

REQUEST FOR PROPOSAL

FOR

*Johnston Community College
245 College Rd
Smithfield, NC 27577*

Bid# 104-C202526001 Campus Door Access Control

SCOPE OF WORK - Upgrade the colleges current Access Control System to the IPRO Access Control platform (MonitorCast) across four (4) separate college locations within Johnston County, North Carolina. The specific campus locations are detailed below. ***Note:** this includes a brand-new facility with no previous access control. Main Campus will be the base bid and the other 3 campuses as alternates.

The selected vendor will be responsible for providing and installing all materials, software, hardware, and services necessary to complete the system upgrade as specified by JCC. This includes, but is not limited to:

- Supplying and installing all required door access hardware and devices in accordance with JCC's specifications within this document.
- Configuring the IPRO Access Control (MonitorCast) system to integrate seamlessly with existing ADA door operations.
- Adding new and replacing existing access control door locking mechanisms, as needed, to ensure full compatibility with the proposed system.

All installations must meet current security standards and be fully operational upon project completion.

Quantity of items to be confirmed during walk throughs:

- 49 AD200 locks to be converted
- 198 existing doors to be upgraded from current Access Control System
- 239 proposed new doors to be added to the system

College Locations:

- Main Campus – 245 College Road, Smithfield, NC **Base Bid**
 - **Elsee Building** – Will be undergoing renovation, so existing floorplan will change
 - Wilson Building
 - Tart Auditorium
 - Health Building
 - Smith Building
 - LRC Building
 - **Britt Building** – Will be undergoing renovation, so existing floorplan will change
 - TDT Building
 - Public Safety Building
 - Sanders Building
 - Arboretum
 - Wood Building
- Workforce Development Center – 135 Best Wood Drive, Clayton, NC **Alternate Bid #1**
- Cleveland Center – 9046 Cleveland Road, Clayton, NC **Alternate Bid #2**
- (New Facility) Advanced Technology and Manufacturing Facility – 546 Boyette Rd, Four Oaks, NC **Alternate Bid #3**

Proposals must include all necessary raceways, junction boxes, and sleeves required to establish appropriate cable pathways. Existing cable trays may be utilized where applicable and in good condition.

Please Note: Change orders will only be considered for additional work requested by the Owner after contract award. No change orders will be accepted for items that are required to deliver a complete, turnkey, and fully functional system upgrade as outlined in this bid document, including any items the bidder may have overlooked during site evaluation or proposal development.

Installation Access and Work Hours:

Installation work shall be conducted during normal business hours in areas where activities will not disrupt classes or college operations. For any work involving the installation of raceways, drilling of holes, or anchoring into walls, the vendor must coordinate in advance with the designated site contact to schedule appropriate access times.

1. Approved Vendors – Contractor Qualifications

The installing contractor for the iPRO MonitorCast Access Control System shall meet the following requirements:

1. Be a current iPRO Certified Panasonic Partner.
2. Have maintained certified vendor/partner status with the manufacturer for at least three years.
3. Hold an active North Carolina Alarm License.
4. Hold an active North Carolina Electrical License.
5. Operate a service office within 125 miles of the College.
6. Provide phone and remote PC support during normal business hours.
7. Capable of delivering:
 - a. Standard service within 24 hours of request.
 - b. Emergency service within 2 hours of request.
 - c. Have successfully completed similar college-wide access control systems for at least three facilities/school district of comparable size.
 - d. References to be provided below.

Reference #1

Facility			
Address:			
Manufacturer:			
# Of Controlled Doors on the System:		# Of Years of Servicing the System:	
Contact Information for the System Admin:			
Name:		Phone:	
Email:			

Reference #2

Facility			
Address:			
Manufacturer:			
# Of Controlled Doors on the System:		# Of Years of Servicing the System:	
Contact Information for the System Admin:			
Name:		Phone:	
Email:			

Reference #3

Facility			
Address:			
Manufacturer:			
# Of Controlled Doors on the System:		# Of Years of Servicing the System:	
Contact Information for the System Admin:			
Name:		Phone:	
Email:			

2. Base Bid Scope and Requirements

The contractor shall furnish all materials, accessories, equipment, and labor required to complete the project in full. Any materials and/or equipment necessary for the proper operation and functionality of the access control system—whether or not specifically mentioned in this specification—shall be considered part of the contractor’s scope of work.

All services shall include proper installation and all related materials as outlined in these specifications to deliver a complete, fully operational system.

Bid Review Process:

Submitted bids will be reviewed and evaluated by Johnston Community College staff based on the following criteria:

1. **Price** – Overall cost-effectiveness and value of the proposal.
2. **Compliance with Project Requirements** – The extent to which the proposal meets the specifications and needs outlined in this bid document.
3. **Vendor Experience** – The vendor’s relevant experience, including previous performance on similar projects and past work with Johnston Community College (if applicable).

Final selection will be based on the proposal that offers the best combination of these factors, ensuring the most beneficial outcome for the College.

2.1 Base Manufacturer and Substitutions

The base access control system specified for this project is **iPRO MonitorCast**.

Substitutions of equivalent products will be considered only if submitted in advance for review and receive **written approval from the Owner**. It is the responsibility of the bidder to provide sufficient documentation demonstrating that any proposed substitution meets or exceeds the performance, compatibility, and quality standards of the specified system.

2.2 System Controller / Software

1. **Access Control Software**
Provide and configure access control system software (iPRO MonitorCast) to be installed on an owner-provided virtual server. Vendor is responsible for software installation, configuration, and system validation.
2. **Turnkey Conversion**
Perform a turnkey conversion of the existing access control hardware and components to the new system, ensuring minimal downtime and full compatibility.
3. **Integration with Existing IP Camera System**
Integrate the access control system with the College’s existing IP-based camera system to enable badge-video association, allowing visual verification of access events.
4. **Mass Notification System Integration**
Integrate with the existing Bogen C4000 mass notification system to enable bi-directional lockdown events, allowing both systems to initiate or respond to emergency lockdown conditions.

2.3 System Expansion and Upgrades

1. Additional Access Points

Install access control at additional entrances as directed by the Owner during the course of the project. Locations and quantities will be provided or confirmed prior to implementation.

2. Reuse of Existing Hardware

Reuse existing Mercury access control boards and power supplies by updating or flashing with firmware compatible with the new system (iPRO MonitorCast).

3. Licensing Requirements

Include all required one-time licenses necessary for Mercury board conversion. No recurring or annual licensing fees will be accepted for this functionality.

4. Use of Existing Infrastructure

When applicable, utilize existing controller enclosures and power supplies to minimize additional hardware costs, provided they meet current code and system compatibility.

5. Supplemental Hardware

Furnish and install any additional access control boards, enclosures, and battery backup systems necessary to support expanded functionality or to replace components that are incompatible or non-functional.

- a. Control boards shall be mounted in MDF/IDF locations.
- b. Each power supply shall be equipped with the necessary batteries to provide backup power in the event of a power failure.
- c. Power supplies shall be installed only in MDF or IDF locations, unless a specific alternate location is approved in writing by the Owner.
- d. Existing 120v Electrical power in the existing MDFs and IDFs shall be used for the power supplies. If a location needs additional 120v power, the owner shall provide additional power as needed.

2.4 Accessibility Compliance

All handicap-accessible doors equipped with automatic openers must be fully integrated into the access control system to allow seamless single-step operation (i.e., presenting a credential both unlocks the door and activates the opener). The vendor is responsible for verifying existing ADA door configurations and making any necessary modifications to ensure compliance with this requirement.

2.5 Wireless Locking

Where hard-wired solutions are impractical or cost-prohibitive, the vendor shall utilize wireless lock technology to ensure full access control functionality. Specifically, existing Schlage AD200 standalone locks shall be upgraded to Schlage AD400 wireless locks. This upgrade will require the use of wireless Panel Interface Modules (PIMs) and Schlage-approved conversion kits. The vendor is responsible for supplying and installing all necessary components to ensure proper integration and operation within the iPRO Access Control (MonitorCast) system.

2.6 Access-Controlled Door Components

Each access-controlled door shall include the following components:

- 1. Card Reader**
Provide and install a card reader at each designated door location. New readers shall be HID multi-technology (multi-tech) readers, fully compatible with the College's existing access control credentials.
- 2. Request to Exit (REX)**
Install a Request to Exit (REX) device to allow free egress in compliance with life safety and building codes.
- 3. Door Contacts**
Install door position sensors (contacts) to monitor door status and detect forced or held-open conditions.
- 4. Electric Lock**
Provide and install an electric locking mechanism appropriate to the specific door type and application (e.g., strike, maglock, or electrified hardware), ensuring full integration with the access control system.

2.7 Repair Allowance

- 1. Allowance Amount**
A \$30,000 repair allowance shall be included in the total contract value to cover unforeseen repairs and related work identified during the course of the project.
- 2. Tracking and Reporting**
The contractor is responsible for tracking and documenting all repair-related work performed under this allowance. Detailed records, including labor, materials, and justification, must be submitted to the Owner for review and approval.
- 3. Unused Funds**
Any unused portion of the repair allowance shall be credited back to the Owner at the conclusion of the project.
- 4. Authorized Use for Change Orders**
The repair allowance may be applied toward Owner-authorized change orders when appropriate and approved in writing.
- 5. Exceeding the Allowance**
Should repair costs exceed the \$30,000 allowance, any additional funding required will be subject to Owner approval and shall be the Owner's responsibility.

2.8 Network Requirements

Contractor Responsibilities:

- 1. Network Drops**
Install all required network drops to support the access control devices at each location.
- 2. Patch Cords**
Provide and install patch cords from each device back to the nearest Main Distribution Frame (MDF) or Intermediate Distribution Frame (IDF), as appropriate.

Owner Responsibilities:

1. Network Switches

The Owner will supply all required network switches for device connectivity.

2. Network Support

The Owner will provide necessary network configuration, IP addressing, and ongoing network support.

2.9 Badging Equipment

Contractor to Provide:

- Three (3) dual-sided badge printers capable of producing high-quality, durable ID badges.
- Enrollment card readers necessary for capturing credential data during badge issuance.
- Badging software compatible with the access control system for badge design, printing, and management.

Owner to Provide:

- Individual PCs to run the badging software and support badge issuance operations.

3. Alternates

Alternate #1 – Reader and Badge Replacement:

Contractor shall provide a separate cost to:

- Replace all existing Proximity (Prox) readers with multi-technology (multi-tech) readers compatible with both existing and future credential formats.
- Issue new multi-class technology badges, double-sided and printable, for use with the upgraded system.
- Confirm the total badge quantity required with the Owner prior to ordering.

Alternate #2 – Badge Printing and Enrollment:

***Applicable only if Alternate #1 is accepted.*

Contractor shall provide a separate cost to:

- Print and enroll all new ID badges into the access control system.
- Include photo badges for all staff members.
- Ensure all badges are fully enrolled, programmed, and operational prior to distribution.
- The Owner will be responsible for distributing the badges to end users.

4. System Programming

The contractor shall deliver a fully programmed and operational access control system as part of the turnkey installation. System configuration shall include, but is not limited to, the following:

1. **Access Levels** – Defined access privileges based on user roles or groups.
2. **Time Schedules** – Time-based rules for controlling access permissions.
3. **Reader Groups** – Logical groupings of readers for efficient management.
4. **Door Groups** – Grouped doors for simplified assignment of access rules.
5. **Credential Profiles** – Templates for badge issuance and access assignment.
6. **User Log-In Profiles** – System administrator and operator accounts with defined permission levels.

All elements of the programming for the controllers, doors readers, monitored door inputs, etc. shall be programmed in the system with detailed descriptions as directed by the owner. From the software, a user must be able to identify where a device is located and which doors it controls.

- a. Program all monitored doors to give a Prop Open Alarm. Each entrance shall have a separate input trigger and will give a notification to staff when propped open. The notification shall include the door identification number and location at the college.
- b. Provide Programming on up to 2 owners workstations per campus to install and setup user login and custom screen configuration for staff.
- c. Program email notifications as required by the owner for lockdown and propped doors.
- d. Test email notification for proper operation.

All programming and configuration shall be completed in coordination with and based on direction from the Owner, ensuring alignment with campus policies, operational needs, and security protocols.

5. Labeling and Testing

- a. All Power Supply/Controller Cabinets Shall be labeled and identified to match the descriptions in the software programming.
- b. Label each Control board in each cabinet identified with the matching identifier in the software for that board. Label each board with the IP address associated with that board.
- c. Label each access control multiconductor cable at the controller cabinet with the door number associated with that door.
- d. Label each monitored door 2-conductor at the controller cabinet with the door number associated with that door.
- e. For each access-controlled door, install a permanent label on the inside face of the door at the top hinged side of the door with the access control number for that door.
- f. For each Entrance with monitored doors, install a permanent label on the inside face of the door at the top hinged side of the door with the monitored door number for that door or doors.
- g. Document all door number labels on a set of drawings to turn over to the owner.
- h. Each door shall be tested to verify that each device at that door performs correctly and shows up correctly in the system logs when triggered.
- i. Each monitored door shall be tested to verify that if propped open, it triggers and reports the correct door identification number and shows up in the system logs.
- j. Test all lock down features and verify all door lock as required.

6. Training

The contractor shall provide comprehensive training for the Owner's staff to ensure effective use and administration of the access control system. Training shall include the following components:

1. **Basic User Training** – Instruction for general staff on day-to-day system operations (e.g., badge issuance, access control monitoring, and simple troubleshooting).
2. **Advanced Training** – In-depth training for Johnston Community College Police and IT staff covering system architecture, advanced configuration, and diagnostics.
3. **System Access** – Full access to all system programming features shall be granted to designated Owner personnel.
4. **Multiple Sessions** – Training may be conducted in multiple sessions, as needed, within the first-year warranty period to accommodate different user groups or shifts.
5. **Training Hours** – Total training shall not exceed 40 hours in aggregate.
6. **Phone App Setup** – If applicable, provide phone app installation and setup on two administrator's phone and the approved College Police phones.

The contractor shall coordinate training schedules with the Owner and provide any required training materials, manuals, or resources.

7. Items Not Included

The following items are not included in the contractor's scope of work and are the responsibility of the Owner or will require a separate agreement if needed:

1. **Repairs to Door Hardware**
 - Door closers (manual or automatic)
 - Hinges
 - Lock cylinders
 - Door jambs or sagging doors
2. **Network Infrastructure**
 - Provision or configuration of PoE network switches
 - IT support related to the Owner's internal network systems
3. **Power Backup Equipment**
 - Use of existing UPS or battery backup units located in IDF/MDF rooms is excluded unless otherwise specified

Any required work related to these items will be addressed separately, based on Owner request and approval.

8. Closeout Documents

- a. Provide O&M manuals for the entire system to include each type of controllers, power supplies and door devices used on the system.
- b. Provide As-Built drawings for the owner showing the door locations, number scheme for each door, location, and identification number of each power supply / controller.
- c. Close out documents shall include the following:
 - i. Two printed sets of O&Ms in three ring binders
 - ii. Two Sets of As-Built Drawings printed 24"x 36"
 - iii. Electronic Copies of O&Ms
 - iv. Electronic Copy of drawings in PDF.

9. Warranty

The Installer shall provide a one-year warranty covering parts and labor, effective from the date the installation is complete and formally accepted by the Owner.

This warranty shall include:

- Replacement or repair of any defective materials or equipment
- Correction of any installation or workmanship defects
- All labor costs associated with diagnosing and correcting warranty issues

The warranty applies to all components of the installed system, and ensures that the system will operate as intended, free from defects in materials and workmanship, for the full one-year period.

Attachment A: Site Plans with Access Control Marked

Attachment B: IPRO Monitorcast AE Spec CSI Master Format

NOTICE TO BIDDERS

**Mandatory Site Visit Tuesday, October 7th @ 1:00PM in the lobby of the Wood Building
245 College Road Smithfield, NC 27577
Building N on map below**



Sealed bids for this work will be received by:

Mr. Wade Quinn
Director of Purchasing
dwquinn@johnstoncc.edu
Johnston Community College
245 College Rd
Smithfield, NC 27577
919-209-2035

Up to **2:00 pm on Thursday, October 30th** and immediately thereafter publicly opened and read aloud.
Bid Opening will be held in the Pines Boardroom located in the front of the Wilson Building.

No bid may be withdrawn after the opening of bids for a period of 30 days. The Owner reserves the right to reject any or all bids and waive informalities. Bids shall be made only on the BID/ACCEPTANCE form provided herein with all blank spaces for bids properly filled in and all signatures properly executed.

**Additional site visit dates and times may be scheduled with Angela Moore
ajmoore@johnstoncc.edu**

for the off-site locations to assess existing conditions and gather all necessary information to develop a complete and accurate bid package. It is the bidder's responsibility to evaluate each site thoroughly to identify any factors that may impact installation and system integration.

Proposals may be delivered via UPS, FEDEX or hand delivered. No USPS.

Please note on the envelope
Bid: Attn: Mr. Wade Quinn
Johnston Community College
Campus Door Access Control
October 30th, 2025
(Contractor Name)

BID/ACCEPTANCE FORM

for

Johnston Community College – Campus Door Rekeying

The undersigned, as bidder, proposes and agrees if this bid with alternates are accepted to contract with **Johnston Community College** for the furnishing of all materials, equipment, and labor necessary to complete the construction of the work described in these documents in full and complete accordance with plans, specifications, and contract documents, and to the full and entire satisfaction of **Johnston Community College**.

BASE BID: _____ **Dollars \$** _____

ALTERNATE BID #1: _____ **Dollars \$** _____

ALTERNATE BID #2: _____ **Dollars \$** _____

ALTERNATE BID #3: _____ **Dollars \$** _____

Respectively submitted this _____ day of _____ 20____

(Contractor's Name)

Federal ID#: _____

By: _____

Title: _____
Owner, partner, corp. Pres. Or Vice President)

Address: _____

Email Address: _____

ACCEPTED by the STATE OF NORTH CAROLINA
through Johnston Community College

Total amount of accepted by the owner, included base bid and bid alternates: _____

BY: _____ TITLE: _____

Date: _____

BY: _____ TITLE: _____

Date: _____

GENERAL CONDITIONS

1. GENERAL

It is understood and agreed that by submitting a bid that the Contractor has examined these contract documents, drawings and specifications and has visited the site of the Work, and has satisfied himself relative to the Work to be performed.

2. DEFINITIONS

Owner: "Owner" shall mean, The State of North Carolina through Johnston Community College

Contractor: "Contractor" shall mean the entity that will provide the services for the Owner.

Designer: The **designer(s)** are those referred to within this contract, or their authorized representatives. The Designer(s), as referred to herein, shall mean architect and/or engineer responsible for preparing the project plans and specifications. They will be referred to hereinafter as if each were of the singular number, masculine gender.

Contract Documents: "Contract Documents" shall consist of the Notice to Bidders; General Conditions of the Contract; special conditions if applicable; Supplementary General Conditions; the drawing and specifications, including all bulletins, addenda or other modifications of the drawings and specifications incorporated into the documents prior to their execution; the bid; the contract; the performance bond if applicable; and insurance certificates. All of these items together form the contract.

3. INTENT AND EXECUTION OF DOCUMENTS

The drawings and specifications are complementary, one to the other. That which is shown on the drawings or called for in the specifications shall be as binding as if it were both called for and shown. The intent of the drawings and specifications is to establish the scope of all labor, materials, transportation, equipment, and any and all other things necessary to provide a complete job. In case of discrepancy or disagreement in the Contract Documents, the order of precedence shall be: Form of Contract, specifications, large-scale detail drawings, small-scale drawings.

In such cases where the nature of the work requires clarification by the Designer/ Owner, the Designer/ Owner shall furnish such clarification. Clarifications and drawings shall be consistent with the intent of the Contract Documents, and shall become a part thereof.

4. AS-BUILT MARKED-UP CONSTRUCTION DOCUMENTS

Contractor shall provide one complete set of legible "as-built" marked-up construction drawings and specifications recording any and all changes made to the original design during the course of construction. In the event no changes occurred, submit construction drawings and specifications set with notation "No Changes." The Designer/Owner must receive "As-built" marked-up construction drawings and specifications before the final pay request can be processed.

5. SUBMITTAL DATA

The Contractor awarded the contract shall submit all specified submittals to the Owner/Designer. A minimum number of copies as specified by the owner, of all required submittal data pertaining to construction, performance and general dimensional criteria of the components listed in the technical specifications shall be submitted. No material or equipment shall be ordered or installed prior to written approval of the submittals by the Designer/Owner. Failure to provide submittal data for review on equipment listed in the technical specifications will result in removal of equipment by the Contractor at his expense if the equipment is not in compliance with the specifications.

6. SUBSTITUTIONS

In accordance with the provisions of G.S. 133-3, material, product, or equipment substitutions proposed by the bidders to those specified herein can only be considered during the bidding phase until five (5) days prior to the receipt of bids or by the date specified in the pre bid conference, when submitted to the Designer with sufficient data to confirm material, product, or equipment equality. Proposed substitutions submitted after this time will be considered only as potential change order.

Submittals for proposed substitutions shall include the following information:

- a. Name, address, and telephone number of manufacturer and supplier as appropriate.
- b. Trade name, model or catalog designation.
- c. Product data including performance and test data, reference standards, and technical descriptions of material, product, or equipment. Include color samples and samples of available finishes as appropriate.
- d. Detailed comparison with specified products including performance capabilities, warranties, and test results.
- e. Other pertinent data including data requested by the Designer to confirm product equality.

If a proposed material, product, or equipment substitution is deemed equal by the Designer to those specified, all bidders of record will be notified by Addendum.

7. WORKING DRAWINGS AND SPECIFICATIONS AT THE JOB SITE

The contractor shall maintain, in readable condition at his job site one complete set of working drawings and specifications for his work including all shop drawings. Such drawings and specifications shall be available for use by the owner, designer or his authorized representative.

The contractor shall maintain at the job site, a day-to-day record of work-in-place that is at variance with the contract documents. Such variations shall be fully noted on project drawings by the contractor and submitted to the designer upon project completion and no later than 30 days after acceptance of the project.

