



ADDENDUM NO. 2 TO PROJECT NO. 43609

**ELEVATOR, CONSTRUCTION, HVAC AND ELECTRICAL WORK
UPGRADE ELEVATORS
STATE OFFICE BUILDING CAMPUS
BUILDING NO. 2
ALBANY, NY**

April 17, 2013

<p>NOTE: This Addendum forms a part of the Contract Documents. Insert it in the Project Manual. Acknowledge receipt of this Addendum in the space provided on the Bid Form.</p>

SPECIFICATIONS

SPECIFICATION GROUP (U, C, H & E CONTRACTS)

1. Page 011000-1, Change Subparagraph 1.04 A. 3 to Read:
 - “3. The sequence of work shall be sequential and shall be phased as follows:
 - a. Elevator #5 & #6 machine room ceiling containing asbestos material shall be abated under the C-Contract prior to removing elevators from service. Coordinate schedule with U-Contractor at the onset of the project.
 1. Phase I: Elevator #5 and Elevator F-2.
 2. Phase II: Elevator #6.”
2. Page 011000-2, Article 1.06, Add the following Paragraph:

“D. Abatement of elevator #5 & #6 machine room ceiling shall be performed on a weekend as coordinated with the Director's Representative, prior to removing any elevators from service.”

ELEVATOR WORK SPECIFICATIONS (U-CONTRACT)

3. Page 142112-3, Change Paragraph 3.01 A to Read:

“A. Remove elevator machine brake shoes and immediately turn over to the C-Contractor (Asbestos Contractor) for wrapping and proper disposal.
 1. Removal of brake shoes must be done in accordance with restricted work period as outlined in 011000.”
4. Page 142711-6, Change Paragraph 3.01, A to Read:

“A. Disassemble and remove cab shell wall panels in-tact and immediately turn over to the C-Contractor (Asbestos Contractor) for wrapping and proper disposal.

1. Removal of cab shell must be done in accordance with restricted work period as outlined in 011000.

ELECTRICAL WORK SPECIFICATIONS (E-CONTRACT)

5. Section 262817 ENCLOSED CIRCUIT BREAKERS: Discard all previously issued versions and substitute the accompanying Sections (page 262817 – 1) noted “Revised 04/17/2013”.
6. Section 283105 MODIFICATIONS TO FIRE ALARM SYSTEM: Discard all previously issued versions and substitute the accompanying Sections (page 283105 - 1 thru 283105 - 21) noted “Revised 04/17/2013”.

DRAWINGS

CONSTRUCTION WORK DRAWINGS (C-CONTRACT)

7. Revised Drawing No. H-102, ASBESTOS ABATEMENT PLANS - PARTIAL BASEMENT AND FIRST FLOOR PLAN: noted “ADDENDUM #2, 04/17/2013” accompanies this Addendum and supersedes the same numbered originally issued drawings.”
8. Revised Drawing No. H-103, ASBESTOS ABATEMENT PLANS - PARTIAL SECOND, THIRD AND PENTHOUSE PLANS: noted “ADDENDUM #2, 04/17/2013” accompanies this Addendum and supersedes the same numbered originally issued drawings.”

MACHANICAL WORK DRAWINGS (H-CONTRACT)

9. Revised Drawing No. M-101, HVAC PLANS, DETAILS AND SCHEDULES: noted “ADDENDUM #2, 04/17/2013” accompanies this Addendum and supersedes the same numbered originally issued drawings.”

ELECTRICAL WORK DRAWINGS (E-CONTRACT)

10. Revised Drawing No. E-100, PARTIAL LIGHTING AND POWER PLAN: noted “ADDENDUM #2, 04/17/2013” accompanies this Addendum and supersedes the same numbered originally issued drawings.”
11. Revised Drawing No. E-200, SCHEDULES DETAILS AND DIAGRAMS: noted “ADDENDUM #2, 04/17/2013” accompanies this Addendum and supersedes the same numbered originally issued drawings.”
12. Revised Drawing No. E-201, SCHEDULES DETAILS AND 1-LINE DIAGRAMS: noted “ADDENDUM #2, 04/17/2013” accompanies this Addendum and supersedes the same numbered originally issued drawings.”
13. Revised Drawing No. ED-002, REMOVALS & EXISTING ROOF PLANS: noted “ADDENDUM #2, 04/17/2013” accompanies this Addendum and supersedes the same numbered originally issued drawings.”

END OF ADDENDUM

James Dirolf, P.E.
Director of Design

SECTION 262817

ENCLOSED CIRCUIT BREAKERS

PART 1 GENERAL

1.01 SUBMITTALS

- A. Waiver of Submittals: The "Waiver of Certain Submittal Requirements" in Section 013300 does not apply to this Section.
- B. Product Data: Catalog sheets, specifications and installation instructions.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Enclosed Circuit Breakers: As produced by Federal Pacific Electric Co., General Electric Co., or Westinghouse/Cutler Hammer Corp. having:
 - 1. NEMA 1 enclosure unless otherwise indicated on the drawings.
 - 2. Solid neutral.
 - 3. Voltage rating, current rating, symmetrical current interrupt rating 10,000 AIC (unless otherwise indicated on drawing or specified elsewhere) and number of poles as indicated on the drawings.
 - 4. Circuit breakers to suit requirements.
 - 5. Under 50 ampere trip element, enclosure has means to lock circuit breaker position on or off using standard padlock.
 - 6. Ampere trip elements 50 and above have industrial type enclosure with door and side handle. Handle position is lockable using standard padlock.

2.02 NAMEPLATES

- A. Phenolic: Engraved plates, minimum 3/4" wide and length as required by inscription: Seton Name Plate Corp.
- B. Stamped Metal: Standard stamped or embossed aluminum tags, minimum 3/4" wide and length as required by inscription: Tech Products, Inc.; Seton Name Plate Corp.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Mount enclosed circuit breakers on wall so that maximum height above the floor to the center of operating handle does not exceed 6-1/2'.
- B. Provide phenolic or stamped metal nameplates on cover of each enclosed circuit breaker indicating purpose or load served by the circuit breaker.

END OF SECTION

SECTION 283105

MODIFICATIONS TO FIRE ALARM SYSTEM

PART 1 GENERAL

1.01 PRODUCTS FURNISHED BY THE ELECTRICAL CONTRACT BUT NOT INSTALLED

- A. Deliver the following items to the Elevator Contractor for installation in the elevator car.
 - 1. Fire service telephone jacks.
- B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specifications, apply to this Section.
- C. Related Sections include the following:
 - 1. Division 7 Sections "Firestopping" for fire penetrations.

1.02 ALLOWANCES

- A. An allowance for the following portions of the Work of this Section is included in Section 012100:
 - 1. Services of the Company Field Advisor as described in QUALITY ASSURANCE.
 - 2. All items listed in SUBMITTALS.
 - 3. Engineering and reprogramming associated with the installation of the new equipment and updating existing information.
 - 4. All products listed in PART 2 of this Section except:
 - a. Terminal strip cabinets.
 - b. Protective devices.
 - c. Conduits, conductors, cables and associated fittings and fasteners.
 - d. Signs, labels, markers, and nameplates.
 - 5. Spare parts listed in Part 1 of this Section.
 - 6. Labor for installation of the products is not included in the allowance and shall be included in the contract sum except:
 - a. Racking and terminations of Fire Alarm Control Units as defined in NFPA 72.

1.03 REFERENCES

- A. Underwriters Laboratories Inc.
- B. National Fire Protection Association Standard 72.
- C. The Building Code of New York State (2010).
- D. The Fire Code of New York State (2010).

1.04 DEFINITIONS

- A. Initiating Device Circuit: A circuit to which automatic or manual initiating devices are connected where the signal received does not identify the individual device operated. Example:
 - 1. Circuits from PPSSs and ICUs to non-addressable signal initiating devices.
- B. Notification Appliance Circuit: A circuit or path directly connected to a notification appliance. Example:
 - 1. Circuits from PPSSs and ICUs to notification appliances.
- C. Signaling Line Circuit: A circuit or path between any combination of circuit interfaces, control units, or transmitters over which multiple system input signals or output signals, or both are carried. Examples:
 - 1. Circuits from PSS to building PPSSs and ICUs.
 - 2. Circuits from PPSSs and ICUs to addressable devices.
- D. Operating Mode:
 - 1. Private Mode:
 - a. Audible and visible signaling only to those persons directly concerned with the implementation and direction of emergency action initiation and procedure in the area protected by the fire alarm system, and:
 - b. Audible and visible signaling only to those persons within special designated areas where private mode operation is specified to be applicable.
 - 2. Public Mode: Audible and visible signaling to occupants or inhabitants of the area protected by the fire alarm system.

1.05 DESCRIPTION OF EXISTING SYSTEM

- A. The existing Simplex 4100 Fire Alarm System operates as a fully-addressable fire alarm, monitoring and control system. Changes in the status of monitored points are detected by the existing Fire Command Station (FCS) located in the Basement Mechanical Room, and First Floor Lobby.
 - 1. Smoke detectors and smoke sensors operate in conjunction with the systems' alarm verification program.
 - a. The alarm verification operation is selectable by zone for smoke detectors and by individual devices for smoke sensors.
 - b. The activation of any smoke detector within its zone initiates the alarm verification program.
 - 2. Smoke sensors act as intelligent and addressable devices. The smoke sensor converts the condition of its smoke sensing chamber to an analog value. The analog value is digitized and transmitted to the ICU's.
 - a. Actual smoke density and temperature measurements are referenced from average sample measurements and are compared to programmable values of threshold sensitivity.
 - b. Sensor "dirty" and "excessively dirty" trouble conditions are reported automatically through a maintenance advisory and alert program procedure.

3. System individually identifies each addressable initiating device and other addressable monitor functions using multiplexing techniques.
4. System is capable of individually operating each alarm notification appliance, and other control functions, using multiplexing techniques.
5. Alarms are processed by the system at 3 levels of priority:
 - a. Fire alarms have the highest priority.
 - b. Other alarms that require interaction by the attendant have the second level or priority.
 - c. Monitored points which do not require interaction by the attendant are the third level of priority.
6. Access to the system functions are controlled through at least 3 levels of access security to prevent program modifications or use by unauthorized personnel.
7. Alarms, supervisory signals, and trouble signals are distinctively and descriptively annunciated.
8. Switches for silencing audible trouble and supervisory signals transfers the audible signal to a lamp or other visible indicator adjacent to the switches.
9. All systems visual and audible trouble signals and visible indication of their restoration is indicated at the existing FCS.
 - a. Visual and audible trouble signals and visible indication of their restoration is indicated at the existing ICU where the existing circuit originates.
10. Monitoring of ground fault conditions indicate a ground fault trouble condition at the existing FCS.
11. Summary reports are displayed and printed at the existing FCS upon appropriate keyboard or function command.
12. Life safety control-by-event functions are retained in a non-volatile programmable memory and are not alterable through normal operation of the system.
 - a. The life safety control-by-event control points may be manually operated at any time by authorized personnel through appropriate system commands.
 - b. Dedicated switches in the existing remote annunciator/control center (RA/CC) allow personnel to manually operate specific pre-programmed life safety control-by-event control points.
 - c. Life safety control-by-event functions are printed and displayed at the existing FCS.
13. Using programmable control-by-event functions may be programmed through appropriate system commands to automatically activate any user programmable control point upon a status change from any programmable monitor point.
 - a. The user programmable control-by-event control points may be manually operated at any time by the authorized personnel through appropriate system controls.
 - b. Dedicated switches in the existing RA/CC allow personnel to manually operate each pre-programmed user programmable control-by-event control point.
 - c. Assigned messages, date and time are printed and displayed at the existing FCS for the control points activated by the user programmable control-by-event function.

14. User programmable parameters for automatic time-initiated functions (start/stop, on/off, secure/access, etc.) may be added, omitted and altered through appropriate system commands.
 - a. The time-initiated user programmable control points may be manually operated at any time by authorized personnel through appropriate system commands.
 - b. Dedicated switches in the existing RA/CC allow personnel to manually operate each pre-programmed user programmable time-initiated control point.
 - c. Assigned messages, date and time are printed and displayed at the existing FCS for the control points activated by the time-initiated control point.
- B. The existing FCS activates immediately and performs its alarm function upon receipt of system alarm condition through actuation of automatic or manual initiating devices:
 1. The existing FCS sounds its audible alarm and illuminates its system alarm lamp or flashing display.
 - a. The existing FCS displays the point and type of alarm condition.
 - b. The existing FCS prints the assigned message with date and time on the printer for the point in alarm.
 2. The fire department is not automatically called. The guard on duty shall be responsible for calling the Albany Fire Department after verification of a fire situation. For test of the existing system, a key switch in the existing FCS enables an attendant to prevent a signal transmission to the Albany Fire Department. When disconnected, a system trouble condition is indicated, also a separate lamp illuminates indicating the disconnected model.
 3. An authorized person at the FCS presses the acknowledge button which silences its audible alarm and causes a print-out and CRT display of the assigned message for the point in alarm with date, time and an acknowledge prefix.
- C. Life Safety Control-By-Event Functions: The existing FCS and ICU's immediately perform life safety control-by-event functions upon system alarm condition:
 1. Audible alarm signal sounds:
 - a. Alarm horn tone.
 - b. An authorized person may silence any alarm signal in progress through a silence command, but subsequent actuation of non-addressable initiating devices in other zones cause the system to resound and record the alarm. Subsequent actuation of another addressable initiating device also causes the system to resound and record the alarm.
 - c. An authorized person may activate the alarm notification appliances on selected floors, and all floors, each building, and all areas of the facility.
 - 1) Visual indicator in the RA/CC at the PSS indicate on/off status of the alarm notification appliances.
 2. Visual alarm notification appliances illuminate and flash a fire warning signal.

