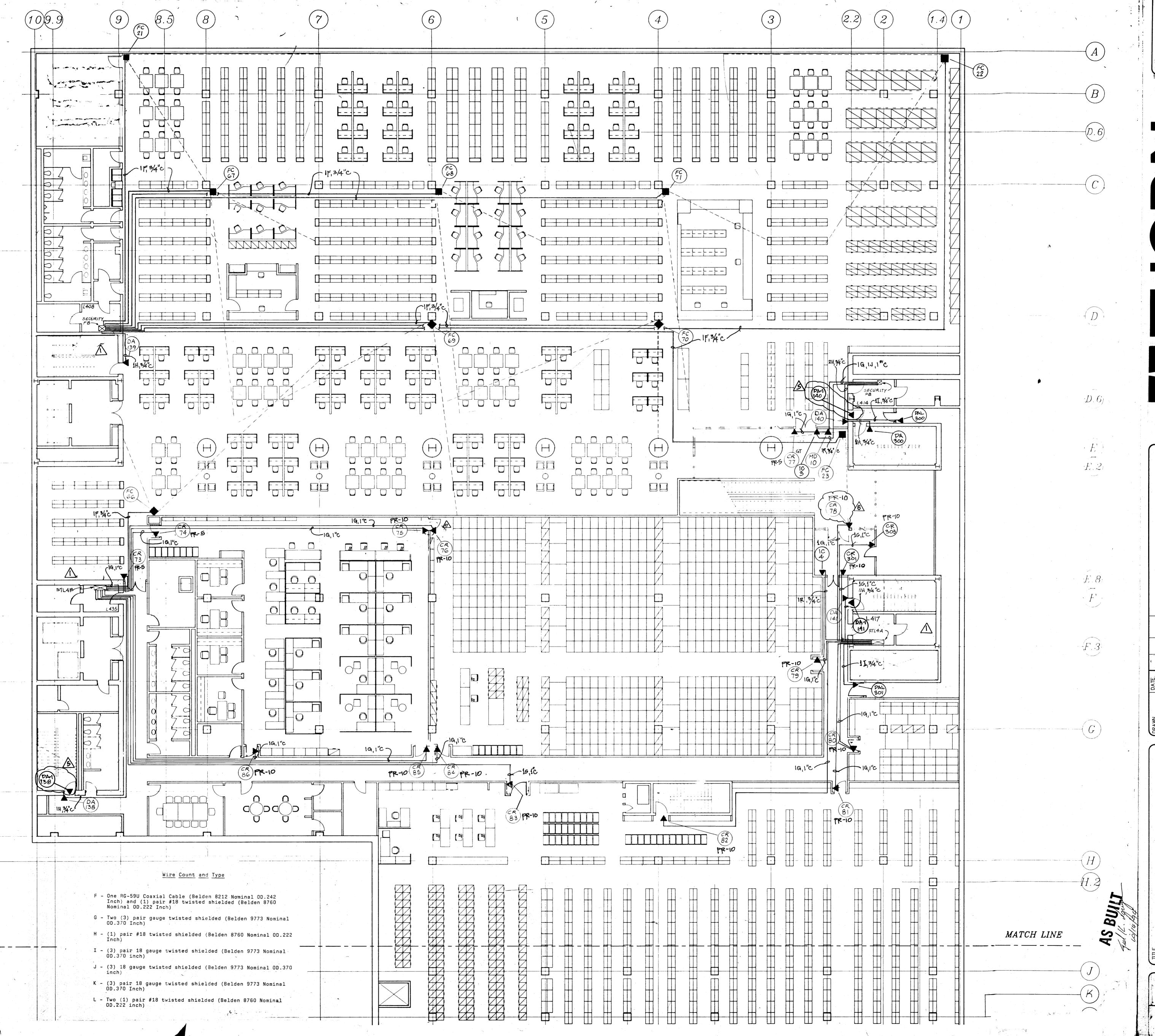
If multiple servers are proposed the vendor is NOT required to provide a KVM solution as a part of the base bid. However, as an option, unit pricing for the KVM is requested.

### i. <u>UPS System</u>

The server and storage systems will connect to a Library-provided UPS system where applicable.



SHEET NO. 7942-02-01 (SEC - 101)

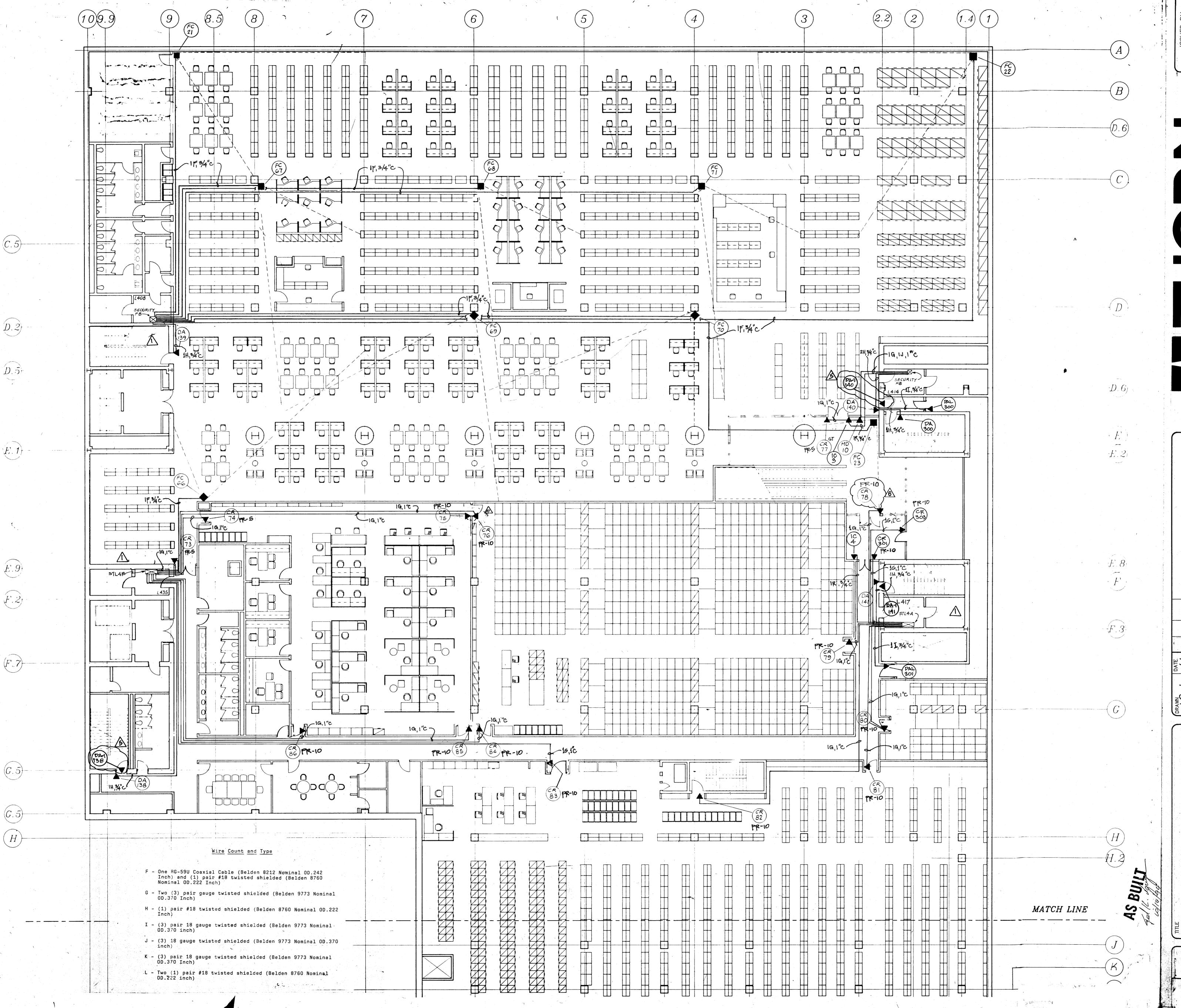


D.2

F.2

(G.5)