8. MATERIAL, EQUIPMENT, EMPLOYEES

- a. The contractor shall, unless otherwise specified, supply and pay for all labor, transportation, materials, tools, apparatus, lights, power, fuel, heat, sanitary facilities, water, scaffolding and incidentals necessary for the completion of his work, and shall install, maintain and remove all equipment of the construction, other utensils or things, and be responsible for the safe, proper and lawful construction, maintenance and use of same, and shall construct in the best and most workmanlike manner, a complete job and everything incidental thereto, as shown on the plans, stated in the specifications, or reasonably implied therefrom, all in accordance with the contract documents.
- b. All materials shall be new and of quality specified, except where reclaimed material is authorized herein and approved for use. Workmanship shall at all times be of a grade accepted as the best practice of the particular trade involved, and as stipulated in written standards of recognized organizations or institutes of the respective trades except as exceeded or qualified by the specifications.
- c. Upon notice, the contractor shall furnish evidence as to quality of materials.
- d. Products are generally specified by ASTM or other reference standard and/or by manufacturer's name and model number or trade name. When specified only by reference standard, the Contractor may select any product meeting this standard, by any manufacturer. When several products or manufacturers are specified as being equally acceptable, the Contractor has the option of using any product and manufacturer combination listed. However, the contractor shall be aware that the cited examples are used only to denote the quality standard of product desired and that they do not restrict bidders to a specific brand, make, manufacturer or specific name; that they are used only to set forth and convey to bidders the general style, type, character and quality of product desired; and that equivalent product will be acceptable. Request for substitution of materials, items, or equipment shall be submitted to the designer for approval or disapproval; the designer prior to the opening of bids shall make such approval or disapproval. Alternate materials may be requested after the award if it can clearly be demonstrated that it is an added benefit to the owner and the designer and owner approves.
- e. The designer is the judge of equality for proposed substitution of products, materials or equipment.
- f. If at any time during the construction and completion of the work covered by these contract documents, the language, conduct, or attire of any workman of the various crafts be adjudged a nuisance to the

owner or designer, or if any workman be considered detrimental to the work, the contractor shall order such parties removed immediately from grounds.

- g. The Contractor shall cooperate with the designer and the owner in coordinating construction activities.
- h. The Contractor shall maintain qualified personnel and effective supervision at the site at all times during the project, and exercise the appropriate quality control program to ensure compliance with the project drawings and specifications. The designer is responsible for determining compliance with the drawings and specifications.

9. CODES, PERMITS AND INSPECTIONS

The Contractor shall obtain the required permits, if required, give all notices, and comply with all laws, ordinances, codes, rules and regulations bearing on the conduct of the work under this contract. If the Contractor observes that the drawings and specifications are at variance therewith, he shall promptly notify the Designer in writing. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, codes, rules and regulations, and without such notice to the Owner, he shall bear all cost arising there from.

All work under this contract shall conform to the current North Carolina Building Code and other state and national codes as are applicable.

Projects constructed by the State of North Carolina or by any agency or institution of the State are not subject to county or municipal building codes and may* not be subject to inspection by county or municipal authorities. Where appropriate, the Contractor shall, cooperate with the county or municipal authorities by obtaining building permits. The contractor at no cost may obtain permits to the owner.

All fire alarm work shall be in accordance with the latest State Construction Office (SCO) *Guidelines for Fire Alarm Installation* (NFPA72). Where the contract documents are in conflict with the SCO guidelines, the SCO guidelines shall govern. The Contractor shall be responsible for all the costs for the correction of the work where he installs it in conflict with the latest edition of the SCO *Guidelines for Fire Alarm Installation*...

*Inspection and certification of compliance by local authorities is necessary if an architect or engineer was not employed on the project, or if the plans and specifications were not approved and the construction inspected by the State Construction Office.

10. PROTECTION OF WORK, PROPERTY, THE PUBLIC AND SAFETY

- a. The contractors shall be jointly responsible for the entire site and the building or construction of the same and provide all the necessary protections, as required by the owner or designer, and by laws or ordinances governing such conditions. They shall be responsible for any damage to the owner's property or of that of others on the job, by them, their personnel, or their subcontractors, and shall make good such damages. They shall be responsible for and pay for any damages caused to the owner. All contractors shall have access to the project at all times, except as indicated in the Supplemental General Conditions.
- b. The contractor shall provide cover and protect all portions of the structure when the work is not in progress, provide and set all temporary roofs, covers for doorways, sash and windows, and all other materials necessary to protect all the work on the building, whether set by him, or any of the subcontractors. Any work damaged through the lack of proper protection or from any other cause, shall be repaired or replaced without extra cost to the owner.
- c. No fires of any kind will be allowed inside or around the operations during the course of construction without special permission from the designer and owner.
- d. The contractor shall protect all trees and shrubs designated to remain in the vicinity of the operations by building substantial boxes around it. He shall barricade all walks, roads, etc., as directed by the designer to keep the public away from the construction. All trenches, excavations or other hazards in the vicinity of the work shall be well barricaded and properly lighted at night.
- e. The contractor shall provide all necessary safety measures for the protection of all persons on the job, including the requirements of the A.G.C. *Accident Prevention Manual in Construction*, as amended, and shall fully comply with all state laws or regulations and North Carolina State Building Code requirements to prevent accident or injury to persons on or about the location of the work. He

shall clearly mark or post signs warning of hazards existing, and shall barricade excavations, elevator shafts, stairwells and similar hazards. He shall protect against damage or injury resulting from falling materials and he shall maintain all protective devices and signs throughout the progress of the work.

- f. The contractor shall adhere to the rules, regulations and interpretations of the North Carolina Department of Labor relating to Occupational Safety and Health Standards for the Construction Industry (Title 29, Code of Federal Regulations, Part 1926, published in Volume 39, Number 122, Part II, June 24, 1974, *Federal Register*), and revisions thereto as adopted by General Statutes of North Carolina 95-126 through 155.
- i. In the event of emergency affecting the safety of life, the protection of work, or the safety of adjoining properties, the contractor is hereby authorized to act at his own discretion, without further authorization from anyone, to prevent such threatened injury or damage. Any compensation claimed by the contractor on account of such action shall be determined as provided for under Article 13(b).
- j. Any and all costs associated with correcting damage caused to adjacent properties of the construction site or staging area shall be borne by the contractor. These costs shall include but not be limited to flooding, mud, sand, stone, debris, and discharging of waste products.

11. SUBCONTRACTS AND SUBCONTRACTORS

The Contractor is and remains fully responsible for his own acts or omissions as well as those of any subcontractor or of any employee of either. The Contractor agrees that no contractual relationship exists between the subcontractor and the Owner in regard to the contract, and that the subcontractor acts on this work as an agent or employee of the Contractor.

12. CONTRACTOR-SUBCONTRACTOR RELATIONSHIPS

The Contractor agrees that the terms of these Contract Documents shall apply equally to each Subcontractor as to the Contractor, and the Contractor agrees to take such action as may be necessary to bind each Subcontractor to these terms. The Contractor further agrees to conform to the Code of Ethical Conduct as adopted by the Associated General Contractors of America, Inc., with respect to Contractor-Subcontractor relationships. The Owner reserves the right to limit the amounts of portions of work to be subcontracted as hereinafter specified.

13. CHANGES IN THE WORK AND CLAIMS FOR EXTRA COST

- a. The owner may have changes made in the work covered by the contract. These changes will not invalidate and will not relieve or release the contractor from any guarantee given by him pertinent to the contract provisions. These changes will not affect the validity of the guarantee bond and will not relieve the surety or sureties of said bond. All extra work shall be executed under conditions of the original contract.
- b. Except in an emergency endangering life or property, no change shall be made by the contractor except upon receipt of approved change order from the designer, countersigned by the owner authorizing such change. No claim for adjustments of the contract price shall be valid unless this procedure is followed. Should a claim for extra compensation by the contractor be denied by the designer or the owner, the contractor may pursue his claim in accordance with G.S. 143-135.3.

In the event of emergency endangering life or property, the contractor may be directed to proceed on a time and material basis whereupon the contractor shall proceed and keep accurately on such form as specified by the designer or owner, a correct account of costs together with all proper invoices, payrolls and supporting data. Upon completion of the work the change order will be prepared as outlined under either Method "c(1)" or Method "c(2)" or both.

- c. In determining the values of changes, either additive or deductive, contractors are restricted to the use of the following methods:
 - 1. Where the extra work involved is covered by unit prices quoted in the proposal, or subsequently agreed to by the Contractor, Designer, Owner and State Construction Office the value of the change shall be computed by application of unit prices based on quantities, estimated or actual as agreed of the items involved, except in such cases where a quantity exceeds the estimated quantity allowance in the contract by one hundred percent (100%) or more. In such cases, either party may elect to proceed under subparagraph c (2) herein. If neither party elects to proceed under c (2), then unit prices shall apply.

2. The contracting parties shall negotiate and agree upon the equitable value of the change prior to issuance of the change order, and the change order shall stipulate the corresponding lump sum adjustment to the contract price.
- d. Under Paragraph "b" and Methods "c(2)" above, the allowances for overhead and profit combined shall be as follows: all contractors (the single contracting entity (prime), his subcontractors (1st tier subs), or their sub-subcontractors (2nd tier subs, 3rd tier subs, etc.) shall be allowed a maximum of 10% on work they each self-perform; the prime contractor shall be allowed a maximum of 5% on contracted work of his 1st tier sub; 1st tier, 2nd tier, 3rd tier, etc. contractors shall be allowed a maximum of 2.5% on the contracted work of their subs. ; Under Method "c(1)", no additional allowances shall be made for overhead and profit. In the case of deductible change orders, under Method "c(2)" and Paragraph (b) above, the contractor shall include no less than five percent (5%) profit, but no allowances for overhead.
 - e. The term "net cost" as used herein shall mean the difference between all proper cost additions and deductions. The "cost" as used herein shall be limited to the following:
 1. The actual costs of materials and supplies incorporated or consumed as part of the work;
 2. The actual costs of labor expended on the project site; labor expended in coordination, change order negotiation, record document maintenance, shop drawing revision or other tasks necessary to the administration of the project are considered overhead whether they take place in an office or on the project site.
 3. The actual costs of labor burden, limited to the costs of social security (FICA) and Medicare/Medicaid taxes; unemployment insurance costs; health/dental/vision insurance premiums; paid employee leave for holidays, vacation, sick leave, and/or petty leave, not to exceed a total of 30 days per year; retirement contributions; worker's compensation insurance premiums; and the costs of general liability insurance when premiums are computed based on payroll amounts; the total of which shall not exceed thirty percent (30%) of the actual costs of labor;
 4. The actual costs of rental for tools, excluding hand tools; equipment; machinery; and temporary facilities required for the work;
 5. The actual costs of premiums for bonds, insurance, permit fees and sales or use taxes related to the work.

Overtime and extra pay for holidays and weekends may be a cost item only to the extent approved by the owner.

- f. Should concealed conditions be encountered in the performance of the work below grade, or should concealed or unknown conditions in an existing structure be at variance with the conditions indicated by the contract documents, the contract sum and time for completion may be equitably adjusted by change order upon claim by either party made within thirty (30) days after the condition has been identified. The cost of such change shall be arrived at by one of the foregoing methods. All change orders shall be supported by a unit cost breakdown showing method of arriving at net cost as defined above.
- g. Change orders shall be submitted by the contractor in writing to the owner/designer for review and approval. The contractor will provide such proposal and supporting data in suitable format. The designer shall verify correctness. Delay in the processing of the change order due to lack of proper submittal by the contractor of all required supporting data shall not constitute grounds for a time extension or basis of a claim. Within fourteen (14) days after receipt of the contractor's accepted proposal including all supporting documentation required by the designer, the designer shall prepare the change order and forward to the contractor for his signature or otherwise respond, in writing, to the contractor's proposal. Within seven (7) days after receipt of the change order executed by the contractor, the designer shall, certify the change order by his signature, and forward the change order and all supporting data to the owner for the owner's signature. The owner shall execute the change order, within seven (7) days of receipt.

At the time of signing a change order, the contractor shall be required to certify as follows:

"I certify that my bonding company will be notified forthwith that my contract has been changed by the amount of this change order, and that a copy of the approved change order will be mailed upon receipt by me to my surety."

- h. A change order, when issued, shall be full compensation, or credit, for the work included, omitted or substituted. It shall show on its face the adjustment in time for completion of the project as a result of the change in the work.
- i. If, during the progress of the work, the owner requests a change order and the contractor's terms are unacceptable, the owner, may require the contractor to perform such work on a time and material basis whereupon the contractor shall proceed and keep accurately on such form as specified by the Designer or owner, a correct account of cost together with all proper invoices, payrolls and supporting data. Upon completion of the work a change order will be prepared with allowances for overhead and profit per paragraph d. above and "net cost" and "cost" per paragraph e. above. Without prejudice, nothing in this paragraph shall preclude the owner from performing or to have performed that portion of the work requested in the change order.

14. ANNULMENT OF CONTRACT

If the contractor fails to begin the work under the contract within the time specified, or the progress of the work is not maintained on schedule, or the work is not completed within the time specified, or fails to perform the work with sufficient workmen and equipment or with sufficient materials to ensure the prompt completion of said work, or shall perform the work unsuitably or shall discontinue the prosecution of the work, or if the contractor shall become insolvent or be declared bankrupt or commit any act of bankruptcy or insolvency, or allow any final judgment to stand against him unsatisfied for a period of forty-eight (48) hours, or shall make an assignment for the benefit of creditors, or for any other cause whatsoever shall not carry on the work in an acceptable manner, the owner may give notice in writing, sent by certified mail, return receipt requested, to the contractor and his surety (if applicable) of such delay, neglect or default, specifying the same, and if the contractor within a period of seven (7) days after such notice shall not proceed in accordance therewith, then the owner shall, declare this contract in default, and, thereupon, the surety shall promptly take over the work and complete the performance of this contract in the manner and within the time frame specified. In the event the contractor, or the surety (if applicable) shall fail to take over the work to be done under this contract within seven (7) days after being so notified and notify the owner in writing, sent by certified mail, return receipt requested, that he is taking the same over and stating that he will diligently pursue and complete the same, the owner shall have full power and authority, without violating the contract, to take the prosecution of the work out of the hands of said contractor, to appropriate or use any or all contract materials and equipment on the grounds as may be suitable and acceptable and may enter into an agreement, either by public letting or negotiation, for the completion of said contract according to the terms and provisions thereof or use such other methods as in his opinion shall be required for the completion of said contract in an acceptable manner. All costs and charges incurred by the owner, together with the costs of completing the work under contract, shall be deducted from any monies due or which may become due said contractor and surety (if applicable). In case the expense so incurred by the owner shall be less than the sum which would have been payable under the contract, if it had been completed by said contractor, then the said contractor and surety (if applicable) shall be entitled to receive the difference, but in case such expense shall exceed the sum which would have been payable under the contract, then the contractor and the surety (if applicable) shall be liable and shall pay to the owner the amount of said excess.

15. TERMINATION FOR CONVENIENCE

- a. Owner may at any time and for any reason terminate Contractor's services and work at Owner's convenience, after notification to the contractor in writing via certified mail. Upon receipt of such notice, Contractor shall, unless the notice directs otherwise, immediately discontinue the work and placing of orders for materials, facilities and supplies in connection with the performance of this Agreement.
- b. Upon such termination, Contractor shall be entitled to payment only as follows: (1) the actual cost of the work completed in conformity with this Agreement; plus, (2) such other costs actually incurred by Contractor as approved by Owner; (3) plus ten percent (10%) of the cost of the balance of the work to be completed for overhead and profit. There shall be deducted from such sums as provided in this subparagraph the amount of any payments made to Contractor prior to the date of the termination of this Agreement. Contractor shall not be entitled to any claim or

claim of lien against Owner for any additional compensation or damages in the event of such termination and payment.

16. OWNER'S RIGHT TO DO WORK

If, during the progress of the work or during the period of guarantee, the contractor fails to prosecute the work properly or to perform any provision of the contract, the owner, after seven (7) days' written notice sent by certified mail, return receipt requested, to the contractor from the designer, may perform or have performed that portion of the work. The cost of the work may be deducted from any amounts due or to become due to the contractor, such action and cost of same having been first approved by the designer. Should the cost of such action of the owner exceed the amount due or to become due the contractor, then the contractor or his surety, or both, shall be liable for and shall pay to the owner the amount of said excess.

17. REQUESTS FOR PAYMENT

It is imperative that invoices be sent only to the above address in order to assure proper and timely delivery and handling.

The Designer/Owner will process all Contractor pay requests as the project progresses. The Contractor shall receive payment within thirty (30) consecutive days after Designer/Owner's approval of each pay request. Payment will only be made for work performed as determined by the Designer/Owner.

Retainage:

- a. Retainage withheld will not exceed 5% at any time.
- b. The same terms apply to general contractor and subcontractors alike.
- c. Following 50% completion of the project no further retainage will be withheld if the contractor/subcontractor has performed their work satisfactorily.
- d. Exceptions:
 1. Owner/Contractor can reinstate retainage if the contractor/subcontractor does not continue to perform satisfactorily.
 2. Following 50% completion of the project, the owner is authorized to withhold additional retainage from a subsequent periodic payment if the amount of retainage withheld falls below 2.5%.

Final payment will be made within forty-five (45) consecutive days after acceptance of the work, receipt of marked-up "as-built" drawings and specifications and the submission both of notarized Contractor's affidavit and final pay request. All pay requests shall be submitted to the Designer/Owner for approval.

THE CONTRACTOR'S FINAL PAYMENT AFFIDAVIT SHALL STATE: "THIS IS TO CERTIFY THAT ALL COSTS OF MATERIALS, EQUIPMENT, LABOR, SUBCONTRACTED WORK, AND ALL ELSE ENTERING INTO THE ACCOMPLISHMENT OF THIS CONTRACT, INCLUDING PAYROLLS, HAVE BEEN PAID IN FULL."

18. PAYMENTS WITHHELD

The designer with the approval of the Owner may withhold payment for the following reasons:

- a. Faulty work not corrected.
- b. The unpaid balance on the contract is insufficient to complete the work in the judgment of the designer.
- c. To provide for sufficient contract balance to cover liquidated damages that will be assessed.
- d. The secretary of the Department of Administration may authorize the withholding of payment for the following reasons:
 - i. Claims filed against the contractor or evidence that a claim will be filed.
 - ii. Evidence that subcontractors have not been paid.

When grounds for withholding payments have been removed, payment will be released. Delay of payment due the contractor without cause will make owner liable for payment of interest to the contractor as provided in G.S. 143-134.1. As provided in G.S. 143-134.1(e), the owner shall not be liable for interest on payments withheld by

the owner for unsatisfactory job progress, defective construction not remedied, disputed work, or third-party claims filed against the owner or reasonable evidence that a third-party claim will be filed.

19. MINIMUM INSURANCE REQUIREMENTS

The work under this contract shall not commence until the contractor has obtained all required insurance and verifying certificates of insurance have been approved in writing by the owner. These certificates shall document that coverage afforded under the policies will not be cancelled, reduced in amount or coverages eliminated until at least thirty (30) days after mailing written notice, by certified mail, return receipt requested, to the insured and the owner of such alteration or cancellation. If endorsements are needed to comply with the notification or other requirements of this article copies of the endorsements shall be submitted with the certificates.

a. **Worker's Compensation and Employer's Liability**

The contractor shall provide and maintain, until final acceptance, workmen's compensation insurance, as required by law, as well as employer's liability coverage with minimum limits of \$100,000.

b. **Public Liability and Property Damage**

The contractor shall provide and maintain, until final acceptance, comprehensive general liability insurance, including coverage for premises operations, independent contractors, completed operations, products and contractual exposures, as shall protect such contractors from claims arising out of any bodily injury, including accidental death, as well as from claims for property damages which may arise from operations under this contract, whether such operations be by the contractor or by any subcontractor, or by anyone directly or indirectly employed by either of them and the minimum limits of such insurance shall be as follows:

Bodily Injury:	\$500,000 per occurrence
Property Damage:	\$100,000 per occurrence / \$300,000 aggregate

In lieu of limits listed above, a \$500,000 combined single limit shall satisfy both conditions.

Such coverage for completed operations must be maintained for at least two (2) years following final acceptance of the work performed under the contract.

c. **Property Insurance (Builder's Risk/Installation Floater)**

The contractor shall purchase and maintain property insurance until final acceptance, upon the entire work at the site to the full insurable value thereof. This insurance shall include the interests of the owner, the contractor, the subcontractors and sub-subcontractors in the work and shall insure against the perils of fire, wind, rain, flood, extended coverage, and vandalism and malicious mischief. If the owner is damaged by failure of the contractor to purchase or maintain such insurance, then the contractor shall bear all reasonable costs properly attributable thereto; the contractor shall affect and maintain similar property insurance on portions of the work stored off the site when request for payment per articles so includes such portions.

d. **Deductible**

Any deductible, if applicable to loss covered by insurance provided, is to be borne by the contractor.

e. **Other Insurance**

The contractor shall obtain such additional insurance as may be required by the owner or by the General Statutes of North Carolina including motor vehicle insurance, in amounts not less than the statutory limits.

f. **Proof of Carriage**

The contractor shall furnish the owner with satisfactory proof of carriage of the insurance required before written approval is granted by the owner.

20. ASSIGNMENT

No assignment of the Contractor's obligations or the Contractor's right to receive payment hereunder shall be permitted. However, upon written request approved by the Owner and solely as a convenience to the Contractor, the Owner may: (1) forward the Contractor's payment check directly to any person or entity designated by the Contractor, and (2) include any person or entity designated by Contractor as a joint payee on the Contractor's payment check. In no event shall such approval and action obligate the Owner to anyone other than the Contractor, and the Contractor shall remain responsible for fulfillment of all contract obligations.

21. CLEANING UP AND RESTORATION OF SITE

The Contractor shall keep the sites and surrounding area reasonably free from rubbish at all times and shall remove debris from the site from time to time or when directed to do so by the Owner. Before final inspection and acceptance of the project, the Contractor shall thoroughly clean the sites, and completely prepare the project and site for use by the Owner.

At the end of construction, the contractor shall oversee and implement the restoration of the construction site to its original state. Restoration includes but not limited to walks, drives, lawns, trees and shrubs, corridors, stairs and other elements shall be repaired, cleaned or otherwise restored to their original state.

22. GUARANTEE

The contractor shall unconditionally guarantee materials and workmanship against patent defects arising from faulty materials, faulty workmanship or negligence for a period of twelve (12) months following the final acceptance of the work and shall replace such defective materials or workmanship without cost to the owner.