3. Electromagnetic door hold-open device de-energize, allowing the associated smoke doors to close.
 4. Fail safe door lock mechanisms release so that associated doors may be opened.
 5. Selected HVAC equipment (fans, air handling units) shut down.
 6. Selected fans pressurize stairwells, and elevator hoistway.
 7. Fire dampers and smoke dampers close.
 8. Non-motorized rolling fire shutters and non-motorized rolling fire doors close when the associated smoke detecting devices are actuated.
 9. Motorized rolling fire shutters and motorized fire doors close when the associated smoke detection devices are actuated.
 10. Heat and smoke roof vents open when the associated smoke detecting devices are actuated. Visual indicators in the existing RA/CC illuminate, indicating which roof vents are open.
 11. Elevator hoistway heat and smoke vents open when the associated smoke detecting devices are actuated. Visual indicators in the existing RA/CC illuminate, indicating which vents are open.
 12. Phase I automatic elevator recall for fire fighter's service operates upon actuation of any signal initiating device (excluding the designated floor lobby smoke detecting devices) or actuation of an associated hoistway or machine room smoke detecting device. All elevators that service that lobby return non-stop to the designated floor. (If the smoke detecting device at the designated floor is activated, the elevators that serve that level return non-stop to the alternate floor).
 - a. The elevator automatic (smoke detecting devices) and manual (two and three position key switches) Phase I Emergency Recall Operation and the Phase II Emergency In-Car Operation operate in accordance with the applicable ANSI/ASME A17.1 Rules in Section 2.27 and NFPA 72 3-9.3.
 13. Each elevator lobby, hoistway, and machine room smoke detecting device, when actuated, initiates a system alarm condition. The alarmed zone, or addressable device is visually annunciated at the existing FCS and ICUs associated with the elevators.
 14. Elevators shutdown prior to sprinkler operation, as follows: The fire alarm panel will activate elevator shunt trip breaker, causing power loss to the designated elevator, upon activation of heat detection in Elevator Machine Room. The heat detector is programmed to operate at a temperature below the water sprinkler activation temperature.
- D. Personnel at remotely located emergency fire telephones may communicate with the attendant at the existing FCS via private line emergency fire telephone system.
1. Supervision of emergency telephone circuit wiring and wiring for audible and visual signal indicator indicates trouble conditions at the master telephone and existing FCS.
- E. An authorized person manually resets system at conclusion of alarm condition. When an alarm condition is corrected, a print-out and display occurs at the existing FCS stating the assigned reset message for the point in alarm with the date, time and reset suffix.

- F. Primary and Secondary Power Supplies:
 - 1. Failure of primary power supplies automatically transfers the affected positions of the system to the secondary power supplies.
 - 2. Utilizing the secondary battery power supplies, the system operates under maximum normal load condition for 24 hours and then is capable of operating all alarm notification appliances used for evacuation for 5 minutes.
 - 3. Upon restoration of primary power supply the system reverts to normal operation without loss, attendant intervention, or manual re-start.
- G. Monitoring Integrity of Installation Conductors and Other Signaling Channels:
 - 1. Performance of Signaling Line Circuits:
 - a. Circuits existing FCS to existing ICU's. NFPA 72, Class A, Style 7. A print-out and display occurs to identify trouble conditions.
 - b. Circuits from existing ICU are to Addressable Devices: NFPA 72, Class B, Style 4. A print-out and display occurs to identify trouble conditions.
 - 2. Performance of Initiating Device Circuits:
 - a. Circuits from existing ICUs to Initiating Devices (Fire Alarm): NFPA 72, Class B, Style C. A print-out display occurs to identify trouble conditions.
 - 3. Performance of Notification Appliance Circuits:
 - a. A circuit from existing ICU's to Notification Appliances: NFPA 72, Class B, Style Y. A print-out and display occurs to identify trouble conditions.
 - 4. Monitoring Integrity of Power Supplies:
 - a. An audible and visual alarm, display and print-out indicate failure of the primary (main) power supplies, within the system, at the PSS.
 - b. The system also monitors the secondary (battery) power supplies for battery trouble conditions (low voltage/no batteries, high current and charging current).
- H. Interconnection of Fire Safety Control Functions:
 - 1. Monitoring of wiring to the protected premises fire safety function relays and appliances causes a print-out and display to occur at the FCS to identify trouble conditions.

1.06 MODIFICATIONS TO EXISTING SYSTEM

- A. Perform the Test of the Existing System as described in Paragraph 3.1. The Test of the existing System shall be completed before the start of any Work.
- B. Modify the existing Fire Alarm System as follows:
 - 1. Provide switch and power supply modules in the existing fire alarm control panel to provide a fully operational system for revised service. Fire alarm panel is located on Basement Level.
 - 2. Provide control ZAM modules to control recall sequence and control elevator shunt trip breaker, as shown.

3. Provide monitor module to monitor control power of elevator shunt trip breaker, located in Elevator Machine Room(s).
 4. Provide initiating devices in elevator landings and Elevator Machine Rooms(s).
 5. Upgrade the existing Phase I Firefighter's Recall function to operate as described in "DESCRIPTION OF COMPLETED SYSTEM".
 6. Program Fire Alarm panel to activate elevator shunt trip breaker, causing power loss to the designated elevator, upon activation of heat detection in Elevator Machine Room(s). Coordinate sequence with elevator installer and modify sequence subsequently if required by Authority Having Jurisdiction (AHJ).
 7. Provide speaker in elevator cab from its alarm notification circuit. Circuit speaker to an audio zone dedicated to the elevator.
 8. Provide fire service telephone jack in elevator cab from its telephone circuit. (For installation of the fire service telephone jack see Paragraph 1.1.) Circuit the fire service telephone jack to a telephone circuit.
- C. Perform the modifications in sequence as outlined in Specification Section 011000, Paragraph 1.5, Sequence of Work.
- D. Perform the System Acceptance Test for the modified fire alarm system as described in Paragraph 3.4.B. The System Acceptance Test shall be completed at the completion of the Electrical Work and the Work of the related trades.

1.07 DESCRIPTION OF COMPLETED SYSTEM

- A. The completed system shall operate as outlined in DESCRIPTION OF EXISTING SYSTEM with the following exception:
1. Phase I automatic elevator recall for firefighter's service operates upon actuation of an elevator lobby smoke detecting device (excluding the designated floor lobby smoke detecting device) or actuation of a machine room heat detecting device. Elevator that services that lobby returns non-stop to the designated floor. If the smoke or heat detecting device at the primary recall level is activated, the elevator returns non-stop to the alternate recall level.
 - a. Recall Floor Designation: Primary recall level is First Floor Elevator Lobby. Alternate is Basement Lobby.
 - b. Each elevator lobby and machine room smoke detecting device is capable of initiating elevator recall when all other devices on the same initiating device circuit have been manually or automatically placed in the alarm condition.
 - c. Three separate elevator control circuits terminate at the designated elevator controller within the elevator machine room.
 - d. The smoke or heat detecting devices actuate the three elevator control circuits as follows:
 - 1) The smoke detecting devices located in the designated elevator recall lobby actuates the first elevator control circuit.
 - a) The first control circuit prevents recalling the elevators and discharging passengers to the designated floor when the designated floor is the fire location, and to provide for an alternate

- recall location when the designated floor is reporting a fire condition;
- 2) The smoke or heat detecting devices in the remaining elevator lobbies and the elevator machine room actuate the second elevator control circuit.
 - a) The second control circuit provides standard recall to the designated floor when any other elevator lobby or machine room smoke detecting device is in alarm;
- 3) The smoke or heat detecting devices in the elevator machine room actuates the third elevator control circuit.
 - a) The third control circuit is for the safety of the firefighters who may be using the elevators. The circuit activates the flashing visual signal in the elevator cab notifying the firefighters using the elevator to immediately move to a safe floor and exit the elevators.

1.08 SUBMITTALS

- A. Waiver of Submittals: The “Waiver of Certain Submittal Requirements” in Section 013300 does not apply to this Section.
- B. Preliminary Submittal: Existing system test report.
- C. Submittals Package: Submit the shop drawings, product data, and quality control submittals specified below at the same time as a package.
 - 1. Company Field Advisor Letter: With the submittals package include a letter from the Company Field Advisor stating that he/she has reviewed the Submittals Package for accuracy and completeness, and approves all materials and installation methods included in the Submittals Package.
- D. Shop Drawings:
 - 1. Composite wiring and/or schematic diagrams of the modifications as proposed to be installed (standard diagrams will not be acceptable).
 - a. Indicate circuits which are power-limited if power-limited wiring is proposed for use.
- E. Product Data:
 - 1. Catalog sheets, specifications and installation instructions.
 - 2. Bill of materials.
 - 3. Detailed description of completed system operation. Format similar to DESCRIPTION OF COMPLETED SYSTEM.
 - 4. Include for each expanded system component which utilizes batteries the upgrade battery ampere-hour capacity recommended for each component by the Company producing the system, for the specified duration.
 - 5. Statement from the Company producing the system, for each size and type of single conductor and multiconductor cable proposed for use, indicating that the electrical characteristics meet the requirements of the Company.

6. Data from the Company furnishing the new products, proving that detection devices that receive their power from the initiating device circuit or a signaling line circuit of a fire alarm control unit are UL listed for use with the control unit.
 - a. Submit data proving that the additional software and firmware is listed for use with the control unit panel.
 - b. Submit data proving that the additional initiating devices are listed for the intended application. Also for specific applications, such as:
 - 1) Smoke door release accomplished directly from the smoke detecting device, show listing for release service.
 - 2) Air duct smoke detecting devices, showing listing indicating complete range of air velocities, temperature and humidity expected at the device when the air handling system is operated.
 - 3) Smoke detecting devices installed in supply air duct downstream of the fan and filters show detector listed for the air velocity present.
 - 4) For smoke detecting devices installed in return air system, show listing for the air velocity present where the air leaves each smoke compartment, or in the duct system before the air enters the return air system common to more than one smoke compartment.
 - c. Submit data proving that the additional relays and appliances connected to the fire alarm system which are used to initiate control of fire safety functions are listed for the purpose.
 - d. Submit data proving that the method of monitoring the connection between the fire alarm system and controlled electrical and mechanical systems for integrity is listed for the purpose.
7. Detailed description of procedure proposed to test individual initiating devices.
 - a. Include product information pertaining to the test equipment that will be used to perform the tests.
 - b. Include certified statement that the proposed test method meets the test requirements of NFPA 72 and UL 268 (cite reference to the applicable NFPA and UL paragraphs).

F. Quality Control Submittals:

1. Copy of license required by New York State General Business Law Article 6-D for installing Fire Alarm Systems.
 - a. Also include copy of identification card issued by the Licensee for each person who will be performing the Work.
2. Company Field Advisor Data: Include:
 - a. Name, business address and telephone number of Company Field Advisor secured for the required services.
 - b. Certified statement from the Company listing the qualifications of the Company Field Advisor.
 - c. Copy of NICET Letter of Approval indicating Level III or higher Fire Alarm Systems certification.

- d. Services and each product for which authorization is given by the Company, listed specifically for this project.
- G. Contract Closeout Submittals:
 - 1. System acceptance test report.
 - 2. Certificates:
 - a. Affidavit, signed by the Company Field Advisor and notarized, certifying that the system meets the contract requirements and is operating properly.
 - b. NFPA Record of Completion ((NFPA 72 (2007) 4.5.2.1)) for the modifications.
 - 3. Operation and Maintenance Data:
 - a. Deliver 2 copies, covering the installed products, to the Director's Representative. Include:
 - 1) Operation and maintenance data for each product.
 - 2) Complete point to point wiring diagrams of the modifications as installed. Identify all conductors and show all terminations and splices. (Identification shall correspond to markers installed on each conductor.)

1.09 QUALITY ASSURANCE

- A. UL Listing: The system products for the modifications shall be listed in the UL Fire Protection Equipment Directory under product category "Control Units System (UOJZ)".
- B. Company Field Advisor: Company Field Advisor shall be National Institute for Certification in Engineering Technologies (NICET) certified as Level III or higher Fire Alarm Protection/Fire Alarm Systems Engineering Technician.
 - 1. Secure the services of a Company Field Advisor from the Company of the existing system for a minimum of sixty (60) working hours at the contract site for the following:
 - a. Render advice and witness test of existing system.
 - b. Assist with bypassing existing signal initiating devices and signal initiating circuits.
 - c. Render advice regarding modifications to the system.
 - d. Perform final connections of new devices in existing fire alarm control panel.
 - e. Reprogram the system for new devices.
 - f. Assist and witness the Preliminary Tests.
 - g. Witness System Acceptance Test and then certify with an affidavit that the modifications were installed in accordance with the contract documents and are operating properly.
- C. Fire Alarm vendor is Simplex. Contact as follows:

Robert G. Treiling
1399 Visser Ferry Road
Clifton Park, NY 12065-6325
Tel: 518-952-6040
Email: rtreiling@simplexgrinnell.com

- D. Project Manager: Secure the services of a Project Manager from the fire alarm vendor of the existing system for a minimum of sixteen (16) working hours at the Contract site for the following:
 - 1. Assist and coordinate the timely delivery of the Services of the Company of the existing system including delivery of Submittals, services of the Company Field Advisor and engineering and reprogramming of the existing system.
 - 2. Identify and resolve problems which impede the planned progress of the work.
 - 3. Coordinate the test of the existing system, the Preliminary Test and the System Acceptance Test with the Company of the existing system and the Director's Representative.