SHEET NO. 7942-02-02 (SEC - 201) PROJECT L.A. LIBRARY



Automated Systems CORPORATE HEADQUARTERS WESTLAKE, OHIO

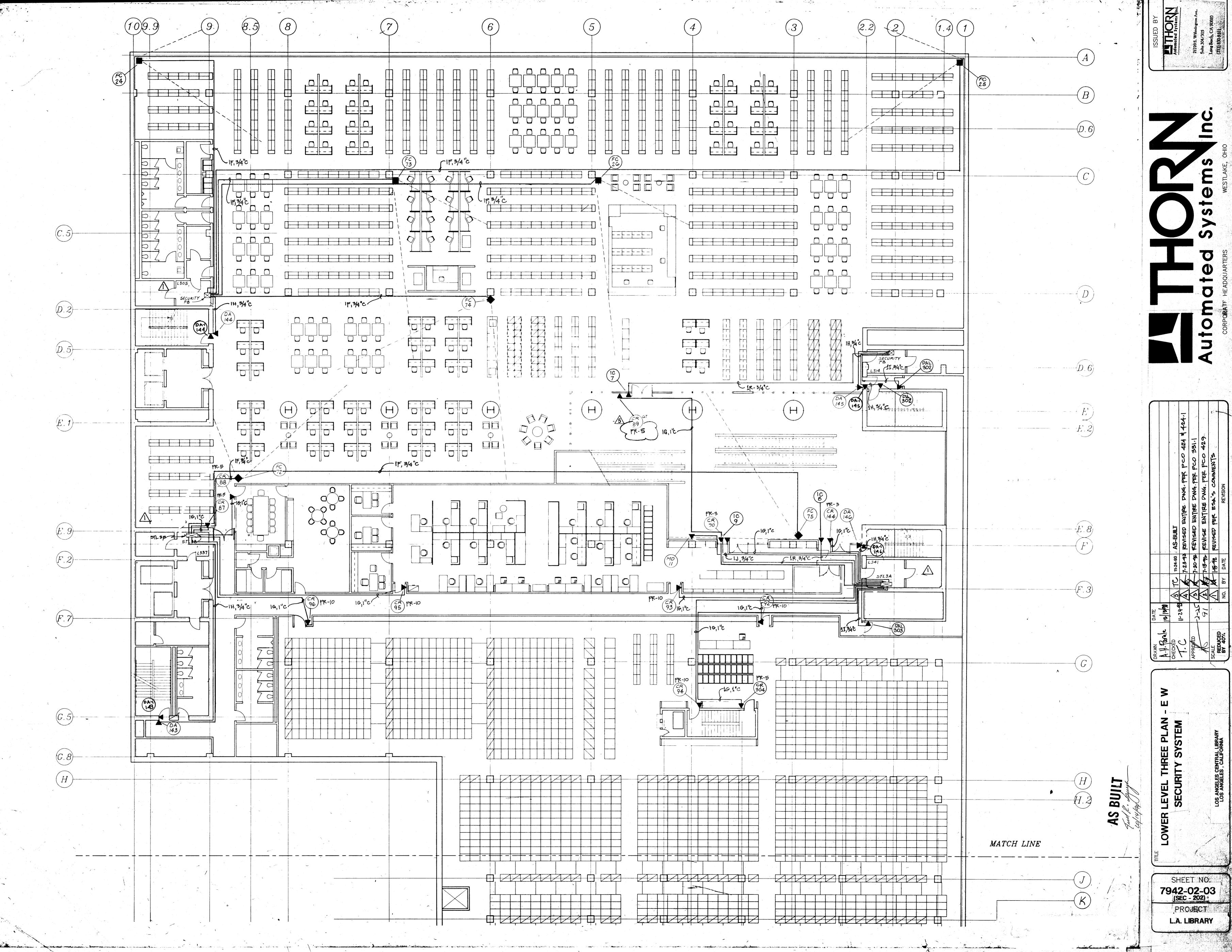
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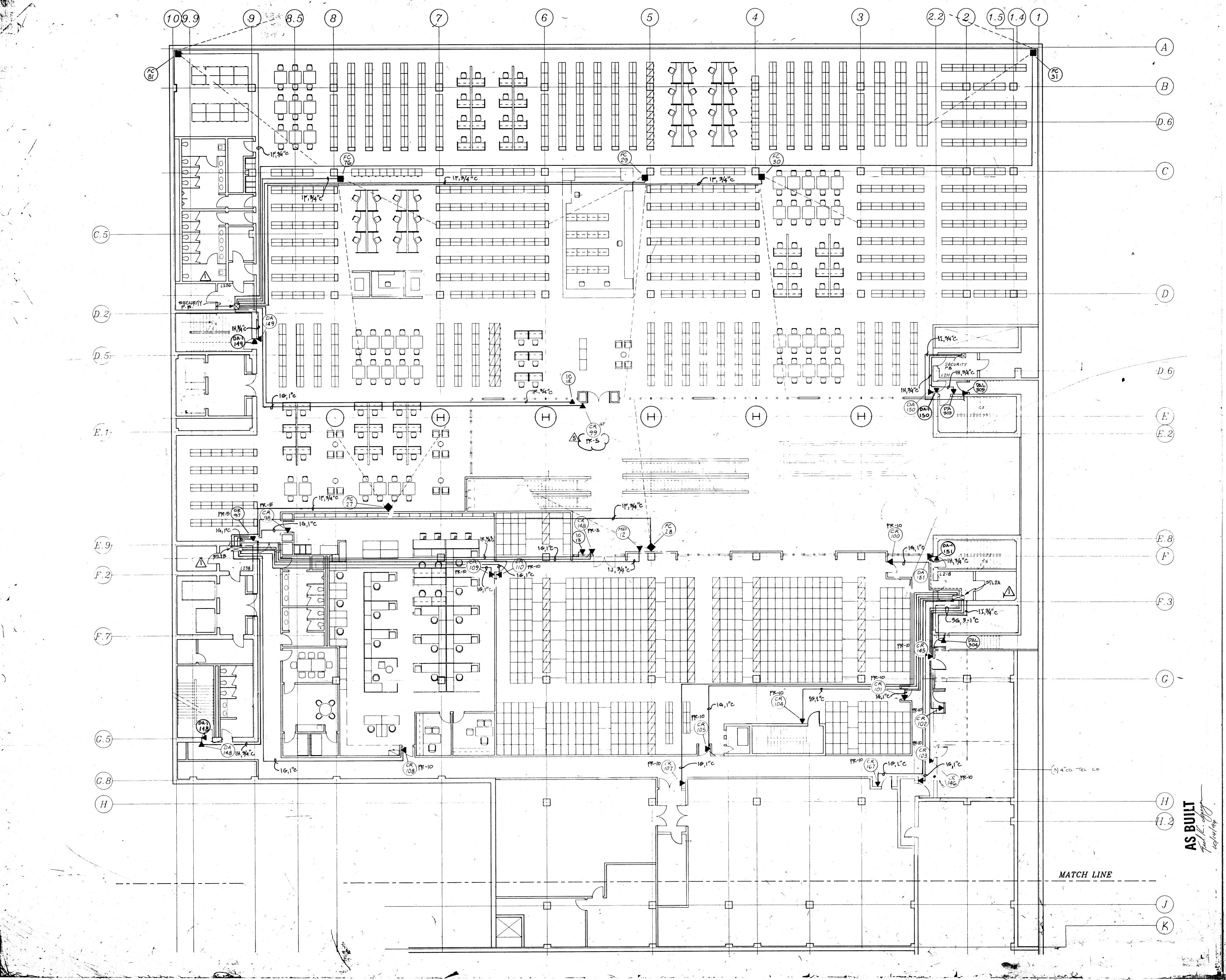
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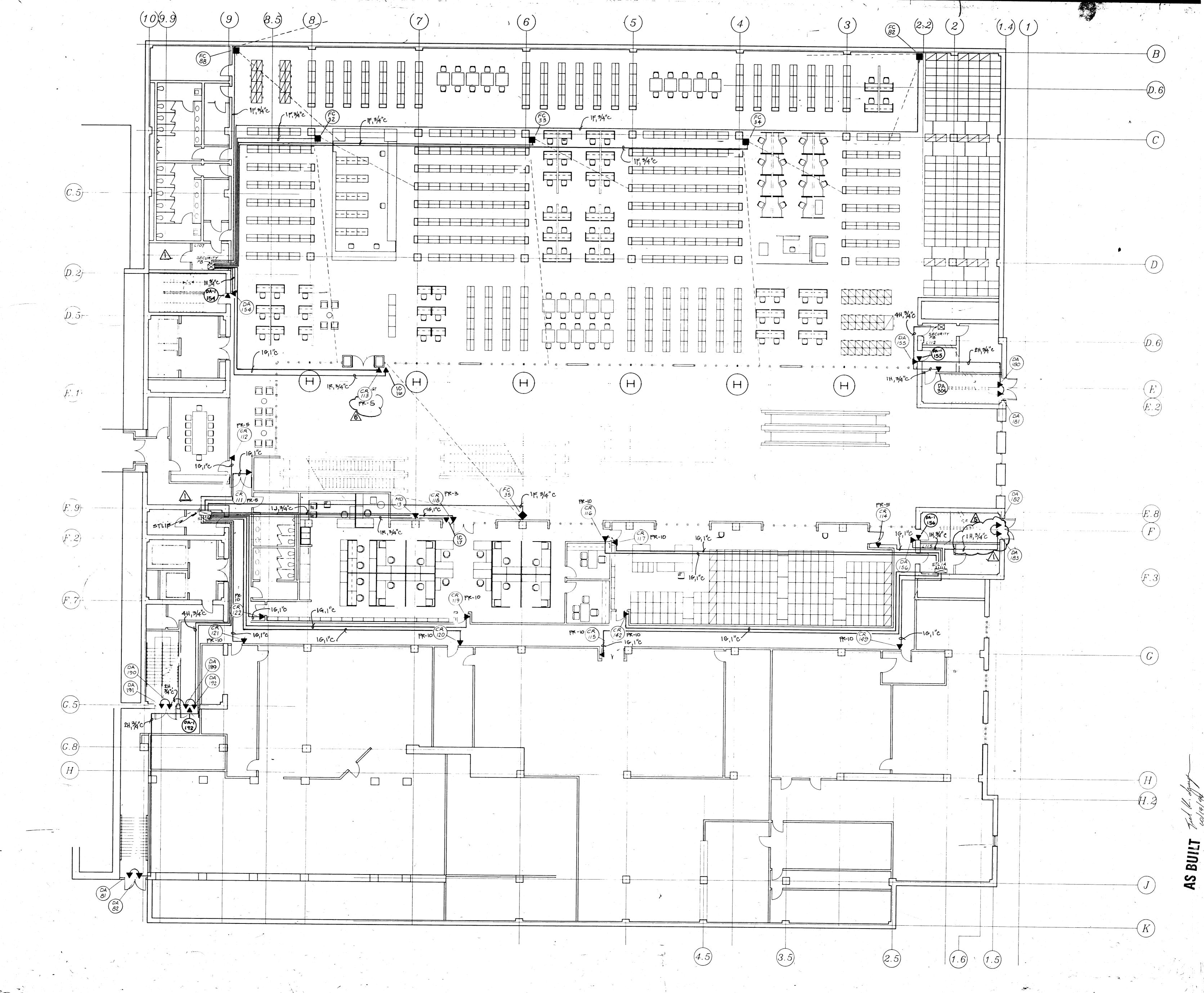
OWER LEVEL FOUR PLAN - E SECURITY SYSTEM