Where items of equipment or material carry a manufacturer's warranty for any period in excess of twelve (12) months, then the manufacturer's warranty shall apply for that particular piece of equipment or material. The contractor shall replace such defective equipment or materials, without cost to the owner, within the manufacturer's warranty period.

Additionally, the owner may bring an action for latent defects caused by the negligence of the contractor, which is hidden or not readily apparent to the owner at the time of beneficial occupancy or final acceptance, whichever occurred first, in accordance with applicable law.

Guarantees for roofing workmanship and materials shall be stipulated in the specification's sections governing such roof, equipment, materials, or supplies.

23. STANDARDS

All manufactured items and/or fabricated assemblies subject to operation under pressure, operation by connection to an electric source, or operation involving a connection to a manufactured, natural, or LP gas source shall be constructed and approved in a manner acceptable to the appropriate State inspector which customarily requires the label or re-examination listing or identification marking of appropriate safety standard organization, such as the American Society of Mechanical Engineers for pressure vessels; the Underwriters Laboratories and/or National Electrical Manufacturers Association for electrically operated assemblies; or the American Gas Association for gas operated assemblies, where such approvals of listings have been established for the type of device offered and furnished. Further, all items furnished shall meet all requirements of the Occupational Safety and Health Act (OSHA), and State and federal requirements relating to clean air and water pollution.

All equipment and products must be independent third party tested and labeled (UL, FM, or CTS) before final connections to Owner services or utilities.

24. TAXES

- a. Federal excise taxes do not apply to materials entering into state work (Internal Revenue Code, Section 3442(3)).
- b. Federal transportation taxes do not apply to materials entering into state work (Internal Revenue Code, Section 3475(b) as amended).
- c. North Carolina sales tax and use tax, as required by law, do apply to materials entering into state work and such costs shall be included in the bid proposal and contract sum.
- d. Local option sales and use taxes, as required by law, do apply to materials entering into state work as applicable and such costs shall be included in the bid proposal and contract sum.

e. **Accounting Procedures for Refund of County Sales & Use Tax**

Amount of county sales and use tax paid per contractor's statements:

Contractors performing contracts for state agencies shall give the state agency for whose project the property was purchased a signed statement containing the information listed in G.S. 105-164.14(e).

The Department of Revenue has agreed that in lieu of obtaining copies of sales receipts from contractors, an agency may obtain a certified statement as of April 1, 1991 from the contractor setting forth the date, the type of property and the cost of the property purchased from each vendor, the county in which the vendor made the sale and the amount of local sales and use taxes paid thereon. If the property was purchased out-of-state, the county in which the property was delivered should be listed. The contractor should also be notified that the certified statement may be subject to audit.

In the event the contractors make several purchases from the same vendor, such certified statement must indicate the invoice numbers, the inclusive dates of the invoices, the total amount of the invoices, the counties, and the county sales and use taxes paid thereon.

Name of taxing county: The position of a sale is the retailer's place of business located within a taxing county where the vendor becomes contractually obligated to make the sale. Therefore, it is important that the county tax be reported for the county of sale rather than the county of use.

When property is purchased from out-of-state vendors and the county tax is charged, the county should be identified where delivery is made when reporting the county tax.

Such statement must also include the cost of any tangible personal property withdrawn from the contractor's warehouse stock and the amount of county sales or use tax paid thereon by the contractor.

Similar certified statements by his subcontractors must be obtained by the general contractor and furnished to the claimant.

Contractors are not to include any tax paid on supplies, tools and equipment which they use to perform their contracts and should include only those building materials, supplies, fixtures and equipment which actually become a part of or annexed to the building or structure.

25. EQUAL OPPORTUNITY CLAUSE

The non-discrimination clause contained in Section 202 (Federal) Executive Order 11246, as amended by Executive Order 11375, relative to equal employment opportunity for all persons without regard to race, color, religion, sex or national origin, and the implementing rules and regulations prescribed by the secretary of Labor, are incorporated herein.

The contractor(s) agree not to discriminate against any employee or applicant for employment because of physical or mental disabilities in regard to any position for which the employee or applicant is qualified. The contractor agrees to take affirmative action to employ, advance in employment and otherwise treat qualified individuals with such disabilities without discrimination based upon their physical or mental disability in all employment practices.

26. MINORITY BUSINESS PARTICIPATION

GS 143-128.2 establishes a ten percent (10%) goal for participation by minority business in total value of work for each State building project.

For construction contracts with a value of less than \$300,000, the Owner has the responsibility to make a good faith effort to solicit minority bids and to attain the goal. The contractor shall include with his bid a completed Identification of HUB Certified/Minority Business Participation form. Contractor shall submit completed Appendix E MBE Documentation for Contract Payments form with final payment request.

For construction contracts with a value of \$300,000 or greater, the contractor shall comply with the document *Guidelines for Recruitment and Selection of Minority Businesses for Participation in State Construction Contracts* including Identification of Minority Business Participation, Affidavits A, B, C, and D, and Appendix E. These forms

provided herein are hereby incorporated and made a part of this contract.

27. ACCESS TO PERSONS AND RECORDS

The State Auditor shall have access to persons and records as a result of all contracts or grants entered into by the Owner in accordance with General Statute 147-64.7. The Owner's internal auditors shall also have the right to access and copy the Contractor's records relating to the Contract and Project during the term of the Contract and within two years following the completion of the Project/close-out of the Contract to verify accounts, accuracy, information, calculations and/or data affecting and/or relating to Contractor's requests for payment, requests for change orders, change orders, claims for extra work, requests for time extensions and related claims for delay/extended general conditions costs, claims for lost productivity, claims for lost efficiency, claims for idle equipment or labor, claims for price/cost escalation, pass-through claims of subcontractors and/or suppliers, and/or any other type of claim for payment or damages from Owner and/or its project representatives.

28. GOVERNING LAWS

This contract is made under and shall be governed by and construed in accordance with the laws of the State of North Carolina. The Contractor shall comply with all applicable federal, State and local laws, statutes, ordinances and regulations including, but not limited to, the Omnibus Transportation Act of 1991 and its implementing regulations.

29. CONTRACTOR EVALUATION

The contractor's overall work performance on the project shall be fairly evaluated in accordance with the State Building Commission policy and procedures, for determining qualifications to bid on future State projects. In addition to final evaluation, an interim evaluation may be prepared during the progress of project. The owner may request the contractor's comments to evaluate the designer.

SUPPLEMENTARY GENERAL CONDITIONS

TIME OF COMPLETION

The Contractor shall commence work to be performed under this Contract on a date to be specified in written order from the Designer/Owner and shall fully complete all work hereunder within **200** consecutive calendar days from the Notice to Proceed.

If the Contractor is delayed at any-time in the progress of his work by any act or negligence of the Owner, his employees or his separate contractor, by changes ordered in the work; by abnormal weather conditions; by any causes beyond the Contractor's control or by other causes deemed justifiable by Owner, then the contract time may be reasonably extended in a written order from the Owner upon written request from the contractor within ten days following the cause for delay. Time extensions for weather delays, acts of God, labor disputes, fire, delays in transportation, unavoidable casualties or other delays which are beyond the control of the Owner do not entitle the Contractor to compensable damages for delays. Any contractor claim for compensable damages for delays is limited to delays caused solely by the owner or its agents.

NO SMOKING POLICY

Designated smoking area on campus

ATTACHMENTS

****IMPORTANT NOTICE****

COMPLETE AND RETURN THE ATTACHMENTS WITH YOUR RESPONSE

State of North Carolina --AFFIDAVIT B-- Intent to Perform Contract with Own Workforce.

County of _____

Affidavit of _____
(Name of Bidder)

I hereby certify that it is our intent to perform 100% of the work required for the _____ contract.
(Name of Project)

In making this certification, the Bidder states that the Bidder does not customarily subcontract elements of this type project, and normally performs and has the capability to perform and will perform all elements of the work on this project with his/her own current work forces; and

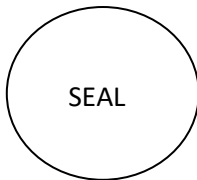
The Bidder agrees to provide any additional information or documentation requested by the owner in support of the above statement. The Bidder agrees to make a Good Faith Effort to utilize minority suppliers where possible.

The undersigned hereby certifies that he or she has read this certification and is authorized to bind the Bidder to the commitments herein contained.

Date: _____ Name of Authorized Officer: _____

Signature: _____

Title: _____



State of _____, County of _____

Subscribed and sworn to before me this _____ day of _____ 20____

Notary Public _____

My commission expires _____

State of North Carolina - AFFIDAVIT C - Portion of the Work to be Performed by HUB Certified/Minority Businesses

County of _____

(Note this form is to be submitted only by the apparent lowest responsible, responsive bidder.)

If the portion of the work to be executed by HUB certified/minority businesses as defined in GS143-128.2(g) and 128.4(a),(b),(e) is equal to or greater than 10% of the bidders total contract price, then the bidder must complete this affidavit.
 This affidavit shall be provided by the apparent lowest responsible, responsive bidder within **72 hours** after notification of being low bidder.

Affidavit of _____ I do hereby certify that on the _____
 (Name of Bidder)

 (Project Name)

Project ID# _____ Amount of Bid \$ _____

I will expend a minimum of _____% of the total dollar amount of the contract with minority business enterprises. Minority businesses will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below.

Attach additional sheets if required

Name and Phone Number	*Minority Category	**HUB Certified Y/N	Work Description	Dollar Value

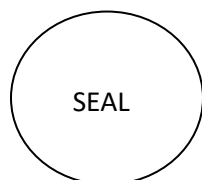
*Minority categories: Black, African American (**B**), Hispanic (**H**), Asian American (**A**) American Indian (**I**), Female (**F**) Socially and Economically Disadvantaged (**D**)

**** HUB Certification with the state HUB Office required to be counted toward state participation goals.**

Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with Minority Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: _____ Name of Authorized Officer: _____



Signature: _____

Title: _____

State of _____, County of _____

Subscribed and sworn to before me this _____ day of _____ 20____

Notary Public _____

My commission expires _____

State of North Carolina

AFFIDAVIT D – Good Faith Efforts

County of _____

(Note this form is to be submitted only by the apparent lowest responsible, responsive bidder.)

If the goal of 10% participation by HUB Certified/ minority business **is not** achieved, the Bidder shall provide the following documentation to the Owner of his good faith efforts:

Affidavit of _____ I do hereby certify that on the _____
 (Name of Bidder)

_____ (Project Name)

Project ID# _____ Amount of Bid \$ _____

I will expend a minimum of _____% of the total dollar amount of the contract with HUB certified/ minority business enterprises. Minority businesses will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below. (Attach additional sheets if required)

Name and Phone Number	*Minority Category	**HUB Certified Y/N	Work Description	Dollar Value

*Minority categories: Black, African American (B), Hispanic (H), Asian American (A) American Indian (I), Female (F) Socially and Economically Disadvantaged (D)

**** HUB Certification with the state HUB Office required to be counted toward state participation goals.**

Examples of documentation that may be required to demonstrate the Bidder's good faith efforts to meet the goals set forth in these provisions include, but are not necessarily limited to, the following:

- A. Copies of solicitations for quotes to at least three (3) minority business firms from the source list provided by the State for each subcontract to be let under this contract (if 3 or more firms are shown on the source list). Each solicitation shall contain a specific description of the work to be subcontracted, location where bid documents can be reviewed, representative of the Prime Bidder to contact, and location, date and time when quotes must be received.
 - B. Copies of quotes or responses received from each firm responding to the solicitation.
 - C. A telephone log of follow-up calls to each firm sent a solicitation.
 - D. For subcontracts where a minority business firm is not considered the lowest responsible sub-bidder, copies of quotes received from all firms submitting quotes for that particular subcontract.
 - E. Documentation of any contacts or correspondence to minority business, community, or contractor organizations in an attempt to meet the goal.
 - F. Copy of pre-bid roster
 - G. Letter documenting efforts to provide assistance in obtaining required bonding or insurance for minority business.
 - H. Letter detailing reasons for rejection of minority business due to lack of qualification.
 - I. Letter documenting proposed assistance offered to minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letter of credit, including waiving credit that is ordinarily required.
- Failure to provide the documentation as listed in these provisions may result in rejection of the bid and award to the next lowest responsible and responsive bidder.

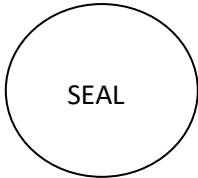
Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with Minority Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: _____ Name of Authorized Officer: _____

Signature: _____

Title: _____



State of _____, County of _____

Subscribed and sworn to before me this _____ day of _____ 20____

Notary Public _____

My commission expires _____

TECHNICAL SPECIFICATIONS

This specification is intended for use by the design/construction professional and any user of i-PRO Security products to assist in developing project specifications for security and video surveillance systems.

Specifier Notes: This guide specification incorporates CSI MasterFormat™2014 Edition Numbers and Titles.

Notes in Italics, such as this one, are explanatory and intended to guide the design professional/specifier and user in the proper selection and use of materials. This specification should be modified where necessary to accommodate individual project conditions.

DIVISION 28 – ELECTRONIC SAFETY AND SECURITY

28 10 00 ELECTRONIC ACCESS CONTROL AND INTRUSION DETECTION

28 13 00 ACCESS CONTROL

PART 1 ACCESS CONTROL SYSTEM GENERAL SPECIFICATIONS

1.1 GENERAL

1. The access control system and security management system shall be deployed through IP network infrastructure with a two-tiered hardware hierarchy.
 2. The IP Door Controller shall be capable of running on a TCP/IP network and shall be accessible, configurable, and manageable from a network-connected PC with a browser.
 3. Browser access for configuration and administration of the system shall be possible from any PC with network access to the system and appropriate credentials.
 4. The top hardware tier shall be the MonitorCast v4 Server based platform. Installed applications on the MonitorCast v4 Server are to be an operating system, web based MonitorCast v4 Server, security application software, and the database of personnel and system activity.
 5. The bottom hardware tier shall be the IP Door Controller. The IP Door Controller shall make and manage access control decisions with data provided by the MonitorCast v4 Server, and it shall control the communication between the IP Door Controller and door hardware connected to the IP Door Controller inputs, outputs, and readers. This modular design shall make it possible for the system to continue to manage access control and store system activity logs, even during network downtime. When network connectivity is re-established, the system activity logs shall be automatically re-integrated to the host MonitorCast v4 server.
- A. The system shall integrate within a browser interface for access control and video monitoring. These applications shall be a fully bi-directional integrated software architecture.
1. The database tier shall use Microsoft SQL Server residing on the MonitorCast v4 Server. Microsoft SQL Server on the MonitorCast v4 Server shall be a full featured, high performance database management system. This shall provide a small footprint, low administration, and a high reliability relational database that is embedded without requiring the use of a separate PC MonitorCast v4 Server.
 2. The MonitorCast v4 Server tier shall be based on a Microsoft™ MonitorCast v4 Server 2008 R2 or 2012 MonitorCast v4 Server. This application shall provide a graphically rich security management application through a standard web browser.
- B. All equipment and materials used shall be standard components, regularly manufactured, and regularly utilized in the manufacturer's system.
- C. All systems and components shall have been thoroughly tested and proven in actual use.

1.2 OVERALL SYSTEM CAPABILITY

- A. The security management system shall meet the requirements of business and government access control systems.
- B. The system shall monitor and control facility access and shall perform alarm monitoring and integration to camera and video monitoring.
- C. The system shall also maintain a database of system activity, personnel access control information, and system user passwords and user role permissions.
- D. The system shall be controlled from a web browser without requiring a software installation or client licenses.
- E. The system shall provide control and access to users on Local Area Networks (LAN), Wide Area Networks, wireless networks, and the Internet.
- F. The system shall provide email and/or text message alerts for all alarm conditions and threats.
- G. System Partitioning:
 - 1. The system administrator shall have the ability to divide the system into partitions, allowing subsets of the overall population and/or resources to be managed separately.
 - 2. From the default Master partition, one or more additional partitions shall be able to be created.
 - 3. Each partition shall contain some number of administrators, card holders with their credentials, and resources.
 - 4. When performing administrative functions, the administrator of a partition shall have the ability to create or modify only the cardholders and resources in that partition.
 - 5. Resources shall be able to be shared across partitions through the mapping of access levels from one partition to another.
 - 6. System partitioning shall have a precision feature that allows administrators in one or more partitions to view and perform edit functions on person records that belong to another partition.
 - 7. Administrators shall have the ability to search for person records across all partitions to which they have access.
 - 8. The system administrator shall have the ability to make such cross-partition searches the default for users who have access to multiple partitions.
 - 9. After finding a personnel group record located in another partition, an administrator shall be able to click a button to switch to that partition directly from the personnel group record—and possibly edit the record, depending on his or her access rights in that partition. Alternatively, an option for making every person record seamlessly visible across all partitions shall be provided.

- H. The system shall provide the following Access Control capabilities:
 - 1. Integrated photo ID creation capability with video verification.
 - 2. User interface secured access under encrypted password control.
 - 3. Multiple Site Control.
 - 4. System-wide timed anti-pass back function.
 - 5. "First-in-unlock" rule enforcement.
 - 6. Multiple access levels and cards per person.
 - 7. Detailed time specifications.
 - 8. Simultaneous support for multiple card data formats.
 - 9. Compatibility with various input devices, including biometric readers.
 - 10. Activation/expiration date/time by person with one-minute resolution.
 - 11. Access level disable for immediate lockdown.
 - 12. Multiple holiday schedules.
 - 13. Timed unlock schedules.
 - 14. Dual-reader portal support.
 - 15. Wiegand Reader support.
 - 16. Magnetic-stripe reader support.
 - 17. Wiegand keypad PIN supports 4-digit to 15-digit PINs.

- I. The system shall provide the following native or VMS integrated monitoring capabilities:
 - 1. The Home page shall allow users to view a full system summary, including an Activity Log, Auto-Monitor, and dashboard functions.
 - 2. Common alarm panel integration for disarm on access, and arm on egress.
 - 3. Integrated real-time IP-based NVR systems with stored video replay for events.
 - 4. Provides alarms on communication loss.
 - 5. Provides the ability to record video and link to video for alarm events.
 - 6. A monitoring desktop that integrates video, system activity logs, floorplans, ID photos, and alarm notifications.
 - 7. Graphic floorplans with active icons of monitor and access control points.
 - 8. Secure access to the user interface under encrypted password control.
 - 9. Delivery of alerts via VMS Rules Manager or Automation and email.
 - 10. Remote logging of system messages to local host.

- J. The system shall provide the following integrated VMS Video Management capabilities:
 - 1. Playback of event-related video.
 - 2. Integrated alarm inputs from the video management system.
 - 3. Digital playback of video events.
 - 4. Linking of video and events based on triggers provided by the system or video system.
 - 5. Support for multiple NVRs.
 - 6. Multiple pre-programmed, supported cameras.
 - 7. Monitoring and control through a web browser interface.

- K. The system shall provide the following Security Database capabilities:
 - 1. Maintain data of system activity, personnel access control information, system user passwords and custom user role permissions for whole or partial access to system resources and data.
 - 2. Integration for single-user logon authentication.
 - 3. Network-secure API for external application integration.
 - 4. Easy to use custom report generator.
 - 5. Record recall by vehicle tag, name, or card.
 - 6. An API for adding to, deleting from, and modifying the database.
 - 7. Storage of system user passwords and permissions.
 - 8. Storage and recall of ID photos and emergency personal information.

9. Pre-defined reports on system configuration, system activity history, and people.
10. Custom report writer interface that allows the interactive creation of custom reports. Reports may be saved for later reuse. No third-party software shall be necessary.
11. Selectable custom report output formats, including PDF & CSV.
12. Custom report repository location. Users shall be able to review, cancel and delete reports from this data storage location.
13. Email and text messaging (SMS) alert notifications.

1.3 HARDWARE REQUIREMENTS

- A. The security management system shall employ a modular hardware concept that enables simple system expansion and utilizes a two-tiered hardware hierarchy:
 1. At the top tier shall be a MonitorCast v4 Server, which shall contain the database engine, web MonitorCast v4 Server, application software, and configuration data. It is at this level that System Users, through a browser interface, shall interact with the system, set configurations, monitor activities, run reports, and manage alarms.
 2. At the bottom tier shall be the IP Door Controller, an intelligent device with native TCP/IP & PoE support, which shall make and manage access control decisions, a set of inputs, outputs and readers.
 3. The network device shall run on existing building TCP/IP PoE networks and shall be configurable for access from separate subnets, through gateways and routers, and from the Internet.

- B. A MonitorCast v4 Server shall contain a processor, flash memory, and storage. External battery backup shall be used to provide uninterrupted operation in the event of external power loss. The IP Door Controller shall contain IIS for communication with the IP Door Controllers and a network interface port. A MonitorCast v4 Server shall have the following capabilities:
 1. Door Controller: (Mercury EP/LP/MP boards)
 2. Access cards: No Limit
 3. Card formats: 32 per Controller
 4. Alarm input points: 2,048 per Controller
 5. Control point outputs: 2,048 per Controller
 6. Ethernet ports: 1
 7. Time specifications 512 per Controller
 8. Holidays 255 per Controller
 9. Access levels 64 per person (32,000 per Controller)
 10. Cards per person No Limit
 11. Concurrent users Unlimited

- C. The IP Door Controller shall make and manage access control decisions with data provided by the MonitorCast v4 Server, and it shall manage the communication between the IP Door Controller connected to the system's inputs, outputs, and readers. The IP Door Controller shall be powered with PoE power input 12.95 W (802.3af or 12V DC 900mA power supply) protocol.