1.10 MAINTENANCE

- A. Spare Parts:
 - 1. Two spare smoke detector and sensor bases. (Simplex 4098-9714, with 4098-9792)
 - 2. Two spare IAM's (Simplex 4090-9001).
 - 3. Two spare ZAM's (Simplex 4090-9002).
 - 4. One spare heat detector. (Simplex 2098-9490)

PART 2 PRODUCTS

2.01 EQUIPMENT FOR EXISTING INTERCONNECTED CONTROL UNIT

- A. Input circuits suitable for operation on 120 VAC primary (main) power supply.
 - 1. Regulated and filtered 24 VDC output.
 - 2. 24 VDC Secondary (standby) Power Supply: Sealed, lead-acid gelled electrolyte or maintenance free lead-calcium batteries.
 - a. Ampere-hour capacity to operate under load conditions specified in SYSTEM DESCRIPTION.
 - b. Battery charger with charging characteristics as recommended by battery manufacturer.
 - c. Meters for battery voltage and charging current.
 - d. Batteries and charger integrally mounted or separate cabinet mounted as recommended by the Company producing the system.
 - 3. Activated by existing ICU via signaling line circuit loop through addressable modules.
 - a. Addressable control monitor activates the power supply outputs.
 - b. Addressable monitor module senses power supply trouble conditions.
 - 4. Supervised power supply, battery, and notification appliance circuits.

2.02 INITIATING DEVICES

A. General:

1. Fire detection devices that receive their power from the initiating device circuit or a signaling line circuit of a fire alarm control unit shall be listed for use with the control unit. Fixed temperature sensing is independent of rate-of-rise sensing and programmable to operate at 135 degrees Fahrenheit or 155 degrees Fahrenheit. The device may also be programmed to operate as a utility device to monitor for temperature extremes in the range of 32 degrees Fahrenheit or 155 degrees Fahrenheit in order to provide freeze warnings or alert HVAC system problems.
2. Weatherproof Heat Sensor Type: Simplex 2098-9490 with 4090-9001 IAM
3. Smoke Sensors: Photoelectric Type: Simplex 4098-9714 with 4098-9792 (Base).

2.03 REMOTE FIRE SERVICE DEVICES

A. Fire Service Telephones:

1. Emergency Phone Cabinet: Simplex's 2084-9025.
2. Phone: Simplex's 2084-9024.
3. Fire Service Telephone Jack: Simplex's 2084-9001.

2.04 ADDRESSABLE MONITOR AND CONTROL DEVICES

A. Remote Addressable Network Modules:

1. Individual Addressable Module (IAM): Simplex's 4090-9001.
2. Zone Addressable Modules (ZAM's): Simplex's 4090-9002.

B. Terminal Strip Cabinets:

1. Lockable, vandal resistant, surface mounted cabinets constructed of 14 gage steel, size as recommend by the Company producing the system. Equip cabinets with barrier type double screw terminals rated 300 V minimum, meeting UL 94 requirements for materials classed 94 V-O. Use identification strips, tags or labels to identify each conductor. Paint cabinets fire department red.
2. Simplex 4905-9948.

C. Auxiliary Control Cabinets:

1. Lockable, vandal resistant, surface mounted cabinets constructed of 14 gage steel, size as recommend by the Company producing the system. Equip cabinets with barrier type double screw terminals rated 300 V minimum, meeting UL 94 requirements for materials classed 94 V-O. Use identification strips, tags or labels to identify each conductor. Paint cabinets fire department red and stencil on front in 1/2 inch high white letters, the purpose of each auxiliary control equipment enclosure.
2. Size enclosure for number of terminal strips, auxiliary control relays and supervisory relays as required.

2.05 POWER-LIMITED INSULATED CONDUCTORS

- A. All electrical characteristics shall meet the requirements of the Company producing the system (conductor to conductor capacitance, dc resistance, velocity of propagation etc.).
- B. Multiconductor Cables N.E.C. Type FPLP, FPLR, FPL:
 - 1. Insulated copper conductors.
 - 2. Conductors twisted, shielded and jacketed as recommended by the Company producing the system.
 - 3. Voltage rating of not less than 300 volts (Voltage rating not marked on cable except where cable has multiple listings and voltage marking is required for one or more of the listings).
- C. Other types of cables may be used in accordance with N.E.C. Table 760-61 "Cable Uses and Permitted Substitutions", as approved, if listed as being suitable for the purpose.

2.06 NONPOWER-LIMITED INSULATED CONDUCTORS

- A. All electrical characteristics shall meet the requirements of the Company producing the system (conductor to conductor capacitance, dc resistance, velocity of propagation, etc.).
- B. Conductors twisted, shielded and jacketed as recommended by the Company producing the system.
- C. Single Conductors:
 - 1. No. 18 and No. 16 AWG: Insulated copper conductors suitable for 600 volts, N.E.C. types KF-2, KFF-2, PAFF, PTFF, PF, PFF, PGF, PGFF, RFH-2, RFHH-2, RFHH-3, SF-2, SFF-2, TF, TFF, TFN, TFFN, ZF, ZFF.
 - 2. Larger Than No. 16 AWG: Insulated copper conductors suitable for 600 volts, in compliance with N.E.C. Article 310.
 - 3. Conductors with other types and thickness of insulation may be used if listed for nonpower-limited for alarm circuit use.
- D. Multiconductor Cables N.E.C. Types NPLFP, NPLFR, NPLF:
 - 1. No. 18 and No. 16 AWG: Insulated copper conductors rated 600 volts, N.E.C. types KF-2, KFF-2, PAFF, PTFF, PF, PFF, PGF, PGFF, RFH-2, RFHH-2, RFHH-3, SF-2, SFF-2, TF, TFF, TFN, TFFN, ZF, ZFF.
 - 2. No. 14 AWG and Larger: Insulated copper conductors suitable for 600 volts, one of the types listed in N.E.C. Table 310-13 or one that is identified for nonpower-limited fire alarm circuit use.
 - 3. Marking: NPLFP, NPLFR, and NPLF marked to suit listings and marked with a maximum usage voltage rating of 150 volts.

2.07 2-HOUR FIRE RATED CABLE ASSEMBLIES

- A. Fire Alarm Circuit Integrity (CI) Cable: Cables identified as meeting the requirements for circuit integrity shall have the additional classification using the suffix "CI". Examples: FPLP-CI, FPLR-CI, FPL-CI, NPLFP-CI, NPLFR-CI, NPLP-CI.
 - 1. Cables shall have a minimum 2-hour fire resistance rating for the cable when tested in accordance with the Standard for Tests of Fire Resistive Cables-UL 2196.
- B. MI Cable: AFC Cable Systems' MI cable, or BICC/Pyrotenax Mineral Insulated System 1850 Pyrotenax Cable:
 - 1. All electrical characteristics shall meet the requirements of the Company producing the system (conductor to conductor capacitance, dc resistance, velocity of propagation, etc.).
 - 2. Solid copper conductors, twisted, shielded as recommended by the Company producing the system.
 - 3. Seamless copper sheath.
 - 4. Two hour fire resistive rating UL system classified, listed in UL Building Materials Directory product category Fire Resistive Cables (FHJR).
 - 5. Accessories as required for a complete system to suit installation conditions.
- C. Other 2-Hour Fire Resistive Cables: Listed in UL Building Materials Directory, product category Electrical Circuit Protective Systems (FHIT), or Fire Resistive Cables (FHJR):
 - 1. Type MC/CI: Rockbestos – Surprenant Cable Corp.'s VITALink MC Circuit Integrity Cable (FHJR System No. 17).
 - a. PVC jacketing (where shown on drawings).
 - 2. Type FPL/EMT: Rockbestos – Surprenant Cable Corp.'s VITALink FA UL Listed Type FPL installed within ¾" EMT steel conduit (FHIT System No. 22).

2.08 SIGNS, LABELS, MARKERS, AND NAMEPLATES

- A. Procedure Sign:
 - 1. Complete Unit: Card holder with aluminum or stainless steel frame, plexiglass front and sheet aluminum card backing plate. Minimum size card 8 x 10 inches. For each procedure sign, furnish 1 blank card in holder and 5 spare blank cards suitable for typing future procedures thereon.
 - 2. Revised Cards: Size as required to fit existing holder, suitable for typing revised procedures thereon.
- B. Code Locator: Card holder with aluminum or stainless steel frame, plexiglass front and sheet aluminum card backing plate. Minimum size card 8 x 10 inches. Type all codes on the card and the area associated with each coded alarm signal.

- C. Alarm Notification Appliance Locator: Card holder with aluminum or stainless steel frame, plexiglass front and sheet aluminum card backing plate. Minimum size card 8 x 10 inches. Type on card the switch numbers and location of notification appliances controlled by each switch.
- D. Nameplates: Precision engrave letters and numbers with uniform margins, character size minimum 3/16 inch high.
 - 1. Phenolic: Two color laminated engraver's stock, 1/16 inch minimum thickness, machine engraved to expose inner core color (white).
 - 2. Aluminum: Standard aluminum alloy plate stock, minimum .032 inches thick, engraved areas enamel filled or background enameled with natural aluminum engraved characters.
 - 3. Materials for Outdoor Applications: As recommended by nameplate manufacturer to suit environmental conditions.
- E. Fire Alarm Signs: 9 x 12 inches, metal, with the words "FIRE ALARM" imprinted thereon in white letters upon a red background. Include a white arrow pointing down, left or right showing the route to, or actual location of the fire alarm stations. Frame the outside edges of the signs in red and white diagonal stripes.
 - 1. Sign Mounting Styles:
 - a. Single face for mounting flat against the wall.
 - b. Double faced for mounting extended from wall.
- F. Markers:
 - 1. Premarked self-adhesive; W.H. Brady Co.'s B292, B708, Ideal Industries' Mylar/Cloth wire markers, or Markwick Corp.'s permanent wire markers, Plastic Extruded Parts Inc.'s Flexible Sleeve or ID Band Markers, or Thomas and Betts Co.'s E-Z Code WSL self-laminating.
 - 2. Other Styles: To suit application by W.H. Brady Co., Ideal Industries, Markwick Corp., Plastic Extruded Parts, Inc., or Thomas and Betts Co.

2.09 ACCESSORIES

- A. Include accessories required to perform the functions summarized in DESCRIPTION OF COMPLETED SYSTEM and indicated on the drawings.

PART 3 EXECUTION

3.01 VERIFICATION OF CONDITIONS

- A. Testing Existing System:
 - 1. Prior to modifying the system, make the following tests to ascertain the operating condition of the existing system:
 - a. Test spare zones that will be utilized for the work.
 - b. Test active zones which will be modified.
 - c. Test the existing FCS and ICU functions associated with the modifications.
 - 2. Test shall be witnessed by the Company Field Advisor and the Director's Representative.

3. Conduct tests that are disruptive to facility personnel after normal working hours as directed.
4. Prepare a written report for the Director's Representative indicating the repairs required, if any, to make the existing sub-systems function properly.
5. Repairs to the existing sub-systems are not included in the Work unless requested by Order on Contract.

3.02 INTERRUPTIONS TO EXISTING SUB-SYSTEMS

- A. Maintain the existing system in its present condition to the extent possible while installing new Work.
- B. Prior to making changes or removals relative to the existing system, notify the Director's Representative and have procedures approved.
- C. When changes or removals are required to the existing fire alarm system such that its ability to act as a fire alarm system is impaired, provide a temporary fire alarm system so that the building is protected at all times by a functioning fire alarm system. Notify Building Supervisor (thru Director's Representative) of proposed temporary measures and scheduling. Both the proposed temporary measures and the scheduling must be approved by the Director's Representative.
- D. Provide signs, instructions and alternate methods for reporting a fire.
- E. The system shall be fully operational at the end of each working day. At the end of each day that modifications are made, conduct tests to demonstrate that the system is opening properly.
 1. Daily tests shall be limited to portions of the system affected by the modifications.
 2. Tests shall be witnessed by the Company Field Advisor and the Director's Representative.
 3. Conduct tests that are disruptive to facility personnel after normal working hours as directed.

3.03 INSTALLATION

- A. Install the Work in accordance with the Company's printed instructions unless otherwise indicated.
- B. Reprogram the system to include new monitor and control points and update existing system program to include changes and additions requested by facility.
 1. Obtain from the facility personnel through the Director's Representative, a list of desired system program changes, additions, etc.
 2. FACP messages must be approved by the Engineer and custom messages must be approved as directed.
 3. FACP descriptors must utilize room/space designations and numbers used by the facility after occupancy as approved by the Engineer prior to programming.
 4. Contractor shall allow for three (3) fire alarm system reprogramming sessions after acceptance testing as directed by Director's Representative.