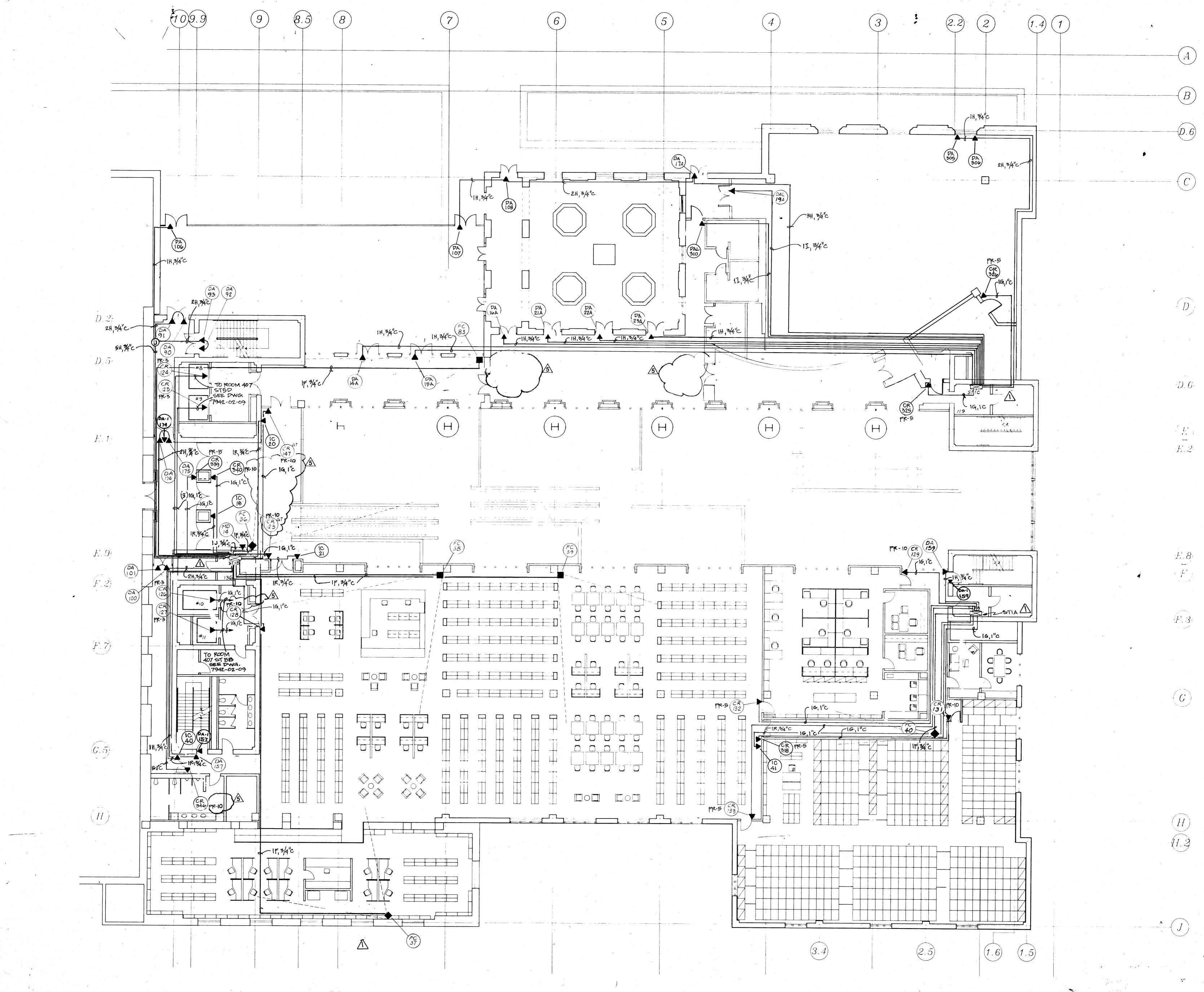
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(SEC - 201)
PROJECT

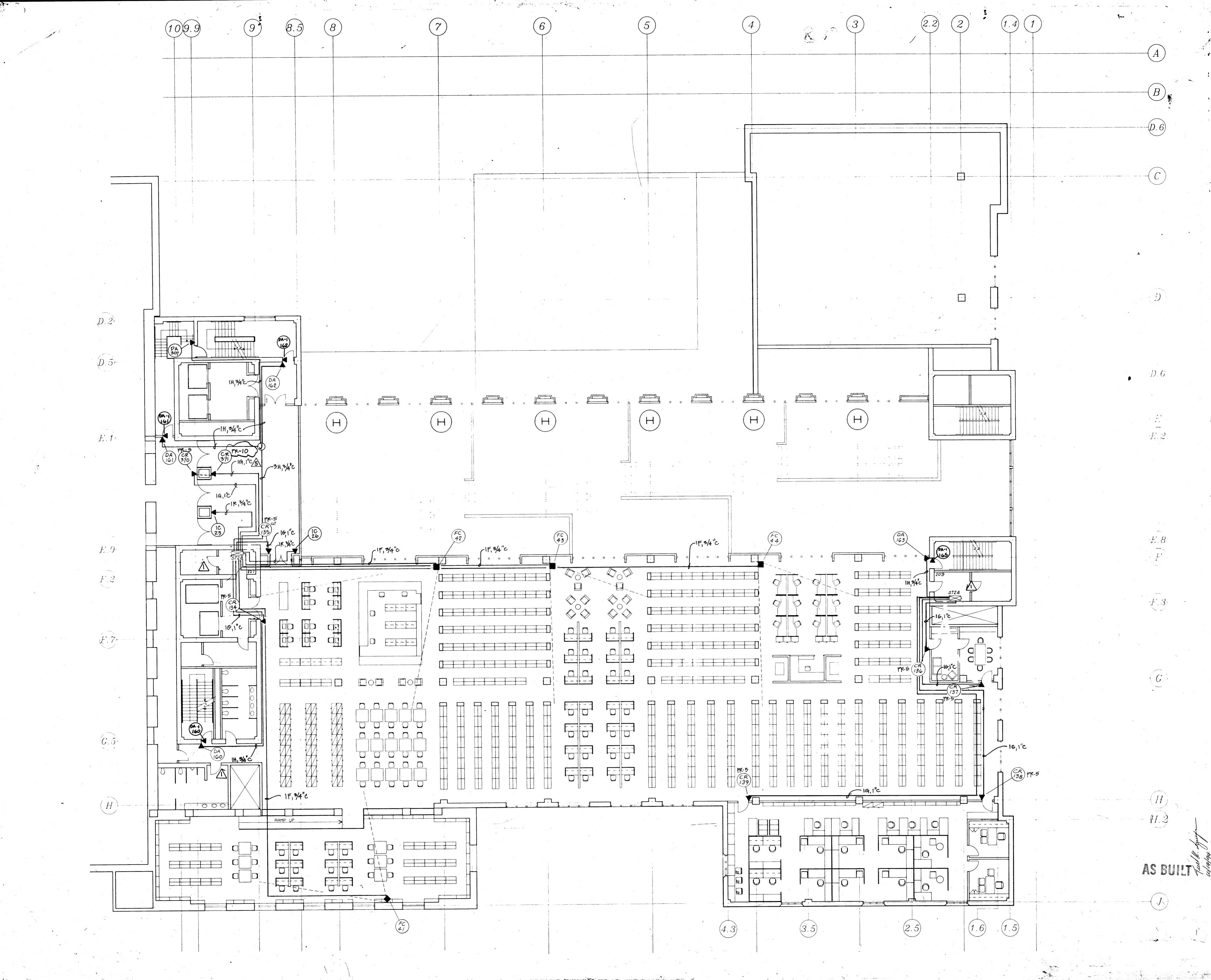
L.A. LIBRARY

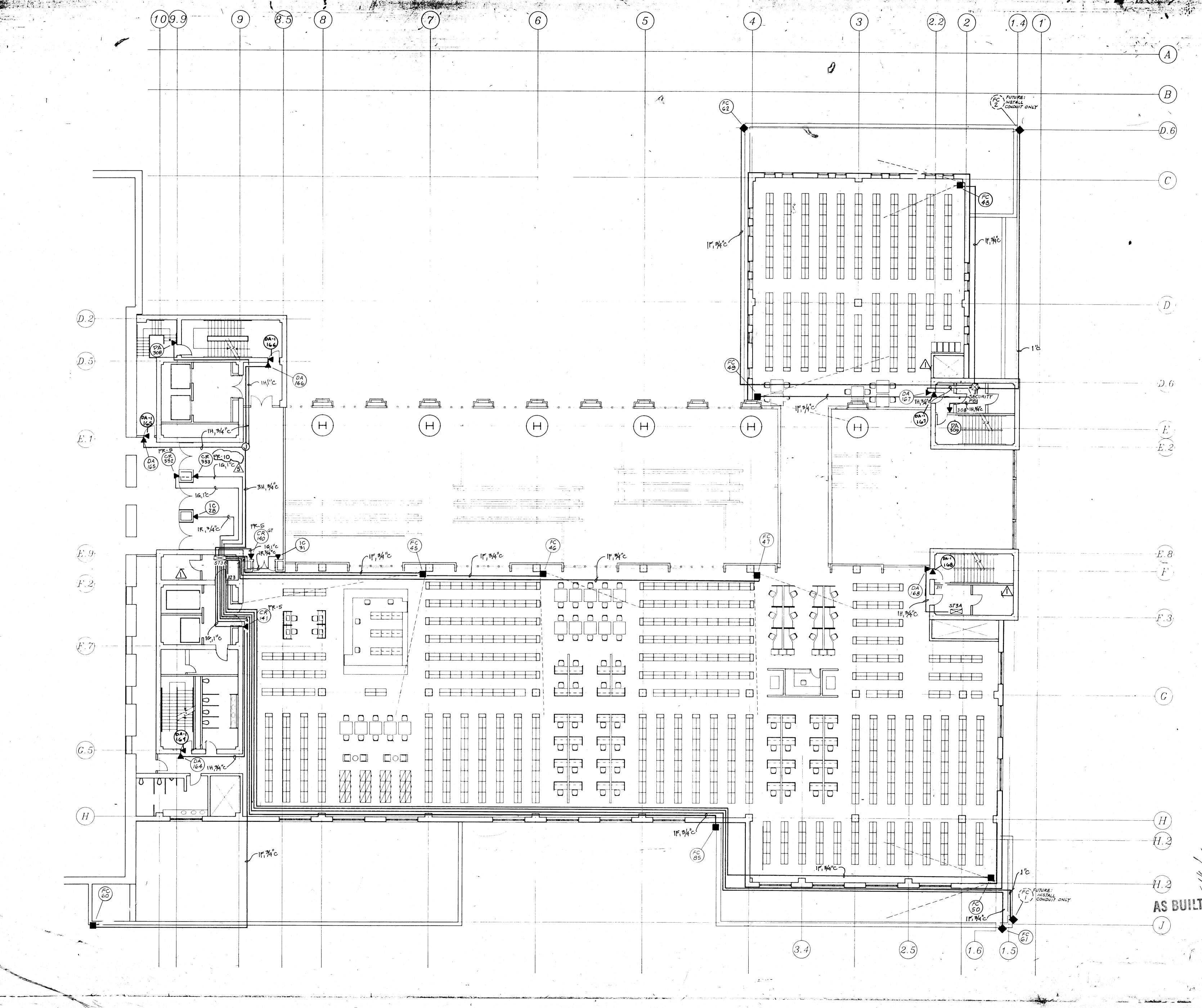


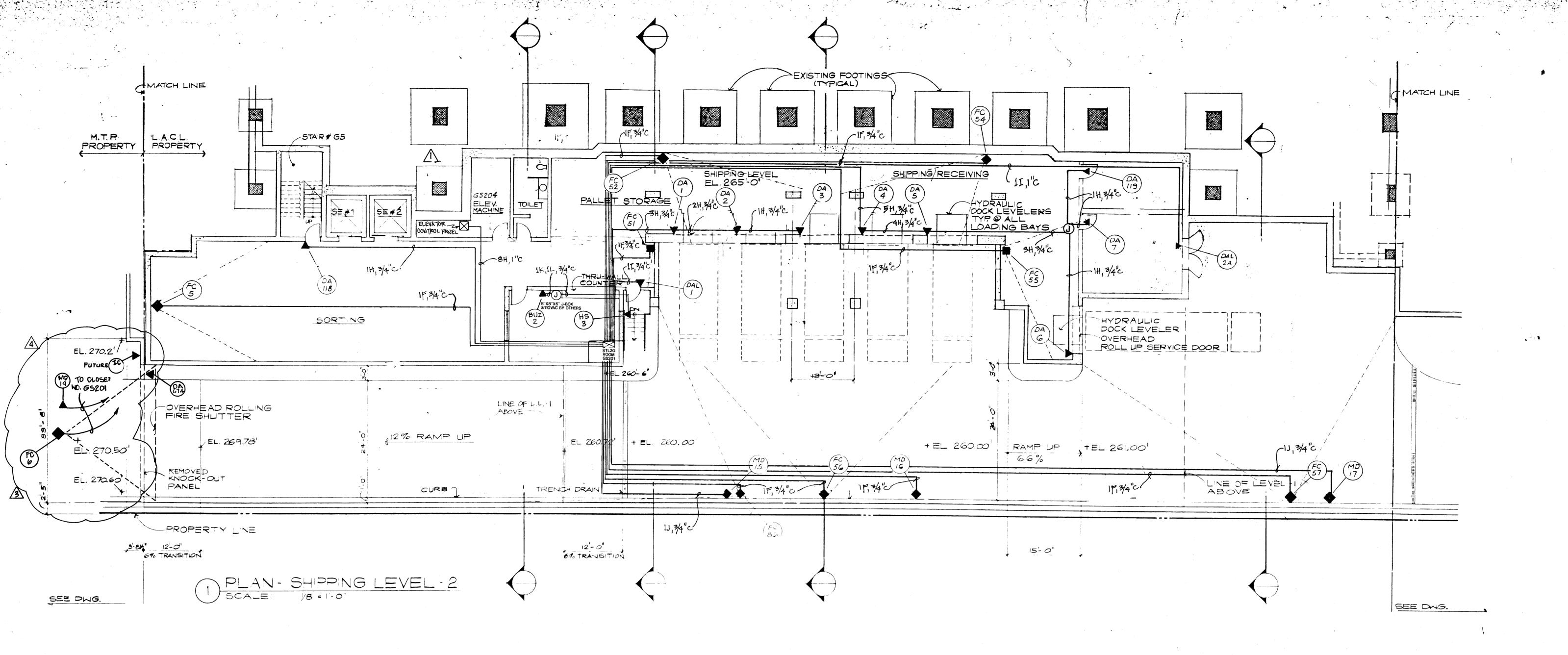




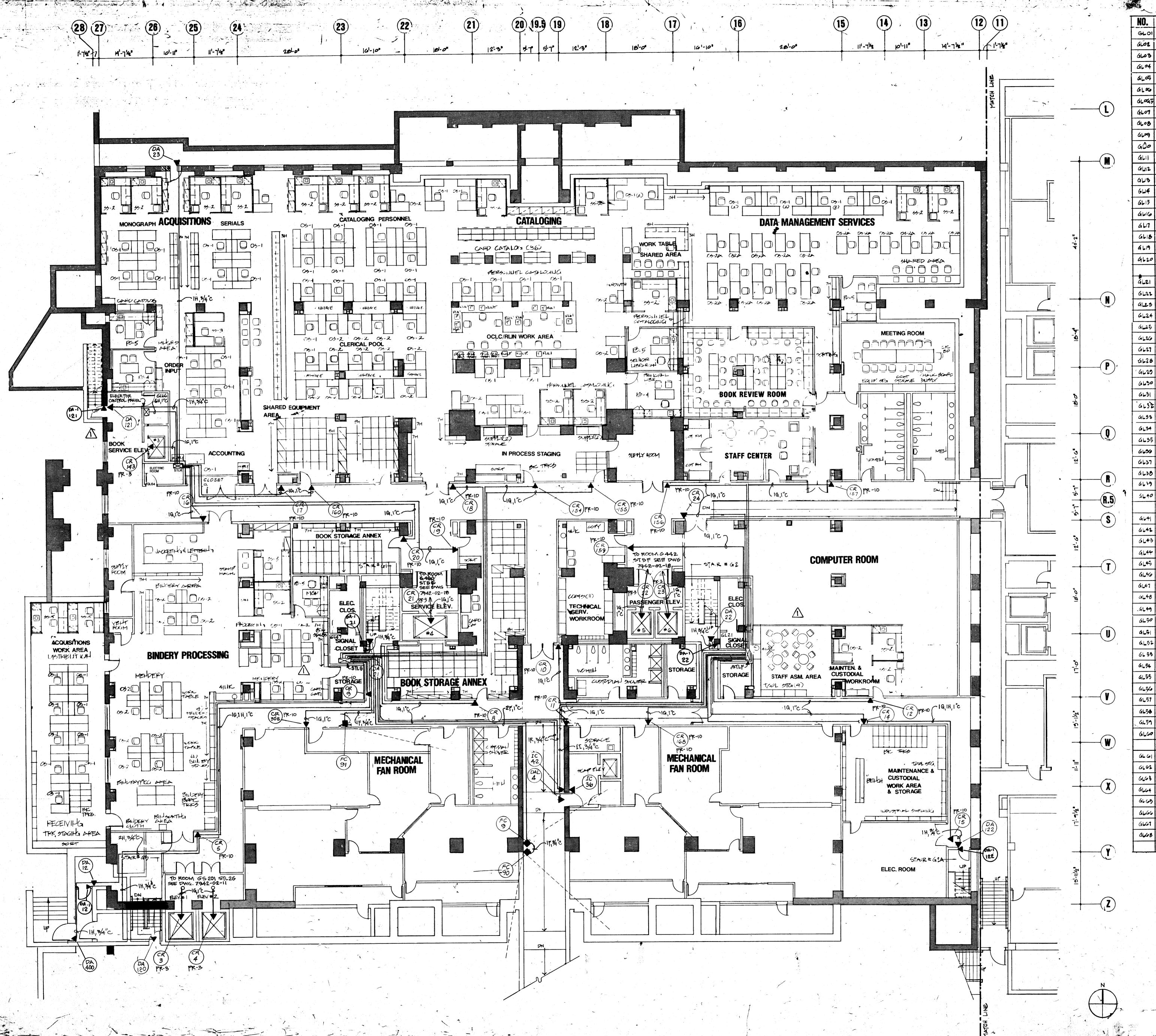








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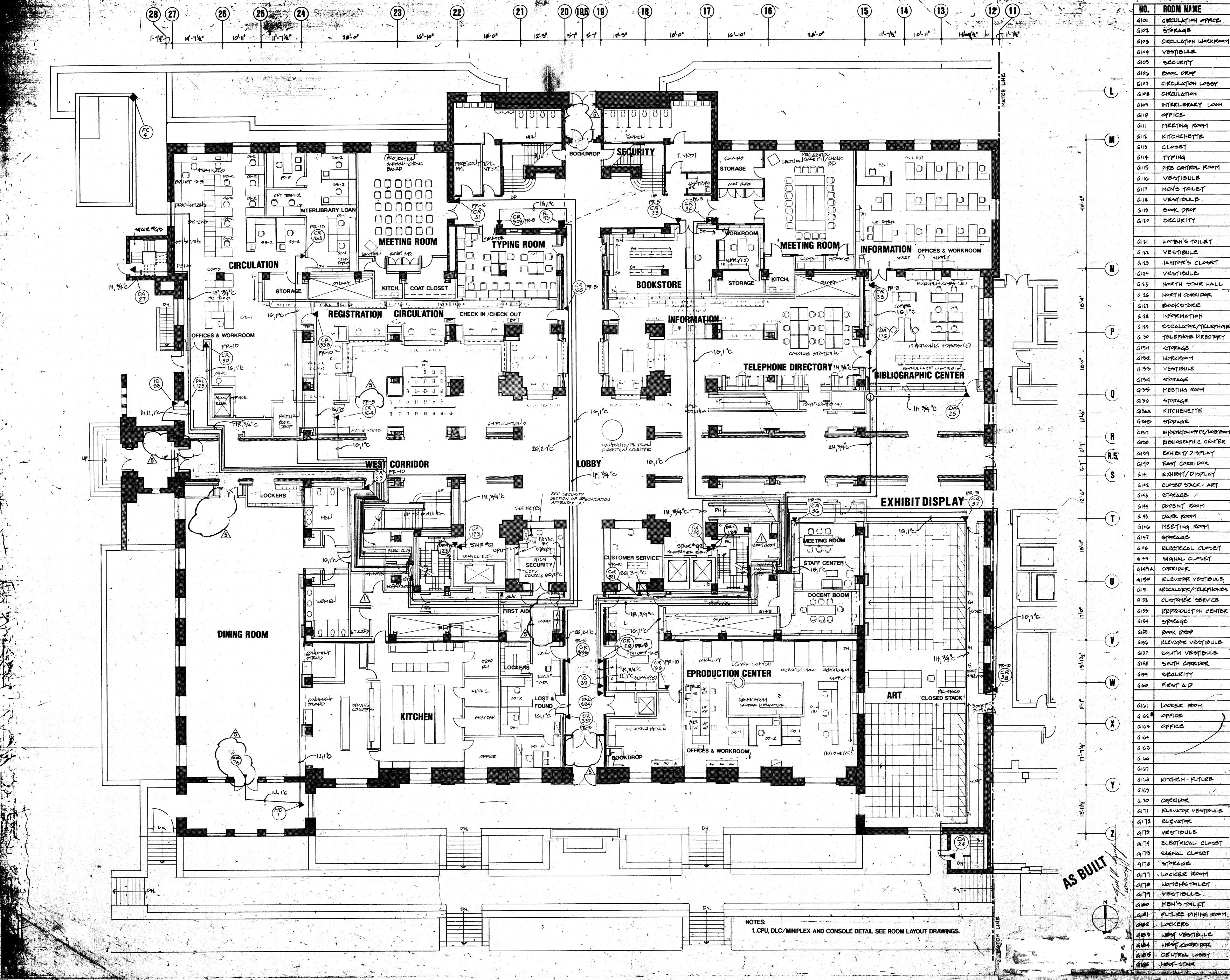


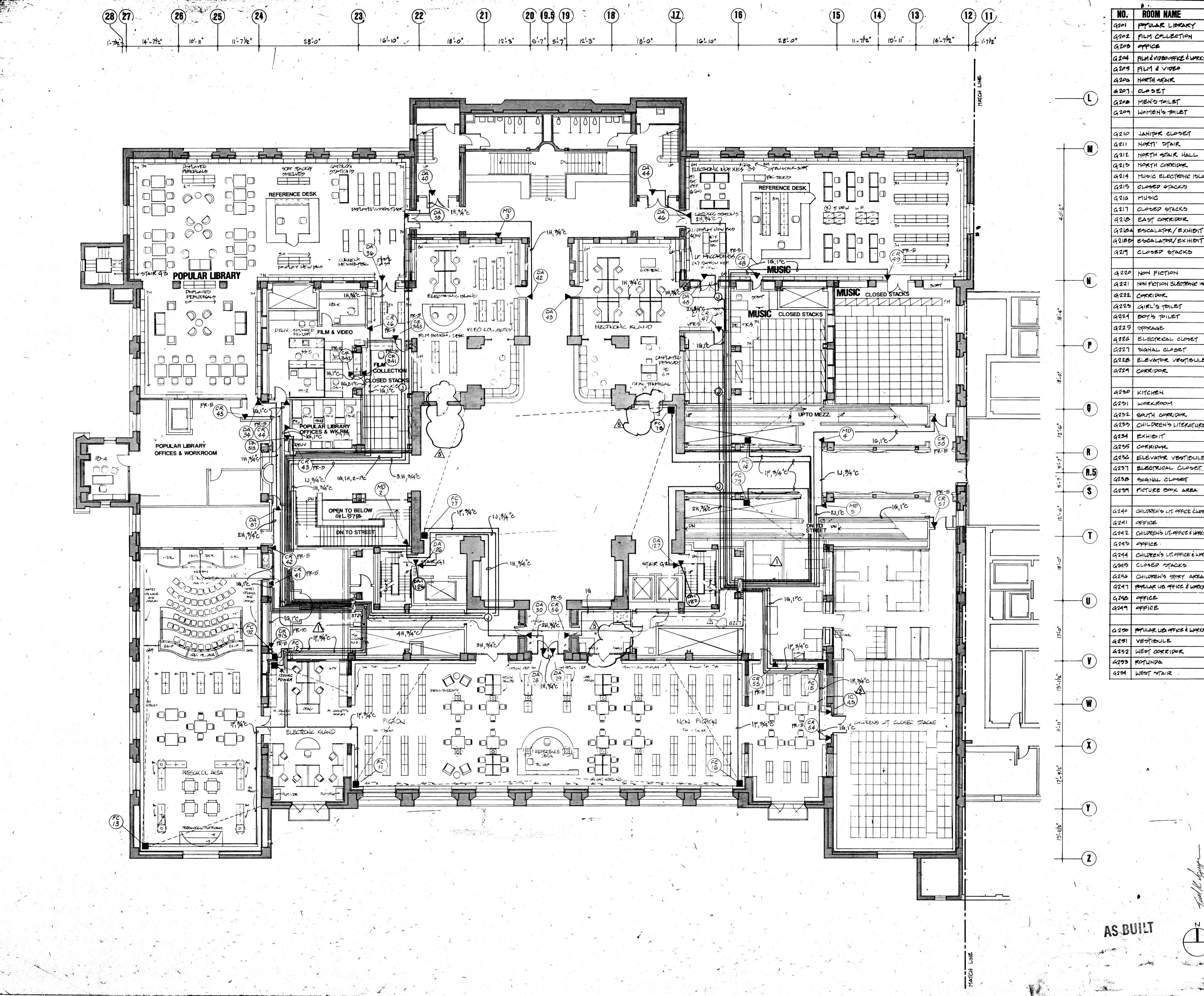
ROOM NAME AGUISITIONS CATALOGING IN PROCESS STAGING SUPPLY ROOM OFFICE office GL045 DATA MAMT SERVICES MEETING ROOM GLOB COT ROUM COT ROOM BOOK REVIEW ROOM STAFF CENTER 4112 office **GU3** MEETING ROOM CORRIDOR WOMEN'S TOILET 4416 MEN'S TOILET 4618 Curridur COMPLITER ROOM ELECTRICAL CLOSET SIGNAL CLOSET 6L22 MAINTI/CUSTODIAL OFFICES Corridor 4123 6124 CUSTODIAL STORAGE CURRIDOR ELECTRIC ROOM 6127 FAN ROOM FAN ROOM 6L28 FAN ROOM 4623 6430 FAN ROOM ELEVATOR MACHINE ROUT MECHANICAL ROOM ELEVATOR YESTIBLIE JANITOR CLOSET GL34 4135 CORRIDOR homen custopian shuners STURAGE GL37 ELEVATOR VESTIBULE 4638 TECH, SERVICES WORKROUM CURRIPOR TUMNEL CORRIDOR POOK STORAGE ANNEX ELEVATOR VESTIBULE BOUR STURAGE ANNEX ELECTRICAL CLOSET signal closet STURAGE **GL48** MEN CUSTODIAN SIMUER FAN RUM 4651 MECHANICAL RUM GL52 FAN ROOM FAN ROOM GL54 FAN ROOM 4L55 CORRIDOR ELEVATOR VESTIBLIE 4656 CORRIDOR BINDERT PROCESSING OFFICE AGUISITIONS WORK AREA VENT ROOM supply room 6662 6663 CURRIDOR ELECTRICAL CLOSET CUREIDOR elevator machine ram

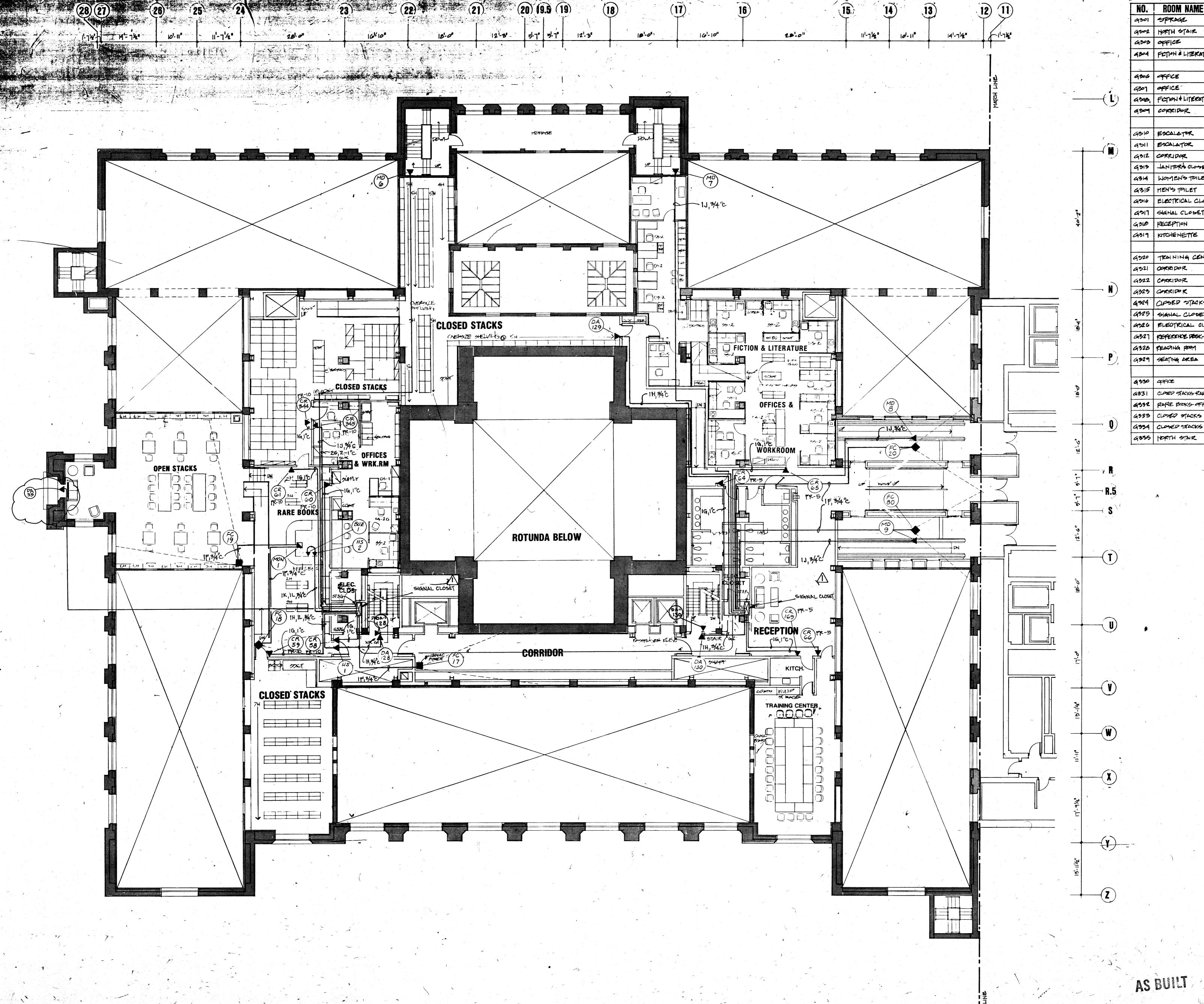
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office

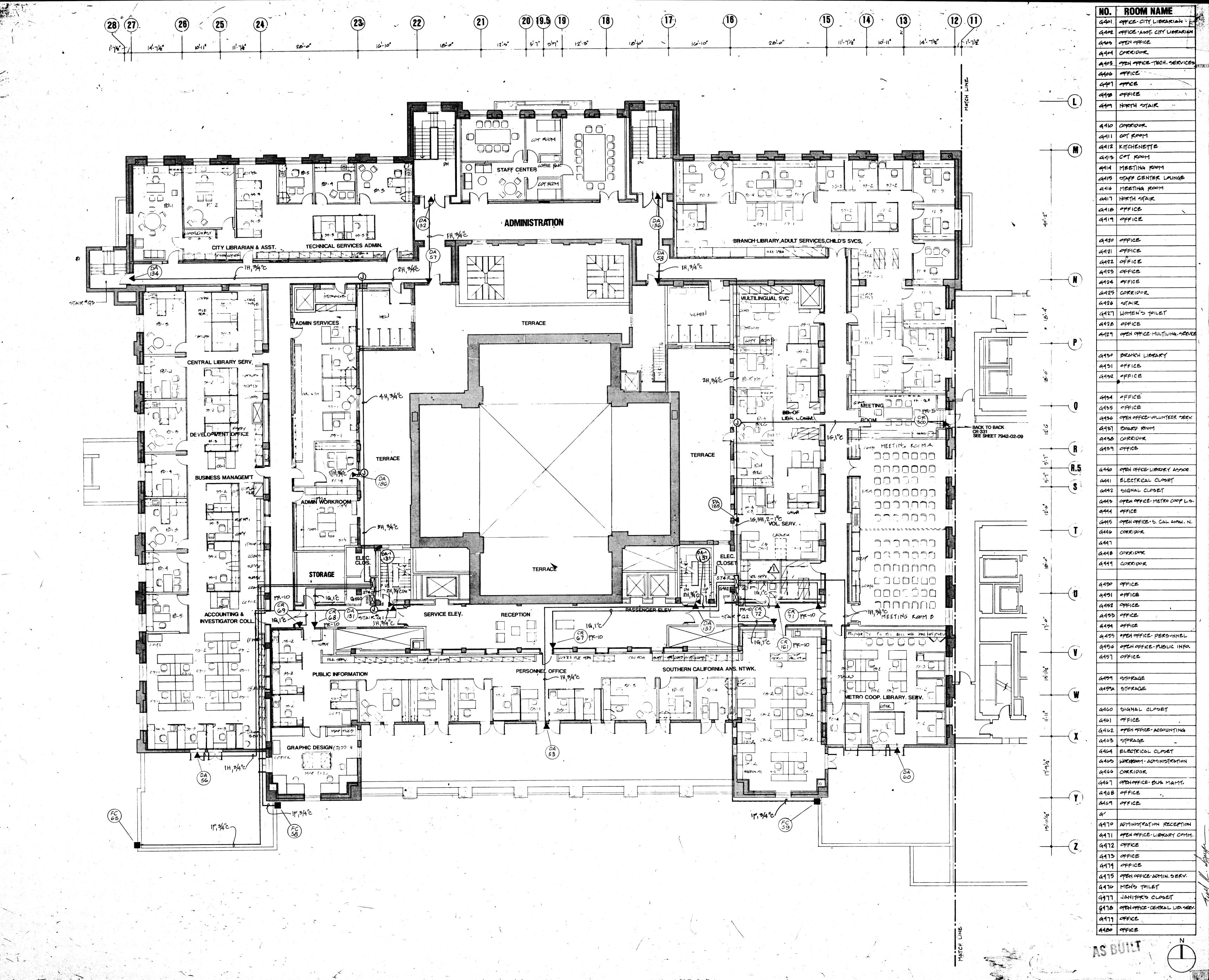
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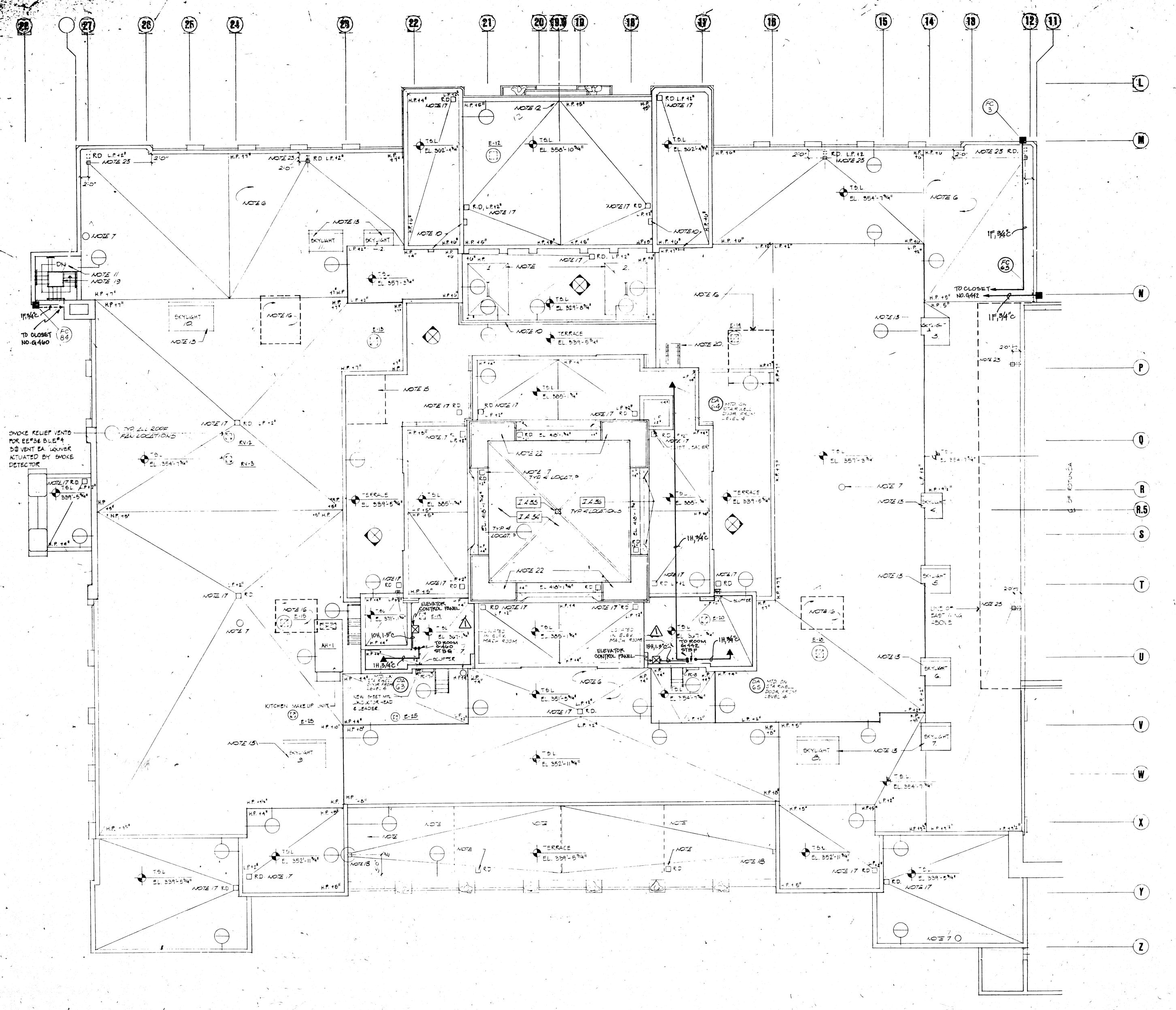






ROOM NAME 9301 SPRAGE 9302 HORTH STAIR G303 OFFICE 9304 FICTION & LITERATURE OFFICE 9306 OFFICE 4307 OFFICE G308, FICTION & LITERATURE OFFICE 9309 COKKIDOR GS10 ESCALATOR 9311 EXCALATOR 4312 CORRIDOR 9313 JANITOR'S OLOSET 4314 WOMEN'S TOILET 4315 MEN'S TOILET GOIG ELECTRICAL CLOSET 4317 SIGHAL CLOSET GSID RECEPTION 4319 KHICHEHETTE G320 TRAINING CENTER 4321 OOKRIDOR 4322 CORRIDOR 4924 CLOSED STACKS 4325 SIGHAL CLOSET 4326 ELECTRICAL CLOSET G327 REFERENCE DECK-RAPE BOOK G328 READING ROOM G329 SEATING AREA G331 CLOSED STACKS RAPE BOOKS 6392 RARE BOXS-OFFICE





1. COORDINATE ALL WORK AND SCHEDULEN
OF WORK WITH THE ADJACEN
DEVELOPMENT AND THE STREET WIDERIN
WORK PROPOSED BY THE CITY.

2. VERIFY ALL EXISTING DIMENSIONS AND FIRL
CONDITIONS OF EXISTING SURFACES. PAPE
EXISTING SURFACES TO REMAIN; ASSUM
MINIMUM OF 15% OF EXISTING WALL/CEILIN
SURFACES FOR PATCHING.

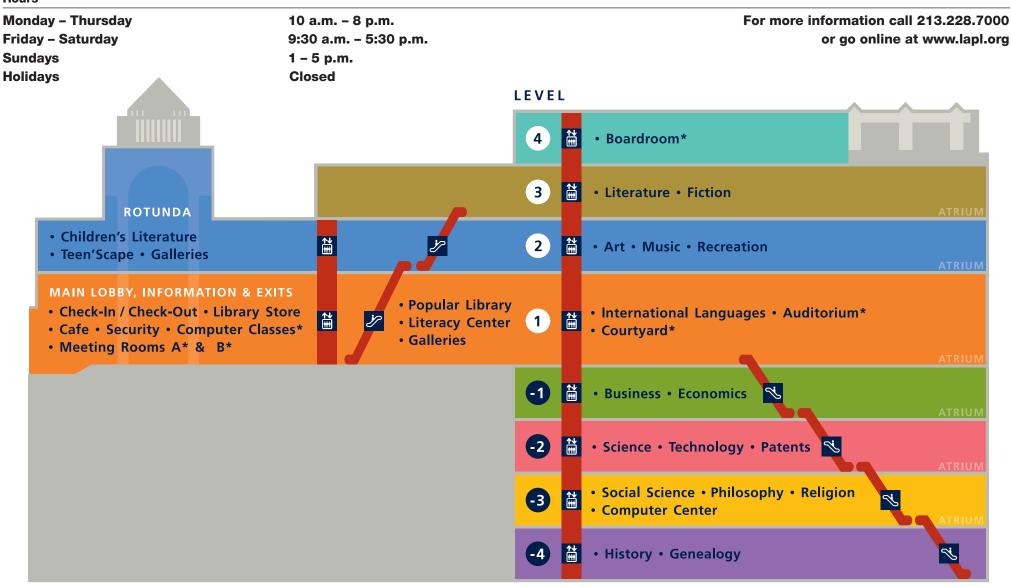
3. PARTITION TYPES MOTED ON PLAN
EXEMPLIFY CONSTRUCTION REQUIRED FO
VARIOUS TYPES OF ROOMS; LE. PRIVAT
OFFICES, OPEN OFFICES, WORKROOMS ...ETC
4. ONLY "SECURITY ALARM", "HOLD OPEN" AN
"CLOSTURE" REQUIREMENTS ARE INDICATE

"CLOSTURE" REQUIREMENTS ARE INDICATE WITH DOOR/FRAME TYPES; OTHE HARDWARE REQUIREMENT FOR ALL NE DOORS SHALL BE STANDARD AS REQUIRE FOR FUNCTION AND FIRE RATINGS.

### Richard J. Riordan Central Library

630 West Fifth Street, Downtown Los Angeles







# **Guide to finding library materials in the Central Library**

First print out the listing from the online catalog for the materials you want. Then locate the call number below to find the Subject Departments where they are shelved. For assistance, please ask staff at any Information Desk.