- D. Each IP Door Controller shall have the following capabilities:
 1. Access control doors 1
 2. Readers 2
 3. Supervised Inputs 2
 4. General Input 0
 5. Relay Outputs 2
 6. Connectivity 10/100 Ethernet
 7. Credential storage 240,000
 8. Activity Log records 50,000

- E. The IP Door Sub-Controller single door shall make and manage access control decisions with data provided by the MonitorCast v4 Server through the IP Door Sub-Controller, and it shall manage the communication between the IP Door Sub-Controller connected to the system's inputs, outputs, and readers. The IP Door Controller shall be powered with PoE power input 12.95 W (802.3af or 12V DC 900mA power supply) protocol. Each IP Door Controller shall have the following capabilities:
1. Access control doors 2
 2. Readers 4
 3. Supervised Input 6
 4. Relay Outputs 4
 5. Connectivity 10/100 Ethernet
- F. The Door Sub-Controller single door shall make and manage access control decisions with data provided by the MonitorCast v4 Server through the IP Door Controller, and it shall manage the communication between the IP Door Sub-Controller connected to the system's inputs, outputs, and readers. The IP Door Sub-Controller shall be connected to IP Door Controller using RS-485 protocol. Each IP Door Sub-Controller shall have the following capabilities:
1. Access control doors 1
 2. Readers 1
 3. General Input 2 (programmable)
 4. Dedicated Input 1
 5. Relay Outputs 2
 6. Connectivity RS-485
- G. The Door Sub-Controller two door shall make and manage access control decisions with data provided by the MonitorCast v4 Server through the IP Door Controller, and it shall manage the communication between the IP Door Sub-Controller connected to the system's inputs, outputs and readers. The IP Door Sub-Controller shall be connected to IP Door Controller using RS-485 protocol. Each IP Door Sub-Controller shall have the following capabilities:
1. Access control doors 2
 2. Readers 2
 3. General Input 6 (programmable)
 4. Dedicated Input 2
 5. Relay Outputs 6
 6. Connectivity RS-485
- H. The Serial Input Sub-Controller shall make and manage access control decisions with data provided by the MonitorCast v4 Server through the IP Door Controller, and it shall manage the communication between the IP Serial Input Sub-Controller connected to the system's inputs and outputs. The IP Serial Input Sub-Controller shall be connected to IP Door Controller using RS-485 protocol. Each IP Serial Input Sub-Controller shall have the following capabilities:
1. General Input 16 (programmable)
 2. Dedicated Input 16
 3. Relay Outputs 0
 4. Connectivity RS-485

- I. The Serial Output Sub-Controller shall make and manage access control decisions with data provided by the MonitorCast v4 Server through the IP Door Controller, and it shall manage the communication between the IP Serial Output Sub-Controller connected to the system's inputs & outputs. The IP Serial Output Sub- Controller shall be connected to IP Door Controller using RS- 485 protocol. Each IP Serial Output Sub- Controller shall have the following capabilities:
 1. General Output 16
 2. Dedicated Inputs 0
 3. Connectivity RS-485

1.4 HARDWARE PACKAGING REQUIREMENTS

- A. The security management system shall have various hardware enclosures and configurations available to support different installation requirements.
- B. Enclosures shall be available for wall or rack mounting.
- C. The wall-mount enclosures shall have a lock requiring a key.

1.5 CERTIFICATIONS

- A. UL 294 listed.
- B. ISO 9000 listed.
- C. CE Compliant.
- D. RoHS.

PART 2 PRODUCT

2.1 MONITORCAST v4 ACCESS CONTROL SOFTWARE

- A. Operating System and Application Software shall have the following characteristics:
 1. The MonitorCast v4 Server operating system shall Windows Server 2008 R2 or Windows Server 2012 operating system.
 2. The system database shall be SQL Server Express requiring a small footprint and providing high reliability. The MonitorCast v4 Server shall provide users with access and operate the system using a standard web browser.
 3. The system shall support the following web browsers:
 - a. For the security management system, the listed browsers shall include Internet Explorer, Firefox, Chrome and Safari.
- B. Software Licensing:
 1. Software licensing shall be included with the provided door and lock hardware
 2. The system shall support unlimited clients without any per client license for local or remote access.
- C. Software upgrades shall be possible from a browser on any network-connected PC, by uploading a software update to the IP Door Controller. No client software installation shall be necessary.
- D. Online Help and Documentation - The system shall be provided with complete online documentation. The online documentation shall include:
 1. Technical Support Notes - These documents shall be in PDF format, shall be printable, and shall be linked to from the Help system table of contents, index, and related topics.
 2. Installation Guides - These documents shall be in PDF format, shall be printable, and shall be linked to from the Help system table of contents, index, and related topics.

3. Video Integration Guides - These documents shall be in PDF format, shall be printable, and shall be linked to from the Help system table of contents, index, and related topics.
 4. End-User Task Guide - This document shall be in PDF format, shall be printable, and shall be linked to from the Help system table of contents, index, and related topics.
- E. Language Support - The system shall be provided with multiple language support. The ability to switch from one language to another shall be accomplished through the user interface. Translation of the user interface, online help and documentation into other languages shall be available.
- F. Date Formats - The system shall support global date formats as follows:
1. mm/dd/yyyy
 2. dd/mm/yyyy
 3. yyyy/mm/dd
- G. Floor plans - The system shall provide graphic floorplan capability including graphic display of door status and entry direction. Floor plans shall have the following characteristics:
1. The Network Administrator shall be able to graphically configure device icons onto the floorplan images, and to upload additional floorplan images. JPEG images shall be supported, and the maximum size for a floorplan image shall be 256K.
- H. Personnel Data - The system shall maintain person data relating to access control, system user privileges, photo identification, system activity, and contact information.
1. All person data in the system shall be integrated onto one page for viewing, editing, and deletion by system users.
 2. A system user holding at least an "Administrator" user role shall be able to create, delete, and modify person records, including access levels, schedules & resource groups.
 3. A system user holding at least a "Administrator" user role shall be able to configure the display of person records.
- I. Access Control:
1. The system shall be able to make access control decisions, define a variety of access levels and time specifications, write system activity into a log file, maintain a personnel enrollment database, receive signals from input devices such as door switch monitors, card readers and motion detectors, energize devices such as door locks and alarms via outputs.
 2. Card Formats - The system shall support the use of readers that use the Wiegand Reader Interface. The system shall also support the use of the Magnetic Stripe ABA track 2 card data formats.
 - a. It shall be possible to create new card formats, designate start bits and bit lengths for facility codes and card ID numbers, as well as designate parity bits. The system shall support up to 32 different card formats per controller.
 3. Access Levels - The system shall be capable of storing 255 access levels per controller.
 - a. The definition of an access level shall require the assignment of a reader or reader group, and a time specification.
 4. First-in Unlock Rule - The system shall support the use of a First-in unlock rule. It shall be possible to use this rule to control the unlock behavior of portal groups with assigned unlock time specs.

- a. The First-in unlock rule shall require a card read of a specified access level. The portals in the group shall unlock only when the rule is satisfied and the unlock time spec is valid.
5. Holidays - The system shall be capable of storing up to 5 holidays per system. Each holiday shall be assigned a unique alphanumeric name. The definition of a holiday shall require a start date and an end date. Holidays shall have the ability to span several days using only one holiday slot. Holiday definitions shall support the designation of a start time and an end time. If no start time is designated, then the system shall default to 00:00 (start-of-day). If no end time is designated, then the system shall default to 24:00 (end-of-day). Holidays shall require the use of 24-hour time format, e.g. 17:00 is 5:00PM.

J. Reports:

1. The system shall be capable of producing a variety of predefined reports regarding software and security hardware configuration, event history, and the administration of people within the system.
2. The system shall support a graphic interface for interactively building custom reports from either historical or personnel data. These reports shall be savable for later reuse. Parameters shall be inserted into reports to prompt for data input at report runtime. Report results shall be printed, output to a PDF file or put into a spreadsheet.
3. The system shall be capable of sorting users by various criteria, including email address, and allow for email groups to be selected for auto-distribution.
4. Report generation shall not affect the real-time operation of the system.
5. The specific reports provided shall include the following:
 - a. Configuration Reports
 - i. Access History - Displays access history based on an entered query. The system user can specify the query using either the keyboard or point-and-click selection.
 - ii. Custom Report - This provides the capability to create custom reports of historical data.
 - iii. General Event History - Displays time, type of activity, and activity details for a variety of event types. The system user can select the specific event types for the report.
 - iv. Audit Trail: Displays an audit trail of system changes and the name of the system user that made the changes. It shall be possible to specify the dates and times covered in the report.
 - b. People Reports
 - i. Access Levels - Displays all access levels entered into the system including time specification, reader/reader group, and floor group.
 - ii. Credential Audit - Lists existing credentials by their current status settings (such as Active, Damaged, Lost, or Not Used). Before running the report, users can filter the data to see only credentials with a particular status setting, or only credentials that were not used with a specific number of days from the date they were issued.
 - iii. Current Users - Displays a list of all security system users currently logged in to the security system website.
 - iv. Custom Report - This provides the capability to create custom reports of personnel data. A graphic interface provides the user with the ability to interactively create and save reports for later use. Parameters can be inserted into reports to prompt for data input at report runtime. Custom report configuration shall include page size, orientation, column width and shall automatically notify the user if the selected configuration exceeds the selected page size.

- K. Administration - The system shall provide for the performance of system administration tasks from any network-connected computer with a browser. These administrative tasks shall include but not be limited to:
1. Generating reports:
 - a. The system shall be capable of producing a variety of predefined reports regarding software and security hardware configuration, event history, and the administration of people within the system.
 - b. Alternatively, the system shall support a graphic interface for interactively building custom reports from either historical or personnel data. These reports shall be savable for later reuse. Parameters can be inserted into reports to prompt for data input at report runtime. Report results can be printed, output to a PDF file or put into a spreadsheet.
 - c. A system user holding "Administrator" permissions shall be able to view and create reports.
 2. Database backups:
 - a. It shall also be possible for the system users to create such database backups at any time. Any database backups onboard the MonitorCast v4 Server may also be downloaded to IP Door Controller storage by the system user at any time.
 3. System restore:
 - a. The system shall be able to restore its database, or the full system data, from a backup. Restoration of the system shall only be possible from a backup copy onboard the MonitorCast v4 Server. It shall, therefore, be possible to upload a copy of a database backup from any network attached storage.
 4. Software updates:
 - a. Software updates, upgrades and patches shall be provided from time to time. The system shall be able to update its software from these files. Update of the application software shall only be possible from an update file onboard the Server. It shall, therefore, be possible to upload a copy of the software update from any network attached storage or from any PC drive or desktop.
 - b. Software updates may involve the Server only or may include updates for the IP Door Controller also. The monitoring of the security system may be unavailable for several minutes during this process.
 5. Enrolling new people - All person data entered into the system shall be held in the system database and shall be available only to system users holding at least the Administer user role. Person data can be added, deleted, and edited by such system users.
 6. Configuring network resources:
 - a. DNS - The system shall support setting IP addresses for up to two domain name MonitorCast v4 Servers.
 - b. Email settings - The system shall support the use of email notifications of alarm events. The system user must setup the email MonitorCast v4 Server IP address or DNS name and the email address of the Network Controller. eA network administrator must setup the network mail MonitorCast v4 Server to relay email for the IP address of the Network Controller.
 - c. Time MonitorCast v4 Servers - The system shall support the use of network time MonitorCast v4 Servers. Up to three MonitorCast v4 Servers can be designated. Use of a network time MonitorCast v4 Server ensures that the Network Controller and its nodes will be regularly synchronized with the exact time used by all other network resources.
 - d. A system user holding "Setup" permissions shall be able to configure network resources.

7. It shall be possible to configure an Active Directory MonitorCast v4 Server with the system.
 - a. This shall provide single user-login capability.
 - b. Password rules and authentication shall be governed by the MonitorCast v4 Server.

2.2 MONITORCAST SERVER HARDWARE AND DOOR CONTROLLERS

- A. The MonitorCast v4 Server shall be powered by platinum efficiency hot plug redundant 495 W or 750 W power supply.
 1. OS Windows Server 2008 R2/2012
 2. Storage 200 GB (minimum)
 3. Processor Intel I5 class processor or higher
 4. RAM 8 GB
 5. Ethernet Ports 1
 6. Warranty 3 Years
 - 7.
- B. Each IP Door Controller shall be powered by PoE in accordance with IEEE 802.3af standard. With PoE as the power source the total power available for all external outputs is 12V DC @ 650mA. IP Door Controllers shall have the following characteristics:
 1. TTL reader connectors 2
 2. RS-45 reader 1
 3. Output power 650 milliamps
 4. Input connectors 2
 5. Output connectors 2
- C. Each IP Door Sub-Controller shall be powered by PoE in accordance with IEEE 802.3af standard. With PoE as the power source the total power available for all external 12V. IP Door Controllers shall have the following characteristics:
 1. TTL reader connectors 1
 2. Power available to readers 150 milliamps
 3. Input connectors 4
 4. Output connectons 2
- D. Each Single Door Sub-Controller shall be powered by may be supplied with 12-24V DC at 3 amps. With a 12V DC 3A power supply the total power available for all external output shall be 1100mA (13 watts). IP Door Controllers shall have the following characteristics:
 1. TTL reader connectors 1
 2. Power available to readers 150 milliamps
 3. Input connectors 3
 4. Output connections 2
 5. Communication protocol RS-485
- E. Each Two Door Sub-Controller shall be powered by may be supplied with 12-24V DC at 3 amps. With a 12V DC 3A power supply the total power available for all external output shall be 1100mA (13 watts). IP Door Controllers shall have the following characteristics:
 1. TTL reader connectors 2
 2. Power available to readers 150 milliamps
 3. Input connectors 10
 4. Output connections 6
 5. Communication protocol RS-485

- F. Each Serial Input Sub-Controller shall be powered by may be supplied with 12-24V DC at 3 amps. With a 12V DC 3A power supply the total power available for all external output shall be 1100mA (13 watts). IP Door Controllers shall have the following characteristics:
1. General input 16
 2. Dedicated input 2
 3. Output connections 2
 4. Communications protocol RS-45
- G. Each Serial Output Sub-Controller shall be powered by may be supplied with 12-24V DC at 3 amps. With a 12V DC 3A power supply the total power available for all external output shall be 1100mA (13 watts). IP Door Controllers shall have the following characteristics:
1. General Output connectors 16
 2. Input connections 2
 3. Communications protocol RS-45





JOHNSTON COMMUNITY COLLEGE

245 COLLEGE ROAD / SMITHFIELD NC 27577

DOOR ACCESS SYSTEM

SITE SURVEYDRAWINGS

LEGEND

-  EXISTING KEYPAD AD200 LOCK- CONVERT DOOR TO HARDWIRED WITH READER.
-  EXISTING BADGE PASS ACCESS CONTROL READER INSTALLED.
-  ADD ACCESS CONTROL TO THIS LOCATION.
-  ACCESS CONTROL PANEL / ENCLOSURE LOCATION

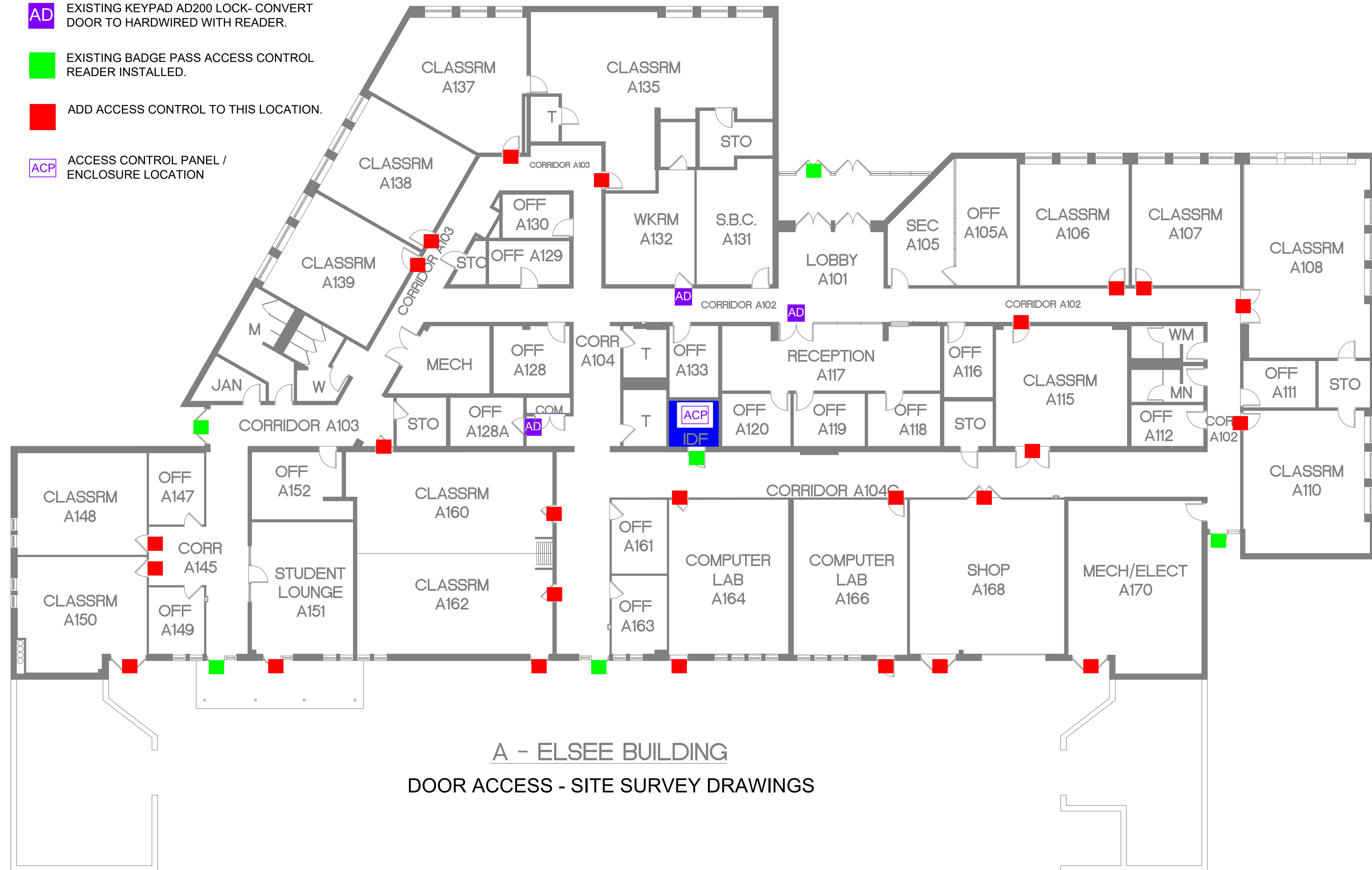
GENERAL NOTES:

1. These drawings are intended for the bidding contractors to use as reference material during the access control pre-bid site survey. All contractors are responsible to verify accuracy of the drawings during the site walk through with JCC staff members.
2. Some door locations have been marked by JCC staff as "TBD". JCC staff will make a final decision during the pre-bid site visit regarding these locations and inform the bidders which doors to include or exclude in the final upgrade.
3. Some door locations are marked "ADA" as they have an automatic door opener installed at that location for handicap access. All auto door operators, shall be integrated with the door access system as listed in the bid specifications. Other door locations not identified on the drawings may exist and the bidding contractor is responsible to identify all ADA door locations.

SHEET INDEX

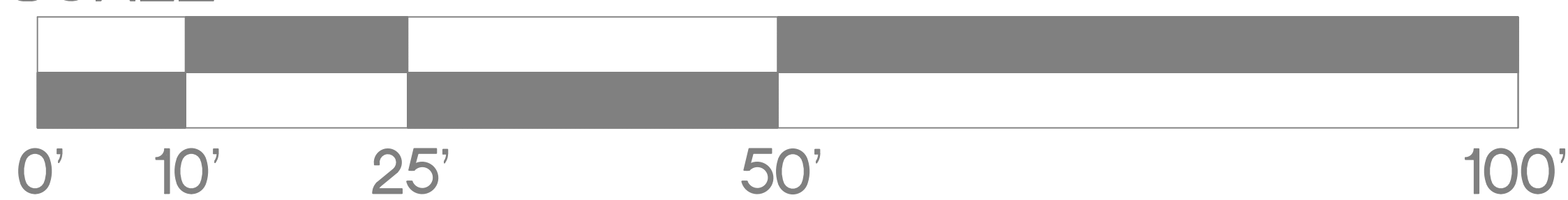
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2. B-STEAM BUILDING
3. C-WILSON 1ST FLOOR SECTION A
4. C-WILSON 1ST FLOOR SECTION B
5. C-WILSON 2ND FLOOR
6. D-TART BUILDING
7. E-LRC/ LIBRARY BUILDING 1ST & 2ND FLOOR
8. F-HEALTH BUILDING 1ST FLOOR
9. F-HEALTH BUILDING 2ND FLOOR
10. G-SMITH BUILDING
11. H-BRITT BUILDING
12. I-TRANSPORTATION TECHNOLOGY BUILDING
13. J-PUBLIC SAFETY BUILDING
14. L-ARBORETUM
15. M-SANDERS MAINTENANCE BUILDING
16. N-ENGINEERING 1ST FLOOR
17. N-ENGINEERING 2ND FLOOR
18. CLEVELAND CENTER
19. WORK FORCE DEVELOPMENT CENTER
20. ADVANCED MANUFACTURING TRAINING FACILITY 1ST FLOOR (FOUR OAKS)
21. ADVANCED MANUFACTURING TRAINING FACILITY 2ND FLOOR (FOUR OAKS)
22. HOWELL WOODS -(NO ACCESS CONTROL FOR THIS FACILITY)

- AD EXISTING KEYPAD AD200 LOCK- CONVERT DOOR TO HARDWIRED WITH READER.
- EXISTING BADGE PASS ACCESS CONTROL READER INSTALLED.
- ADD ACCESS CONTROL TO THIS LOCATION.
- ACP ACCESS CONTROL PANEL / ENCLOSURE LOCATION