- C. Do not install smoke detecting devices until the Work (including cleaning) of all trades in the area has been completed. Protect installed smoke detecting devices from airborne dust and debris.
- D. Mount smoke detecting devices, and seal air holes in the back of the devices (including interior of raceways and holes associated with installation of boxes and raceways) so that air flow from inside of housing or from the periphery of the housing will not prevent entry of smoke during a fire or test condition. Seal air holes with gaskets, expanding silicone foam, or other sealants as approved.
- E. Wiring for Elevator Recall for Fire Fighter's Service and Other Elevator Emergency Functions:
 - 1. Provide wiring to and including a terminal strip cabinet in elevator machine rooms.
 - 2. Contractor responsible for elevator installation will provide elevator control equipment for elevator operation and final electrical connections between terminal strip cabinet and the elevator controllers.
- F. Wiring For Survivability:
 - 1. Signals from manual fire alarm boxes and other fire alarm initiating devices within a building transmitted over the same signaling line circuit shall not interfere with the manual fire alarm box signals when both types of initiating devices are operated at the same time.
 - 2. Failure of equipment or a fault on one or more installation wiring conductors of one notification appliance circuit shall not result in functional loss of any other notification appliance circuit.
 - 3. Splices in wiring in vertical risers is prohibited, except when the length of conductor's approximate 150 feet in vertical risers, terminal strip cabinet may be used.
 - 4. Avoid splices in horizontal runs. When splices are necessary, use junction boxes.
 - a. Make splices with mechanical or hydraulic type pressure connectors. The use of wire nuts is prohibited.
 - b. Paint cover of terminal strip cabinets and junction boxes fire department red.
 - 5. Wiring Class A, Style 6, 7, D, E, or Z Signaling Line Circuits, Initiating Device Circuits and Notification Appliance Circuits: Do not install both legs of Class A, Style 6, 7, D, E, or Z circuits in same cable assembly, enclosure, or raceway back to existing ICU's.
 - a. Run return legs along another route to obtain maximum benefit of these alternate path circuits.
- G. Identification, Labeling, Marking:
 - 1. Procedure Sign Adjacent to FCS: Install revised card in existing procedure sign to suit modifications made to procedures.
 - 2. Code Locator: Install revised card in existing holders. Provide revised cards to suit modifications.
 - 3. Alarm Notification Appliance Locator: Install revised card in existing zone locators to suit modifications made to the existing RA/CC.

4. Nameplates:
 - a. Install on each manual fire alarm box a nameplate stating: Floor number, and location (1st Fl, east, etc.).
 - b. Install adjacent to each RA/CC annunciator module and switch module a nameplate indicating function of module.
 - c. Label the device used as the circuit disconnecting means for the dedicated branch circuits serving the system "FIRE ALARM CIRCUIT CONTROL" with white letters on a red background.
 - 1) Install on each system component requiring a primary power supply a label stating the location of its circuit disconnecting means.
 - d. Install nameplate on each remote alarm indicator stating the location of its smoke detecting device and the area protected by the smoke detecting device and its function (IN DUCT SMOKE DETECTOR ALARM FOR _____).
5. Power-Limited Circuits: Mark circuits at terminations, indicating that circuit is a power-limited fire protective signaling circuit.
6. Fire Alarm Signs: Where directed, install _____ single face signs mounted flat against the wall and _____ double faced signs mounted extended from the wall at conspicuous locations, drawing attention to the manual fire alarm boxes. Fasten signs to walls with vandal resistant fasteners.
7. Identification of Circuits: Identify wires and cables by system and function in interconnection cabinets, and FACP's to which they connect with premarked, self-adhesive, wraparound type markers. Designations shall correspond with point to point wiring diagrams.
8. Battery Data: Insert a copy of the battery warranty in each battery compartment and mark on batteries the date placed in service.
9. Alarm Verification Warning Marking: Affix to the inside of each FACP, a list indicating:
 - a. Affected circuits.
 - b. Delay (seconds).
 - c. The smoke detector model numbers used.

H Firestop all joints, penetrations within rated construction.

3.04 FIELD QUALITY CONTROL

- A. Preliminary System Test:
 1. The Preliminary Test is required on completion of the Work in each elevator. For the sequencing of the Fire Alarm System Work with the related trades see "Sequencing of Work, Paragraph 1.4, Section 011000.
 2. The Contractor, under the supervision of the Company Field Advisor, shall test all signal initiating, alarm notifications, signaling line, life safety control, 24 VDC power and 120 VAC power circuits and connections modified or installed under this Contract for open circuit, grounded circuit and/or high resistance conditions before the preliminary system test. The Contractor shall make repairs as required to run the preliminary test.

3. Preparation: Have the Company Field Advisor adjust the portion of the system applicable to the Work, and then operate it long enough to assure that it is performing properly. Perform a preliminary test at the completion of the Work in each Mechanical Room.
 4. The Company Field Advisor shall conduct a preliminary test for the purpose of:
 - a. Determining whether the system is in suitable condition to conduct an acceptance test.
 - b. Checking and adjusting equipment.
- B. System Acceptance Test:
1. The System Acceptance Test is required on the completion of the Work in all elevators and on completion of all the modifications to the existing Fire Alarm system.
 2. Preparation: Notify the Director's Representative at least 3 working days prior to the test so arrangements can be made to have a Facility Representative witness the test.
 3. Supply all equipment necessary for system adjustment and testing.
 4. Make the following tests:
 - a. Test the portion of the system applicable to the Work in accordance with NFPA 72, Chapter 7.
 - 1) Follow test methods stated in Table 7-2.2.
 - 2) Contractor shall record and submit results on NFPA 72 Figure 4.5.2.1. Record of Completion which reflects all fire alarm system changes, prior to Acceptance Testing with the Authority Having Jurisdiction (AHJ).
 - 3) Contractor shall submit "Statement of Compliance" in accordance with FCNYS 901.2.1 requesting final acceptance test with Authority Having Jurisdiction.
 - 4) Contractor shall coordinate testing of elevator recall, shunt trip power monitoring with Elevator Contractor.
 - 5) Contractor shall conduct Initial Acceptance, as well as any required Re-Acceptance testing for any fire alarm system additions, modifications and any changes to site-specific programming in accordance with NFPA 72 10.4.1.
 - 6) Contractor Re-Acceptance testing shall include, but is not limited to, functional testing of all new devices/appliances/equipment, operational testing of 10% of initiating devices not directly affected by the changes, 10% functional test of the system, including at least one device on each input and output circuit, in compliance with NFPA 72 10.4.1.2.
 - 7) Subsequent additions, modifications, and re-programming of the fire alarm system, including custom label changes, shall trigger Contractor Re-Acceptance Testing.
 - b. Test system operation step by step as summarized in DESCRIPTION OF COMPLETED SYSTEM.

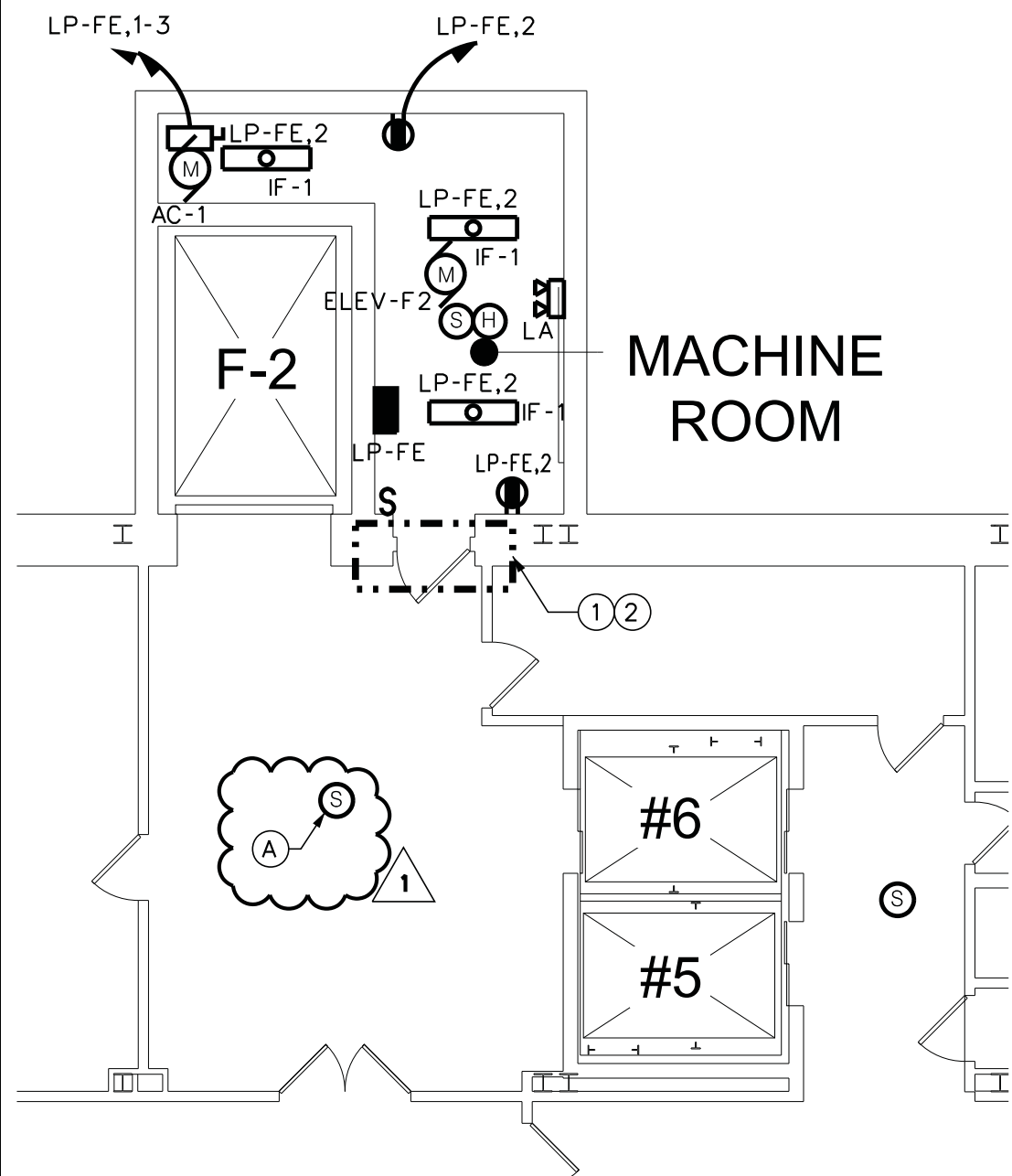
5. Submit written report of test results signed by Company Field Advisor and the Director's Representative. Also complete an NFPA Record of Completion.
 - a. Mount a copy of the written report of test results, and the NFPA 72 Record of Completion in plexiglass enclosed frame assemblies adjacent to the existing FCS (one framed assembly for each report).
- C. Conduct tests that are disruptive to facility personnel after normal working hours as directed.

3.05 INSULATED CONDUCTOR SCHEDULE - TYPES AND USE

- A. Signaling Line Circuits, Initiating Device Circuits and Notification Appliance Circuits:
 1. Power-Limited Circuits: For interior wiring (in raceways) use power-limited insulated multiconductor cable types specified in PART 2 except where a 2-hour fire rated cable assembly is required.
 - a. Number of conductors and conductor size as recommended by the Company producing the system, except that conductor size shall not be less than No. 18 AWG for signaling line circuits and not less than No. 16 AWG for initiating device circuits and notification appliance circuits.
 - b. Using Non-power-Limited Wiring On Power-Limited Circuits: Wiring size and types specified for NONPOWER-limited circuits may be used for power-limited circuits if power-limited circuits are reclassified and the power-limited markings are eliminated. Refer to NEC Article 760-52(a) Exception No. 3.
 2. Nonpower-Limited Circuits: For interior wiring (in raceways) use nonpower-limited insulated single conductors or multiconductor cable types specified in PART 2 except where a 2-hour fire rated cable assembly is required.
 - a. Number of conductors and conductor size as recommended by the Company producing the system, except that conductor size shall not be less than No. 18 AWG for signaling line circuits, not less than No. 16 AWG for initiating device circuits, and not less than No. 14 AWG for notification appliance circuits.
- B. Signaling Line Circuit Between PPMCU'S and Networked ICU's (Network communication bus, voice communication bus, and telephone):
 1. Use 2-hour rated cable assembly.
- C. Signaling Line Circuits Between PPMCU's and Networked ICUs: Use Type LAN-O or type LAN-I optical fiber cables (Section 271525) in raceways for network communication bus circuits.
- D. Other Circuits for Which 2-hour Fire Rated Cable Assembly is Specified or Indicated:
 1. Use CI cable in rigid steel conduit
- E. Control Circuits Associated with the Fire Alarm System: use Class 1, 2, and 3 wiring specified in Section 260519.

- F. Primary Supply Circuits and Secondary Supply Wiring:
 - 1. Use electric light and power wiring specified in Section 260519.