Call Numbers	Level	Subject Department	Subjects Include
000 - 099	3	Literature · Fiction	Report writing, library science, journalism, general reference works (such as encyclopedias and Guinness World Records)
100 - 399 (except * below)	-3	Social Science · Philosophy · Religion	Test preparation, philosophy, psychology, religions, occult studies, astrology, political science, law, education, etiquette, true crime, parenting
*330 - 334, 336 - 339, 347.1 - 347.4 & 347.7, 368, 380 - 389	<b>1</b>	Business · Economics	Real estate, investing and personal finance, trade, business law, bankruptcy, insurance, transportation, taxes, communications, labor
400 - 429	3	Literature · Fiction	English grammar, English dictionaries, linguistics
430 - 499	1	International Languages	Books, dictionaries, and grammars for languages other than English as well as language-learning tapes, CDs, videos and DVDs
500 - 649, 660 - 699	-2	Science · Technology · Patents	Mathematics, astronomy, physics, chemistry, biology, animals, computers, medicine, anatomy, exercise, cooking, engineering, patents, auto repair
650 - 659	<b>(1)</b>	Business · Economics	Management, resume books, small-business guides, advertising, accounting, word processing
700 - 799	2	Art · Music · Recreation	Fine and applied arts, film studies, photography, music, games, sports, fashion, crafts, ornamenta gardening, architecture, orchestral scores
800 - 899	3	Literature · Fiction	Literature and literary criticism, plays and theatre, poetry
900 - 999, 92	-4	History · Genealogy	History, geography, maps, travel guides, genealogy, name books, biographies of presidents, statesmen, world leaders and military figures
x, xz, xz IR, x GN	2	Children's Literature Department	Books, magazines, music CDs, DVDs, and audiobooks for children ages 0-12.
Fiction, M, SF, W, SS, LT	3	Literature · Fiction	Fiction is shelved under the author's name and includes: Mystery (M), Science Fiction (SF), Western (W), Short Stories (SS). All Large Type books (LT) are also found there.
S, CH, K, etc.	1	International Languages	Languages other than English are indicated by a letter before the call number: Spanish (S), Chinese (Ch), Korean (K), etc.
All Call Numbers	1	Popular Library	Bestsellers, popular books, entertainment DVDs and videos, music CDs and audio books
All Call Numbers	2	Teen'Scape	Books, test preparation, college, and career guides, DVDs, and audiobooks for teens.

**AUD & CD** (Audio Books); **VID** (Videos); **DVDs;** magazine and periodicals are found in every department with other materials relating to the subject. All **biographies** are found in their respective subject departments.

Central / Regions	# of Branches	Central Floors/Branches	Est. Qty - Security Camera	Est. Qty - Acess Control	Network Video Recorder Needed?	Network Switch Ports Needed	Comments
Central		1st Floor (L1)	60	30	0	90	Including job site surveys, access contorl badges & readers, recording software licenses, servers & workstations, all new CAT6 cabling, network swtiches, video storages, server racks, installations & trainings.
		2nd Floor (L2) Computer Center (on LL3)	50 10	31 2	0	81 12	Adding 2 Systems Analyst positions for IT network support
		All Central IDF (Comm Room)	80	_	0	80	20 Network switch ports are for: security cameras, access control, TVs + computers
							and phones for the new furniture.
		Security Office - Monitoring console, computer equipment, software, TVs and new furniture.	3	3	0	20	3-security cameras: 1-360 camera at the security desk, 1-4-way camera inside the office, behind the main entrance, 1-180 camera at the entrance door, before entering the office. Plus, 1 monitor behind the door, displaying the 180 degree camera - who at the door.
		Elevator CAB 1-11 (Except Elevator #7)		10			3-access control: 1-main entrance, 1-chief office, 1-asst. chief or sgt. office.
		Access Controllers		12			
Central		LL4 LL3	50 45	17 9	0 0	67 54	
Central		LL2 LL1	50 50	18 32	0	68 82	
Central		3rd Floor (L3)	50	14	0	64	
		4th Floor L4)	35	6	0	41	
		Central Library Sub-total:	483	184	0	659	
Southern Area	13	26 Angeles Mesa 30 Ascot	12	10	1	22 22	
		06 *Exposition Park	12 25	10 20	1 1	45	
		68 Harbor City/Gateway 17 Jefferson	12 12	10 10	1 1	22	
		34 John Muir 07 Junipero Serra	12 12	10 10	<u> </u>	22 22	
		45 Mark Twain 09 *San Pedro	12 25	10 20	1 1	22 45	
		14 Vermont Square 04 Vernon	12 12	10 10	1	22 22	
		43 Watts 10 Wilmington	12 12	10	1	22 22	
Northeast Area	13	05 *Arroyo Seco	25	20	1	45	
TTOTUTOUS TO THE CONTROL OF THE CONT		01 Benjamin Franklin 63 Chinatown	12 12	10 10	1	22	
		28 Cypress Park	12	10	1	22	
		32 Eagle Rock 08 Echo Park	12 12	10 10	1	22 22	
		69 Edendale 21 El Sereno	12 12	10 10	<u>1</u> 1	22 22	
		02 Lincoln Heights 64 Little Tokyo	12 12	10 10	1	22 22	
		18 Malabar 19 R.L. Stevenson	12 12	10	1	22	
		72 Silver Lake	12	10	1	22	
Hollywood Area	13	44 Atwater Village 20 Cahuenga	12 12	10 10	1	22 22	
		61 Fairfax 48 Felipe de Neve	12 12	10 10	1	22 22	
		11 *Goldwyn-Hollywood 12 John C. Fremont	25	20	1	45	
		36 Los Feliz	12 12	10 10	1	22 22	
		49 Memorial 70 Pico Union	12 12	10 10	1	22 22	
		03 Pio Pico-Koreatown 41 Washington Irving	12 12	10 10	1	22 22	
		31 Will & Ariel Durant 29 Wilshire	12 12	10 10	1	22 22	
Western Area	12	46 Baldwin Hills	12	10	1	22	
Western Area	12	16 Brentwood	12	10	1	22	
		33 Hyde Park 38 Mar Vista	12 12	10 10	1	22 22	
		15 Palisades 22 Palms-Rancho Park	12 12	10 10	1 1	22 22	
		55 Playa Vista 42 Robertson	12 12	10 10	1	22 22	
		40 Venice 27 *West Los Angeles	12 25	10 20	1 1	22 45	
		13 Westchester-Loyola 71 Westwood	12 12	10 10	1	22 22	
East Valley Area	11	62 Lake View Terrace	12	10	1	22	
		37 *North Hollywood 53 Pacoima	25 12	20 10	1 1	45 22	
		39 Panorama City 51 Sherman Oaks	12 12	10 10	1	22 22	
		25 Studio City 52 Sun Valley	12 12	10	1	22	
		35 Sunland-Tujunga 54 Sylmar	12 12	10 10	1	22 22	
		57 Valley Plaza 23 Van Nuys	12 12 12	10 10 10	1 1 1	22 22 22	
West Valley Area	10	24 Canoga Park	12	10	1	22	
vvest valley Afea	IU	60 Chatsworth	12	10	1 1 ·	22	
		47 Encino-Tarzana 56 Granada Hills	12 12	10 10	1 1	22 22	
		<b>66 *Mid-Valley</b> 59 Northridge	25 12	20 10	1	45 22	
		65 Platt 67 Porter Ranch	12 12	10	1	22	
		50 *West Valley 58 Woodland Hills	25 12	20 10	1 1	45 22	
	1			-			
	72	72 branch libraries' sub-total:	968	800	72	1768	

# PROPOSED SCHEDULE/PRICE FEE

The below table indicates a general guide for the required technical requirements for this RFP. The bidder is expected to provide its professional assessment as to what would meet the needs of LAPL. The description of items required serve as a point of reference. Bidder may expand tables as necessary.

### A. IP Camera System

	Description	QTY	Cost	Total
1	Exterior HDTV IP Cameras			
	Vandal/Environmental Proof.			
	Quote for 3 megapixel :			
	automatic zoom/focus control			
	(HDTV 1080p)			
2	Interior HDTV IP Cameras			
	Quote for 3 megapixel:			
	automatic zoom/focus control			
	(HDTV 1080p)			
3	IP Camera Management Software			
	System			
4	IP Camera Accessories			
5	Network Video Controller with Network			
	storage solution			
6	IP Camera Labor			
7	IP Camera Other			
8	Warranty			
9				
10				
	IP Camera Sub Total			

# B. Keyless Door Access Controls with Security Camera Monitors at Doors

	Description	QTY	Cost	Total
1	Keyless Entry Door Controls			
2	Entry Door Video Camera/Buzzer			
3	Entry Door Video Monitor/Door Release			
	Button at Reception area for all 5 Doors			
4	Connect Interior Fire doors to Door release			
	button at reception area			
5	Door access control Labor			
6	Door Access Control other			
7				
8				
	Keyless Door Access Control Sub Total			

# C. Network Upgrade Requirements for Implementation of IP camera Network

	Description	QTY	Cost	Total
1	Extreme Systems x460 24P Switch			
2	X460 Stacking Cables			
3	X460 Stacking Modules			
4	X460 10g Modules with SFP+			
5	X460 10g SFP's			
6	4 Strand Custom Line Indoor (Plenum) 10-GIG 50/125 OM3 Multimode fiber (IDF to IDF),			
	(IDFx2 to MDF)			
7				
8				
9				
10				
11			•	
	Network Upgrade Subtotal			

# **Total Project Costs**

Description	Total
IP Camera Sub Total	
Keyless Door Access Control Sub Total	
Network Upgrade Subtotal	
Grand Total	