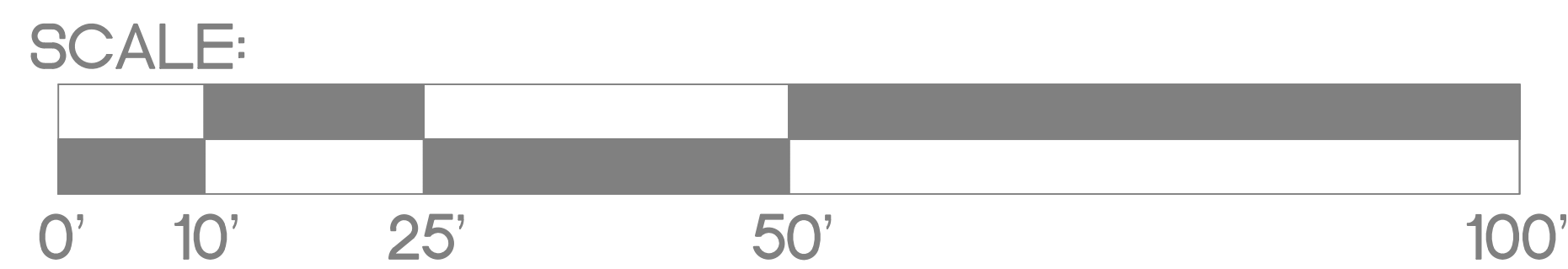
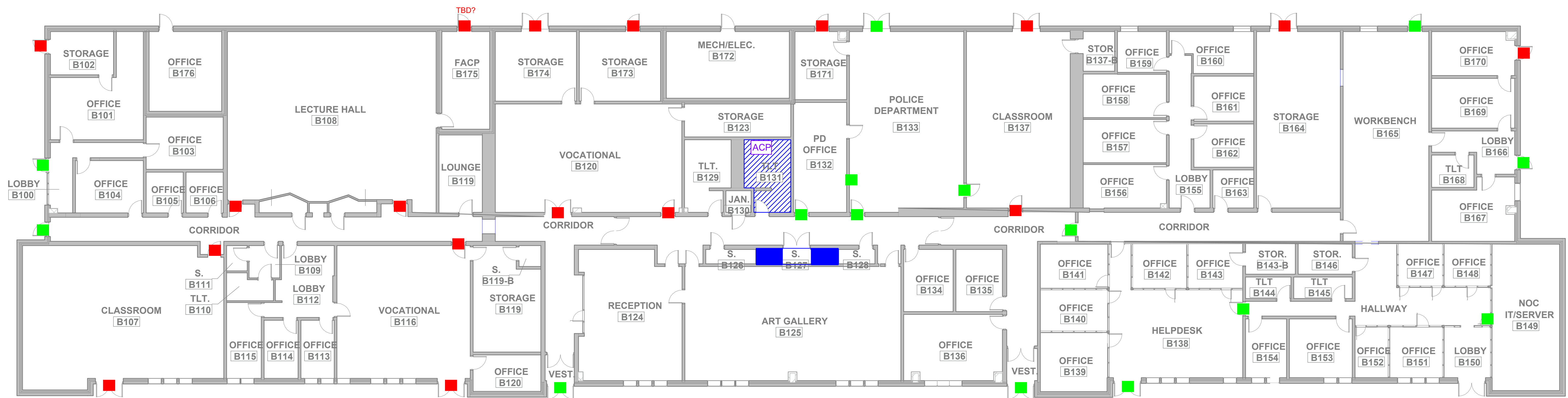
A - ELSEE BUILDING
DOOR ACCESS - SITE SURVEY DRAWINGS

SCALE:



SHEET TITLE:
 1ST FLOOR
 ALL SYSTEMS
 SHOP DRAWINGS

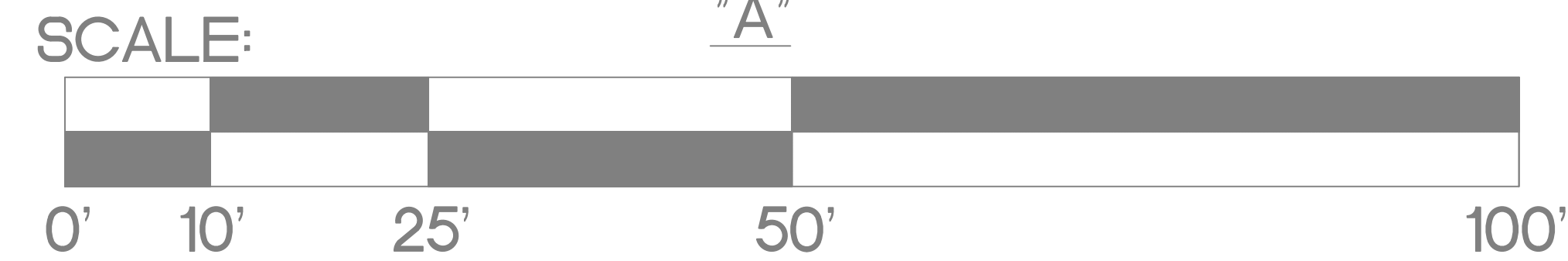
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SHOP01



B - STEAM BUILDING
DOOR ACCESS - SITE SURVEY DRAWINGS

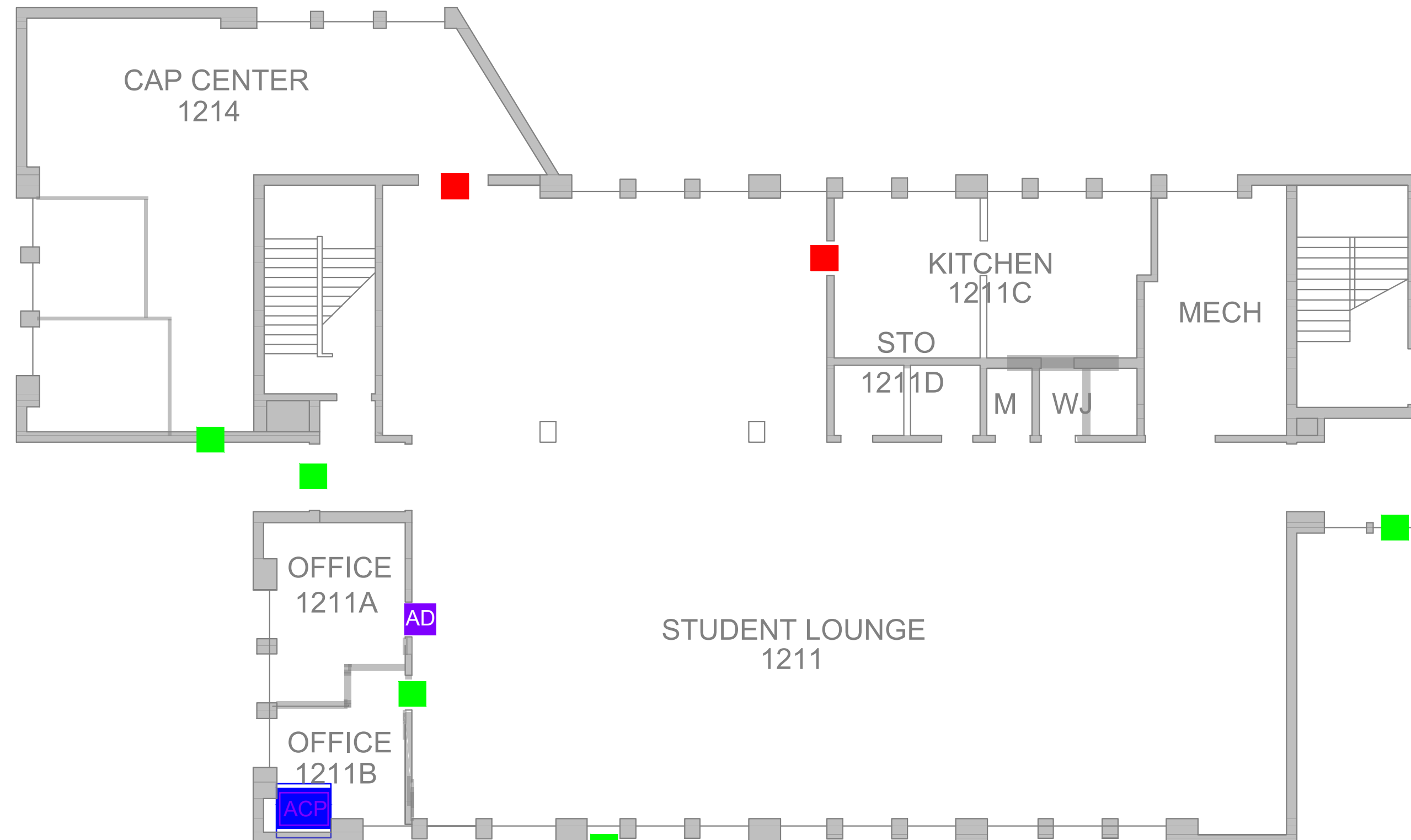
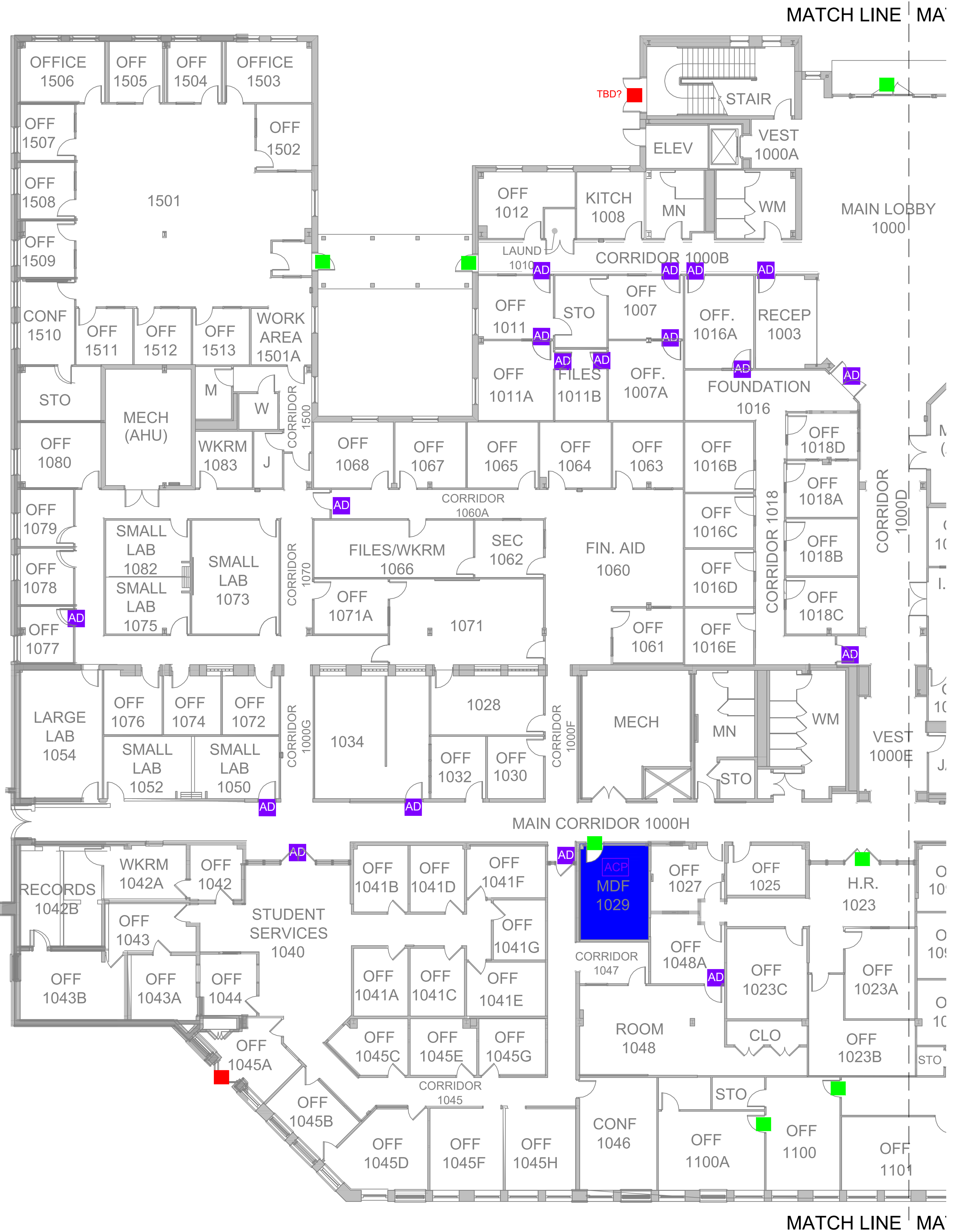
- AD EXISTING KEYPAD AD200 LOCK- CONVERT DOOR TO HARDWIRED WITH READER.
- EXISTING BADGE PASS ACCESS CONTROL READER INSTALLED.
- ADD ACCESS CONTROL TO THIS LOCATION.
- ACP ACCESS CONTROL PANEL / ENCLOSURE LOCATION

C - WILSON BUILDING - FIRST FLOOR



WILSON BUILDING 1ST FLOOR - SECTION 1 OF 2
DOOR ACCESS - SITE SURVEY DRAWINGS

- AD EXISTING KEYPAD AD200 LOCK- CONVERT DOOR TO HARDWIRED WITH READER.
- EXISTING BADGE PASS ACCESS CONTROL READER INSTALLED.
- ADD ACCESS CONTROL TO THIS LOCATION.
- ACP ACCESS CONTROL PANEL / ENCLOSURE LOCATION

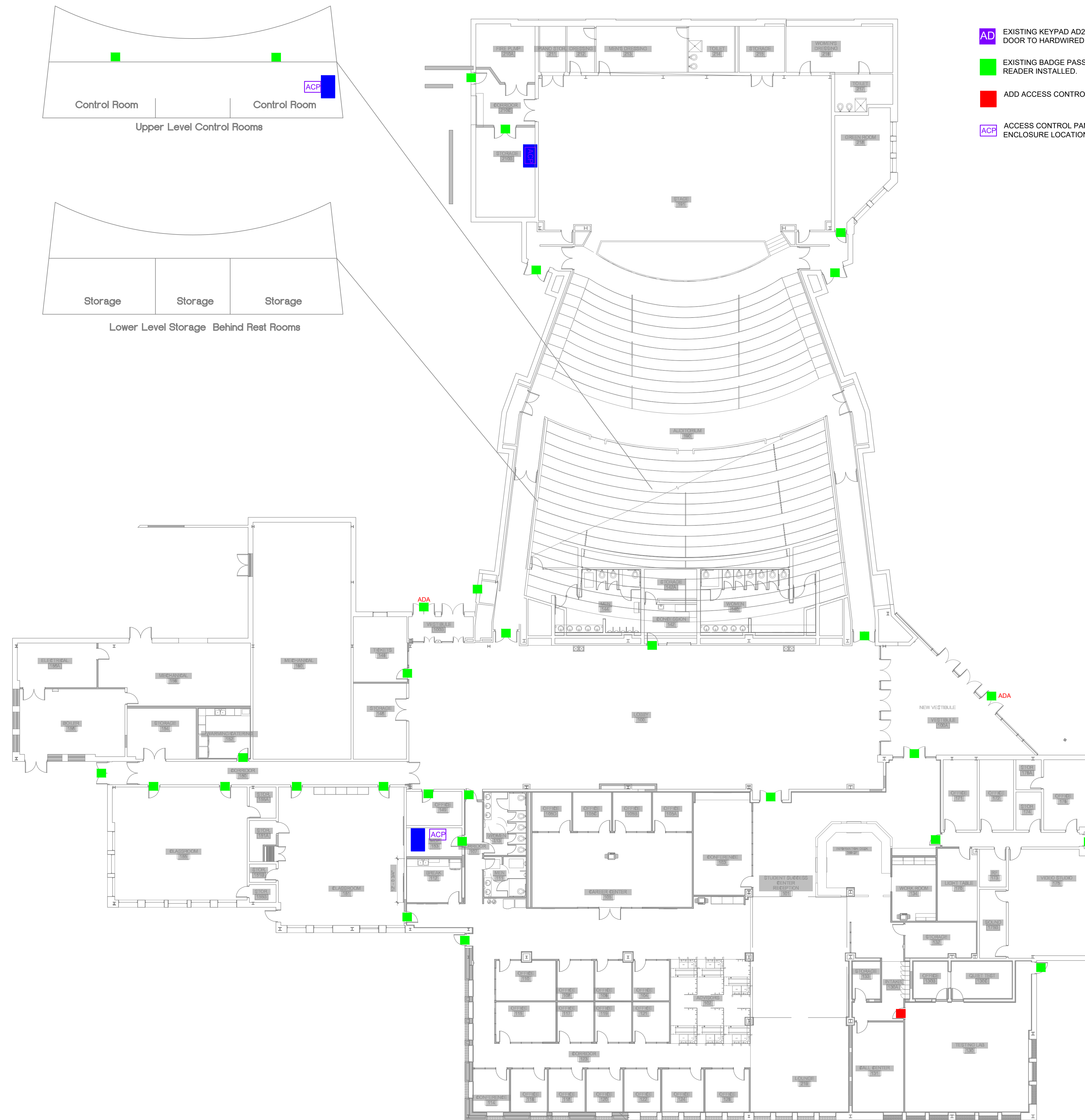


MATCH LINE MA'

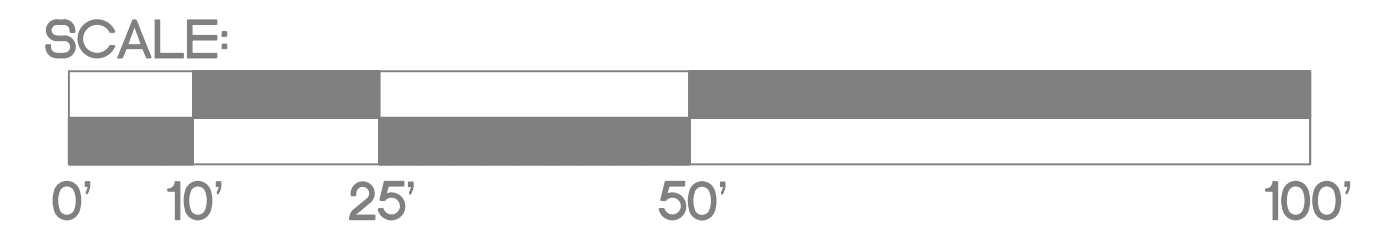
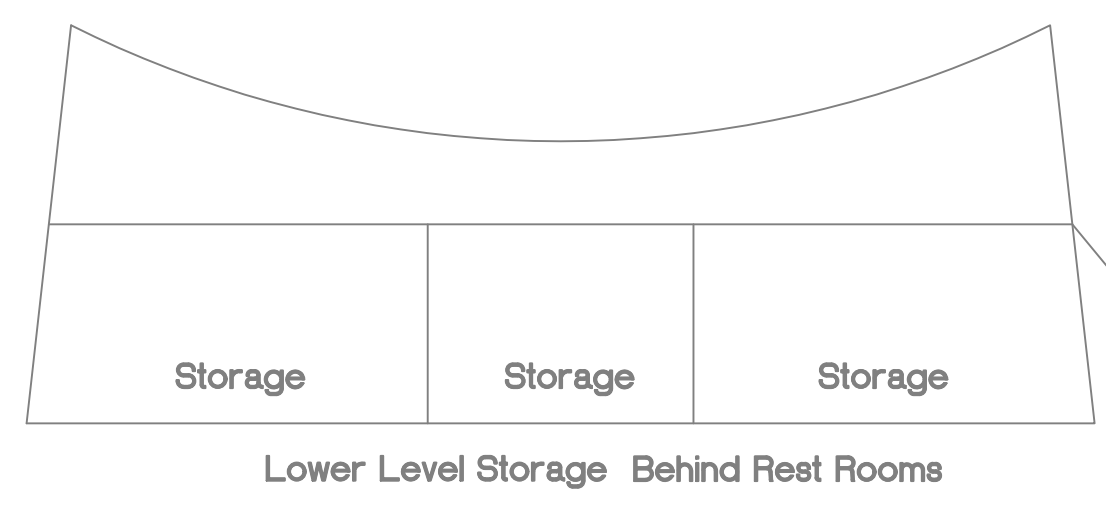
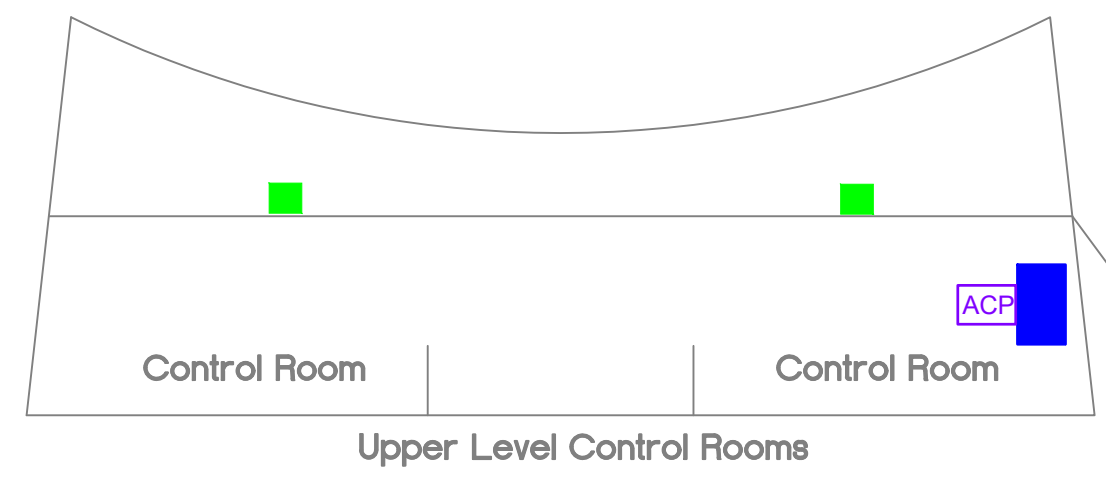
MATCH LINE MA'

SHEET TITLE:
1ST FLOOR
ALL SYSTEMS
SHOP DRAWINGS

SHEET NO.
SHOP03

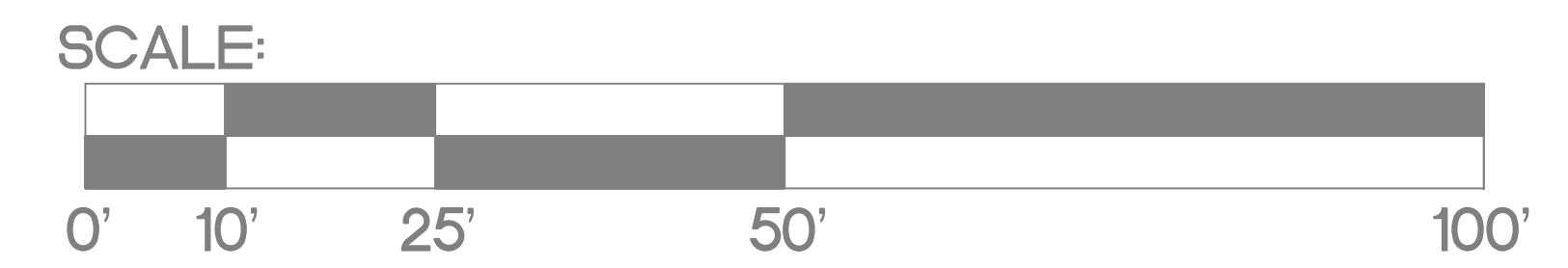


- AD EXISTING KEYPAD AD200 LOCK- CONVERT DOOR TO HARDWIRED WITH READER.
- EXISTING BADGE PASS ACCESS CONTROL READER INSTALLED.
- ADD ACCESS CONTROL TO THIS LOCATION.
- ACP ACCESS CONTROL PANEL / ENCLOSURE LOCATION