END OF SECTION



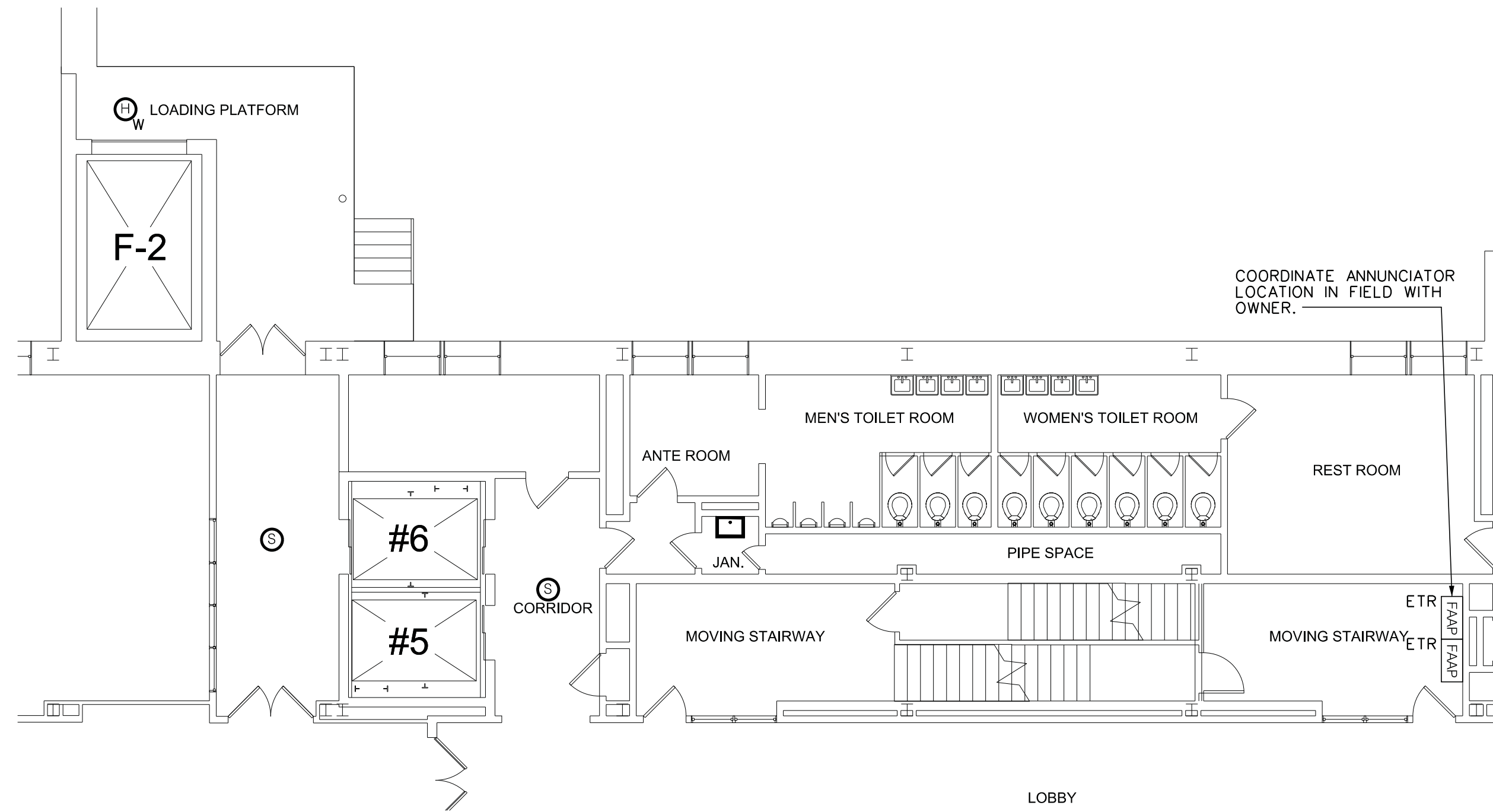
4/E-100 DRAWING NOTES:

- DISCONNECT EXISTING 3/4" EMT CONDUIT THAT RUNS THROUGH THE DOOR FRAME. REROUTE THIS CONDUIT THROUGH NEW OPENING ABOVE DOOR. PROVIDE 2 HOUR FIRE STOPPING AT OPENING.
- DISCONNECT AND RECONNECT EXISTING 3/4" EMT CONDUIT THAT RUNS ALONG THE DOOR FRAME - PENDING FIELD CONDITIONS.

PARTIAL BASEMENT FLOOR PLAN

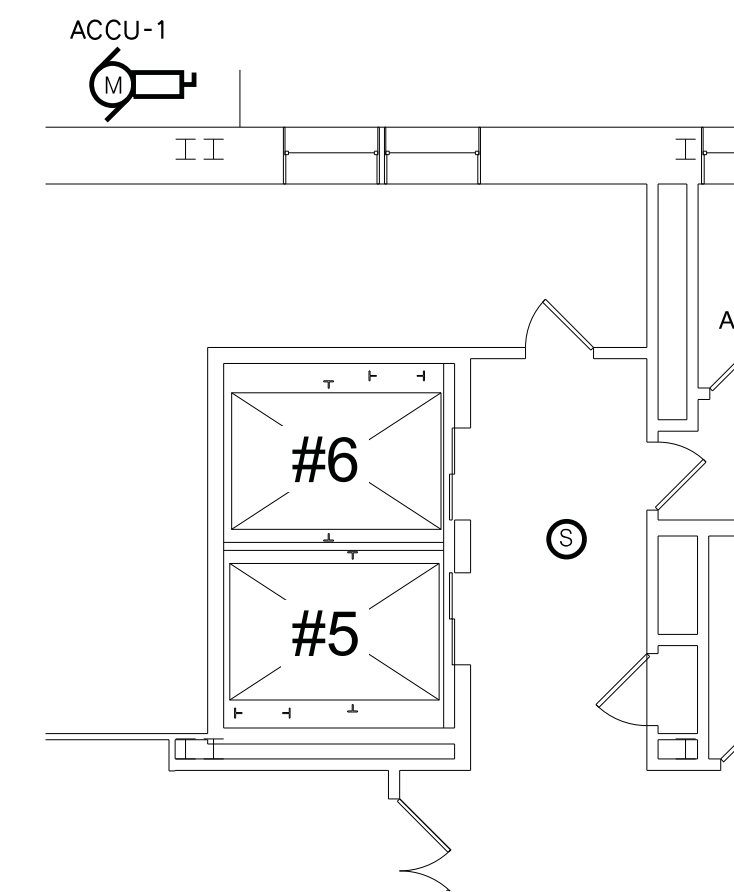
1/8" = 1'-0"

(A) CONDUIT HANGERS, SMOKE DETECTOR SUPPORT AND SMOKE DETECTOR FURNISHED BY ELECTRICAL CONTRACTOR AND INSTALLED BY ASBESTOS ABATEMENT CONTRACTOR (C-CONTRACT).



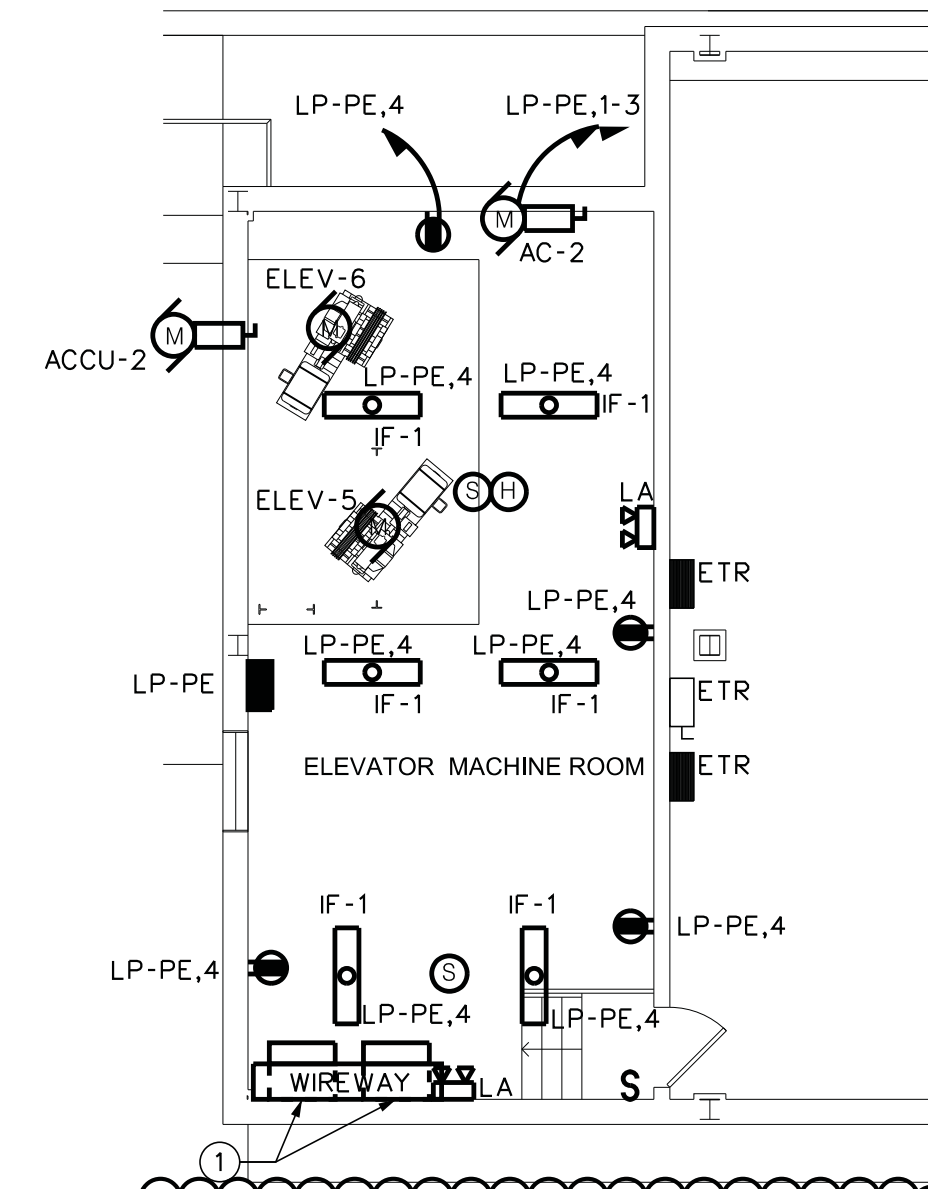
PARTIAL FIRST FLOOR PLAN

1/8" = 1'-0"



PARTIAL SECOND FLOOR PLAN

1/8" = 1'-0"



GENERAL NOTES:

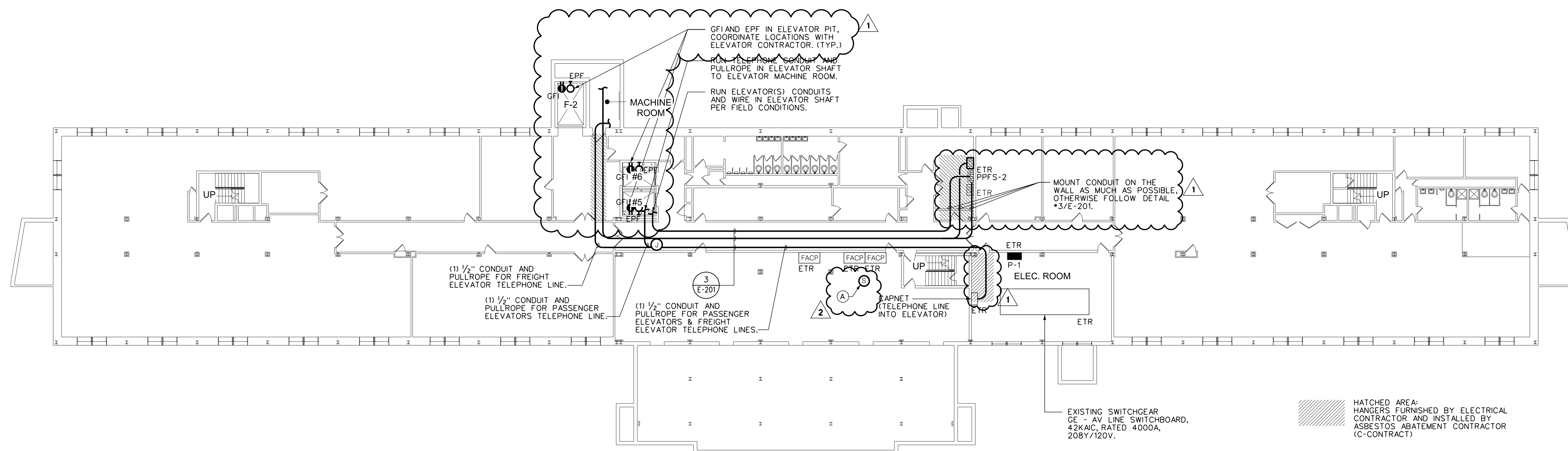
- THE ENTIRE ACM CEILING IN THE PENTHOUSE WILL BE ABATED. COORDINATE MECHANICAL INSTALLATIONS WITH C-CONTRACT.

4/E-100 DRAWING NOTES:

- PROVIDE COOPER BUSSMANN POWER MODULE, TYPICAL OF 2. MODEL #PS2T20R1KGN2BF3

PARTIAL PENTHOUSE & ROOF PLAN

1/8" = 1'-0"



BASEMENT PLAN

1/16" = 1'-0"

5/E-100 DRAWING NOTES:

- CONDUIT HANGERS, SMOKE DETECTOR SUPPORT AND SMOKE DETECTOR FURNISHED BY ELECTRICAL CONTRACTOR AND INSTALLED BY ASBESTOS ABATEMENT CONTRACTOR (C-CONTRACT).

CONSULTANT

WARNING:
THE ALTERATION OF THIS MATERIAL IN ANY WAY, UNLESS DONE UNDER THE DIRECTION OF A COMPARABLE PROFESSIONAL, I.E. ARCHITECT FOR AN ARCHITECT, ENGINEER FOR AN ENGINEER OR LANDSCAPE ARCHITECT FOR A LANDSCAPE ARCHITECT, IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND/OR REGULATIONS AND IS A CLASS "A" MISDEMEANOR.



CONTRACT:

ELECTRICAL

TITLE:

UPGRADE ELEVATORS BUILDING NO. 2

LOCATION:

STATE OFFICE BUILDING CAMPUS
ALBANY, NY 12226

CLIENT:

OFFICE OF GENERAL SERVICES

MARK	DATE	DESCRIPTION
1	04/17/2013	ADDENDUM #2
	01/28/2013	BID DOCUMENT
PROJECT NUMBER:	43609-E	
DESIGNED BY:	NUB/WGP/WEB/AJH	
DRAWN BY:	NUB/AJH	
FIELD CHECK:		
APPROVED:		
SHEET TITLE:	PARTIAL LIGHTING & POWER PLAN	
DRAWING NUMBER:	E-100	

PARTIAL LIGHTING & POWER PLAN

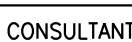
DRAWING NUMBER:

E-100

SHEET 2 OF 6

- A. DISCONNECT AND REMOVE ALL EXISTING ELECTRICAL EQUIPMENT INDICATED TO BE REMOVED, UNLESS OTHERWISE NOTED TO REMAIN (ETR) OR TO BE RELOCATED (ERL) WITHIN THE PROJECT AREA. DISCONNECT AND REMOVE ALL EXISTING WIRING AND RACEWAYS ASSOCIATED WITH REMOVED EQUIPMENT. DISCONNECT AND REMOVE ALL EMPTY RACEWAYS, WHERE EMPTY RACEWAYS ARE ROUTED INTO EXISTING CONCRETE OR MASONRY CONSTRUCTION CUT FLUSH WITH FLOOR OR WALL WHERE APPLICABLE AND CAP RACEWAY ENDS WATERTIGHT.
- B. COORDINATE ALL REMOVAL WORK WITH OTHER TRADES.
- C. PROVIDE ALL WIRING AND CONNECTIONS TO MAINTAIN BRANCH CIRCUITS OR SPECIAL SYSTEMS CIRCUIT CONTINUITY TO DEVICES AND EQUIPMENT REQUIRED TO REMAIN WHETHER LOCATED WITHIN OR OUTSIDE OF THE PROJECT AREA, EITHER UPSTREAM OR DOWNSTREAM OF DEVICE REQUIRED TO BE REMOVED.
- D. PARTIAL BRANCH CIRCUIT WIRING DENOTING EXISTING CIRCUITING OR CONTROL IS SHOWN FOR REFERENCE ONLY, AND IS NOT INTENDED TO ILLUSTRATE COMPLETE WIRING SYSTEM.
- E. PROVIDE A TEST, PRIOR TO BEGINNING REMOVALS, OF EACH AND EVERY SYSTEM AFFECTED BY THE WORK TO ASCERTAIN AND DOCUMENT PRE-CONSTRUCTION CONDITION OF EACH INDIVIDUAL DEVICE ON EACH SYSTEM. SYSTEMS AND DEVICES WHICH ARE UNTESTED WILL BE ASSUMED TO BE IN PERFECT WORKING ORDER PRIOR TO THE BEGINNING OF CONSTRUCTION. TEST THESE AND NEW DEVICES ON EACH SYSTEM AFTER CONSTRUCTION TO INDICATE AND DOCUMENT POST-CONSTRUCTION CONDITIONS. EC SHALL BE RESPONSIBLE FOR RETURNING ALL EXISTING SYSTEMS AND DEVICES TO PRE-CONSTRUCTION CONDITION OR BETTER. OBTAIN THE SERVICES OF AN AUTHORIZED MANUFACTURER'S REPRESENTATIVE TO TEST AND IDENTIFY EACH AND EVERY PRE- AND POST-CONSTRUCTION. SUCH SYSTEMS SHALL INCLUDE, BUT ARE NOT LIMITED TO: FIRE ALARM, TELEPHONE, COMPUTER/DATA DISTRIBUTION, PUBLIC ADDRESS, ETC. SUBMIT TEST REPORTS TO DIRECTOR'S REPRESENTATIVE FOR APPROVAL.
- F. EXISTING BUILDING FIRE ALARM SYSTEM MODIFICATIONS REQUIRED SHALL BE INSTALLED COMPLETE, TESTED APPROVED BY THE AUTHORITY HAVING JURISDICTION (AHJ) PRIOR TO THE FIRE ALARM SYSTEM REMOVAL WORK. EXISTING BUILDING FIRE ALARM SYSTEM SHALL BE MAINTAINED DURING CONSTRUCTION.
- G. REMOVE FEEDERS FROM ELEVATOR MOTOR #F2, #5 AND #6 TO THE SOURCE.

- 1 EXISTING TO REMAIN LOCAL FIRE EMERGENCY PHONE (SIMPLEX).
- 2 DISCONNECT AND REMOVE 200A FUSED DISCONNECT SWITCH (240V RATED)
*5 LABEL ON SWITCH WITH ASSOCIATED CABLES.
- 3 DISCONNECT AND REMOVE 200A FUSED DISCONNECT SWITCH (240V RATED)
*6 LABEL ON SWITCH WITH ASSOCIATED CABLES.
- 4 EXISTING TO REMAIN 208V, 3Ø, 4W PANELBOARD.
- 5 EXISTING TO REMAIN 208V, 3Ø, 4W PANELBOARD.
- 6 DISCONNECT AND REMOVE RECEPTACLE AND WIRING BACK TO SOURCE. MAINTAIN
EXISTING BACK BOX AND CONDUIT.
- 7 DISCONNECT AND REMOVE LIGHT FIXTURE, CONDUIT AND WIRING BACK TO SOURCE.
- 8 DISCONNECT AND REMOVE EMERGENCY LIGHTING UNIT, CONDUIT AND WIRING BACK TO
SOURCE.
- 9 DISCONNECT AND REMOVE SMOKE DETECTOR, AND WIRING BACK TO SOURCE.
MAINTAIN EXISTING CONDUIT.
- 10 DISCONNECT AND REMOVE HEAT DETECTOR AND WIRING BACK TO SOURCE. MAINTAIN
EXISTING CONDUIT.
- 11 ELECTRICAL CEILING EQUIPMENT SHALL BE DE-ENERGIZED BY ELECTRICAL
CONTRACTOR AND REMOVED UNDER THE C-CONTRACT BY THE ASBESTOS ABATEMENT
CONTRACTOR. COORDINATE REMOVALS AND WORK WITH ASBESTOS ABATEMENT
CONTRACTOR.



505 Franklin St
Buffalo, New York 14202

303 West 13th Street
New York, New York 10011



**MECHANICAL/ELECTRICAL
ENGINEERING CONSULTANTS**
CAPITAL DISTRICT • BUFFALO • SYRACUSE • ROCHESTER
433 STATE STREET, SUITE 401
SCHENECTADY, NY 12305

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CONTRACT

ELECTRICAL

TITLE:

UPGRADE ELEVATORS BUILDING NO. 2

LOCATION

STATE OFFICE BUILDING CAMPUS
ALBANY, NY 12226

CLIENT:

OFFICE OF GENERAL SERVICES

	O4/17/2013	ADDENDUM #2	
	O1/28/2013	BID DOCUMENT	
MARK	DATE	DESCRIPTION	
PROJECT NUMBER:	43609-E		
DESIGNED BY:	NUB/WGP/WEB/AJH		
DRAWN BY:	NUB/AJH		
FIELD CHECK:			
APPROVED:			

SHEET TITLE

REMOVALS & EXISTING ROOF PLANS

DRAWING NUMBER

ED-002

Partial Second Floor Plan

SUMMARY OF WORK
ASBESTOS ABATEMENT
APPLICABLE TO H-103

(B) 10 SF

(EL) 192 SF

(C1) 630 SF

△

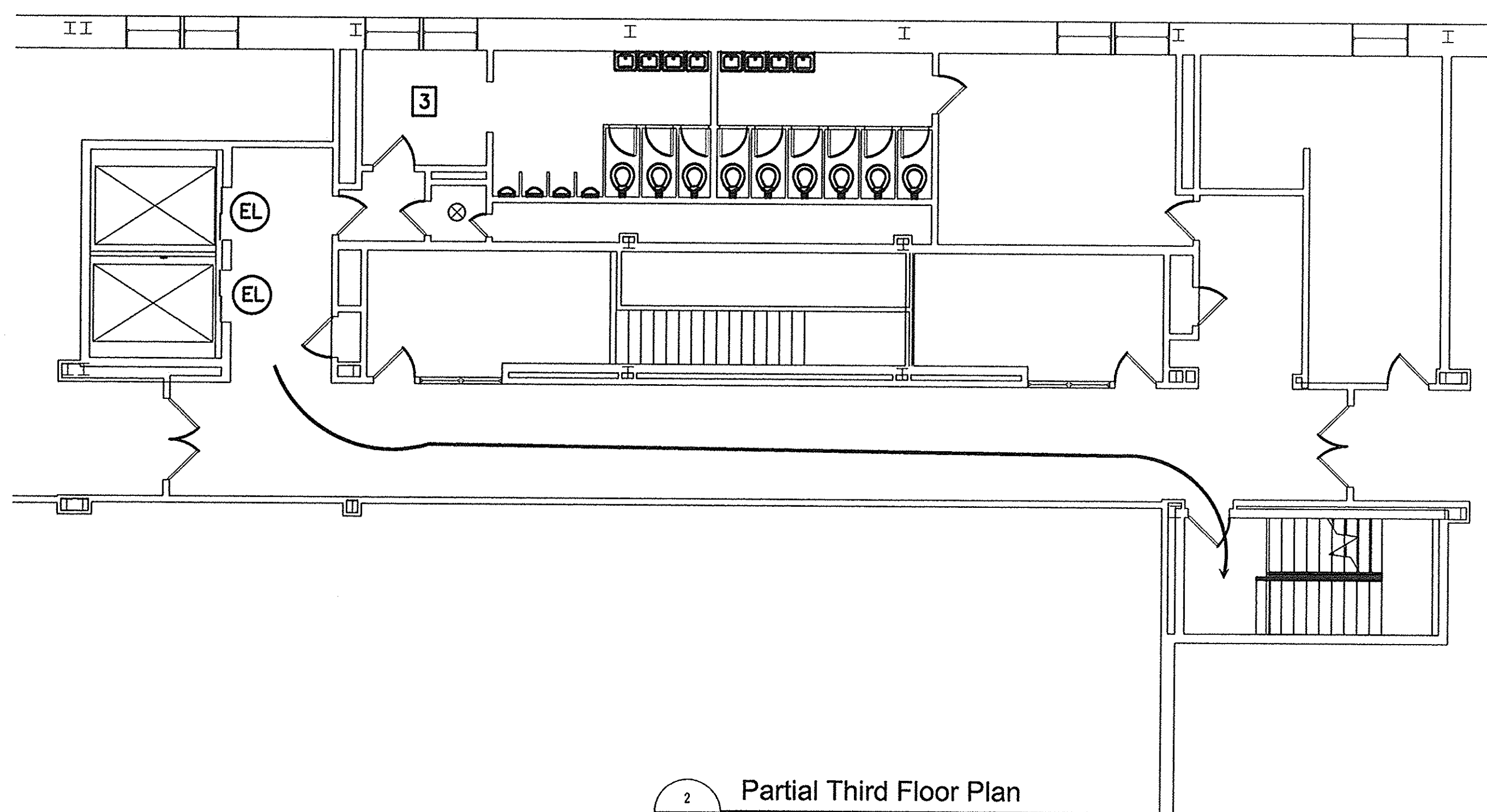
Asbestos Removal Legend

ACE	ASBESTOS CONTAINING ELEMENT	LF	LINEAR FOOT
ACM	ASBESTOS CONTAINING MATERIAL	SF	SQUARE FOOT
AC	ASBESTOS CONTAINING		

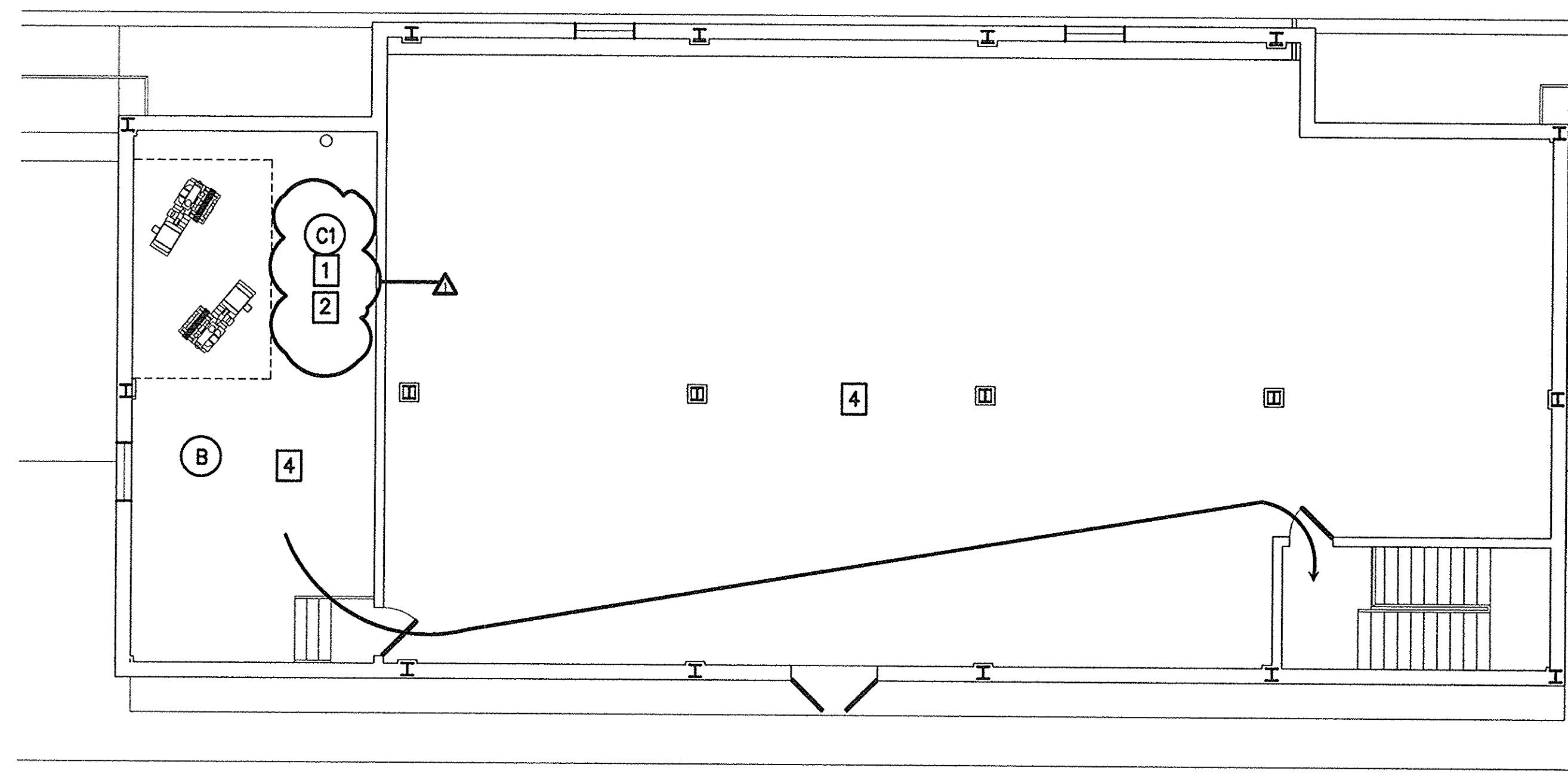
- EL** THE ELEVATOR CONTRACTOR SHALL REMOVE THE ELEVATOR HOIST WAY DOORS CONTAINING AC INSULATION AND IMMEDIATELY TURN OVER TO THE ABATEMENT CONTRACTOR. THE ABATEMENT CONTRACTOR SHALL WRAP THE DOORS AND DISPOSE OF THE ELEVATOR HOIST WAY DOORS AS ACM.
- C1** THE ABATEMENT CONTRACTOR SHALL REMOVE AC PLASTER CEILING ADHERED TO THE CONCRETE DECK AND DISPOSE OF AS ACM.
- B** THE ELEVATOR CONTRACTOR SHALL REMOVE THE ELEVATOR BRAKE ASSEMBLY WITH ASSUMED AC BRAKE SHOES AND IMMEDIATELY TURN OVER TO THE ABATEMENT CONTRACTOR. THE ABATEMENT CONTRACTOR SHALL WRAP THE BRAKE ASSEMBLY AND DISPOSE OF IT AS ACM.

Special Notes

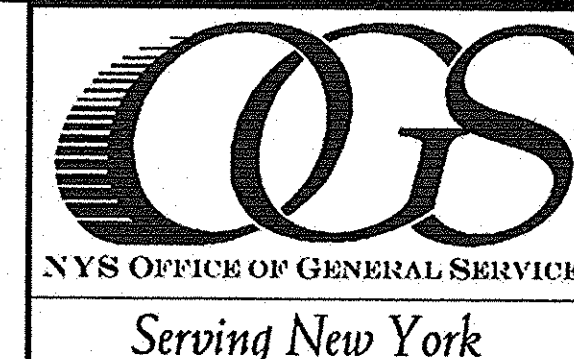
- 1 ASBESTOS CONTRACTOR SHALL REMOVE THE PLASTER CEILING IN ITS ENTIRETY IN THIS AREA. ELECTRICAL EQUIPMENT WILL BE DE-ENERGIZED BY THE ELECTRICAL CONTRACTOR AND REMOVED BY THE ASBESTOS CONTRACTOR. INSTALLATIONS/REMOVALS SHALL BE COORDINATED WITH CONTRACT DRAWINGS AND CONTRACTORS PRIOR TO PROCEEDING WITH WORK.
- 2 ASBESTOS CONTRACTOR SHALL PROVIDE TEMPORARY PROTECTION OF THE ELEVATOR RELATED EQUIPMENT IN THIS AREA DURING ABATEMENT ACTIVITIES. ELEVATORS #5 AND #6 SHALL REMAIN OPERATIONAL DURING ABATEMENT.
- 3 CONTRACTOR IS HEREBY NOTIFIED THAT ASBESTOS CONTAINING PIPE FITTINGS AND PIPE INSULATION EXIST ABOVE THE CEILINGS AND WITHIN THE WALLS IN THIS AREA. CONTRACTOR SHALL TAKE CARE TO NOT DISTURB THIS MATERIAL.
- 4 CONTRACTOR IS HEREBY NOTIFIED THAT ASBESTOS CONTAINING PIPE FITTINGS AND PIPE INSULATION EXIST WITHIN THIS AREA. CONTRACTOR SHALL TAKE CARE TO NOT DISTURB THIS MATERIAL.



2 Partial Third Floor Plan
H-103 1/8" = 1'-0"



3 Partial Penthouse Floor Plan
H-103 1/8" = 1'-0"



ANDREW M. CUOMO
Governor

ROANN M. DESTITO
Commissioner

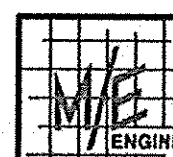
CONSULTANT



Architectural Resources

505 Franklin St
Buffalo, New York 14202

303 West 13th Street
New York, New York 100



433 STATE STREET, SUITE 41
SCHENECTADY, NEW YORK 12305



**175 SULLYS TRAIL, SUITE 200
PITTSFORD, NEW YORK 14534**

WARNING:

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CONTRACT:

CONSTRUCTION

TITLE: UPGRADE ELEVATORS,
BUILDING NO. 2

LOCATION:
State Office Building Campus
Albany, NY

CLIENT:
OFFICE OF GENERAL SERVICES

[illegible]

ASBESTOS ABATEMENT PLAN
PARTIAL SECOND, THIRD AND
PENTHOUSE FLOOR PLANS

DRAWING NUMBER:





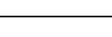
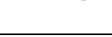

H-103

SHEET 3 OF 4



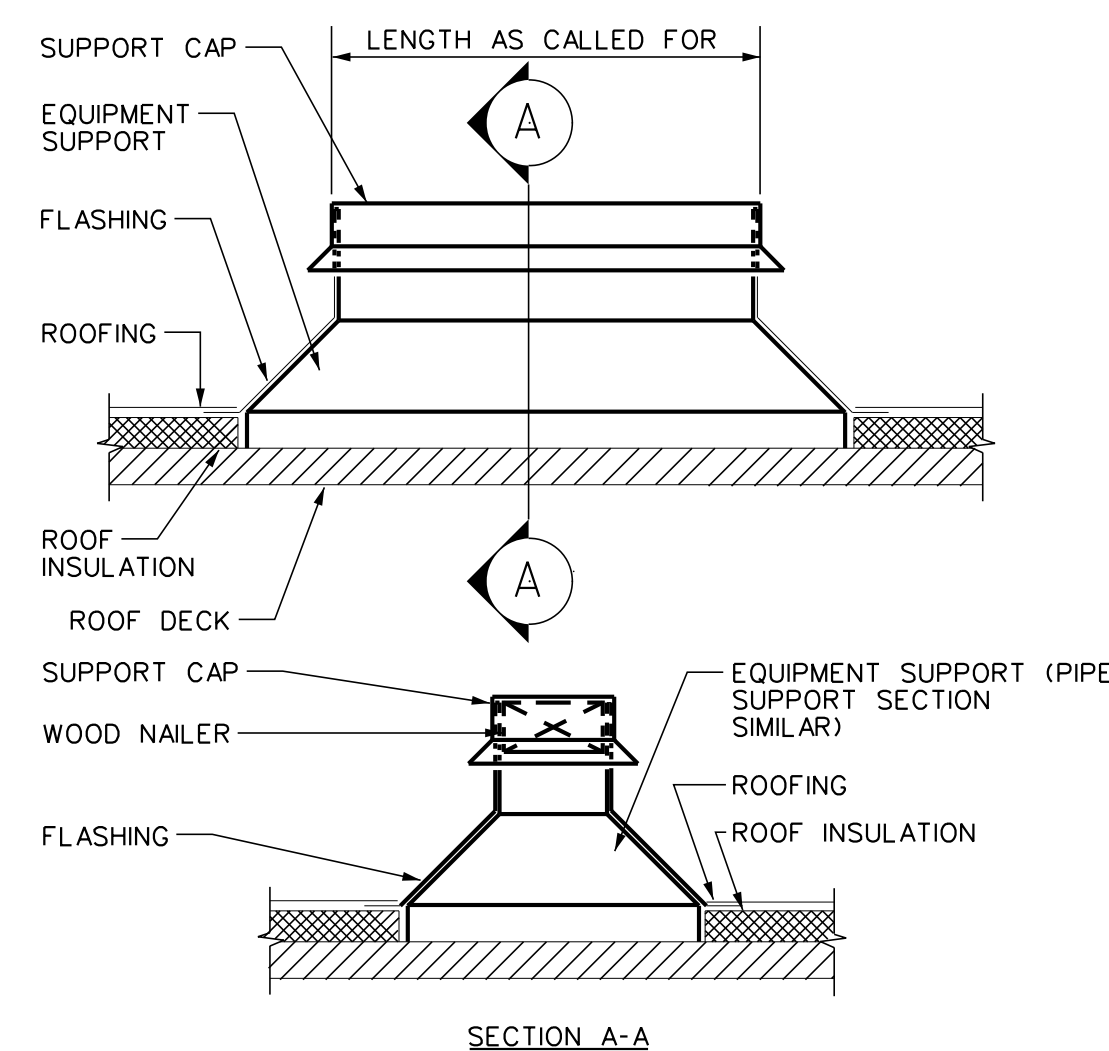
- A. ASBESTOS-CONTAINING MATERIAL (ACM) AND LEAD BASED PAINT (LBP) MAY BE PRESENT IN THIS BUILDING. CONTRACTOR SHALL REFERENCE THE REPORT PRE-RENOVATION ASBESTOS SURVEY, STATE OFFICE BUILDING CAMPUS - BUILDING NO. 2 DATED JANUARY 2013, PREPARED BY LU ENGINEERS AND INCORPORATED INTO THE PROJECT MANUAL. ANY QUESTIONABLE MATERIAL OR MATERIAL SUSPECTED TO CONTAIN ASBESTOS SHALL NOT BE DISTURBED AND SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNER OR OWNER'S REPRESENTATIVE FOR AN ACCURATE IDENTIFICATION AND REMEDIATION. TESTING, SAMPLING AND ANALYSIS. ALL CONTRACTORS ARE RESPONSIBLE FOR MAKING THEMSELVES AND THEIR EMPLOYEES AWARE OF THE PRESENCE, LOCATION AND QUANTITY OF EXISTING ACM, AND TO WARN THEIR EMPLOYEES OF THE POTENTIAL DANGERS OF EXPOSURE TO ASBESTOS. ANY DISTURBANCE OF ACM MUST BE PERFORMED BY A LICENSED ASBESTOS ABATEMENT CONTRACTOR EMPLOYING CERTIFIED WORKERS.
- B. PAINTED SURFACES SHALL BE TREATED AS LEAD BASED PAINT. WHEN DRILLING OVERHEAD, USE A CONE DEVICE WITH A HEPA VACUUM ATTACHED TO COLLECT ALL PARTICLES.
- C. NO PIPING SHALL BE RUN ABOVE ELEVATOR EQUIPMENT. MAINTAIN CLEARANCES REQUIRED BY NEC 110.

HVAC SYMBOLS

PIPING	
	DRAIN
	REFRIGERANT LIQUID
	REFRIGERANT SUCTION
	OPPOSED BLADE DAMPER - MOTORIZED, FULL SIZE OF DUCT
	POINT OF NEW CONNECTION
	HOT WATER SUPPLY
	HOT WATER RETURN

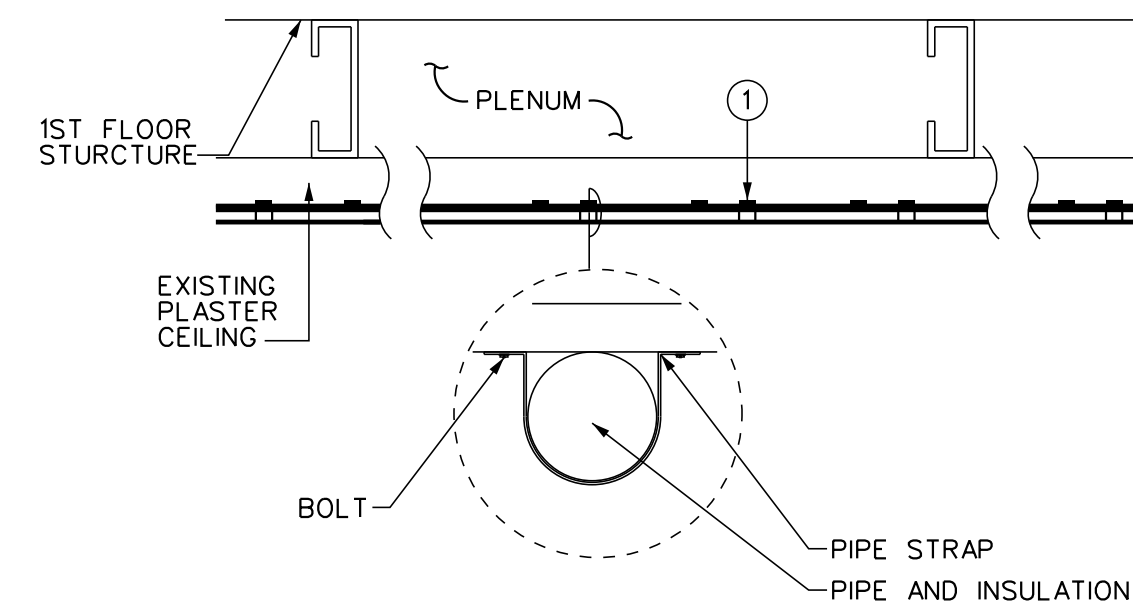
HVAC ABBREVIATIONS

<u>ABBREVIATION</u>	<u>DESCRIPTION</u>
MBH	THOUSAND BTU/HOUR
NTS	NOT TO SCALE
FPM	FEET PER MINUTE
CFM	CUBIC FEET PER MINUTE
C.C.	CONSTRUCTION CONTRACTOR
P.C.	PLUMBING CONTRACTOR
E.C.	ELECTRICAL CONTRACTOR
H.C.	HVAC CONTRACTOR
EF	EXHAUST FAN
ACCU	AIR COOLED CONDENSING UNIT
TYP	TYPICAL
DX	DIRECT EXPANSION
D	DRAIN
FD	FLOOR DRAIN



- SECTION A-A
- DETAIL NOTES:
- A. H.C. TO CUT BACK INSULATION AND PROVIDE FLASHING.
- B. LOCATION, SETTINGS AND SECURING OF CURB B H.C.
- C. PROVIDE SHIMS WHERE REQUIRED TO LEVEL SUPPORT.
- D. LENGTH OF SUPPORTS AS CALLED FOR. PROVIDE BLOCKING BENEATH SUPPORTS IN FLUTES OF METAL DECKS.

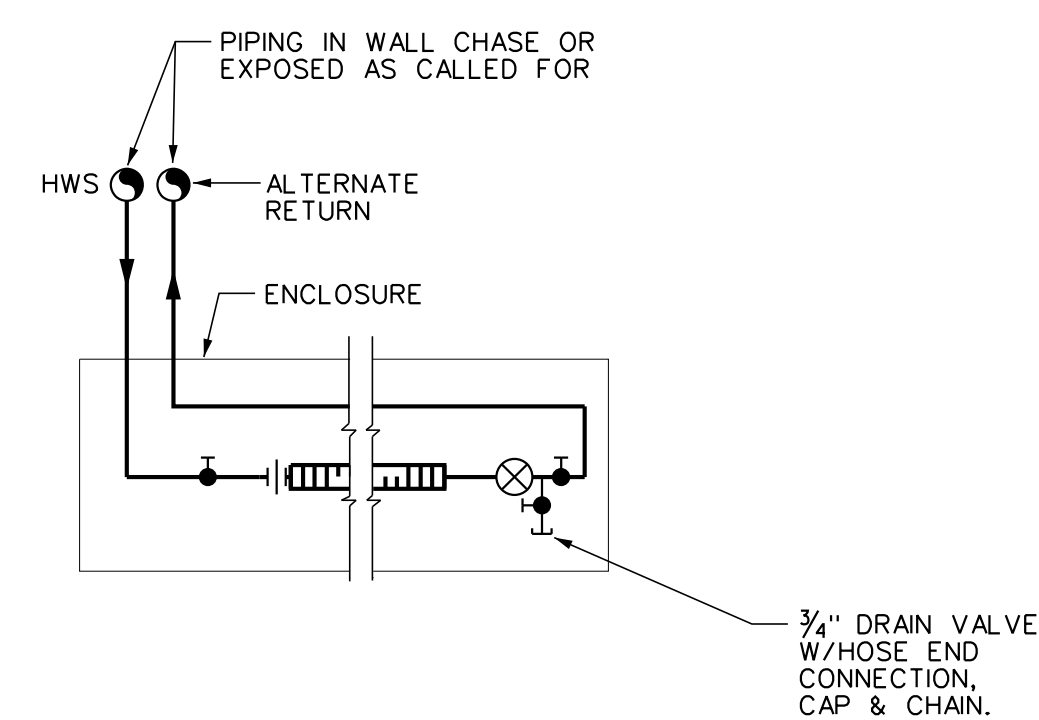
H6 EQUIPMENT SUPPORT DETAIL
NONE



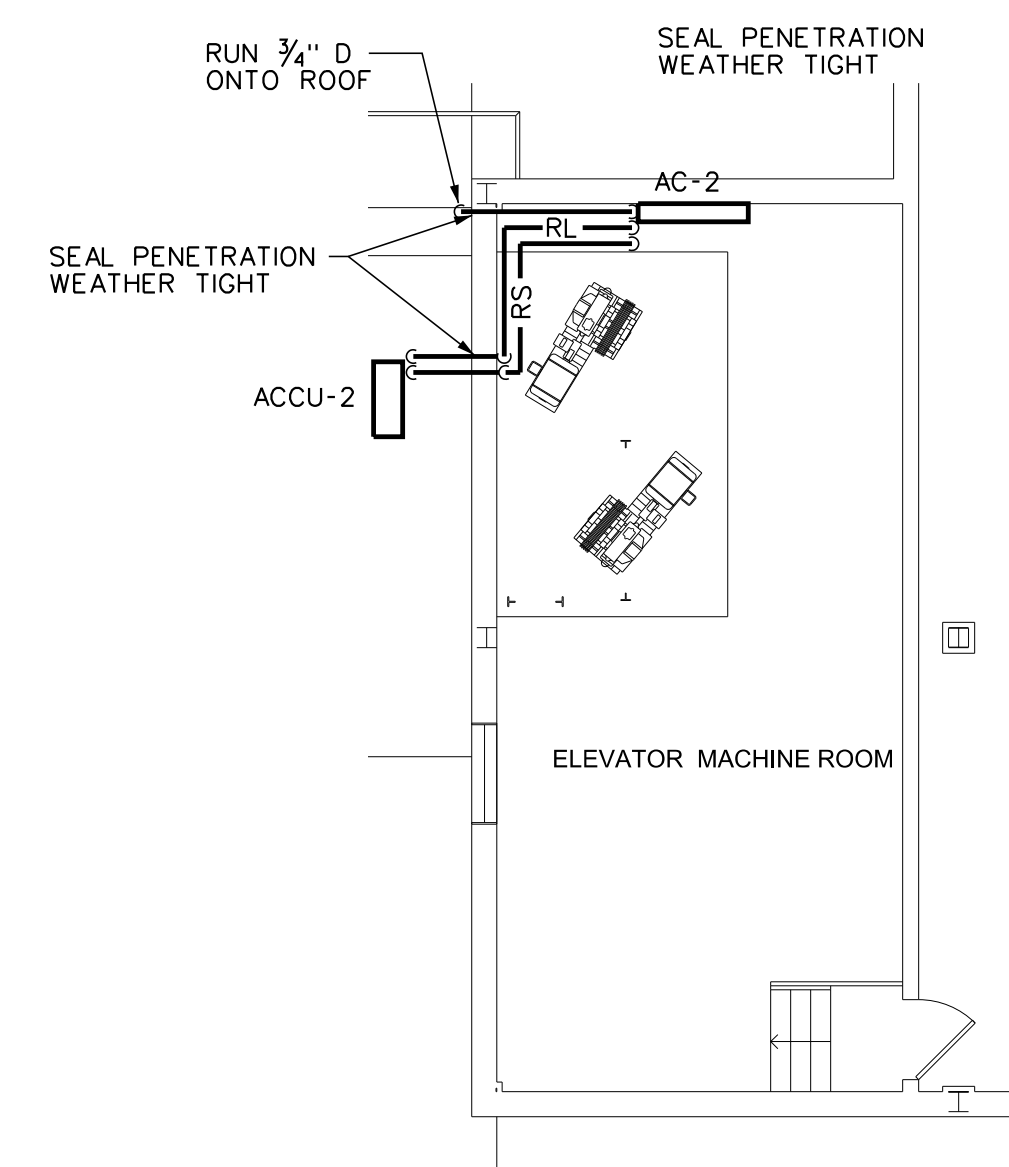
DRAWING NOTES:

- ① PROVIDE PIPE STRAP, BOLT INTO PLASTER CEILING. USE APPROPRIATE HARDWARE PER MANUFACTURER'S INSTALLATION.

H5 PIPE IN CORRIDOR DETAIL



H7 CONVECTOR DETAIL
NONE



H4 Roof Penthouse Plan 
1/8" = 1'-0"

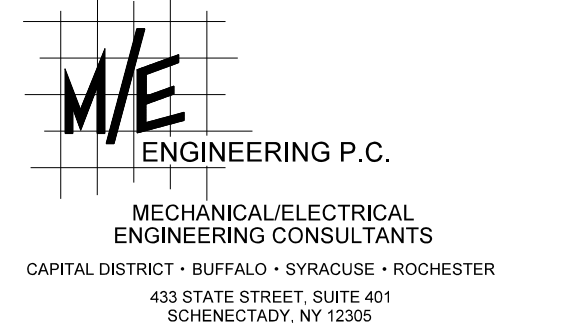
GENERAL NOTES:

- A. THE ENTIRE ACM CEILING IN THE PENTHOUSE WILL BE ABATED. COORDINATE MECHANICAL INSTALLATIONS WITH C-CONTRACT.

CONVECTOR SCHEDULE							
UNIT NO.	MBH	ENCLOSURE			E.W.T.	L.W.T.	DESIGN EQUIPMENT
		H	W	L			
C-1	4.6	24"	8"	32"	180	160	STERLING FS-A

DUCTLESS SPLIT SYSTEM AIR CONDITIONING UNIT SCHEDULE														
UNIT NO.	LOCATION	INDOOR UNIT				OUTDOOR UNIT				VOLTS	PHASE	KW	SEER	BASIS OF DESIGN
		UNIT TYPE	CFM	MBH TOTAL	E.A.T.		E.A.T.							
					DB	WB	DB	WB						
AC-1/ACCU-1	BASEMENT MACHINE ROOM	WALL	425	18	80	67	95	75	208	1	2.24	14.1	MITSUBISHI	PKA-A18GAL /PUY-A18NHA
AC-2/ACCU-2	PENTHOUSE MACHINE ROOM	WALL	705	30	80	67	95	75	208	1	4.4	13.0	MITSUBISHI	PKA-A30FAL /PUY-A30NHA

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FOR A LANDSCAPE ARCHITECT, IS A VIOLATION OF THE
NEW YORK STATE EDUCATION LAW AND/OR REGULATIONS
AND IS A CLASS 'A' MISDEMEANOR.



CONTRACT:
HVAC

TITLE:
UPGRADE ELEVATORS BUILDING NO. 2

LOCATION:
STATE OFFICE BUILDING CAMPUS
ALBANY, NY 12226

CLIENT: OFFICE OF GENERAL SERVICES

[illegible]HVAC PLANS, DETAILS
AND SCHEDULES

DRAWING NUMBER:
M-101

SHEET 1 OF 1