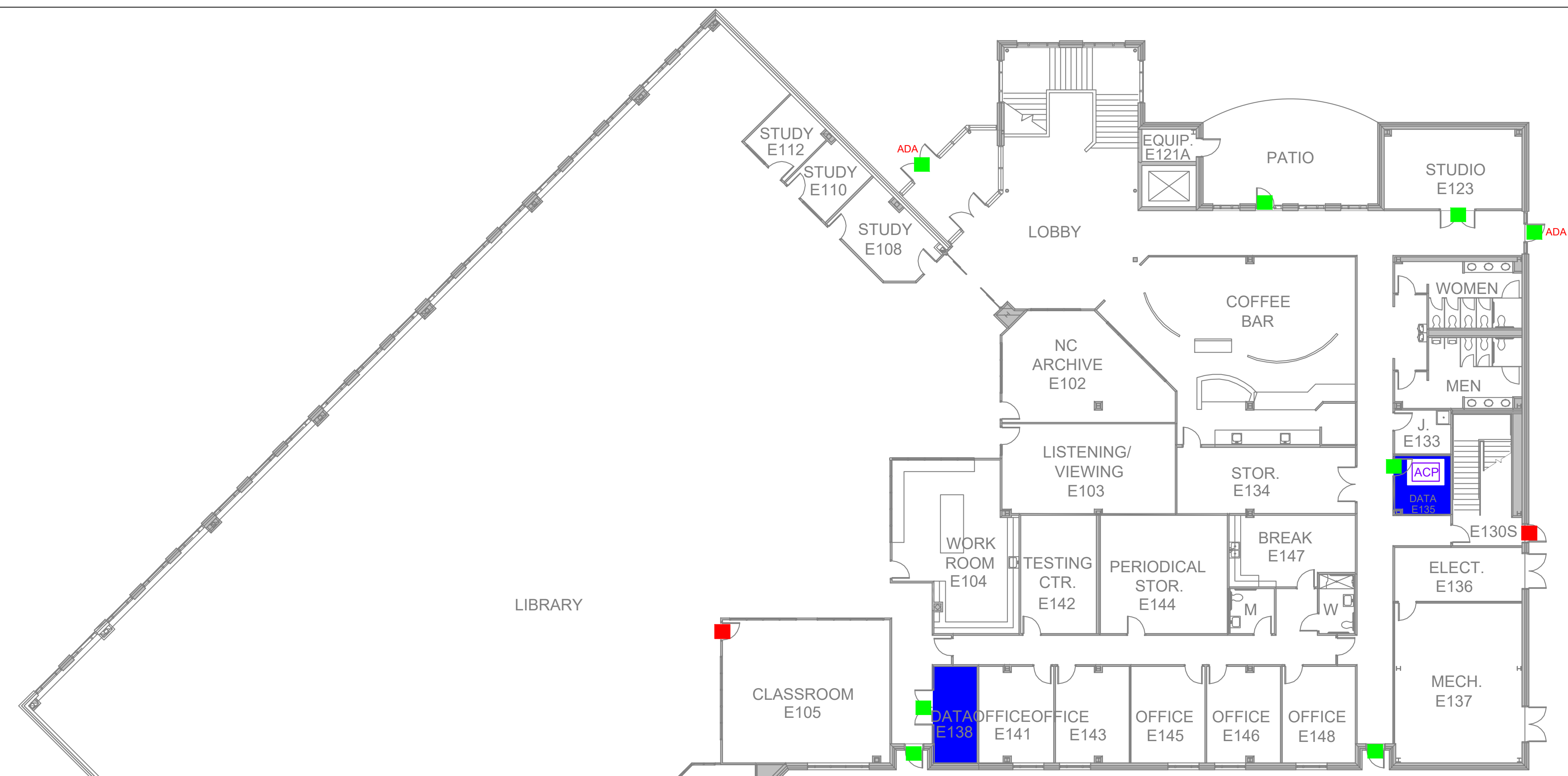
D -TART BUILDING

DOOR ACCESS - SITE SURVEY DRAWINGS



DOOR ACCESS - SITE SURVEY DRAWINGS

- AD EXISTING KEYPAD AD200 LOCK- CONVERT DOOR TO HARDWIRED WITH READER.
- EXISTING BADGE PASS ACCESS CONTROL READER INSTALLED.
- ADD ACCESS CONTROL TO THIS LOCATION.
- ACP ACCESS CONTROL PANEL / ENCLOSURE LOCATION



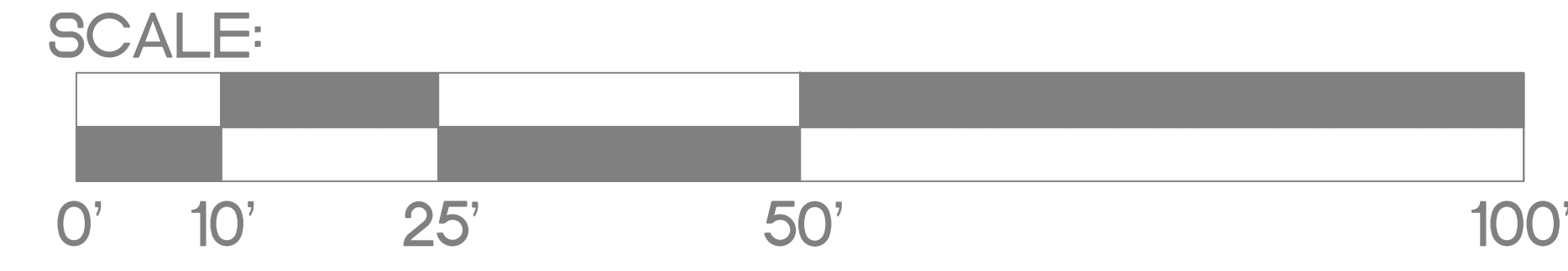
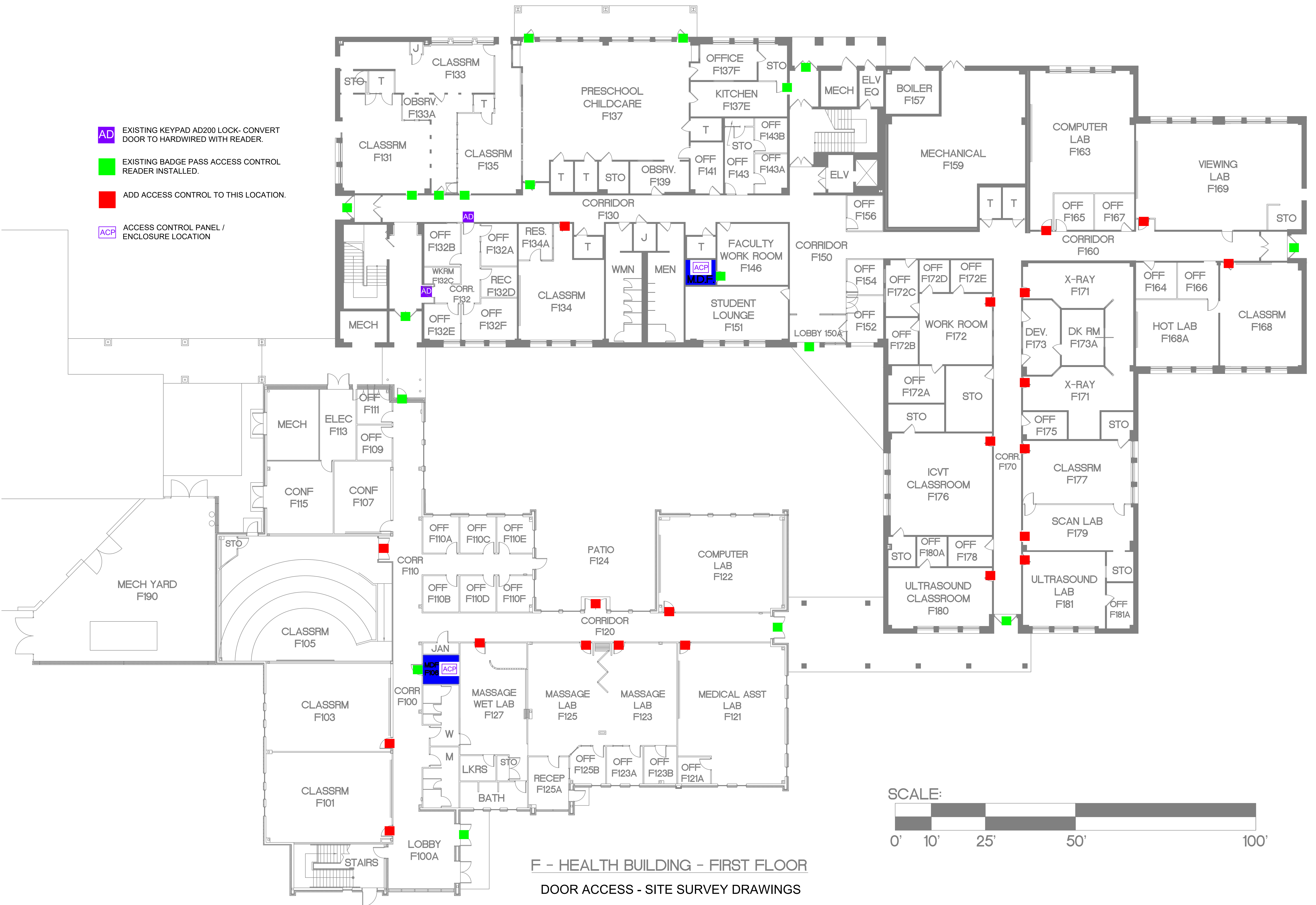
E - LIBRARY BUILDING FIRST FLOOR



SECOND FLOOR

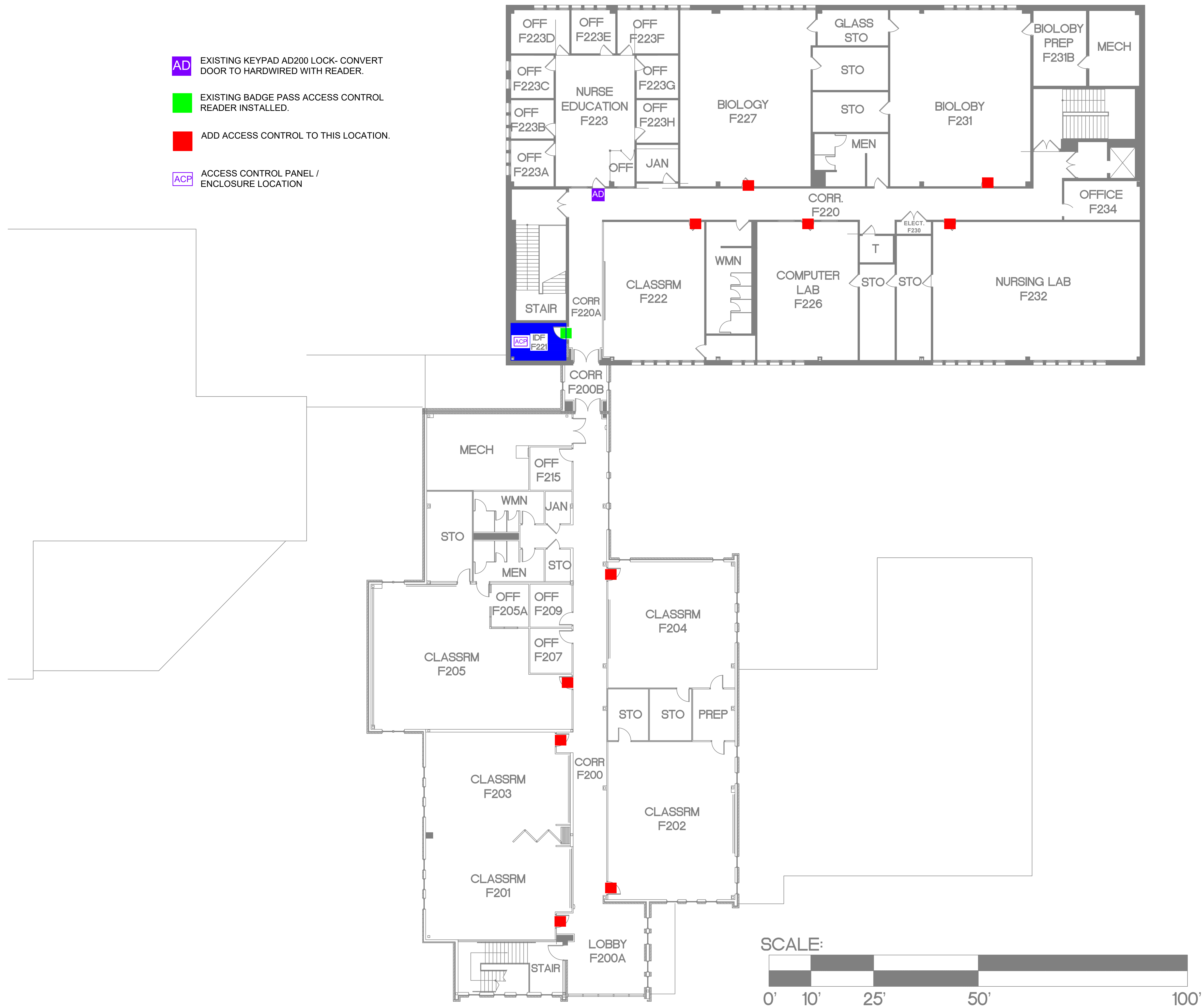
E - LIBRARY BUILDING SECOND FLOOR

- AD EXISTING KEYPAD AD200 LOCK- CONVERT DOOR TO HARDWIRED WITH READER.
- EXISTING BADGE PASS ACCESS CONTROL READER INSTALLED.
- ADD ACCESS CONTROL TO THIS LOCATION.
- ACP ACCESS CONTROL PANEL / ENCLOSURE LOCATION

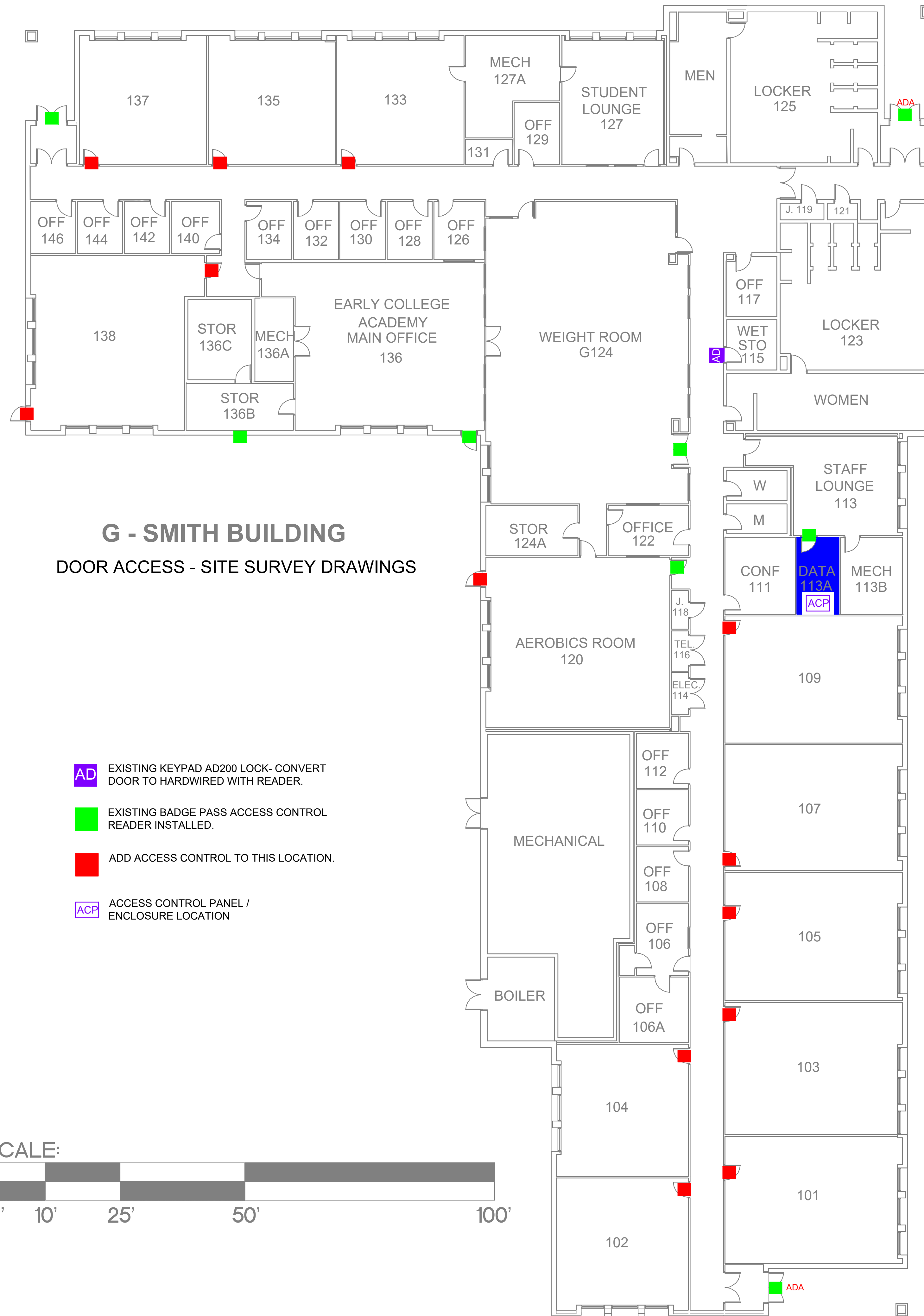


F - HEALTH BUILDING - FIRST FLOOR
DOOR ACCESS - SITE SURVEY DRAWINGS

- EXISTING KEYPAD AD200 LOCK- CONVERT DOOR TO HARDWIRED WITH READER.
- EXISTING BADGE PASS ACCESS CONTROL READER INSTALLED.
- ADD ACCESS CONTROL TO THIS LOCATION.
- ACCESS CONTROL PANEL / ENCLOSURE LOCATION

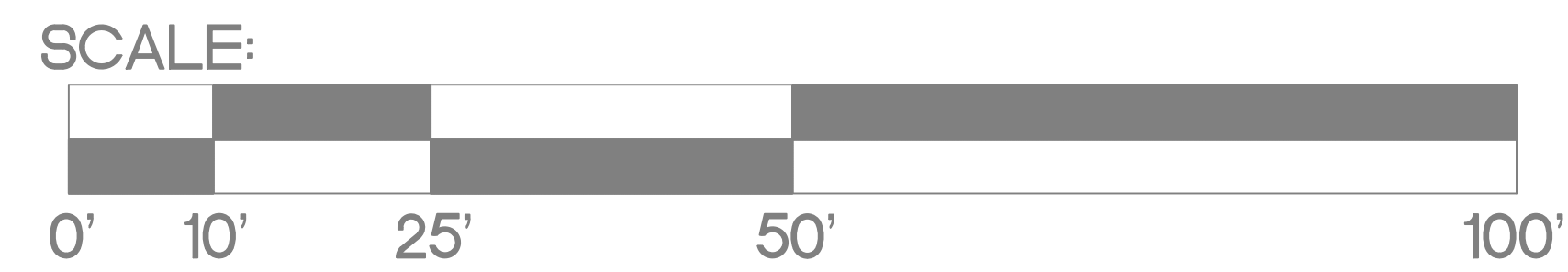


F - HEALTH BUILDING - SECOND FLOOR
DOOR ACCESS - SITE SURVEY DRAWINGS



G - SMITH BUILDING
DOOR ACCESS - SITE SURVEY DRAWINGS

- AD EXISTING KEYPAD AD200 LOCK- CONVERT DOOR TO HARDWIRED WITH READER.
- EXISTING BADGE PASS ACCESS CONTROL READER INSTALLED.
- ADD ACCESS CONTROL TO THIS LOCATION.
- ACP ACCESS CONTROL PANEL / ENCLOSURE LOCATION



AD EXISTING KEYPAD AD200 LOCK- CONVERT DOOR TO HARDWIRED WITH READER.

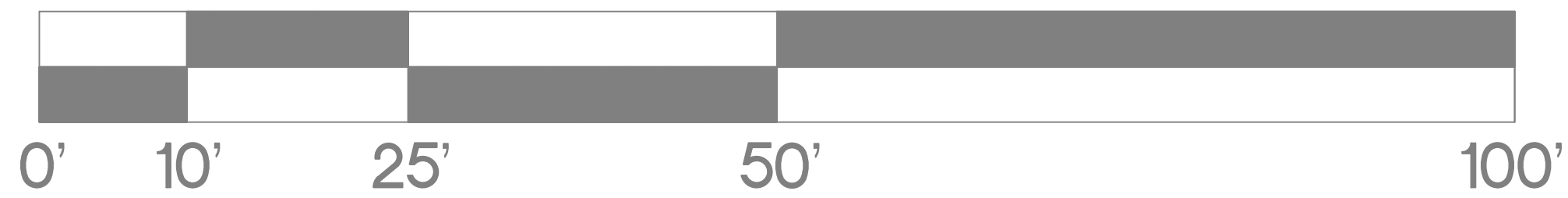
■ EXISTING BADGE PASS ACCESS CONTROL READER INSTALLED.

■ ADD ACCESS CONTROL TO THIS LOCATION.

ACP ACCESS CONTROL PANEL / ENCLOSURE LOCATION



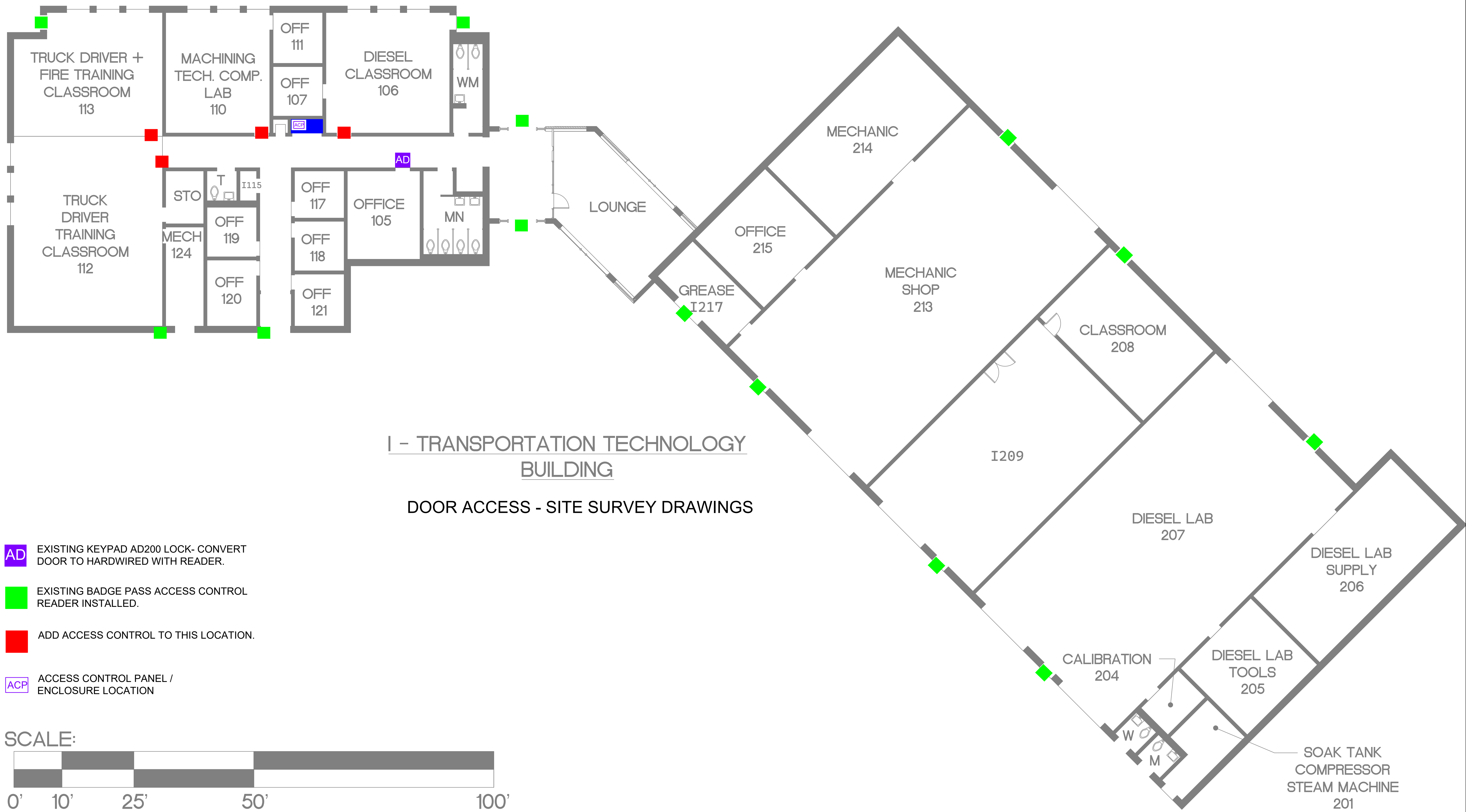
SCALE:

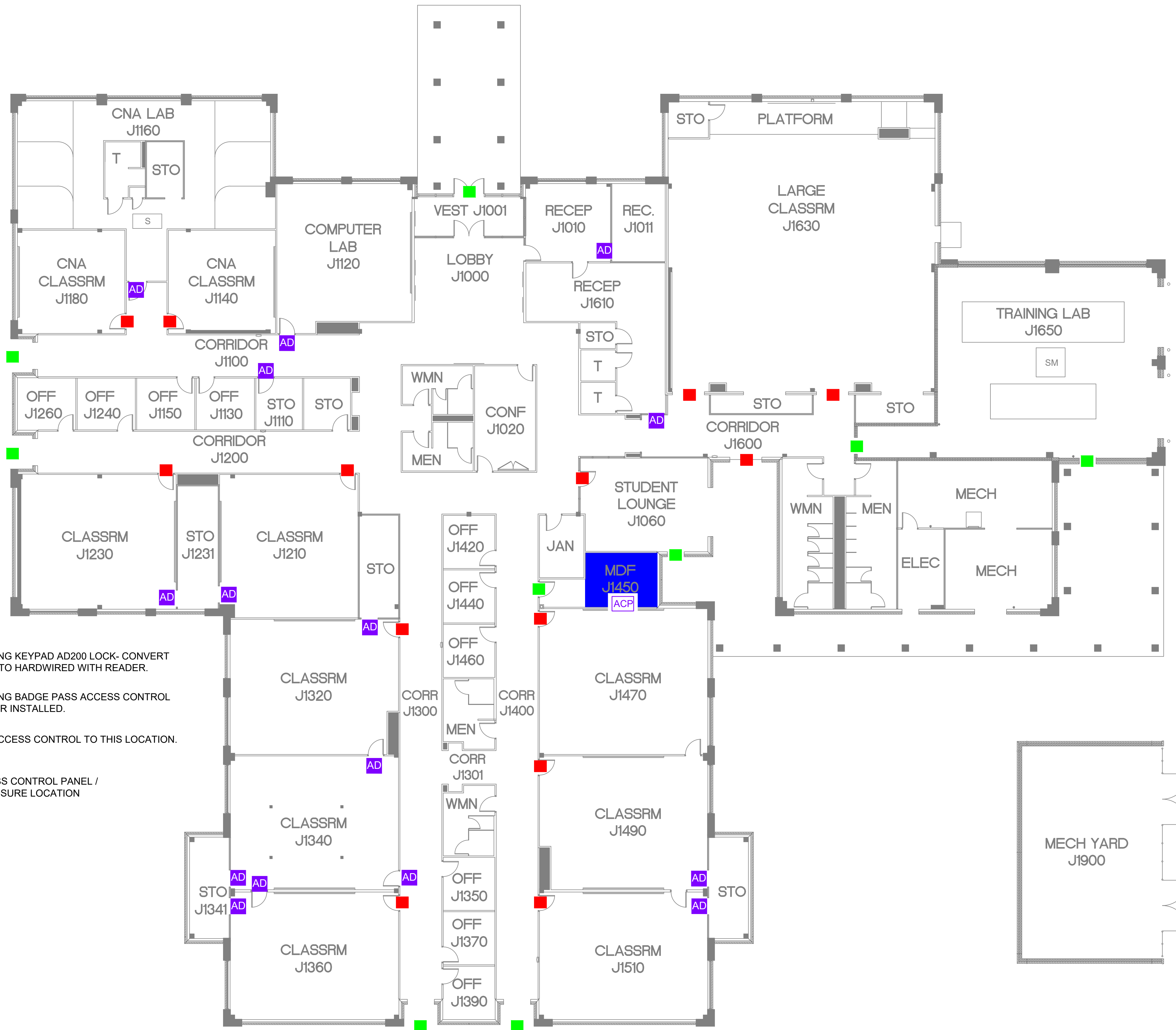


H - BRITT BUILDING
DOOR ACCESS - SITE SURVEY DRAWINGS

SHEET TITLE:
1ST FLOOR
ALL SYSTEMS
SHOP DRAWINGS

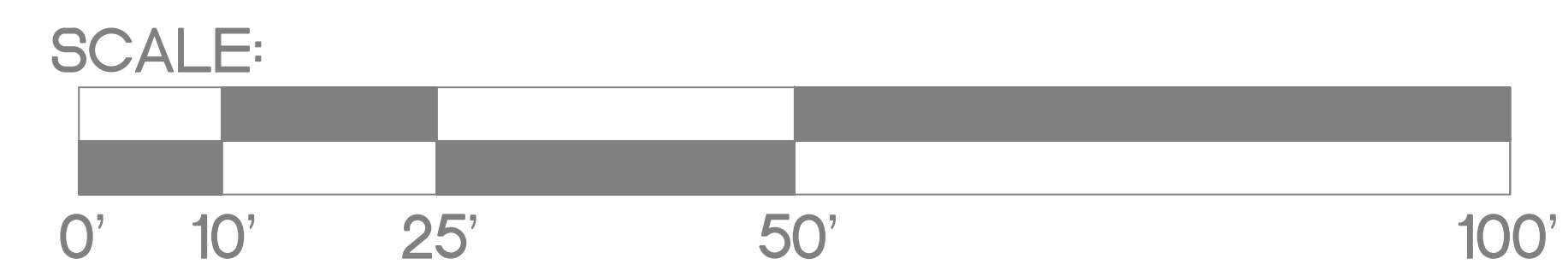
SHEET NO.
SHOP11





- AD EXISTING KEYPAD AD200 LOCK- CONVERT DOOR TO HARDWIRED WITH READER.
- EXISTING BADGE PASS ACCESS CONTROL READER INSTALLED.
- ADD ACCESS CONTROL TO THIS LOCATION.
- ACP ACCESS CONTROL PANEL / ENCLOSURE LOCATION

J - PUBLIC SAFETY BUILDING
DOOR ACCESS - SITE SURVEY DRAWINGS



SHEET TITLE:
 1ST FLOOR
 ALL SYSTEMS
 SHOP DRAWINGS

SHEET NO.
SHOP13

AD

EXISTING KEYPAD AD200 LOCK- CONVERT DOOR TO HARDWIRED WITH READER.



EXISTING BADGE PASS ACCESS CONTROL READER INSTALLED.

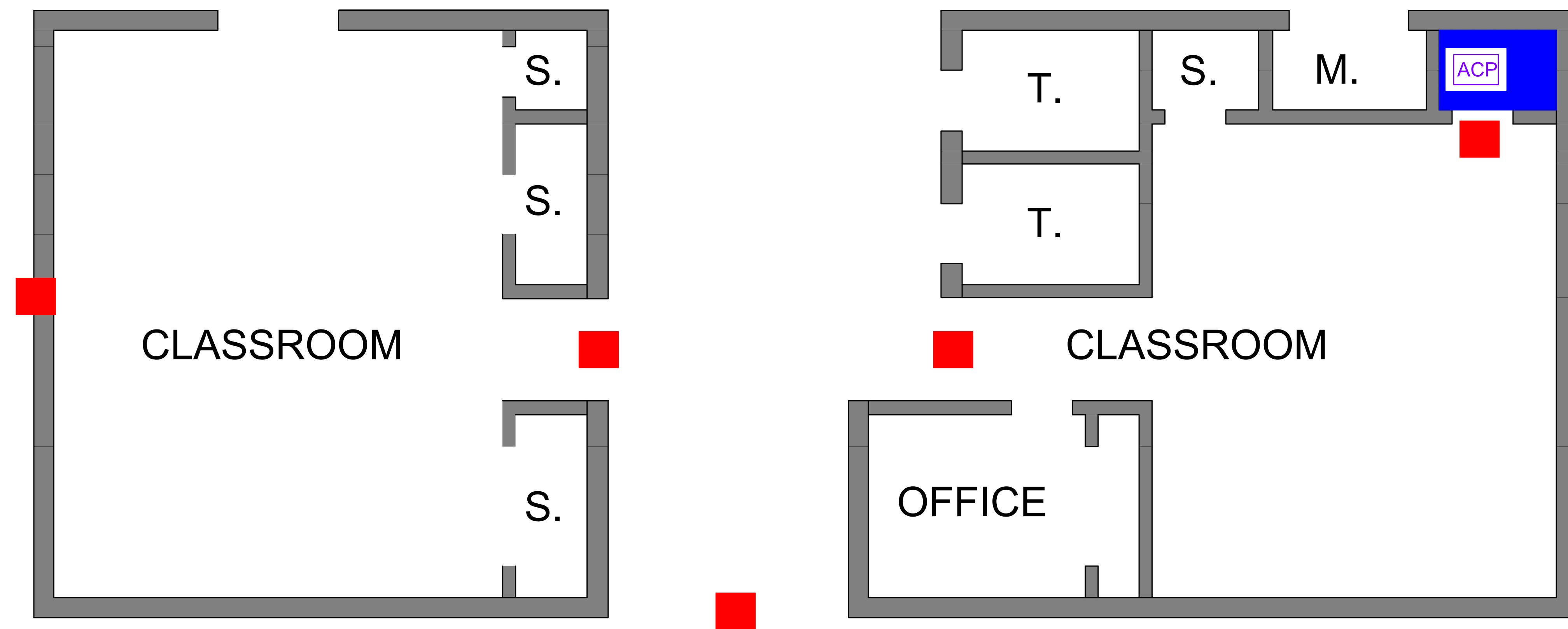


ADD ACCESS CONTROL TO THIS LOCATION.

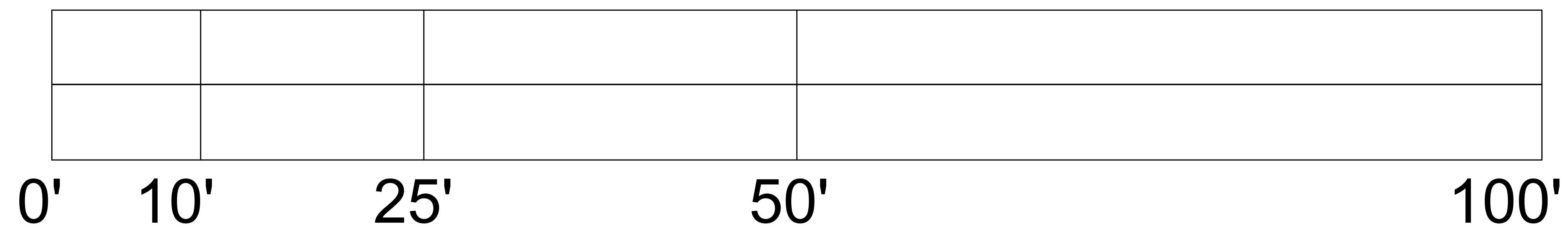
ACP

ACCESS CONTROL PANEL / ENCLOSURE LOCATION

L - ARBORETUM

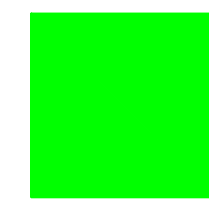


SCALE:



AD

EXISTING KEYPAD AD200 LOCK- CONVERT DOOR TO HARDWIRED WITH READER.



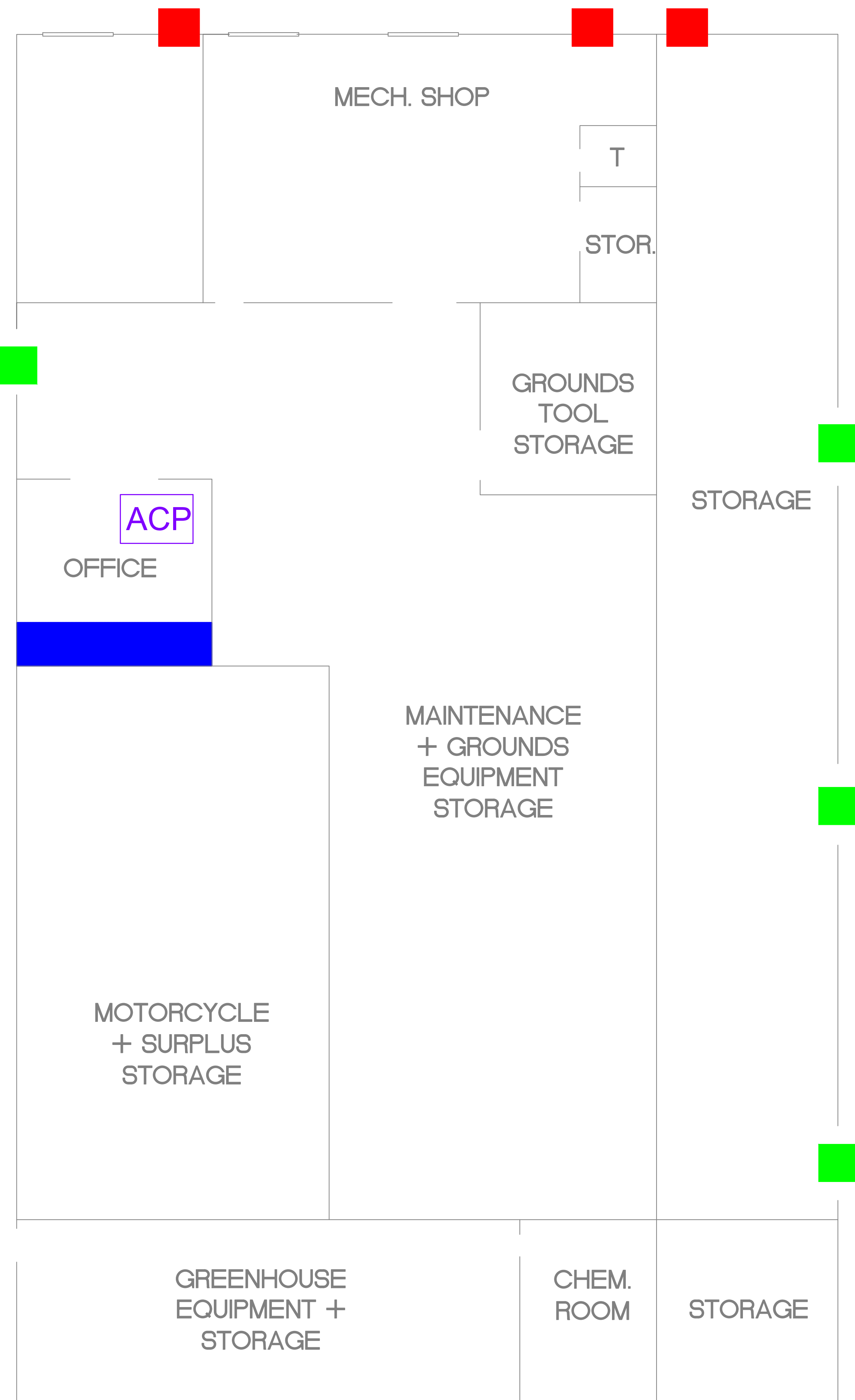
EXISTING BADGE PASS ACCESS CONTROL READER INSTALLED.



ADD ACCESS CONTROL TO THIS LOCATION.

ACP

ACCESS CONTROL PANEL / ENCLOSURE LOCATION



M - SANDERS MAINTENANCE BLD.

DOOR ACCESS - SITE SURVEY DRAWINGS

SHEET TITLE:
1ST FLOOR
ALL SYSTEMS
SHOP DRAWINGS

SHEET NO.
SHOP15

N – ENGINEERING BUILDING
DOOR ACCESS - SITE SURVEY DRAWINGS

AD EXISTING KEYPAD AD200 LOCK- CONVERT DOOR TO HARDWIRED WITH READER.

■ EXISTING BADGE PASS ACCESS CONTROL READER INSTALLED.

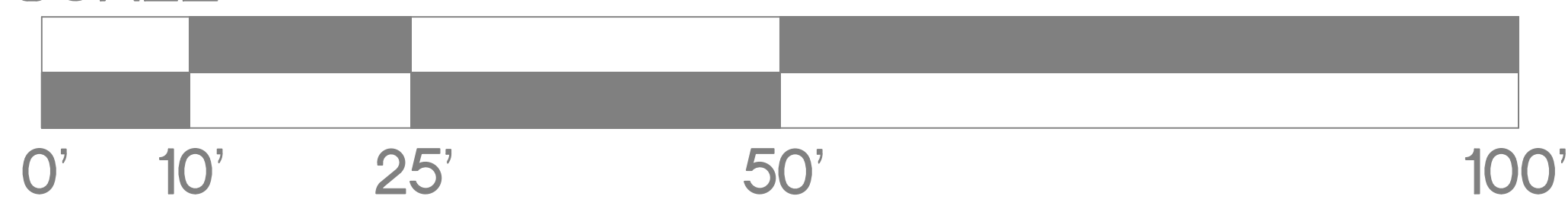
■ ADD ACCESS CONTROL TO THIS LOCATION.

ACP ACCESS CONTROL PANEL / ENCLOSURE LOCATION

FIRST FLOOR



SCALE:



SHEET TITLE:
 1ST FLOOR
 ALL SYSTEMS
 SHOP DRAWINGS

SHEET NO.
SHOP16

N – ENGINEERING BUILDING

DOOR ACCESS - SITE SURVEY DRAWINGS

AD EXISTING KEYPAD AD200 LOCK- CONVERT DOOR TO HARDWIRED WITH READER.

EXISTING BADGE PASS ACCESS CONTROL READER INSTALLED.

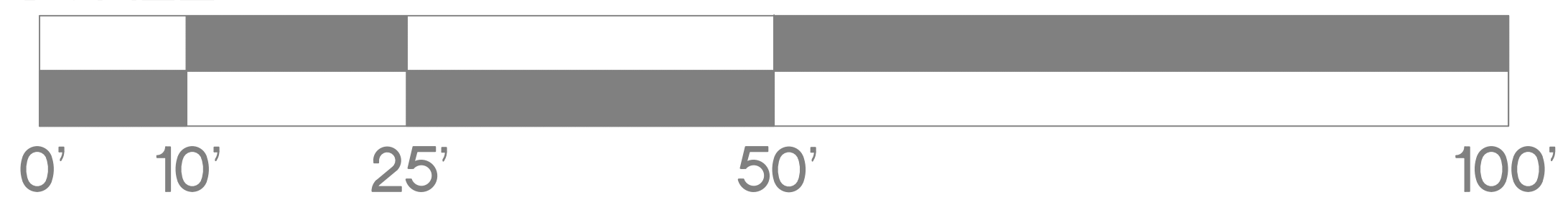
ADD ACCESS CONTROL TO THIS LOCATION.

ACP ACCESS CONTROL PANEL / ENCLOSURE LOCATION

SECOND FLOOR



SCALE:



SHEET TITLE:
1ST FLOOR
ALL SYSTEMS
SHOP DRAWINGS

SHEET NO.
SHOP17

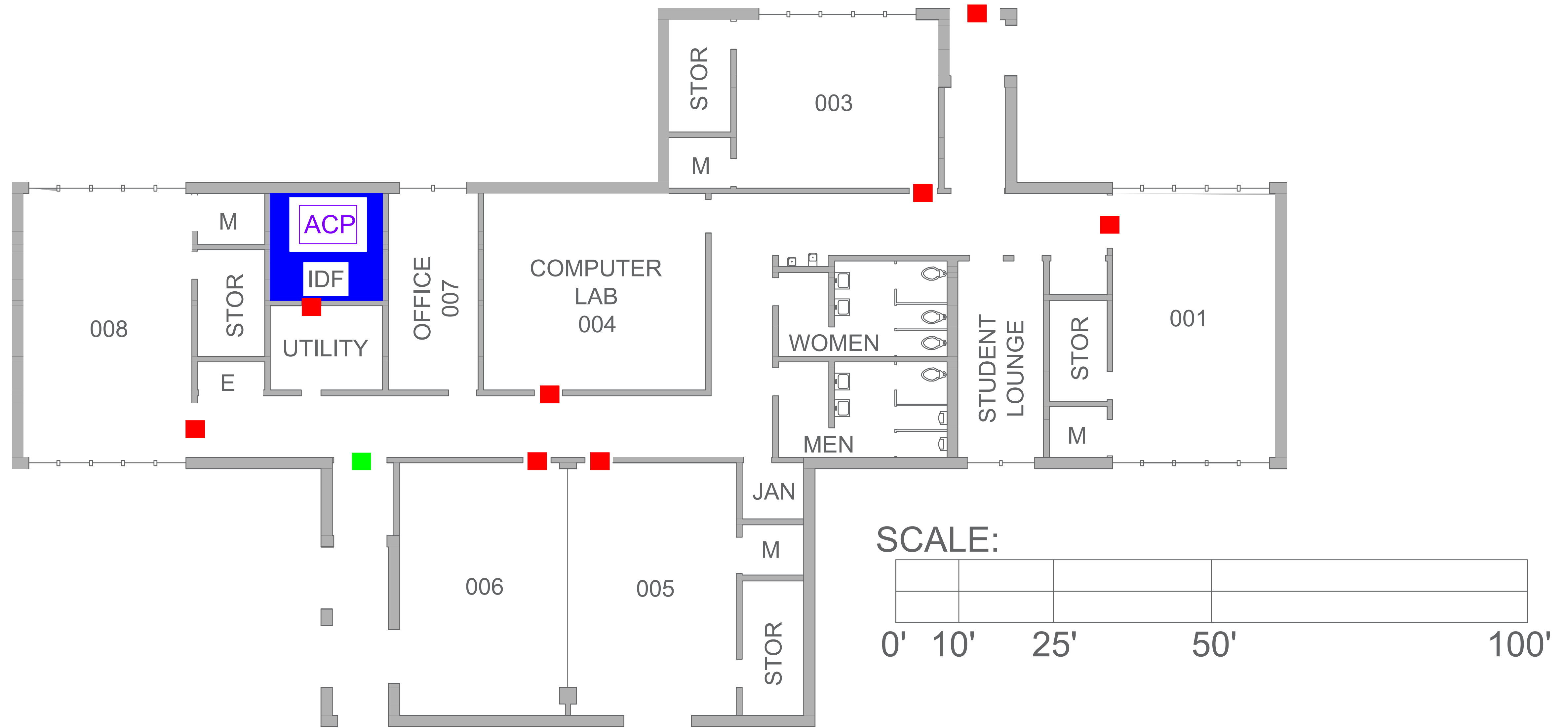
CLEVELAND CENTER

AD EXISTING KEYPAD AD200 LOCK- CONVERT DOOR TO HARDWIRED WITH READER.

■ EXISTING BADGE PASS ACCESS CONTROL READER INSTALLED.

■ ADD ACCESS CONTROL TO THIS LOCATION.

ACP ACCESS CONTROL PANEL / ENCLOSURE LOCATION





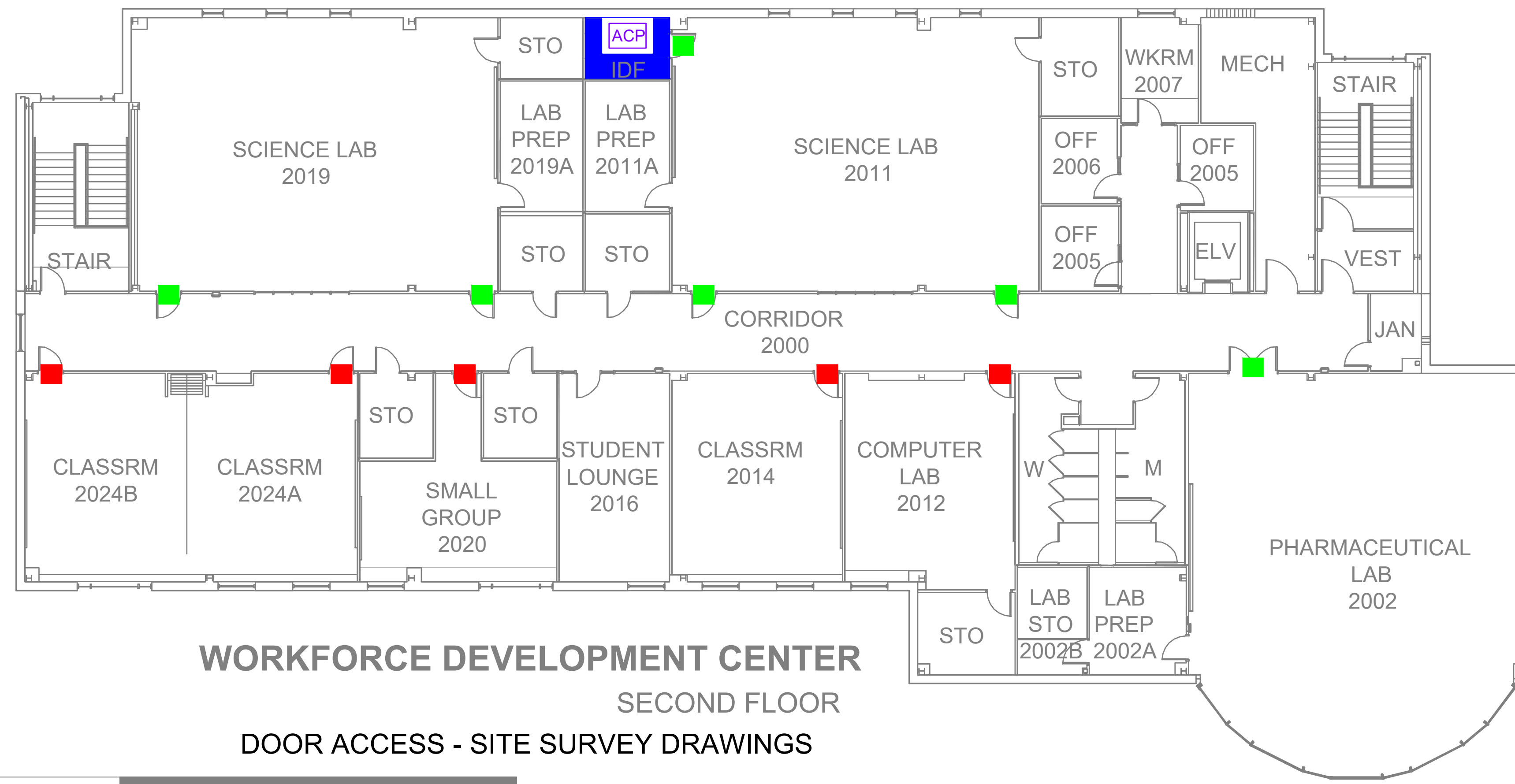
FIRST FLOOR

AD EXISTING KEYPAD AD200 LOCK- CONVERT DOOR TO HARDWIRED WITH READER.

■ EXISTING BADGE PASS ACCESS CONTROL READER INSTALLED.

■ ADD ACCESS CONTROL TO THIS LOCATION.

ACP ACCESS CONTROL PANEL / ENCLOSURE LOCATION

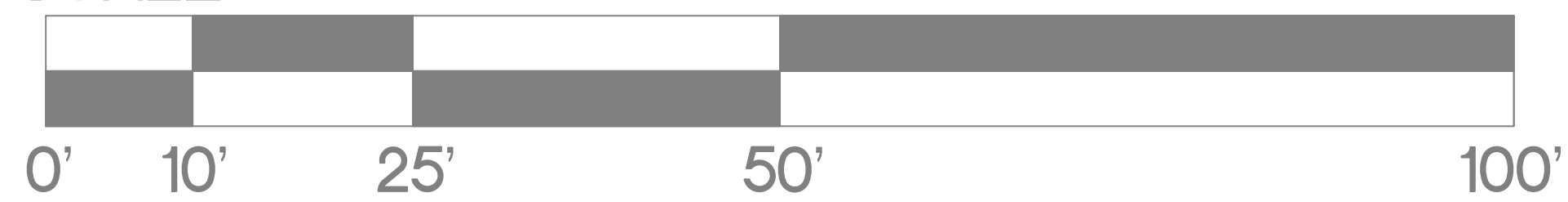


WORKFORCE DEVELOPMENT CENTER

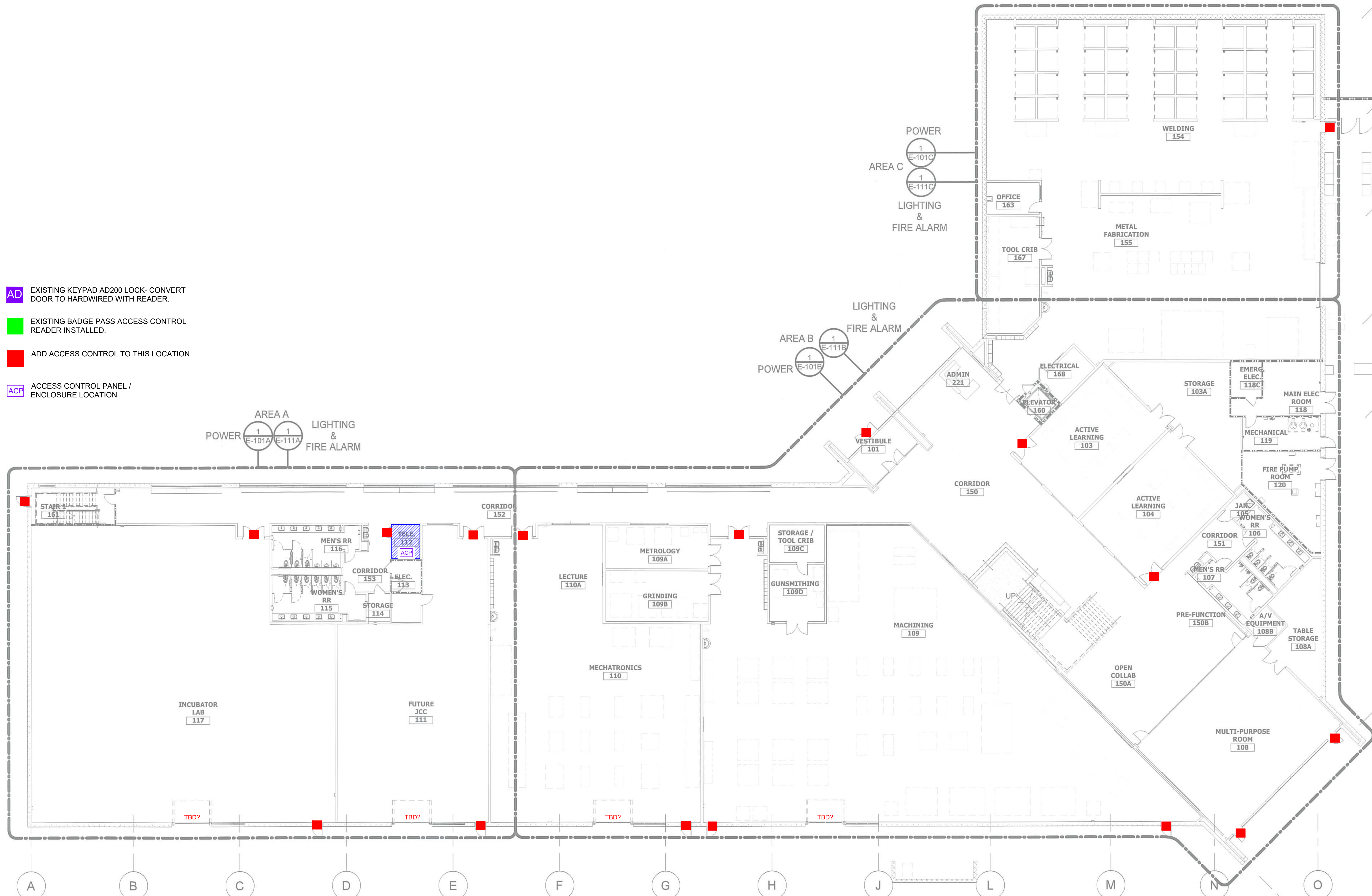
SECOND FLOOR

DOOR ACCESS - SITE SURVEY DRAWINGS

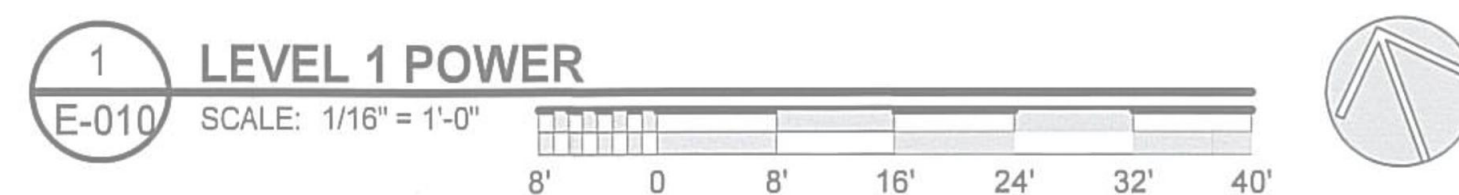
SCALE:



- AD EXISTING KEYPAD AD200 LOCK- CONVERT DOOR TO HARDWIRED WITH READER.
- EXISTING BADGE PASS ACCESS CONTROL READER INSTALLED.
- ADD ACCESS CONTROL TO THIS LOCATION.
- ACF ACCESS CONTROL PANEL / ENCLOSURE LOCATION



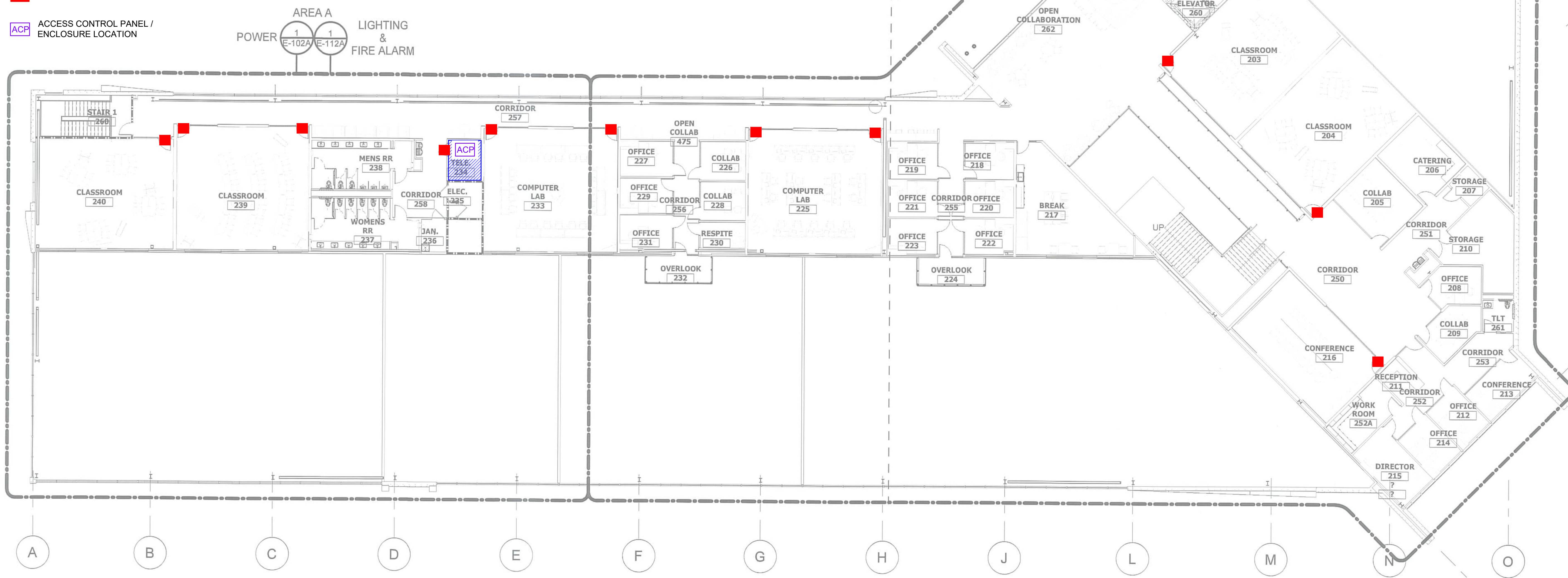
ADVANCED MANUFACTURING TRAINING - Four Oaks



SHEET TITLE:
1ST FLOOR
ALL SYSTEMS
SHOP DRAWINGS

SHEET NO.
SHOP20

- AD EXISTING KEYPAD AD200 LOCK - CONVERT DOOR TO HARDWIRED WITH READER.
- EXISTING BADGE PASS ACCESS CONTROL READER INSTALLED.
- ADD ACCESS CONTROL TO THIS LOCATION.
- ACF ACCESS CONTROL PANEL / ENCLOSURE LOCATION



ADVANCED MANUFACTURING TRAINING - Four Oaks

1 FLOOR PLAN - LEVEL 2
 E-011 SCALE: 1/16" = 1'-0"

NO ACCESS CONTROL FOR THIS FACILITY.

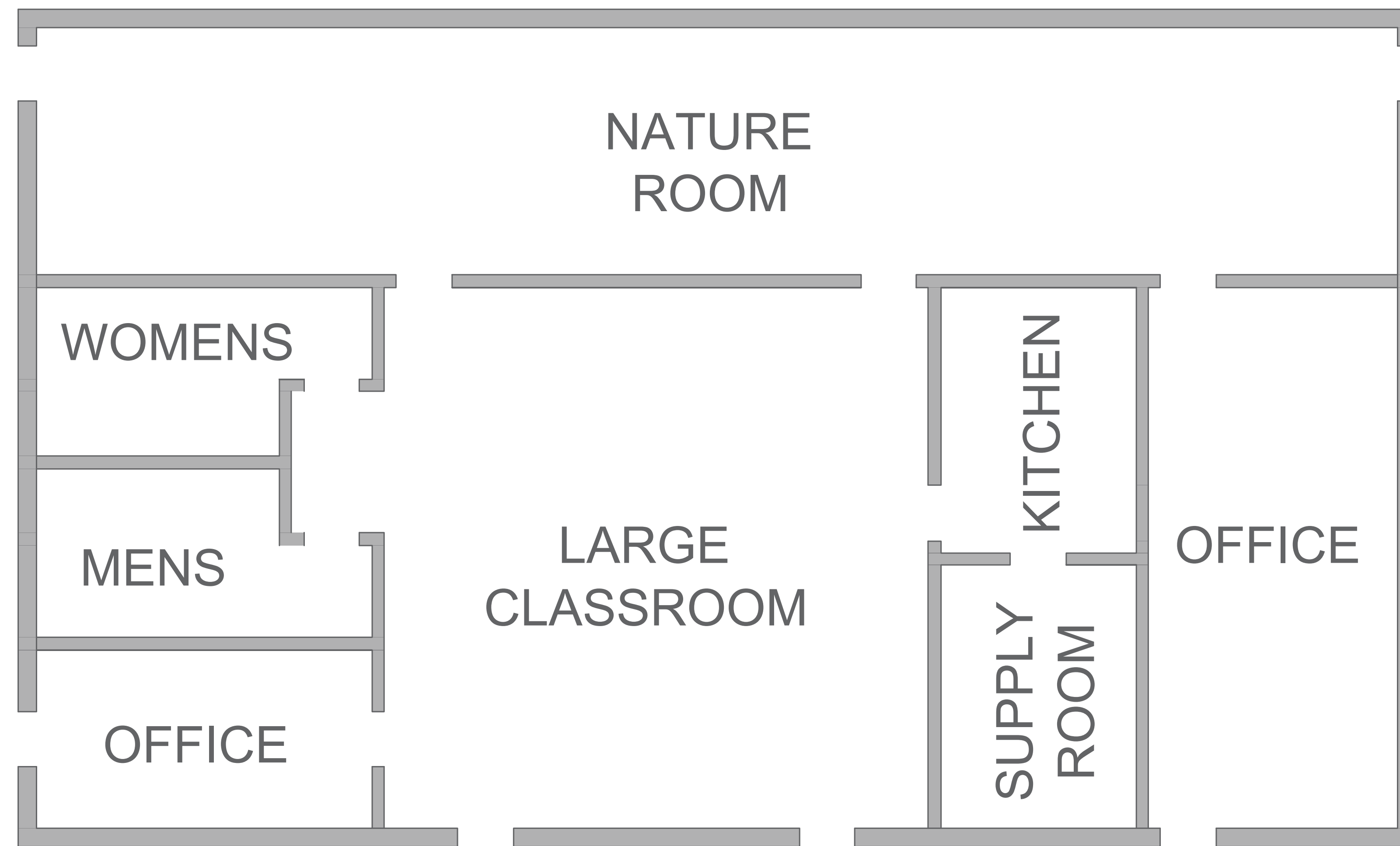
AD EXISTING KEYPAD AD200 LOCK- CONVERT DOOR TO HARDWIRED WITH READER.

■ EXISTING BADGE PASS ACCESS CONTROL READER INSTALLED.

■ ADD ACCESS CONTROL TO THIS LOCATION.

ACP ACCESS CONTROL PANEL / ENCLOSURE LOCATION

HOWELL WOODS BUILDING



SCALE:

