



HOME | HEALTH | HOPE

Loren Juhl Interior Renovation 4219 N. Lincoln Ave, Chicago, IL. 60618

Request for Proposal

Facilities Management

Date: 6/12/2024

Created by: Thresholds Project Team

Table of Contents

Division 00 - Procurement & Contracting Requirements

Division 01 - General Requirements

Division 02 - Existing Conditions - See Selective Demolition on A101

Division 03 - Concrete - Not Used

Division 04 - Masonry

Division 05 - Metals

Division 06 - Wood, Plastics, and Composites

Division 07 - Thermal and Moisture Protection

Division 08 - Openings

Division 09 - Finishes

Division 10 - Specialties

Division 11 - Equipment - By Others

Division 12 - Furnishing By Others

DIVISION 00 - PROCUREMENT & CONTRACTING REQUIREMENTS

Bid Solicitation

Notice of Request for Proposal:

Thresholds will receive proposals for General Contractor services for renovation of the Loren Juhl Center Renovation, a 25,400 sq ft existing building housing administrative offices and a small charter school. Work to include new HVAC systems, lighting, flooring, painting, millwork, and restroom remodeling as well as other modifications. Bid documents include several desired ad-alternates. Property address: 4219 N Lincoln Ave, Chicago IL 60618

Request for Proposal and supporting documents will be provided to qualified respondents.

Please email architects Manske Dieckmann Thompson, pat@manske.com and kate@manske.com, for project details, respondent requirements, and access to documents.

Instructions to Bidders

Bids Due: August, 6th, 2024 at 5PM
Deliver to: Submit via email/sealed envelope

Questions Due: July, 16th, 2024 at 5PM
Deliver to: pat@manske.com
kate@manske.com
Nadia.Underhill@thresholds.org
Daniel.Lach@thresholds.org
josh.morris@thresholds.org

Site Visits: A bid walk(s) will be scheduled to take place prior to the the deadline for questions. The site is an operating school. No visits without a scheduled Appointment. Please make sure all subs bidding this job are aware that unscheduled visits are not permitted.

To receive consideration, proposals must be made in accordance with AIA Document A701, "Instructions to Bidders," and the following supplemental clarification.

Before submitting a proposal, bidders should carefully examine the drawings and specifications, visit the site of work, fully inform themselves as to all existing conditions and limitations, and shall include in their proposals a sum to cover the cost of all items included in the contract. No contractors will be allowed an extra for items on which they have failed to inform themselves.

All materials and workmanship must be in accordance with these drawings and specifications and be executed in a first-class and workmanlike manner.

Bidders shall promptly notify the Architect in writing, of any ambiguity, inconsistency, or error that they may discover upon examination of the bidding documents (Drawings and Specifications) or of the site and local conditions.

No oral interpretations of the plans and specifications will be made to bidders. Any interpretation, correction or change of the bidding documents will be sent to all bidders in the form of written addenda at least 48 hours prior to the opening of bids, Interpretations, corrections, or changes made in any other manner will not be binding and bidders shall not rely on the same in preparing their proposals.

Each bidder shall acknowledge receipt of all addenda in the appropriate space on the bid proposal form.

Information Available to Bidders

Bidding Documents will include the Invitation to Bid, Instructions to Bidders, the Bid Form, standard forms, and documents included by reference and the proposed Contract Documents including any Addenda issued prior to the bid date. The Contract Documents consist of the Owner-Contractor Agreement, the General and Supplementary Conditions of the Contract, the Technical Specifications, and the Drawings (bound herein or separately) and any Addenda issued prior to the Bid or Modifications issued after award of the Contract.

The relevant bid documents including the Project Manual and Drawings Set will be available to all bidders by Dropbox. General Contractors interested in bidding on this project should email the above architects to request access to the shared project folder.

Any addenda and clarification in response questions will be delivered to all bidders simultaneously via the Dropbox project folder. If and when additional documents are uploaded, we will endeavor to notify everyone via email. As a practical matter, bidders should check their Dropbox settings to make sure they have notifications turned on so they receive automatic notice of any newly uploaded documents.

Bid Forms

Proposals reiterating the work to be done or containing any stipulations, conditions, omissions, alterations, escalator clauses or irregularities not contained in the proposal form, shall be regarded as incomplete and may be disqualified.

It shall be the responsibility of the bidders to deliver their proposals at the proper place and time. The mere dispatching of proposals will not entitle the same to consideration if they arrive after the time prescribed for receipt of bids. Proposals received after the time prescribed will be discarded.

Form of Contract

The Bidder to whom the Contract is awarded shall be required to execute AIA A101 *Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum*, most recent issue. Any exceptions to the standard form of this document on the part of the Contractor must be made known to the Owner at the time the bids are delivered.

Materials and Products

The materials, products and equipment described in the bidding documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution.

Materials and products specified by name of manufacturer are assumed equal for the basis of the contract.

Request for approval of materials and products not specified must be made to the Architect at least 3 days prior to the date for receipt of bids so that such approval may be made by written addendum. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the data and any other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment or work that may be made necessary by the substitution. The burden of proof of the merit of any substitution is on the proposer. The decision of approval by the Architect will be final.

Presentation of Bids

Bids submitted by a partnership shall be signed by all partners, or by an attorney-in-fact. If signed by an attorney-in-fact, there shall be attached to the Bid a Power of attorney granting the authority to sign the bid, executed by the partners.

Bids submitted by a Corporation shall have the correct name of the corporation and the signature of the president or other authorized officer of the corporation manually written below the corporate name following the word "by". If such a bid is signed by someone other than the president attach certified evidence of authority for such signature.

All bids are to be signed, with bid prices clearly written or typed numerically and in words. In the event of any conflict between figures and words the worded price shall govern.

FORM OF PROPOSAL

Submit digitally Fill in all blanks Retain one copy

Project: Thresholds Date:
Loren Juhl Center Renovation
4219 N Lincoln Ave
Chicago, Illinois 60618

Proposal of: (hereinafter called "Bidder")

Made to: Thresholds
4101 N. Ravenswood Ave.
Chicago, IL 60613

The Undersigned Bidder acknowledges receipt of the Bid Documents for the above referenced project, drawings, and the following addenda:

Addendum No.	dated
Addendum No.	dated
Addendum No.	dated
Addendum No.	dated

Proposal

Having carefully examined the work shown on the contract documents including addenda, prepared by Manske Dieckmann Thompson, entitled as above, and dated, with subsequent addenda, which documents are a part hereof; and having visited the site and having examined all conditions affecting the work, the undersigned understands and agrees:

- To hold this bid open for 45 calendar days after the date of bid opening
- To enter into and execute a contract with the Owner as provided in the bid documents
- To furnish all bonds and insurance required by the Bid Documents
- And to furnish all labor, materials, tools, and equipment necessary for the completion of all work for the project in accordance with the referenced documents for the Base Bid sum of:

Base Bid: Dollars (\$))

and for alternates the following amounts:

Alternate A1: Basement Locker Rooms Dollars (\$))

Alternate A2: Basement Washroom & Laundry Dollars (\$))

Alternate A3: Gymnasium Doors Dollars (\$))

Alternate A4: Student Resource Center Dollars (\$))

DIVISION 01 – GENERAL REQUIREMENTS

011000 Summary

A. Project information.

Project Name:	Loren Juhl Center Renovation
Location	4219 N Lincoln Ave, Chicago, IL 60618
Owner	Thresholds
Owner's Representative:	Daniel Lach/Josh Morris Daniel.Lach@thresholds.org Josh.morris@thresholds.org
Architect	Manske Dieckmann Thompson 4629 N Broadway, Chicago, IL 60640 (773)561-1987
Engineers (MEP)	Calor Design Group, LTD 2217 N Western Ave, Chicago, IL 60647 (773)384-2700

B. Work covered by Contract Documents.

- a. The work of the project is defined by the Contract Documents and consists of the following:

- i. The Drawing Set

1. AG01, AG02, AG03, AA01, AD01, AD02, AD03, AD04, AK01, AK02, A101, A102, A103, A104, A201, A202, A401, A402, A403, A404, A405, A601, A602, A603, A604, A605, ED1.1, ED1.2, ED1.3, E1.1, E1.2, E2.1, E2.2, E2.3, E3.1, E3.2, E3.3, MD1.1, MD1.2, MD1.3, M1.1, M1.2, M1.3, M2.1, M3.1, PD1.1, PD1.2, P1.1, P1.2, P2.1, P3.1
2. The drawings indicate the general scope of the project in terms of design concept, dimensions, major elements, and materials. These drawings do not necessarily indicate or describe all the work required for the full completion of the project.
3. The Architect (MDT) does not warrant these drawings as portraying as-built conditions. Each Contractor & Subcontractor shall verify existing conditions and dimensions prior to bidding and construction. Any discrepancies shall be reported to MDT for inspection before proceeding. No extra cost will be authorized for failure to identify existing conditions.
4. Do not scale drawings - written dimensions are to be used wherever possible. The GC shall be responsible for the field verification of all dimensions and conditions before the execution of any work and shall report any discrepancies to the Architect for inspection before proceeding. Interior measured layouts shall be checked with dimensions on the drawings. Any discrepancies shall be brought to the attention of the Architect and resolved prior to proceeding with the work.
5. Add Alternates.
 - a. The project bid set drawings include several add alternates. It is understood that several items may be eliminated requiring alteration of the drawing set.
6. Clarifications By Addendum

- a. Questions or RFIs should be submitted in writing via email and will be responded to via memo or in the form of a drawing as appropriate. During the bid phase no questions will be answered directly to the individual inquiring party. Responses to RFI will be collected and returned to the entire pool of bidders.
 - ii. The Project Specifications
 - 1. Where a conflict exists between the drawings and the Project Manual, the Project Manual shall be the rule.
 - iii. Contracts
 - 1. The project will be executed under a single prime contract using AIA contract documents, AIA A101-2017 *Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum*.
 - 2. In conjunction with the above contract, the corresponding A201-2017 *General Conditions for the Contract for Construction* shall apply.
- C. Construction Schedule
 - a. The site is a year-round school which will be in operation as construction is ongoing. Prior to the start of construction, the GC and Owner will meet to discuss operations so that a workable schedule can be established, this may include work scheduled outside of normal contracting hours.
 - b. The GC will provide the Owner with an updated schedule to completion and progress at a minimum 2 week interval.
 - c. The GC should provide timely notice to the Owner of any substantial changes or delays.
- D. Access to site
 - a. A key will be provided to the GC by the owner.
 - b. There is no on site parking. Parking must be paid for by the GC and their subcontractors. Available parking adjacent to the site is on city streets. It is also possible that use of a parking lot adjoining the site may be coordinated by the GC with the neighboring building owner & their tenant. Primary city streets abutting the site are metered and neighborhood side streets are subject to part-day restrictions.
- E. Coordination with occupants.
 - a. The owner will occupy the site during the entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with the Owner's Day to-day operations. Maintain existing exits unless otherwise indicated.
 - i. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and approval of authorities having jurisdiction.
 - ii. Notify Owner not less than 72 hours in advance of activities that will affect Owner's operations.
 - b. The owner's representative is the primary point of contact regarding coordination with occupants.
 - c. Prior to the start of construction, the Owner's Representative will provide the GC and the Architect with a list of relevant contacts within the organization and their roles.
- F. Work restrictions.

- a. Work must adhere to the following work restrictions unless express permission is granted by the owner:
 - i. Loud noise (hammer drilling etc.) should be done before or after school hours (M-F 8am to 2:30pm) or on days when school is not in session.
 - ii. Work within the "school zone" should be done before or after school hours.
 - iii. The elevator is used exclusively by students during school hours. There should be no use of elevators by contractors during the school day. Access is controlled by a key which will be provided to the GC. During school hours, contractors should use the stairs only.
 - iv. Restroom Access
 - 1. Student Restrooms are to be exclusively for student use.
 - 2. If and where building restroom facilities are approved for GC use by Owner during construction, they must be kept clean.
 - 3. Coordinate port-a-john locations with Owner prior to construction.

G. Procedures

- a. Applications for Payment should be made in accordance with AIA A201-2017 and must include a schedule of values and waiver of lien documents.
- b. This project will utilize AIA documents for all cost and payment related procedures including
 - i. G701-2017 Change Order
 - ii. G702-1992 Application and Certificate for Payment AND
 - iii. G703-1992 Continuation Sheet
- c. Project Close Out
 - i. When the project is nearing substantial completion the General Contractor shall notify the Architect and Owner in order to schedule a punch walk with all parties in attendance.
 - ii. Following the Punch-Walk the General Contractor shall review and complete the items on the punch list and subsequently shall submit a notice of Final Completion and Pay Application as per above along with the following:
 - 1. G704-2017 Certificate of Substantial Completion
 - 2. Copies of any
 - a. Change Orders
 - b. Warranties
 - c. Test Reports
 - d. Product Manuals
 - 3. Keys

H. Project Management & Coordination

- a. Upon execution of the contract, the GC shall schedule a weekly OAC meeting to be held through the duration of construction. Depending upon the requirements of the project, this meeting may be held on site or virtually.
- b. Immediately upon discovery of the need for additional information or interpretation of the Contract Documents, the GC shall prepare and submit a written RFI deliverable via email to both the Architect and Owner's Representative
- c. Document Submittals shall be deliverable via email to both the Architect and Owner's Representative
- d. Material Submittals Requiring approval shall be delivered to both the Architect and Owner's Representative.

I. Material Storage & Disposal

- a. All Materials and tools stored on site must be secured
- b. Material Storage locations to be coordinated with Owner
 - i. Exterior Storage: Site area is limited, however there may be an opportunity to place a secure container at the back of the building provided that it complies with local jurisdictional requirements and does not impede egress. It may also be possible for the GC to coordinate storage space on the adjacent property with the owner of that property.
 - ii. Interior Storage: GC to coordinate with Owner to establish locked areas suitable for storage.
- c. Waste Disposal
 - i. Dumpster Location to be Coordinated with owner
 - 1. The dumpster may be sited in front of the building
 - ii. The premises shall be kept broom clean during all phases of construction. Rubbish and debris shall be removed from the site immediately, and shall be disposed of in a legal manner. Final cleaning to be performed by all trades. It is the responsibility of the GC to coordinate the cleaning. Final cleaning includes but is not limited to the following: floors cleaned and waxed where applicable, glass and mirrors, all wall surfaces, plumbing fixtures (including exposed piping, remove all labels), mechanical equipment, lighting fixtures and devices.

J. Further Requirements

- a. All work shall be performed or supervised by a General Contractor (GC), or by a Subcontractor (SC) certified, insured and licensed to perform work in the trades involved in this project in and by the City of Chicago. The General Contractor and Subcontractors (SC's) shall furnish all material, equipment and labor required for full completion of the project.
- b. The Owner will obtain and pay for Building Permit; the GC will be responsible for all other permits and fees required by the City of Chicago or other regulatory agency. Submit a copy of all licenses, inspection reports and similar documents to the Owner. All work is to be done in accordance with the relevant local Building Code and all other applicable codes and ordinances. The GC shall be responsible for compliance with the above.
- c. The GC shall be solely in charge of, and responsible for, the control of the work, including the construction means, methods, techniques and procedures utilized in performing the work. The GC shall also be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work. The GC shall comply with all applicable safety laws, rules and regulations to maintain all required safeguards and shall designate a responsible member of their organization at the site whose duty shall be the prevention of accidents. The GC agrees that MDT shall have no responsibility for, or authority over, the activities described in this paragraph.
- d. Subcontractors expressly agree that they are the employer of those engaged in the work and as such remain responsible for compliance with the Occupational Safety and Health Act (OSHA) and local regulations. The GC and SC shall hold the Owner and MDT harmless against loss, damage, liability or expense arising in any manner from the wrongful or negligent acts of the GC, SC or their employees and agents.
- e. The GC shall maintain throughout the construction period at no cost to the Owner a Certificate of Insurance for Comprehensive Automobile Liability Insurance and Broad Form Excess coverage in amounts as agreed with the Owner.

- f. Installation of floors, walls, beams, columns and/or headers may require shoring and/or bracing. Before starting any work the GC shall investigate thoroughly to determine the extent and type of bracing best suited to conditions and to allow installation of the work. The GC shall, during the course of construction, maintain the structural integrity of the building and all of its components, including, but not limited to: floors, roof, exterior walls, foundation walls, headers, lintels and interior bearing elements.
- g. The GC shall coordinate the work of all the SC's and suppliers and their respective work as it relates to the others. The GC shall coordinate all dimensions, quantities and conditions before proceeding with any equipment or materials or proceeding with the work.
- h. The GC shall coordinate the exact location of light fixtures with the structural members and work of other trades so that structural members do not interfere with light fixture locations.
- i. All utilities are currently available for use. Inspect existing utilities and services to be abandoned or altered for proper shut-off. Do not proceed with the work until shut-off or sealing is complete. The GC shall be responsible for the coordination of all incoming utilities including, but not limited to: electrical, telephone, gas, water and sewer. All contractors shall be responsible for protection of active utilities. In the event of an outage, the Contractor shall supply power via a Generator.
- j. The GC and SC's shall completely hook-up, connect and install all equipment specified herein or supplied by the Owner.
- k. All exit doors shall be operable in the direction of exit without the use of a key or special knowledge.
- l. Safety glazing materials shall be used wherever required by code.
- m. All interior finishes shall be no less flame resistant than required by the relevant local Chicago Building Code as noted in the drawings

DIVISION 02 – EXISTING CONDITIONS – SEE SELECTIVE DEMOLITION ON A101

024119 Selective Demolition

- A. Areas of demolition shall be vacated prior to the start of work. Ensure safe passage of persons around the area of demolition. Conduct operations to prevent injury to adjacent buildings, structures, other facilities and persons. Promptly repair any damage at no cost to the Owner.
- B. Owner and Architect assume no responsibility for the actual condition of structures to be demolished. Details of existing construction where shown are furnished for convenience only. Contractor assumes responsibility for preparation to receive new work.
- C. Structural Members are not to be disturbed. The Contractor shall be responsible for any damage to the existing structure. Do not impose excessive loads onto existing construction.
- D. Execute cutting and demolition by methods which will prevent damage to the work. Do not make openings larger than necessary to accept new work. Terminate cutting and demolition at existing construction to remain, leaving clean and straight break lines.
- E. All materials and labor required for shoring shall be provided by this contractor. Prior to any demolition work the contractor shall ascertain the framing system, determine support walls, and plan a sequence of demolition that will assure portions of the building to remain intact and in place.
- F. Prior to any demolition work this contractor shall provide the necessary temporary support, shoring and bracing walls, floors, roofs and parts to remain. This shoring shall be installed in

such a manner as to adequately support and brace the building and its parts throughout the construction period until such time as the new work shall provide its support.

- G. Remove debris, rubbish and all other materials resulting from the demolition from the site. All demolished and wrecked materials not to be salvaged and remain the property of the Owner shall become the property of this contractor who shall remove it from the job site. Removal and disposal of material shall be in a place and in a manner prescribed by local, state and federal (including EPA) authorities having jurisdiction.
- H. Demolition work shall be carried out as indicated on the drawings. See notes and plan on AD01.

DIVISION 03 – CONCRETE - Not Used

DIVISION 04 – MASONRY

040120 Maintenance of Unit Masonry

- A. All masonry work shall be performed and supervised by Masonry Contractor, certified, insured, and licensed to perform masonry work in and by the City of Chicago
- B. Mortar used shall be type M or S in natural color or to match existing color.
- C. Use clean sand, well graded and free from any deleterious substances. Use only potable water.
- D. Do not lay masonry in temperatures lower than 40 degrees Fahrenheit.
- E. Set all masonry plumb, level, and true
- F. Inspect all existing lintels. Scrape and paint with rust-resistant paint.
- G. Exterior Masonry Maintenance work shall include the following:
 - a. Patching and Sealing of the limestone joints on the East Elevation.

DIVISION 05 – METALS

055200 Metal Railings

- A. Railings, guard Rails, and hand rails must be designed to withstand a concentrated load of 200lbs and a linear load of 50lbs/ft.
- B. Guardrails are to be a minimum height of 42", except where landings and stairs do not exceed 18" in rise, in which case guardrails are to be a minimum height of 36".
- C. Handrail grip surface top to be a constant height, which may be 34 to 38 inches above walking surfaces, stairs or ramps, with 36" as the preferred height.
- D. Handrails must be between 1-1/4" - 2" in diameter with a minimum of 1-1/2' clearance between the adjacent wall of rail surface.
- E. Where guards are indicated, gaps are not to exceed 4" between vertical or horizontal members or between the floor and bottom rail.
- F. Finishes : Brushed Stainless, to be approved by Owner

DIVISION 06 – WOOD, PLASTICS, AND COMPOSITES

061000 Rough Carpentry

- A. Sawn lumber shall be Spruce Pine Fir No. 2 or better, unless otherwise shown, graded in accordance with Standard Grading Rules of WFPA.
- B. Provide drywall return at all windows and storefronts.
- C. Use treated lumber at all exterior or moisture exposed locations.
- D. See wall types schedule on sheet A401 for construction of walls and partitions.

064023 Interior Architectural Woodwork

- A. Cabinets shown shall be flush overlay style, with a shaker profile
 - 1. Cabinets, shelves and drawers shall be maple
 - 2. Doors and drawer faces shall be maple
 - 3. Handles are to be brushed stainless steel knobs.
 - 4. Hinges to be concealed European type, satin stainless steel finish.
 - 5. Catches shall be roller type
 - 6. Drawer slides to be standard duty, full extension type
 - 7. Provide 2 drawer or cabinet locks for secure storage in Nurse's Room
Locations to be coordinated with Owner
- B. Counter tops to be solid surface granite or corian.
 - 1. Where applicable, backsplash and edge to be same as countertop
 - 3. Color / Pattern to be Approved by Owner
 - 4. Under counter brackets to be Iron Supports brand Universal Heavy Duty Commercial support bracket, 12" Deep x 8" high, Premium powder coated white finish, with carrying capacity of 500 lbs. per bracket and opening for passing IT cabling. Refer to drawings for spacing.
 - 5. Provide one 2" hole and grommet cover in color to match counter finish per workstation.
Confirm locations with Owner

060620 Decorative Plastic Laminate (not used)

DIVISION 07 – THERMAL AND MOISTURE PROTECTION

072100 Sound Attenuation Insulation

- A. Typical Wall:
 - 1. Unfaced, Glass-Fiber Blanket Insulation: ASTM C 665, Type 1 (blankets without membrane facing), consisting of fibers; with maximum flame-spread and smoke-developed indices of 25 and 50, respectively; passing ASTM E 136 for combustion characteristics.
 - 2. Install batt insulation in cavities formed by framing members and above finished ceilings to match existing as illustrated in A404

DIVISION 08 – OPENINGS

081113 Hollow Metal Doors and Frames

- A. Hollow metal frames to be 16-gauge welded, prepared for door hardware and access control as shown on door schedule.
- B. Hollow metal doors to be 18-gauge, thermal-rated (insulated) where shown on A401, and comply with ANSI/SDI A250.8.
- C. Exterior doors are to be prepared for (1) keyed lock and (1) keyed deadbolt lock. All exterior doors to be keyed to the same key.
- D. All exit doors shall be keyless to operate in the direction of egress without key or special knowledge of operation.

081416 Flush Wood Doors

- A. Interior Solid-Core Doors
 - 1. Grade: Custom (Grade A faces).
 - 2. Species/Surface: Paint Grade
 - 3. Cut: Plain sliced (flat sliced).
 - 4. Match between Veneer Leaves: Pleasing match.
 - 5. Assembly of Veneer Leaves on Door Faces: Running match.
 - 6. Pair and Set Match: Provide for doors hung in same opening.
 - 7. Core: Either glued wood stave or structural composite lumber.
 - 8. Construction: Five or seven plies. Stiles and rails are bonded to core, then entire unit abrasive planed before veneering.
 - 9. See Section 088000 Glazing for glass view panes in flush wood doors

085100 Metal Window (interior fixed)

- A. Install window in location per the drawings
- B. Interior Rated Corridor Window & Frame to bear 90-minute fire rating, see 088000 Glazing

085113 Aluminum Window (exterior fixed)

- A. Install window in location per the drawings
- B. Aluminum Windows to be Kawneer 8225TLF Series, fixed, thermal glazed window at size and location as indicated on the drawings. Aluminum Extrusions shall be Alloy and temper recommended by manufacturer.
- C. Thermal Barrier shall be Kawneer IsoLock with a nominal 3/8" separation consisting of a two-part, chemically curing high density polyurethane which is mechanically and adhesively bonded to the aluminum.
- D. Glazing method shall be a wet/dry type in accordance with manufacturer's standards. Exterior glazing shall be silicone back bedding sealant. Interior glazing shall be snap-in type beads with an interior gasket in accordance with AAMA 702 or ASTM C864.
- E. Fasteners, Anchors, Clips, Accessories, and Sealant as recommended by manufacturer.

087100 Door Hardware

- A. Contractor shall provide hardware for all doors as indicated in drawings.
 - a. Owner to provide lock cores.
 - b. Manufacturer: Assa Abloy.
 - c. All hardware shall be Arrow RL Series Lever Lock:
 - d. Finish shall be Satin Chromium Plated.
 - e. Electric strike to be Assa Abloy HES 5000C.

088000 Glazing

- A. All Door Lights to be minimum 1/4" tempered or laminated clear glass.
- B. First floor corridor rated window to bear 90-minute UL rating.
 - a. Premium-Grade Fire-Rated Ceramic Glass – Transparent and Wireless – with Surface-Applied Safety Film.
 - b. D-H-NT-90, UL9

088300 Mirrors

- A. Restroom Mirrors: One mirror per lavatory, ASI 0620 Stainless Steel channel frame, sized as shown on drawings.

DIVISION 09 – FINISHES

092216 Non-Structural Metal Framing

- A. Steel Studs: See A404 for steel stud sizes, gauges, & assemblies

092900 Gypsum Board

- A. Unless noted otherwise, drywall shall be 5/8" thick, Type "X" Fire Code drywall, ASTM C1396, Class 1, and shall be screwed, taped, and sanded as required, ready for paint. Where exposed to moisture, drywall shall be WR series "GreenBoard".

093000 Tiling

- A. Ceramic Wall Tile:
 - 1. Large Format Wall Tile, TBD
 - 2. Trim top edge of wall tile with aluminum profile
 - 3. Base Edge/Trim: TBD
 - 4. Apply using medium bed mortar indicated for large tile size.
 - 5. Grout with premium grade sanded Portland-cement tile grout in Color: TBD
 - 6. See A402 and A600 series interior elevations for locations.

095113 Acoustical Panel Ceilings

- A. Armstrong Acoustical Ceiling Tile (ACT)
 - 1. Style: Cirrus Tegular
 - 2. Classification: ASTM E 1264, Type III, Form 1, Pattern E1, Class A
 - 3. Color: White
 - 4. Thickness: 5/8 inch (15mm)
 - 5. Size: 24" x 48"
 - 6. Location: Where shown on A103 & A104

096513 Resilient Base and Accessories

- A. Vinyl Cove Base (VCB)
 - 1. Manufacturer: Johnsonite
 - 2. Color: TBD
 - 3. Size: 4"
 - 4. Location: Where shown on A402
- B. Vinyl Stair Trim, Risers & Stringers
 - a. Manufacturer: Johnsonite
 - b. Color: TBD (To match VCB above)
 - c. Safe-T Rib Texture
 - d. Integral Grit Tape Insert
 - e. East and West Stairs

096519 Resilient Tile Flooring ----- (FROM THRESHOLDS RESIDENTIAL SPECS)

- A. Luxury Vinyl Plank (LVP)
 - 1. Manufacturer: TrafficMaster
 - 2. Model: Allure Ultra with 12 mil wear layer
 - 3. Color: TBD by Owner
 - 4. Classification: ASTM F1700, Class III, Type B
 - 5. Location: Where indicated on A402

B. Provide moisture mitigation as required per manufacturer

096519 Resilient Tile Flooring ----- (MDT PROPOSED ALTERNATIVE)

A. Luxury Vinyl Plank (LVP)

1. Manufacturer: Altro, Ava, Patcraft or eq.
2. Model: Consider product lines with 22 to 28MIL wear layer.
3. Color: to match existing school floors in light maple
4. Classification:
5. Location: Where indicated on A402

B. Provide moisture mitigation as required per manufacturer

096723 Epoxy

A. Epoxy Floors

- a. Manufacturer: Torginol, Inc.
 1. Model: Flake
 2. Color: Jawbreaker (FB-4203)
 3. Base Trim: Epoxy radius cove base minimum 1/8" thickness to a height of 4"
 - a. Install cove tape and mortar base per manufacturer guidelines
 - b. Apply epoxy cove and flooring per manufacturer guidelines with primer, pigmented basecoat, flake and top coat.
 4. Locations: as noted on A402

099100 Painting

A. Interior paint shall be by Sherwin Williams or approved equal, low VOC in accordance with 40 CFR 509 subpart D (EPA method 24)

1. Primer (1 coat)
 - a. Block Walls: PrepRite Block Filler
 - b. Drywall: Promar 200 Zero VOC Acrylic Primer
 - c. Masonry: Loxon Concrete & Masonry Primer
 - d. Plaster: Premium Wall & Wood Primer
2. Finish Coat (2 coats)
 - a. Typical: ProMar® 200 Zero VOC High Performance Acrylic Interior paint or approved equal
 - i. Door, casing and trim: Semi-gloss, Extra White SW7006
 - ii. Walls:

1. Typical	Eggshell,	Navajo White SW6126
2. Accent 1	-	Beach House SW7518
3. Accent 2	-	Dockside Blue SW7601
4. Accent 3	-	White Raisin SW7685
5. Accent 4	-	Herbal Wash SW7739
 - iii. Ceilings Flat Finish Extra White SW7006
 - iv. HVAC Duct Flat Finish Network Gray SW7073

DIVISION 10 – SPECIALTIES

101400 Signage

- A. All signage shall be ADA compliant acrylic sheet signs with raised letters and braille, mounted as shown on the drawings, and supplied by ASI-Modulex or approved equal.

102100 Toilet Compartments & Screens

- A. Basis of Design for Solid Polymer Partitions is ASI Solid Plastic
 - a. Toilet Compartments:
 - i. Floor Anchored, Top Braced
 - ii. Locations, Width & Depth as indicated on drawings
 - iii. Door Width: 24" minimum, 36" minimum @ ADA compartments.
 - iv. Door Hardware:
 - 1. 8 inch (203 mm) aluminum wrap-around hinge. Hinges shall be 8 inches (203 mm) and fabricated from heavy-duty extruded aluminum (6463-T5 alloy) with a brushed anodized finish with wrap-around flanges, surface mounted and through bolted to doors and pilasters. Hinges operate and are field set with adjustable nylon cams. Cams can be set in 30 degree increments.
 - 2. Latch: Anodized extruded aluminum, with housing, slide bolt and button.
 - 3. Strike and Keeper: 6 inch (152 mm) wrap-around flanges fabricated from heavy-duty extruded aluminum (6463-T5 alloy) with a brushed anodized finish.
 - 4. Coat Hook and Bumper: Non-ferrous, chrome-plated, with black rubber tip for doorstop.
 - 5. Fastening Hardware: Manufacturer's standard, Type 304 stainless steel, No. 4 satin finish, theft-resistant barrel nuts and machine screws.
 - 6. Door Pulls: Non-ferrous, chrome-plated. Standard on ADA compartments. Two per ADA door.
 - b. Privacy & Urinal Screens
 - i. Wall Hung
 - ii. Locations & Mounting Heights as indicated on drawings
 - iii. 24" wide by 48" high
 - c. Color: Black (9205) or Blue (9509) TBD by client
 - d. Finish: Standard Pebbled
 - e. Provide Mounting Brackets & Shoes and install per Manufacturer recommendations

102600 Wall and Door Protection

- A. Surface-Mounted Stainless Steel Corner Guards: Fabricated from stainless steel, type 304, #4 satin finish, fabricated with 90-degree turn to match wall conditions; 2" x 2" x 48". Corner guards to be mounted on all exposed drywall corners in Back of House areas.

102800 Toilet Accessories

- A. Basis of design for Accessories is American Specialties, Inc. in Brushed Stainless Steel:
 - a. Toilet Tissue (Roll) Dispenser: ASI 0042 surface mounted jumbo roll dispenser.
 - b. Grab Bars: ASI 3500-P, 1 ½" with slip resistant texture in grip area.
 - i. Install with anchors and backing per manufacturer to support minimum 250LBS.
 - c. Under lavatory Guards: Truebro LavGuard piping covers.
 - d. Optional Accessories if required to be approved by Owner:
 - a. Sanitary Napkin Disposal: ASI 20470 Surface Mounted

- b. Hand Dryers: Excel Dryer
- c. Diaper Changing Station: ASI 9013

104413 Fire Extinguisher Cabinets

- A. Fire Extinguisher cabinets to be
 - 1. Larsen's semi-recessed, full glazed, red model 2409-6 in white, OR
 - 2. JL Industries C1017-F10 OR
 - 3. approved equal

104416 Fire Extinguishers

- A. Fire Extinguisher to be Ansul model MP-10, UL rating A-80B:C or approved equal.

DIVISION 11 – EQUIPMENT – BY OTHERS

DIVISION 12 – FURNISHINGS – BY OTHERS

Loren Juhl Building Renovations

Thresholds Youth Services

4219 N Lincoln Ave., Chicago, IL

Certification Statements

Architectural

I hereby certify that these drawings were prepared under my supervision and that to the best of my knowledge they conform to the Codes and Ordinances of the City of Chicago, Illinois

James Patrick Thompson
Manske Dieckmann Thompson
Architect

Mechanical / Plumbing / Electrical

I hereby certify that these drawings were prepared under my supervision and that to the best of my knowledge they conform to the Codes and Ordinances of the City of Chicago, Illinois

Mario Berrones
Calor Design Group Ltd.
MEP Engineer

Energy Code Compliance

I hereby certify I am a Registered Energy Professional. I also certify that to the best of my knowledge and belief the attached drawings fully comply with the requirements of Chapter 18-13, Energy Conservation, of the Municipal Code of the City of Chicago, Illinois

James Patrick Thompson
Manske Dieckmann Thompson
Architect

Codes and Ordinances

2019 Chicago Building code with 2022 Supplements
2019 Chicago Energy Conservation Code
2019 Chicago Building Rehabilitation Code
2019 Chicago Minimum Requirements for Existing Buildings
2018 Chicago Electrical code
Interim Chicago Fire Prevention Code
Interim Chicago Mechanical Code
Interim Chicago Plumbing Code
2018 International Building Code with local amendments
2018 International Energy Conservation Code
2018 International Mechanical Code
2018 Illinois State Accessibility Code
2017 National Electric Code with local amendments
2014 Illinois State Plumbing Code
NFPA 101

Property Information

Site Address: 4219 N Lincoln Ave. Chicago IL 60618

Zoning: B1-1.5

Legal Description: II-A (non sprinklered, fire separated)

Project Type: Interior remodeling of existing building with two fire separated occupancies. Primary goal is upgrade of mechanical systems which currently do not include air conditioning and replacement of fluorescent lighting with LED fixtures. Renovation also to include remodeling of restrooms for ADA compliance and some non-structural office partition modifications.

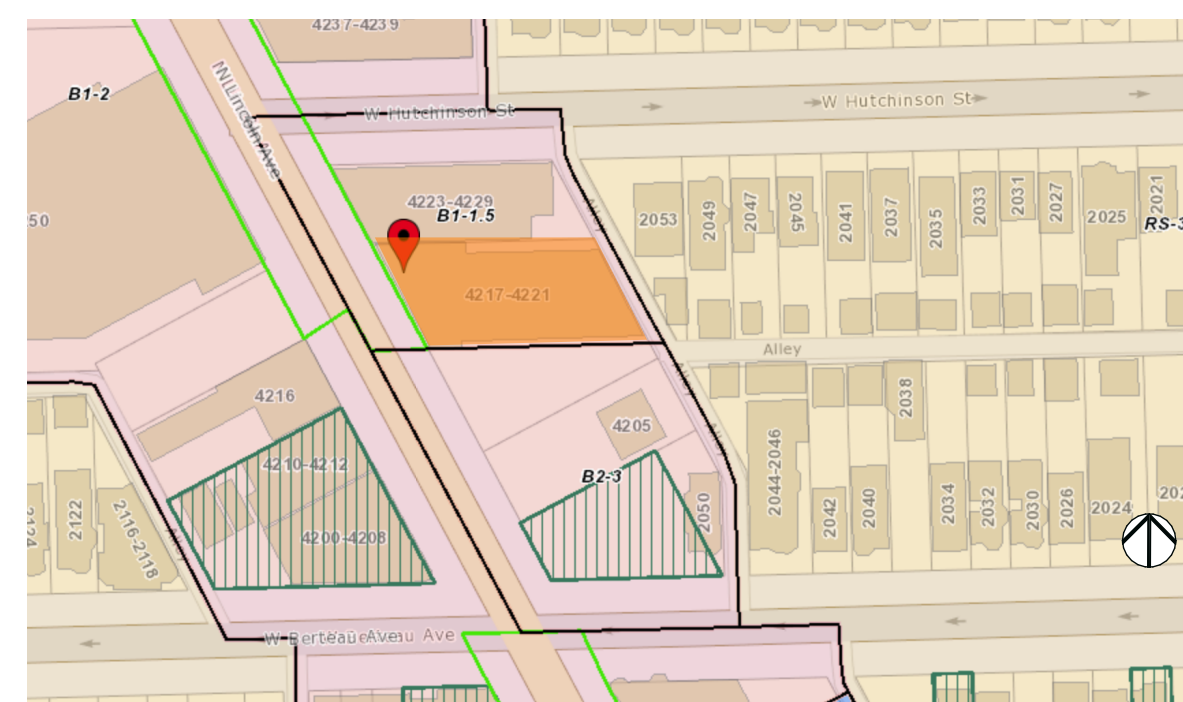
Area

Lot Area: 10,485 SF
Above Grade Square Footage: 17,100 SF

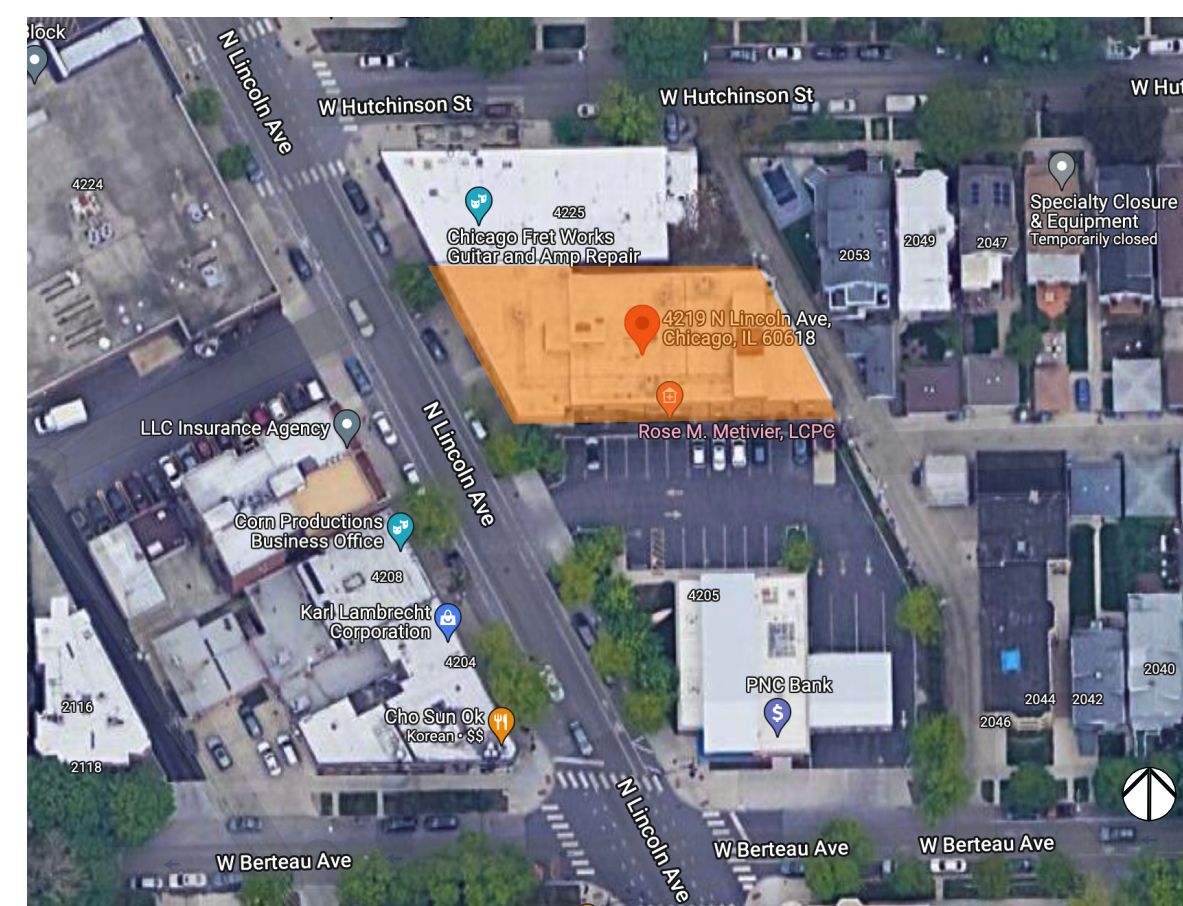
Occupancy I: Office
First Floor 2750 SF
Second Floor 2750 SF
Third Floor 3350 SF
Total Square Footage: 8850 SF

Occupancy II: School
Basement Level West (fire separated) 2750 SF
Basement Level East (fire separated) 5550 SF
First Floor 2700 SF
Second Floor 5550 SF
Total Square Footage Above Ground: 8250 SF
Total Square Footage including Basement: 16,550 SF

Building Total Square Footage*: 25,400 SF
*includes basement and total of all fire areas / occupancies



Zoning Map
not to scale



Location Map
not to scale

General Notes

- The work of this project shall be governed by the provisions of the Standard Form of Agreement Between Owner and Contractor, AIA A101, current edition), AIA General Conditions (AIA A201 current edition as amended) and the Project manual for the Loren Juhl Building Renovation unless otherwise noted. Where a conflict exists between these drawings and the Project Manual the Project Manual shall be the rule.
- The drawings indicate the general scope of the project in terms of design concept, dimensions, major elements and materials. These drawings do not necessarily indicate or describe all work required for the full completion of the project.
- All work shall be performed or supervised by a General Contractor (GC), or by a Subcontractor (SC) certified, insured and licensed to perform work in the trades involved in this project in and by the City of Chicago. The General Contractor and Subcontractors (SC's) shall furnish all material, equipment and labor required for full completion of the project.
- Do not scale drawings - written dimensions are to be used wherever possible. The GC shall be responsible for the field verification of all dimensions and conditions before the execution of any work and shall report any discrepancies to MDT for inspection before proceeding. Interior measured layouts shall be checked with dimensions on the drawings. Any discrepancies shall be brought to the attention of MDT and resolved prior to proceeding with the work.
- The GC shall coordinate the work of all the SC's and suppliers and their respective work as it relates to the others. The GC shall coordinate all dimensions, quantities and conditions before proceeding with any equipment or materials or proceeding with the work.
- The GC shall coordinate the exact location of light fixtures with the structural members and work of other trades so that structural members do not interfere with light fixture locations.
- The GC and SC's shall completely hook-up, connect and install all equipment specified herein or supplied by the Owner.
- The GC shall coordinate utilities: water, gas, and electrical startup
- The premises shall be kept broom clean during all phases of construction. Rubbish and debris shall be removed from the site immediately but at least once per week, and shall be disposed of in a legal manner. Final cleaning to be performed by all trades. It is the responsibility of the GC to coordinate the cleaning. Final cleaning includes but is not limited to the following: exterior site areas, floors cleaned and waxed where applicable, glass and mirrors, all wall surfaces, plumbing fixtures (including exposed piping, remove all labels), mechanical equipment, lighting fixtures and devices.
- All exit doors shall be operable in the direction of exit without the use of a key or special knowledge or effort. CBC 1010.1.9.
- All interior & exterior finishes shall be no less flame resistant than required by the 2019 CBC

a) Roof Coverings:	Class B	section 1505.1
b) Exit Paths:	Class A	table 803.13
c) Corridors:	Class B	table 803.13
d) Rooms:	Class C	table 803.13
e) Floors- Exit Paths	Class I	section 804.4.2
f) Floors- All Others:	Class II	section 804.4.2
- Safety glazing materials shall be used wherever required by code. CBC 2406
- Handrails and guards shall be used wherever required by code and shall comply with dimensional and structural requirements.
- The guard and handrail shall be designed to resist a simultaneous vertical and horizontal thrust of 50 lb/ft (pounds-force per linear foot) applied at the top of the railing or a concentrated load of 200 lbs/ft in any direction, whichever produces the greatest stress.
- No hazardous materials are to be stored or used on site. This includes flammable or corrosive liquids.

AG01	Cover Sheet and General Notes
AG02	Code Matrix and Site Plan
AG03	Occupancy Tables
AA01	Accessibility Diagrams
AD01	Demolition Plans I
AD02	Demolition Plans II
AD03	Demolition Reflected Ceiling Plans I
AD04	Demolition Reflected Ceiling Plans II
AK01	Egress Plans I
AK02	Egress Plans II
A101	Floor Plans I
A102	Floor Plans II
A103	Roof Plan
A104	Reflected Ceiling Plans I
A105	Reflected Ceiling Plans II
A201	Building Elevations I
A202	Building Elevations II
A401	Schedules: Doors
A402	Schedules: Finishes
A403	Schedules: Windows
A404	Assemblies
A601	Interior Elevations: Lower Level
A602	Interior Elevations: 1st Floor
A603	Interior Elevations: 2nd Floor
A604	Interior Elevations: 2nd Floor II
A605	Interior Elevations: 3rd Floor
A701	Details

PD1.1	Plumbing Demo Floor Plan: LL & 1
PD1.2	Plumbing Demo Floor Plan: 2 & 3
P1.1	Plumbing Floor Plan: LL
P1.2	Plumbing Floor Plan: 1 & 2
P1.3	Plumbing Floor Plan: 3 & Roof
P2.1	Plumbing Schedules
P3.1	Plumbing Details
P3.2	Plumbing Details

MD1.1	Mechanical Demo: LL & 1
MD1.2	Mechanical Demo: 2 & 3
MD1.3	Mechanical Demo: Roof
M1.1	Mechanical Floor Plan: LL & 1
M1.2	Mechanical Floor Plan: 2 & 3
M1.3	Mechanical Floor Plan: Roof
M2.1	Mechanical Schedules
M2.2	Mechanical Schedules
M2.3	Mechanical Schedules
M2.4	Mechanical Schedules
M3.1	Mechanical Details
M3.2	Mechanical Details

ED1.1	Power and Lighting Demolition Plans: LL & 1
ED1.2	Power and Lighting Demolition Plans: 2 & 3
ED1.3	Power and Lighting Demolition Plans: Roof
E1.1	Lighting Plan: LL & 1
E1.2	Lighting Plan: 2 & 3
E2.1	Power Plan: LL & 1
E2.2	Power Plan: 2 & 3
E2.3	Power Plan: Roof
E3.1	Electrical Symbols & Notes
E3.2	Electrical Details
E3.3	Electrical Risers
E3.4	Electrical Details & Notes
E3.5	Electrical Connection Schedule
E4.1	Electrical Panel Schedules
E4.2	Electrical Panel Schedules
E4.3	Electrical Panel Schedules

MDT

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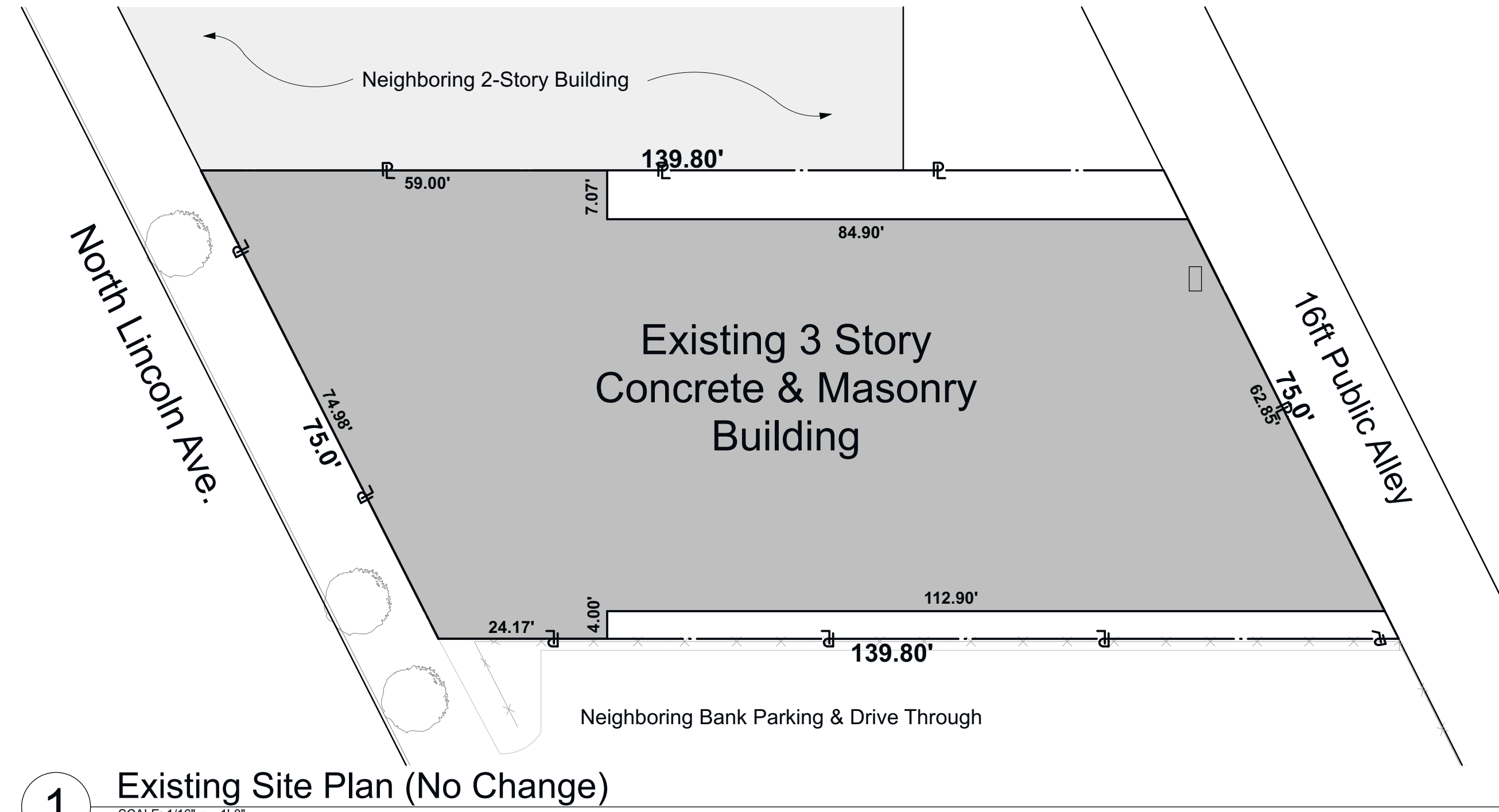
07/11/22	Schematic Plans	01
08/03/22	Design Review	02
03/07/23	60% CDs/VE Review Set	03
05/24/24	Issue for Final Review	04
06/11/24	Issue for Bid	05

Cover Sheet and General Notes

Loren Juhl School
Remodeling
4219 N Lincoln Ave., Chicago, IL

AG01

CITY OF CHICAGO DEPARTMENT OF CONSTRUCTION AND PERMITS				
GENERAL BUILDING REQUIREMENTS Per NEW Chicago Zoning Ordinance (NCZO) and Chicago Building Code with 2022 supplement (CBC)				
ITEM	ISSUE	CHAPTER/ARTICLE	Ordinance Requirement	Actual
ZONING REQUIREMENTS				
1.01	Zoning District	CZO Title 17	B1-1.5	-
1.02	Allowed Uses	17-2-0200	M. School & KK. Office	M. School & KK. Office
1.03	Commercial Establishment Size Limit	17-3-0302	25000 SF for commercial use in commercial districts	23000 SF
1.04	Floor to Floor Heights	17-3-0305	13' @ 1st Floor	existing non-conformity
1.05	Ground Floor Area	17-3-0305-b	Min. 20% of lot area where frontage is 50' or more	existing complies
1.06	Lot Area per unit	17-3-0402-A	n/a	n/a
1.07	Maximum Floor Area Ratio	17-3-0403-A	1.50	existing non-conformity
1.08	Total Building Area	17-3-0302-A	same as above	existing non-conformity
1.09	Building Height	17-3-0408-A	38'	37'
1.10	Minimum Yards	17-3-0404	0 FT	existing complies
1.11		17-3-0406	0 FT	existing complies
1.12		17-3-0405-B	0 FT	existing complies
		ref. 17-2-0309-A (1)	Abuts RS-3 side yard with intermediate alley: 0 FT	existing complies
1.13	Off Street Loading	17-10-1101	1 10'x25' space for buildings 25,000 – 199,999 SF	existing non-conformity
1.14	Off Street Parking	17-10-0207-T	1 space per 3 employees	existing non-conformity
1.15	Bicycle Parking	17-10-0208	1 per 10 auto spaces, min 4	existing non-conformity
1.16	Landscaping	17-11-0100		
1.17	Parkway Planting	17-11-0103-B	1 per 25' frontage - totalling 3	existing no change
1.18	Perimeter Screening	17-11-0202-A/B	no on site parking	n/a
1.19	Screening from Streets	17-11-0202-B/C	n/a	n/a
1.20	Parking Lot Interior Planting	17-11-0203	n/a	n/a
1.21	Sight Triangles	17-11-0205	n/a	n/a
1.22	Trash Area Screening	17-11-0300	Trash receptical is screened on all 4 sides with	existing non-conformity
BUILDING REQUIREMENTS				
2.01	Occupancy Classification (s)	304.10	B/E-1	B/E-1
2.02	Types of Construction	Chapt. 6	II-A (NS)	II-A (NS)
2.03	Height and Area Limitations	Chapt. 5		
	Height	504.30	65 FT	37'
	Area	506.2.2	B: 20,000 SF , E-1: 16,000 SF	Existing Complies
		508.10	Max 3 Floors Above Grade	3 Floors Above Grade
2.04	Req. Fire Resistance (occupancy)			
2.05	Req. Hrs of Fire Resistance			
	Primary Structural Frame	Ch. 6 Table 601	1HR	existing complies
	Exterior Bearing Walls	Ch. 6 Table 601	1HR	existing complies
	Exterior Non-Bearing Walls	Ch. 6 Table 602	2HR <3ft, 1HR >3 and < 5ft	existing complies
	Interior Bearing Walls	Ch. 6 Table 601	1HR	existing complies
	Interior Nonbearing Walls	Ch. 6 Table 601	0HR	complies
	Columns Exterior	Ch. 6 Table 602	SEE TABLE 602	n/a
	Columns Supporting Roofs Only	Ch. 6 Table 601	1HR	existing complies
	Beams Supporting Roofs Only	Ch. 6 Table 601	1HR	existing complies
	Floor Construction	Ch. 6 Table 601	1HR	existing complies
	Roof Construction	Ch. 6 Table 601	1HR	existing complies
2.06	Elevator Framing	713.40	2HR	existing complies
2.07	Mezzanine Floors	715.10	1HR	existing complies
2.08	Basement Construction	605.40	1HR	existing complies
2.09	Driveways & Loading Spaces			
2.10	Fire - Resistive Requirements	Chapt. 7		
	a) Fire Walls - Construction	706.4	2HR <3ft, 1HR >3 and < 5ft	existing complies
	b) Parapets	705.11	30" with fire rating in accordance with supporting wall	existing complies
	c) Stairway Enclosures	713.40	2HR	complies
	d) Elevator & Escalator Enclosures	713.40	2HR	existing complies
	e) Heating Plants & Boiler Rooms	Table 509	2HR	n/a
	f) Wells & Chutes	713.40	n/a	n/a
	g) Other Enclosures / Separations		n/a	n/a
	h) Interior Wall and Ctg. Finishes	803.13	exit paths corridors rooms	A complies B complies C complies
	i) storage rooms	Table 509	2HR if over 100 SF	complies
2.11	Classification of Doors & Shutters	Table 716.1.3	doors 2HR wall requires 1.5HR Door 100 sq in max vision panel, 2 hr/W-120 sidelight	complies
EXITING REQUIREMENTS				
3.01	Types of Exits	Chapt. 10		
3.02	Minimum Number of Exits	Table 1006.3.2	2	complies
3.03	Travel Distance to Exits	1017.20	75' for one exit only areas, 2+ Exits, 200 (NS)	complies
3.04	Capacity of Exits	1005.3.1	stair .3"/occupant	complies
		1005.3.2	door .27"/occupant	complies
3.05	Minimum Width of Exits	1010.1.1	32" minimum clear opening	complies
3.06	Swing of Exit Doors	1010.1.2.1	swing in direction of egress where occupancy >50	complies
3.07	Hardware	1010.1.9.2	mount between 34 and 48" a.f.f.	complies
3.08	Revolving Doors	1010.00	n/a	n/a
3.09	Landings	1011.60	min. depth 48 and width equal or greater than stair	existing complies
3.10	Handrails	1014.20	mounted 34-38" from finished surface of ramp or stair	complies
		1014.30	1.25 to 2" round diameter for graspability	complies
3.11	Construction	Chapt. 10		
3.12	Stairway Enclosures	1023.20	Min. 2HR rating where connecting >4 floors	complies
3.13	Head Room	1003.20	1011.30 7'-0" minimum	existing complies
ACCESSIBILITY REQUIREMENTS				
Illinois Accessibility Code (IAC)				
Public Facilities				
		Section		
		400.31 A	Accessible Route	
		400.31 B	Means of Egress	
		400.31 F	Stairs	
		400.31 G	Elevators	
		400.31 J	Doors	
		400.31 K	Entrances	
		400.31 N	Toilet Rooms	
		400.31 R	Controls and operating mechanisms	
		400.31 S	Alarms	
		400.31 T	Detectable Warnings	
		400.31 U	Signage	
		400.31 W	Built-in Work Surfaces	



1 Existing Site Plan (No Change)
SCALE: 1/16" = 1'-0"



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07/11/22	Schematic Plans	01
08/03/22	Design Review	02
03/07/23	60% CDs/VE Review Set	03
05/24/24	Issue for Final Review	04
06/11/24	Issue for Bid	05

Code Matrix and Site Plan

Loren Juhl School
Remodeling
4219 N Lincoln Ave., Chicago, IL

AG02

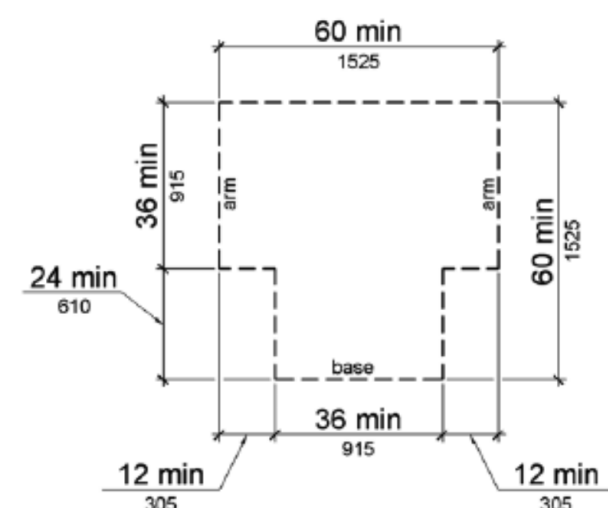


Figure 304.3.2 T-Shaped Turning Space

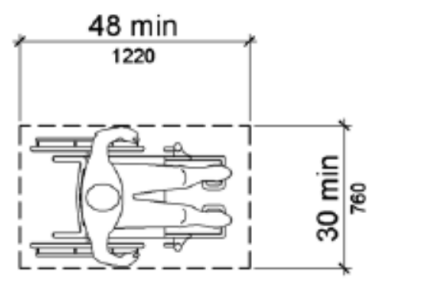


Figure 305.3 Clear Floor or Ground Space

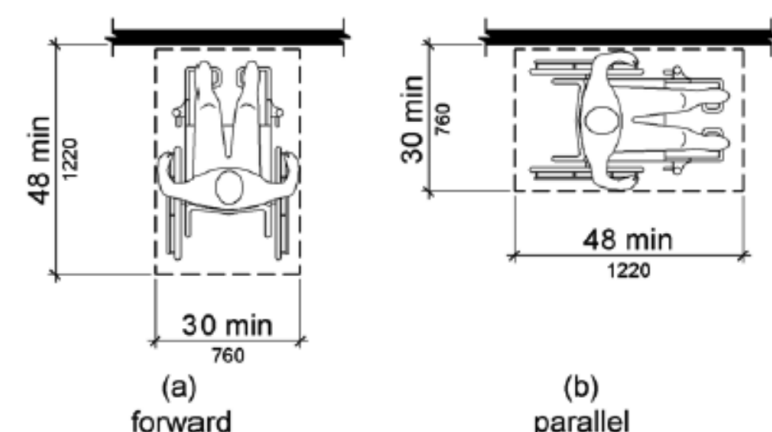


Figure 305.5 Position of Clear Floor or Ground Space

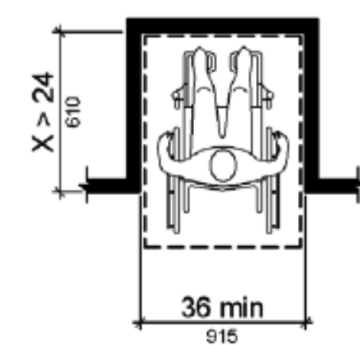


Figure 305.7.1 Maneuvering Clearance in an Alcove, Forward Approach

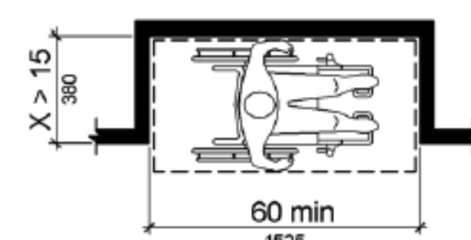


Figure 305.7.2 Maneuvering Clearance in an Alcove, Parallel Approach

Turning Space and Ground Space

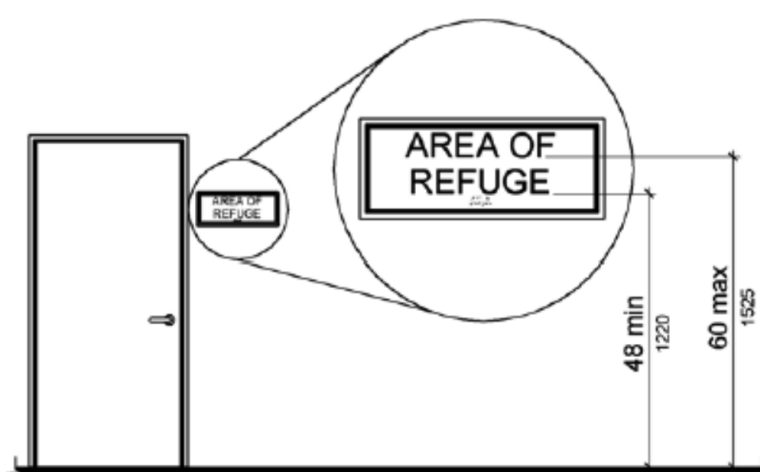


Figure 703.4.1 Height of Tactile Characters above Finish Floor or Ground

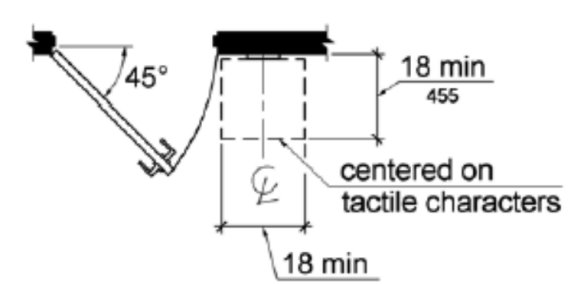


Figure 703.4.2 Location of Tactile Signs at Doors

Signage

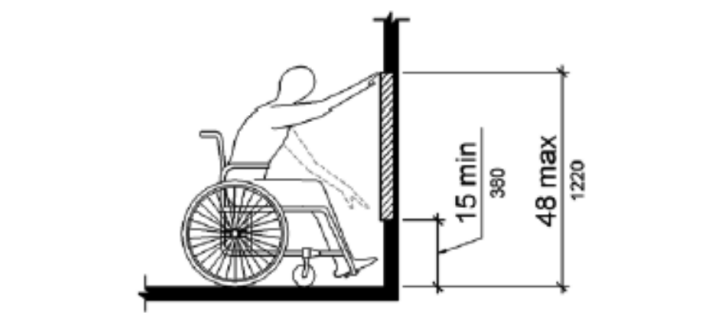


Figure 308.2.1 Unobstructed Forward Reach

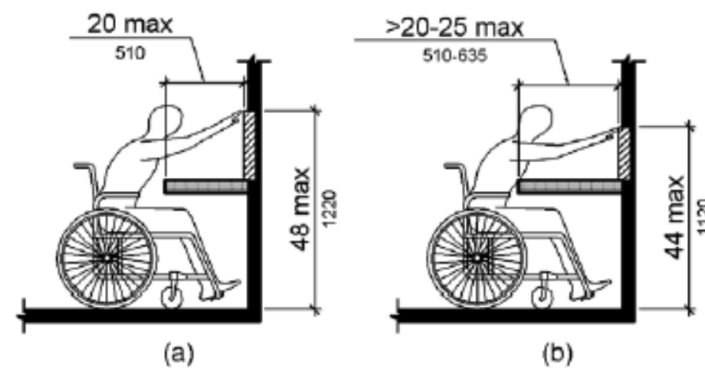


Figure 308.2.2 Obstructed High Forward Reach

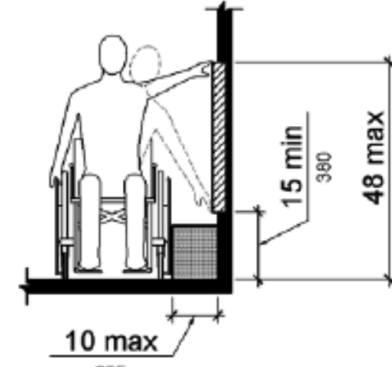


Figure 308.3.1 Unobstructed Side Reach

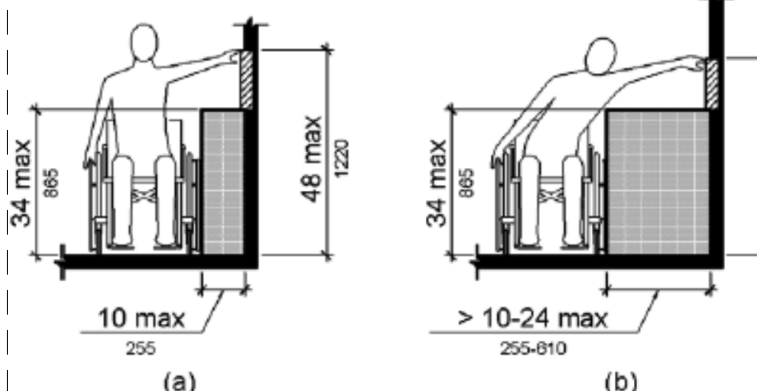


Figure 308.3.2 Obstructed High Side Reach

Forward Reach

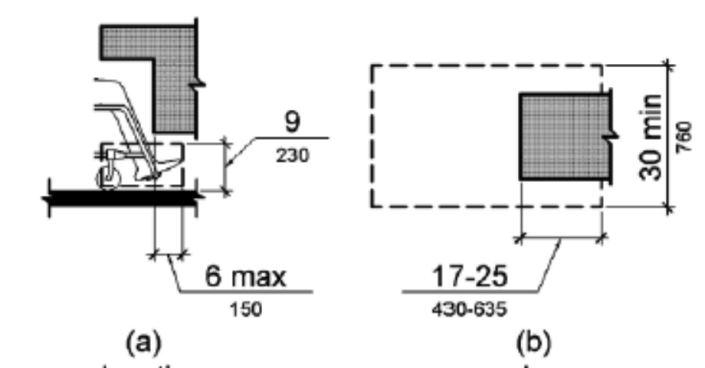


Figure 306.2 Toe Clearance

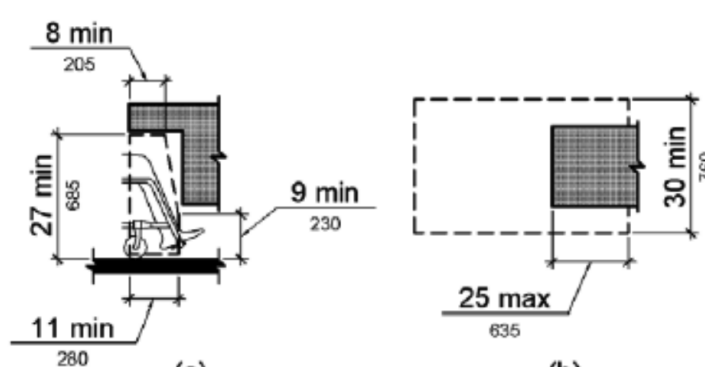


Figure 306.3 Knee Clearance

Knee and Toe Clearance

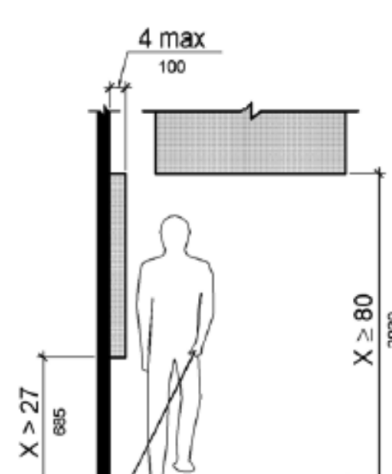


Figure 307.2 Limits of Protruding Objects

Protruding Objects

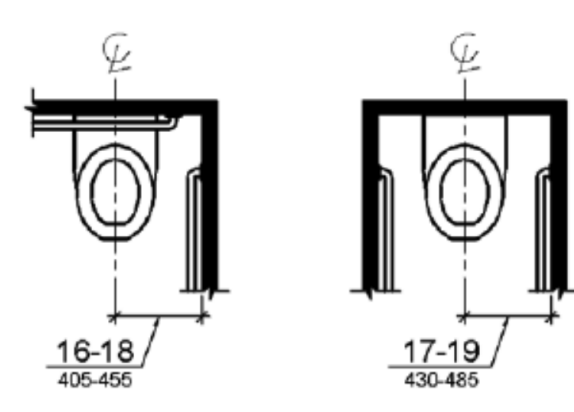


Figure 604.2 Water Closet Location

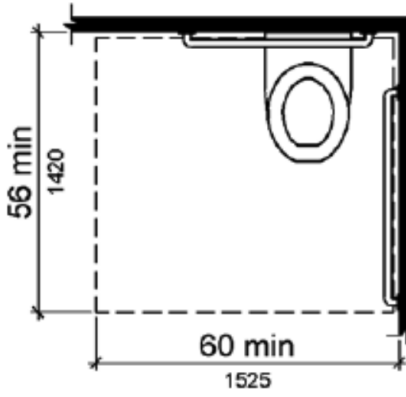


Figure 604.3.1 Size of Clearance at Water Closets

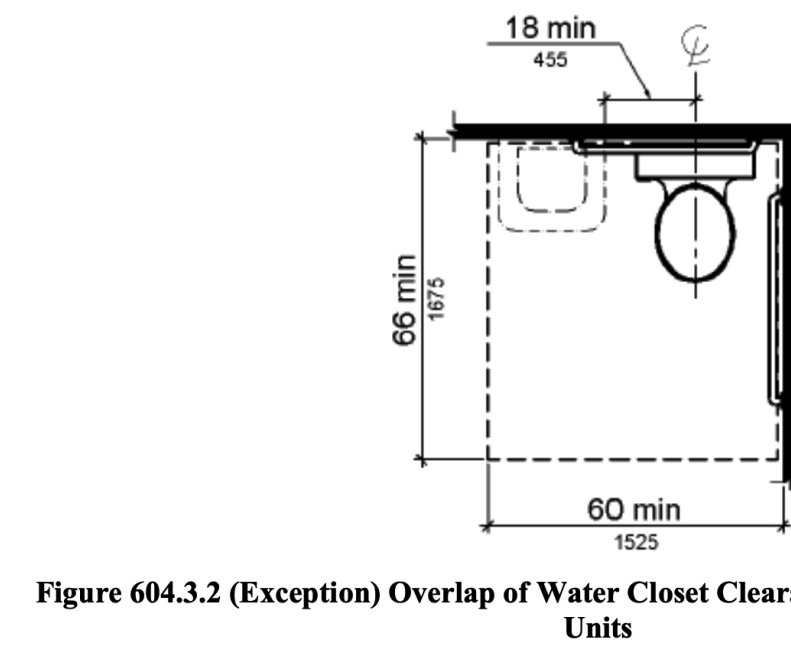


Figure 604.3.2 (Exception) Overlap of Water Closet Clearance in Residential Dwelling Units

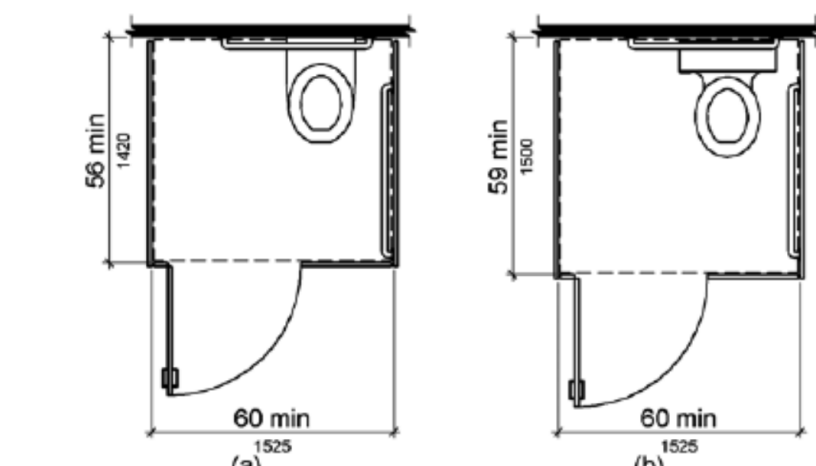


Figure 604.8.1.1 Size of Wheelchair Accessible Toilet Compartment

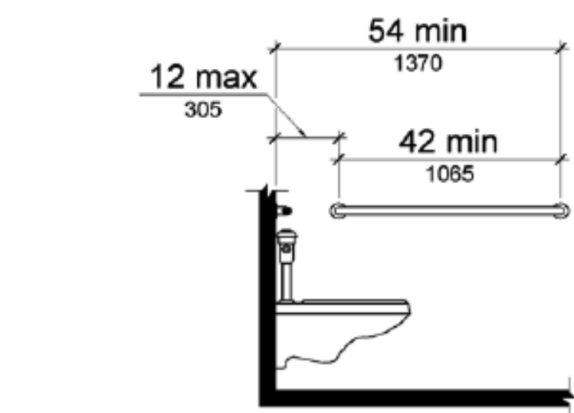


Figure 604.5.1 Side Wall Grab Bar at Water Closets

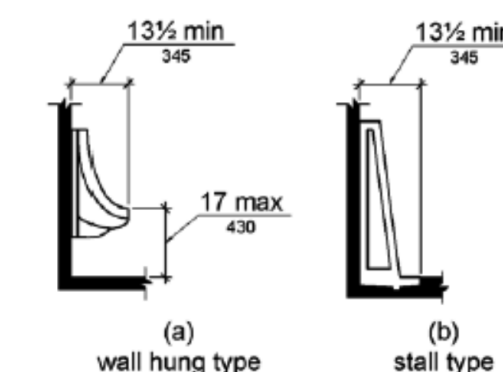


Figure 605.2 Height and Depth of Urinals

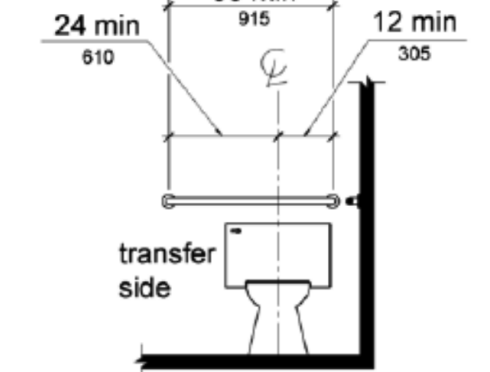


Figure 604.5.2 Rear Wall Grab Bar at Water Closets

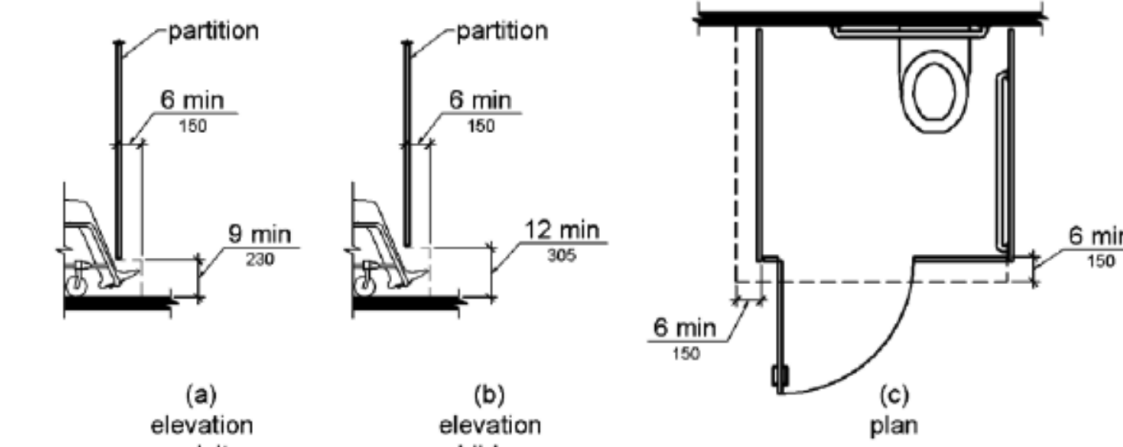


Figure 604.8.1.4 Wheelchair Accessible Toilet Compartment Toe Clearance

Water Closets and Toilet Compartments

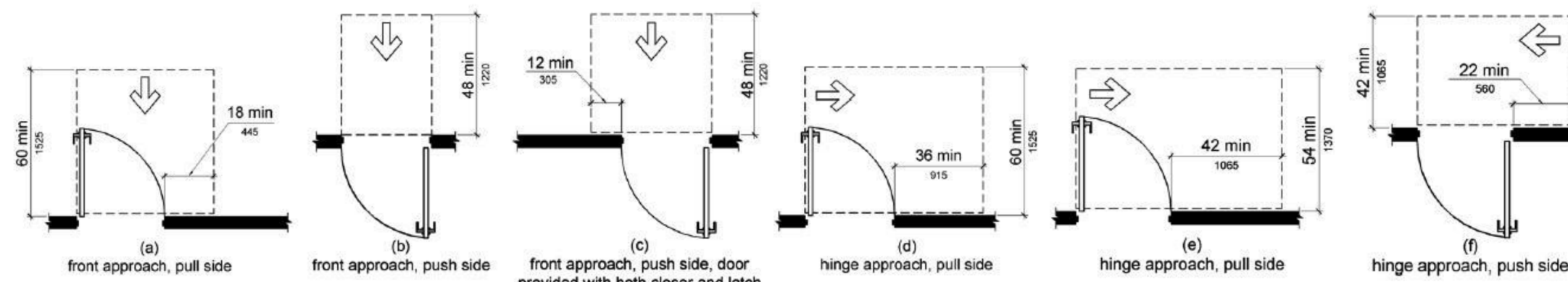


Figure 404.2.4.1 Maneuvering Clearances at Manual Swinging Doors and Gates

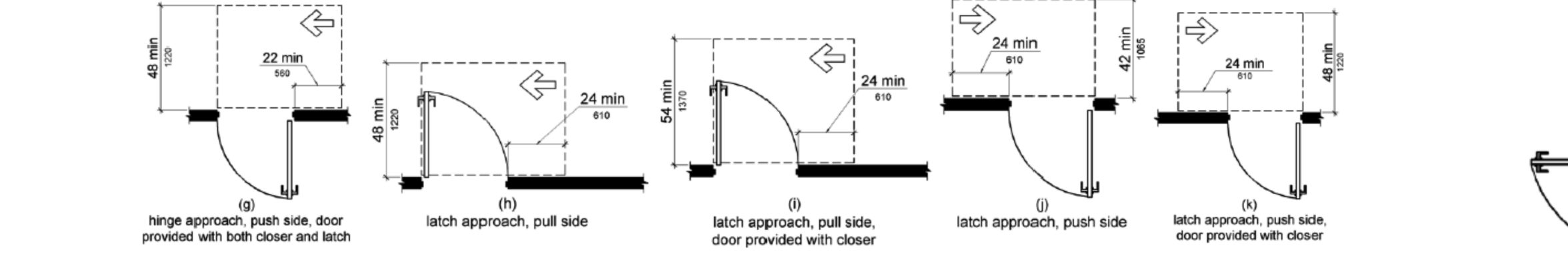


Figure 404.2.4.2 Maneuvering Clearances at Doorways without Doors, Sliding Doors, Gates, and Folding Doors

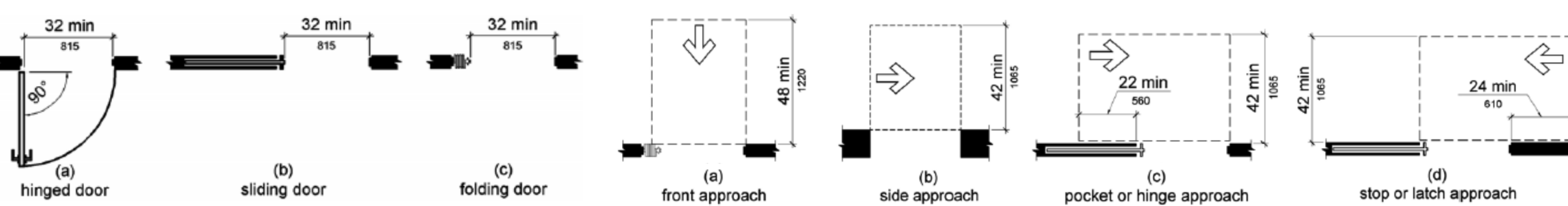


Figure 404.2.3 Clear Width of Doorways

Maneuvering Clearances at Doors

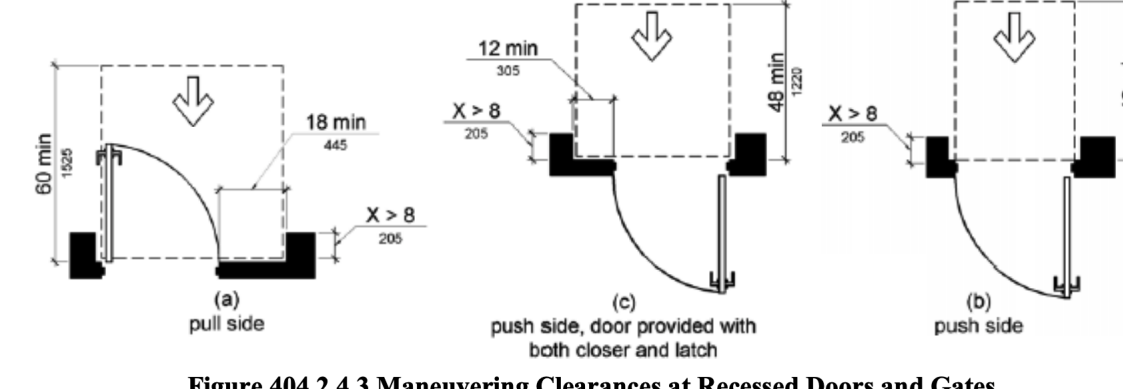


Figure 404.2.4.3 Maneuvering Clearances at Recessed Doors and Gates

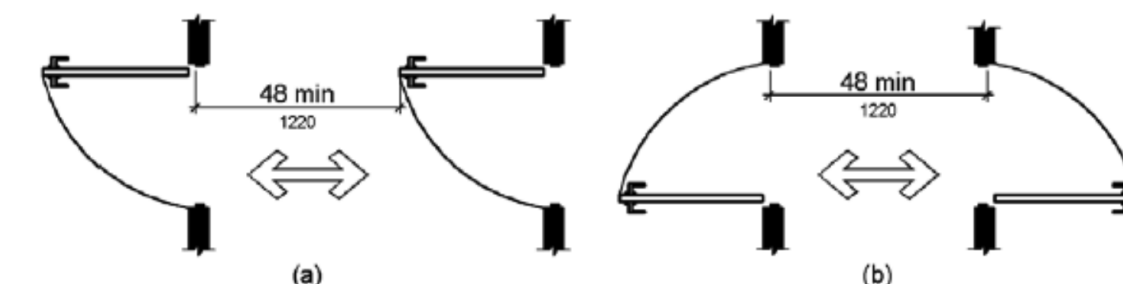
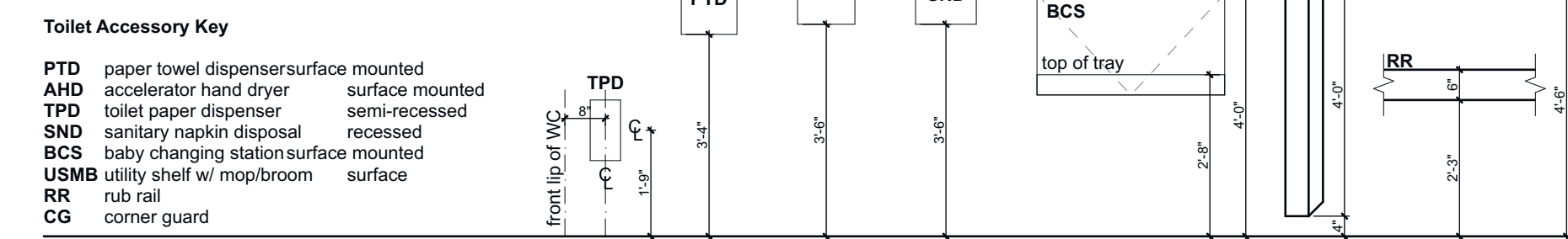
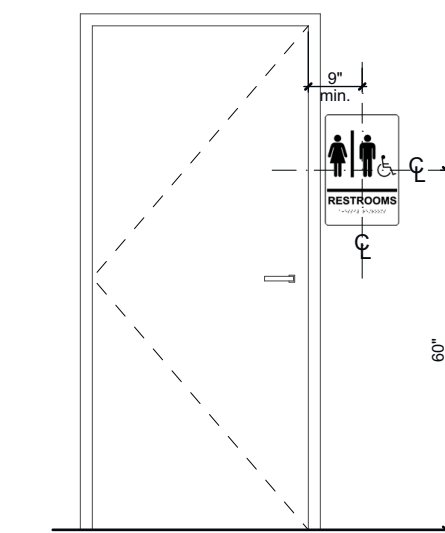


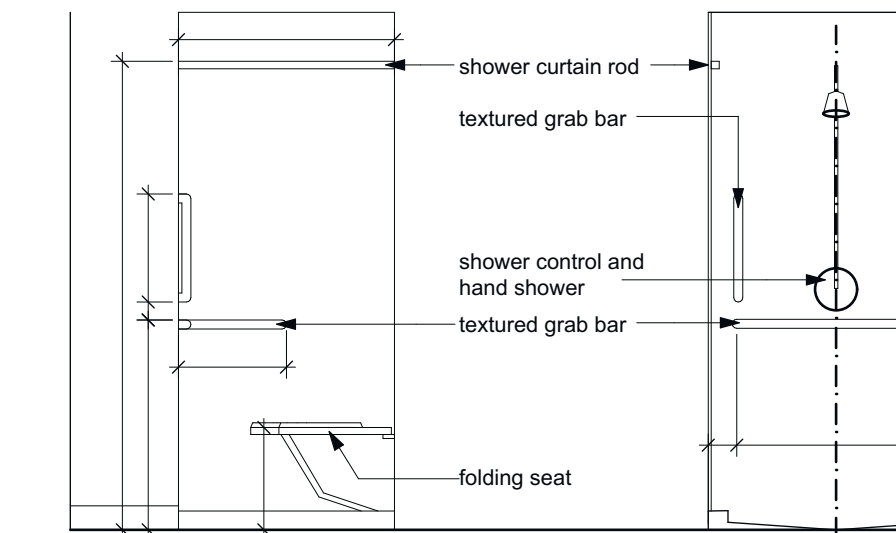
Figure 404.2.6 Doors in Series and Gates in Series



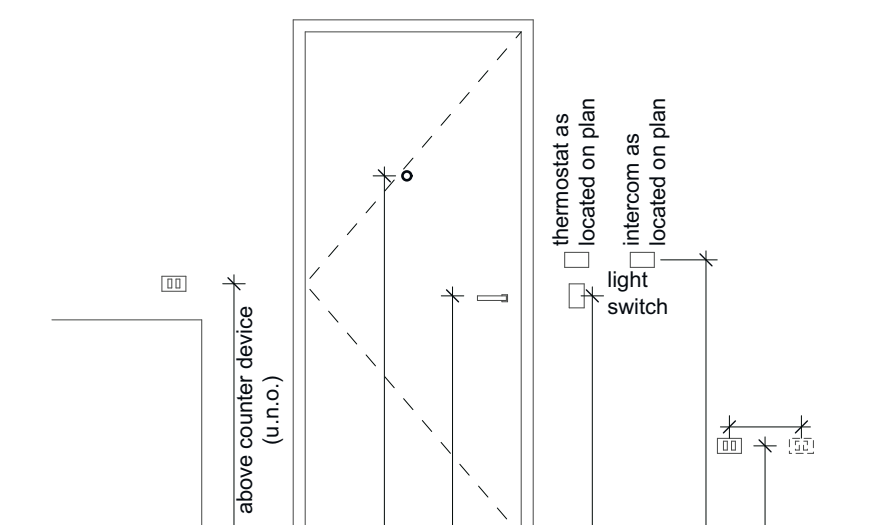
Toilet Accessory Mounting Heights



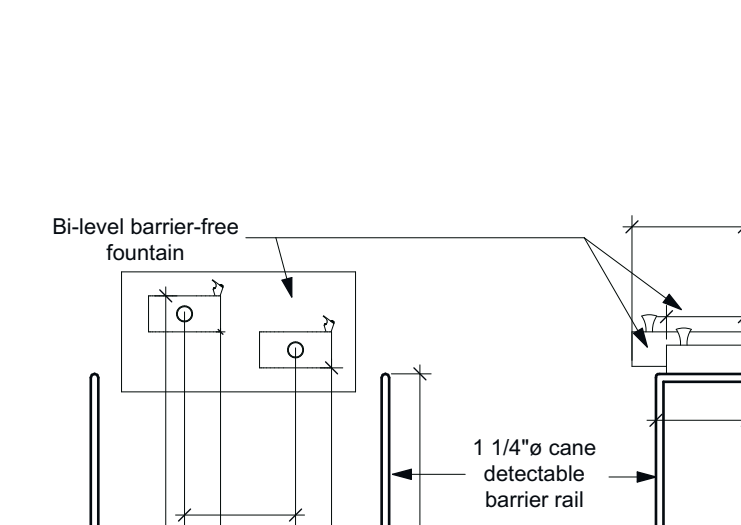
Signage Mounting



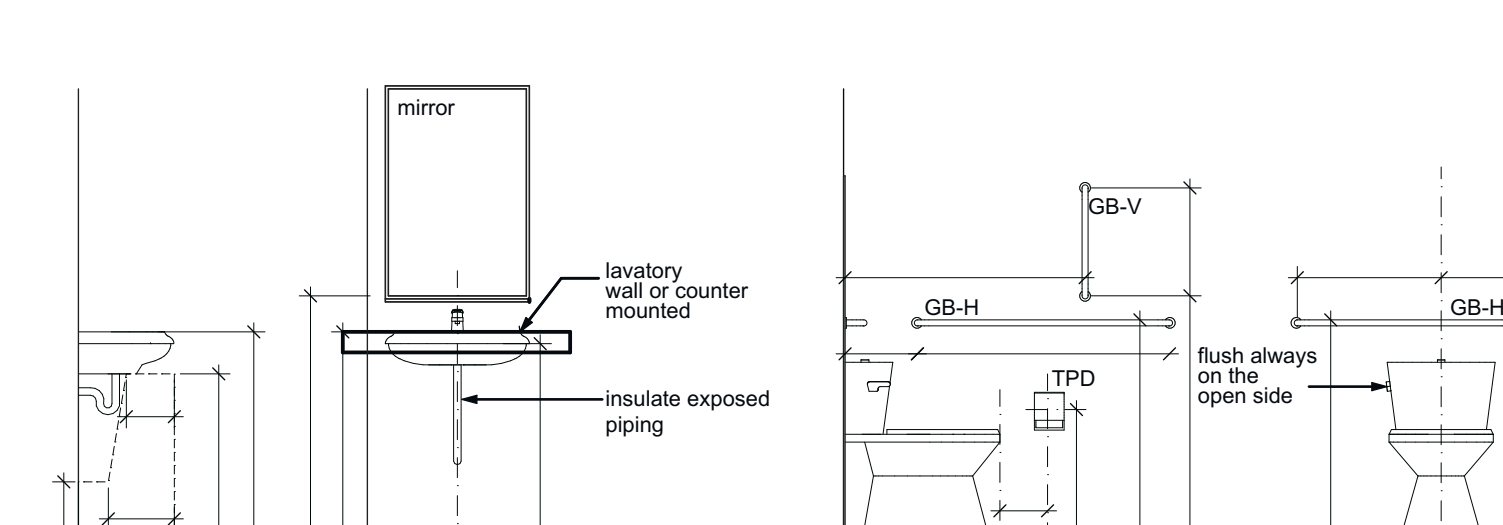
Typical Accessible Shower Dimensions



Interior Mounting Heights



Hi-Lo Drinking Fountain



Typical Accessible Toilet Dimensions

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architecture . interiors

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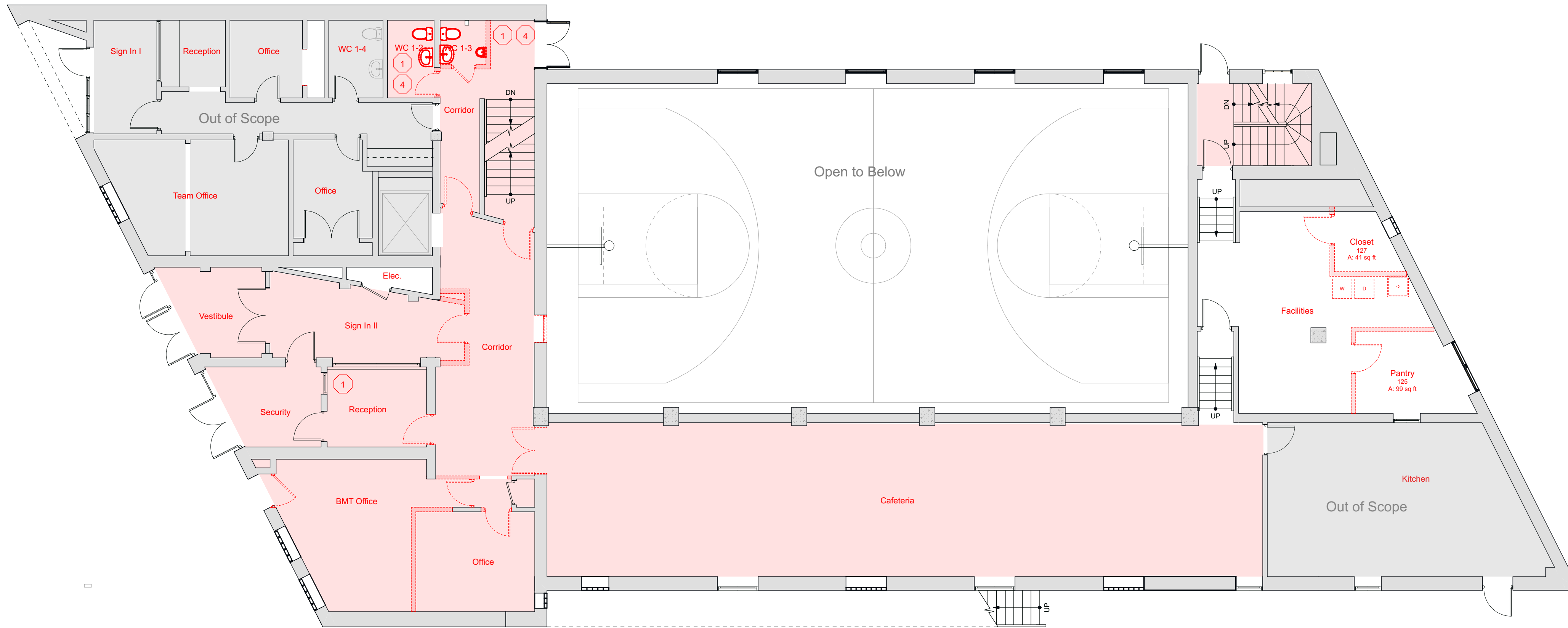
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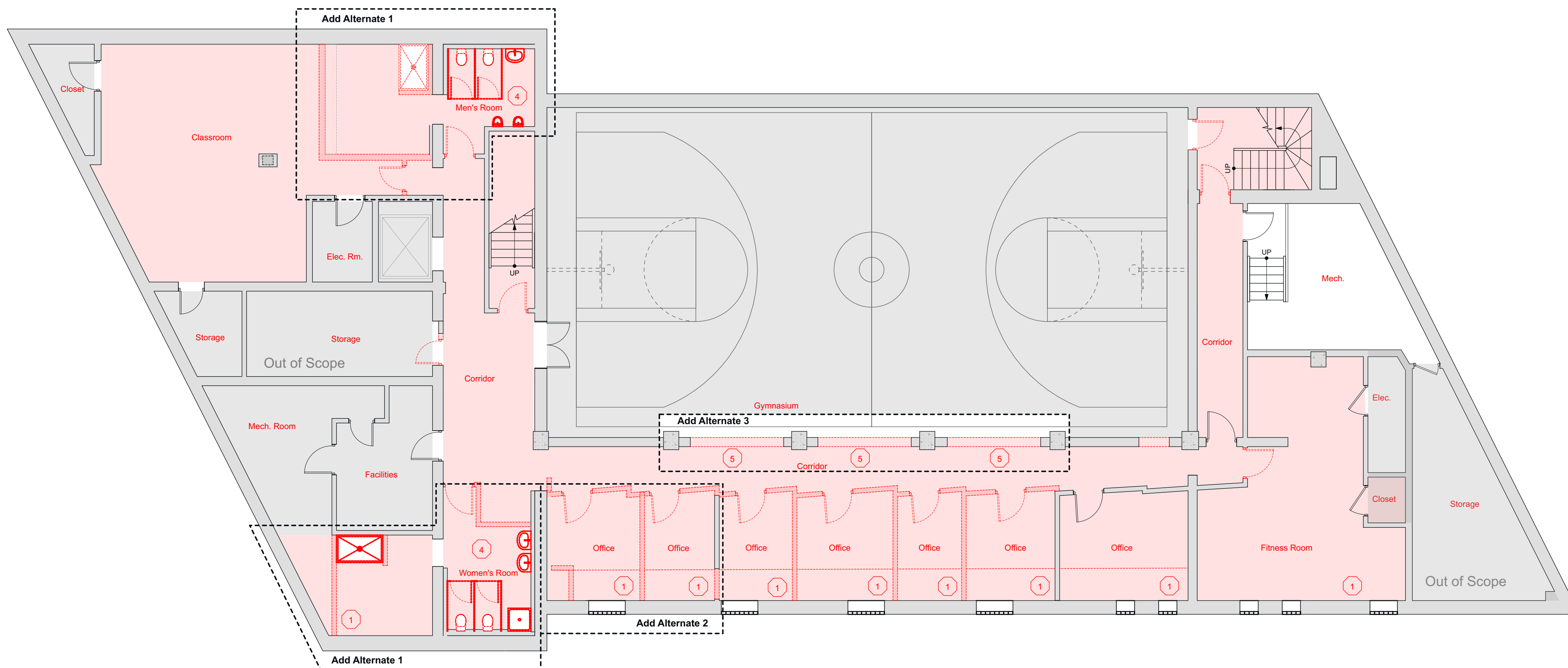
Accessibility Diagrams

Loren Juhl School
Remodeling
4219 N Lincoln Ave., Chicago, IL

AA01



2 Demolition First Floor
SCALE: 1/8" = 1'-0"



1 Demolition Lower Level
SCALE: 1/8" = 1'-0"

Selective Demolition Notes

- A. Owner and Architect assume no responsibility for the actual condition of the structures to be demolished. Details of existing construction where shown are furnished for convenience only. Contractor assumes responsibility for preparation to receive new work.
- B. Structural members are not to be disturbed, except where specifically shown and detailed. The Contractor shall be responsible for any damage to the existing structure. Do not impose excessive loads onto existing construction.
- C. Execute cutting and demolition by methods which will prevent damage to other work. Do not make openings larger than necessary to accept new work. Terminate cutting and demolition at existing construction to remain, leaving clean and straight break lines.
- D. All materials and labor required for shoring shall be provided by this contractor. Prior to any demolition work the contractor shall ascertain the framing system, determine support walls, and plan a sequence of demolition that will assure portions of the building remain intact and in place.
- E. Prior to any demolition work this contractor shall provide the necessary temporary support, shoring, and bracing for walls, floors, roofs, and parts to remain. This shoring shall be installed in such a manner as to adequately support and brace the building and its parts throughout the construction period until such time as the new work shall provide its support.
- F. Remove debris, rubbish and all other materials resulting from the demolition from the site. All demolished and wrecked materials not to be salvaged and remain the property of the Owner shall become the property of this contractor who shall remove it from the job site. Removal and disposal of material shall be in a place and in a manner prescribed by local, state and federal (including the EPA) authorities having jurisdiction.

General Demolition Notes

- 1. Remove walls and partitions as shown. Patch construction to match existing.
- 2. Keep existing finishes in out of scope areas shown in gray.
- 3. All Dimensions to existing construction shall be field verified. Report any discrepancies to the Architect. Dimensions are typically to finished surface of wall.

Demolition Key

- Demolish Existing Partition
- Remove and Replace Existing Window
- Remove Existing Door
- Remove Existing Fixture
- Remove Existing Floor finish & Prep for New Floors
- Remove existing Acoustic Ceiling
- Remove Existing Ramp
- Remove All Wooden Stage Loft Storage Framing overhanging fire stair
- Remove Existing Fixtures
- Remove Infill and Restore Former Opening: New 8" Steel Lintel with 12" base plate welded at bottom 8" minimum bearing at both sides. Min. Longitudinal Reinforcement Cover: 1.5"



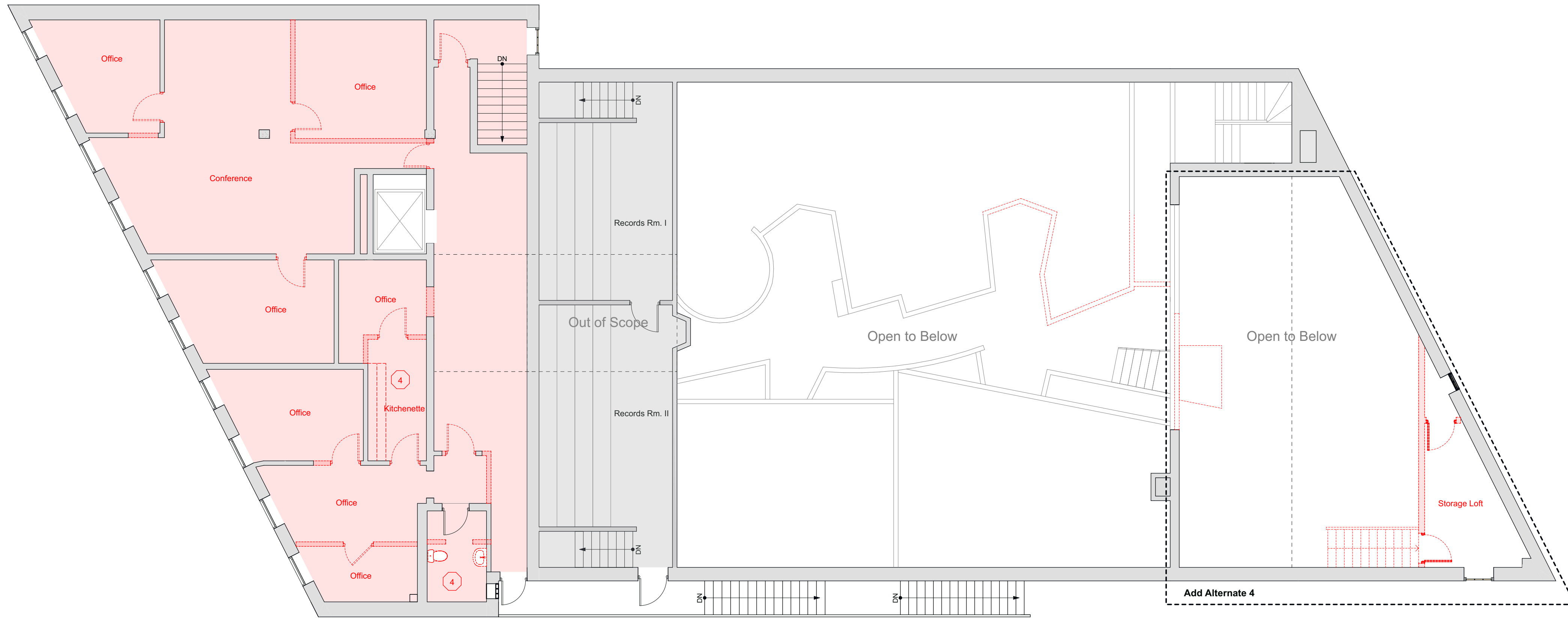
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Demolition Plans I

Loren Juhl School Remodeling 4219 N Lincoln Ave., Chicago, IL

AD01



2 Demolition Third Floor
SCALE: 1/8" = 1'-0"



1 Demolition Second Floor
SCALE: 1/8" = 1'-0"

Selective Demolition Notes

- A. Owner and Architect assume no responsibility for the actual condition of the structures to be demolished. Details of existing construction where shown are furnished for convenience only. Contractor assumes responsibility for preparation to receive new work.
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- Remove Existing Floor finish & Prep for New Floors
- Remove existing Acoustic Ceiling
- Remove Existing Ramp
- Remove All Wooden Stage Loft Storage Framing overhanging fire stair
- Remove Existing Fixtures

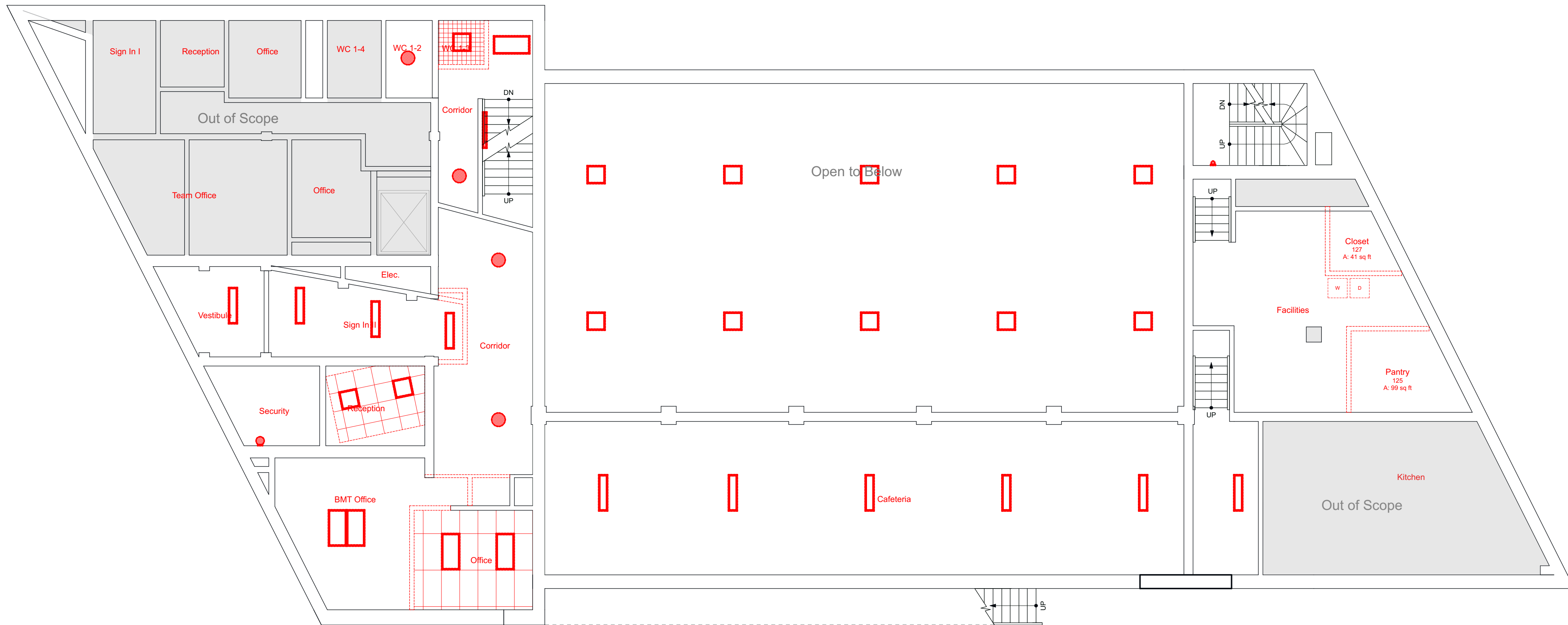


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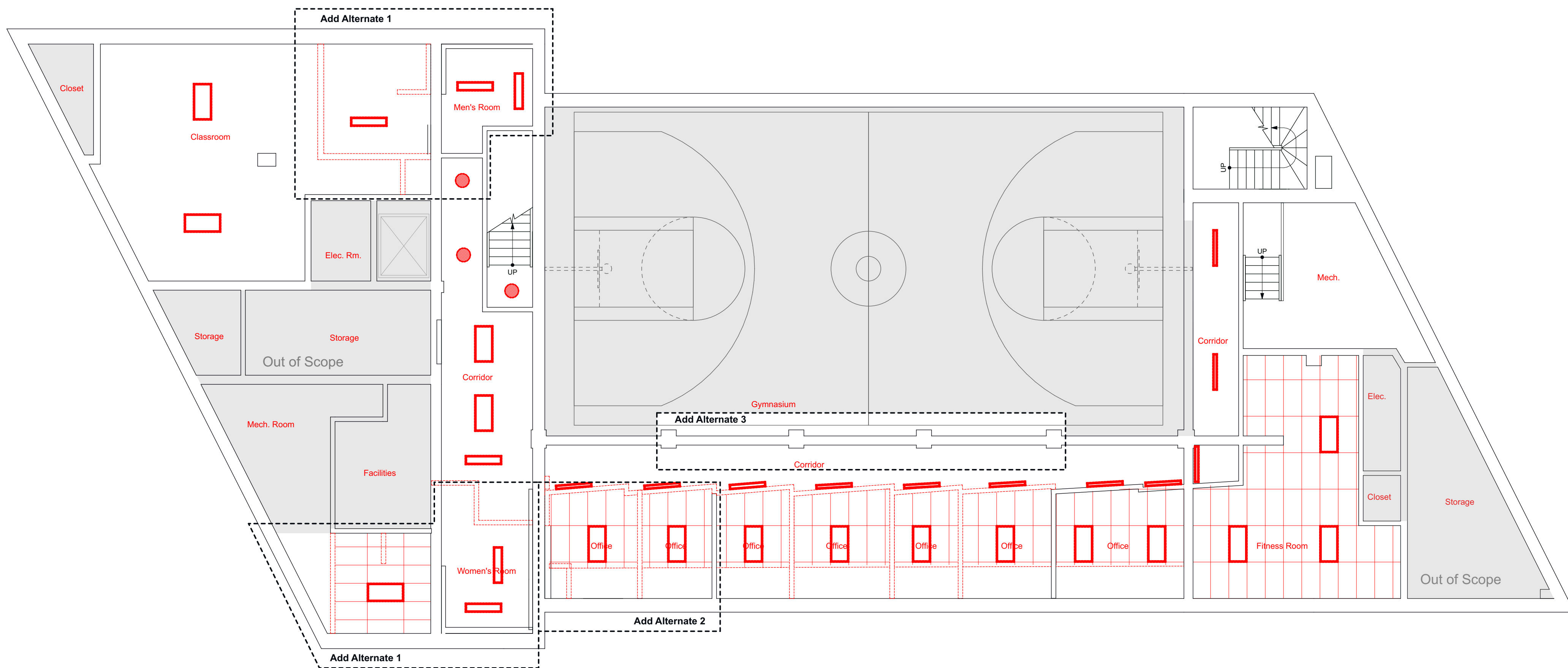
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Demolition Plans II

Loren Juhl School Remodeling
4219 N Lincoln Ave., Chicago, IL



2 Demolition RCP First Floor
SCALE: 1/8" = 1'-0"



1 Demolition RCP Lower Level
SCALE: 1/8" = 1'-0"

Selective Demolition Notes

- A. Owner and Architect assume no responsibility for the actual condition of the structures to be demolished. Details of existing construction where shown are furnished for convenience only. Contractor assumes responsibility for preparation to receive new work.
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- Remove and Replace Existing Window
- Remove Existing Door
- Remove Existing Fixture
- Remove Existing Floor finish & Prep for New Floors
- Remove existing Acoustic Ceiling
- Remove Existing Ramp
- Remove All Wooden Stage Loft Storage Framing overhanging fire stair
- Remove Existing Fixtures

Ceiling Type Key

- Exposed Concrete & Plaster Over Concrete
- Acoustic Ceiling Tile
- Gypsum Ceiling
- Out of Scope



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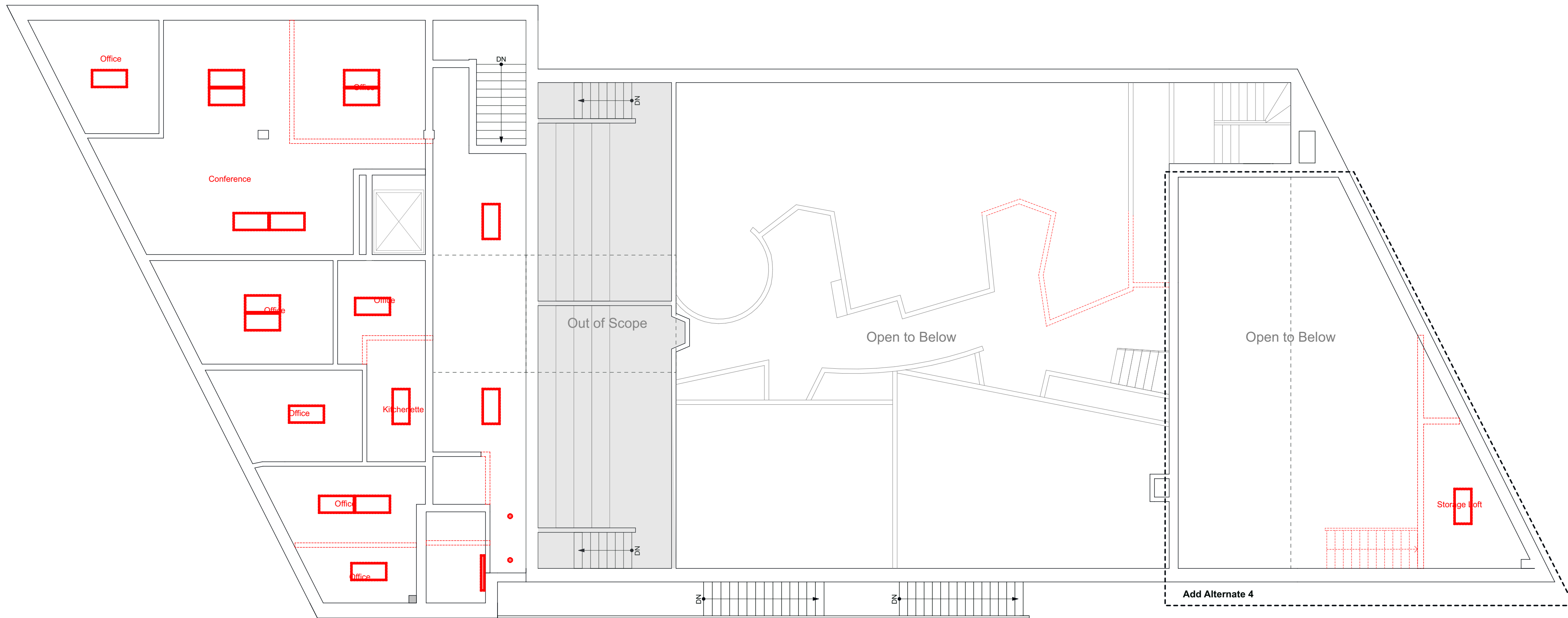
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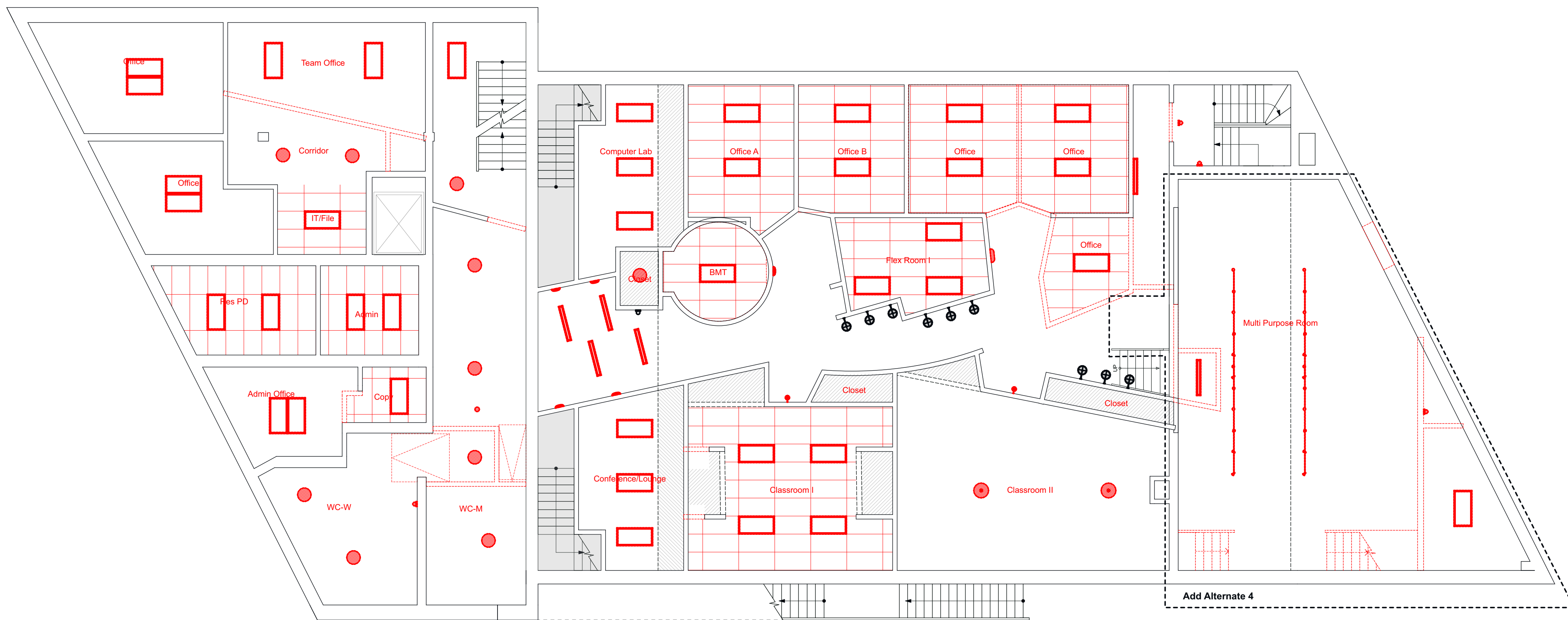
Demolition Reflected Ceiling Plan

Loren Juhl School
Remodeling
4219 N Lincoln Ave., Chicago, IL

AD03



2 Demolition RCP Third Floor
SCALE: 1/8" = 1'-0"



1 Demolition RCP Second Floor
SCALE: 1/8" = 1'-0"

Selective Demolition Notes

- A. Owner and Architect assume no responsibility for the actual condition of the structures to be demolished. Details of existing construction where shown are furnished for convenience only. Contractor assumes responsibility for preparation to receive new work.
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Demolition Key

- Demolish Existing Partition
- Remove and Replace Existing Window
- Remove Existing Door
- Remove Existing Fixture
- Remove Existing Floor finish & Prep for New Floors
- Remove existing Acoustic Ceiling
- Remove Existing Ramp
- Remove All Wooden Stage Loft Storage Framing overhanging fire stair
- Remove Existing Fixtures

Ceiling Type Key

- Exposed Concrete & Plaster Over Concrete
- Acoustic Ceiling Tile
- Gypsum Ceiling
- Out of Scope



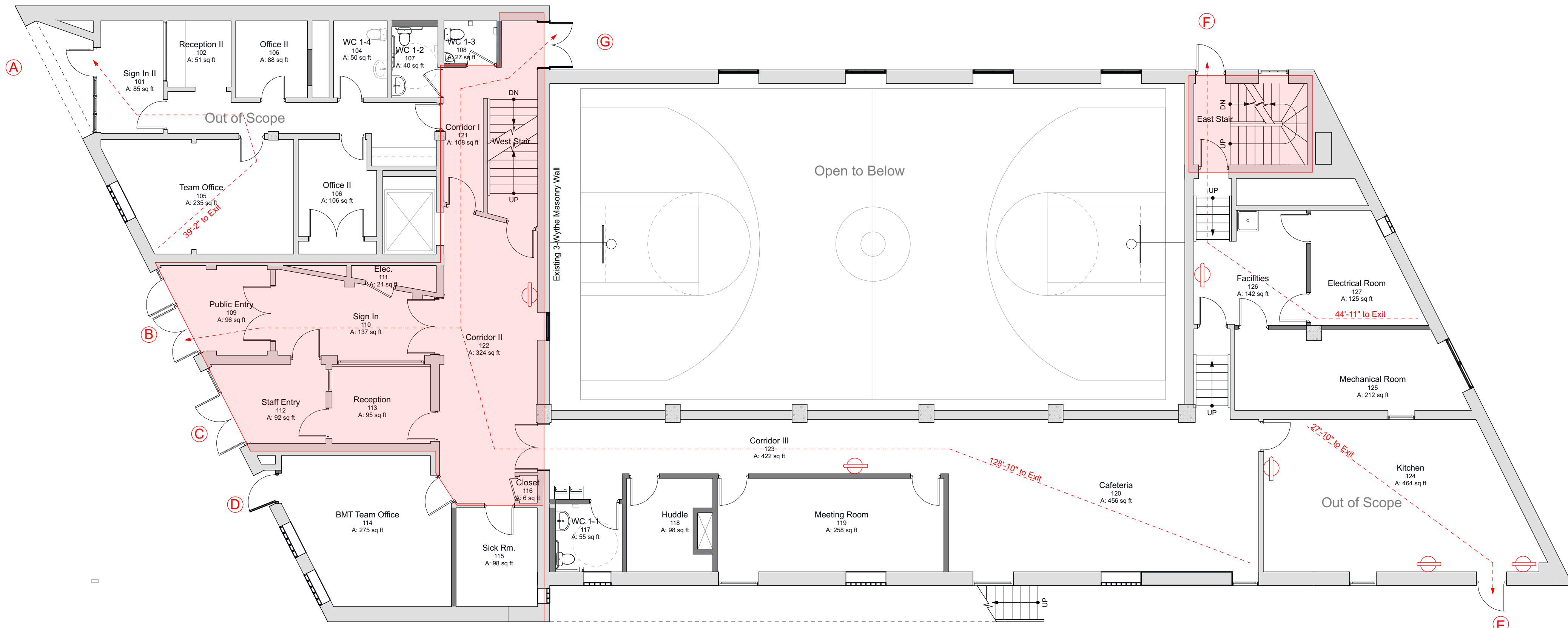
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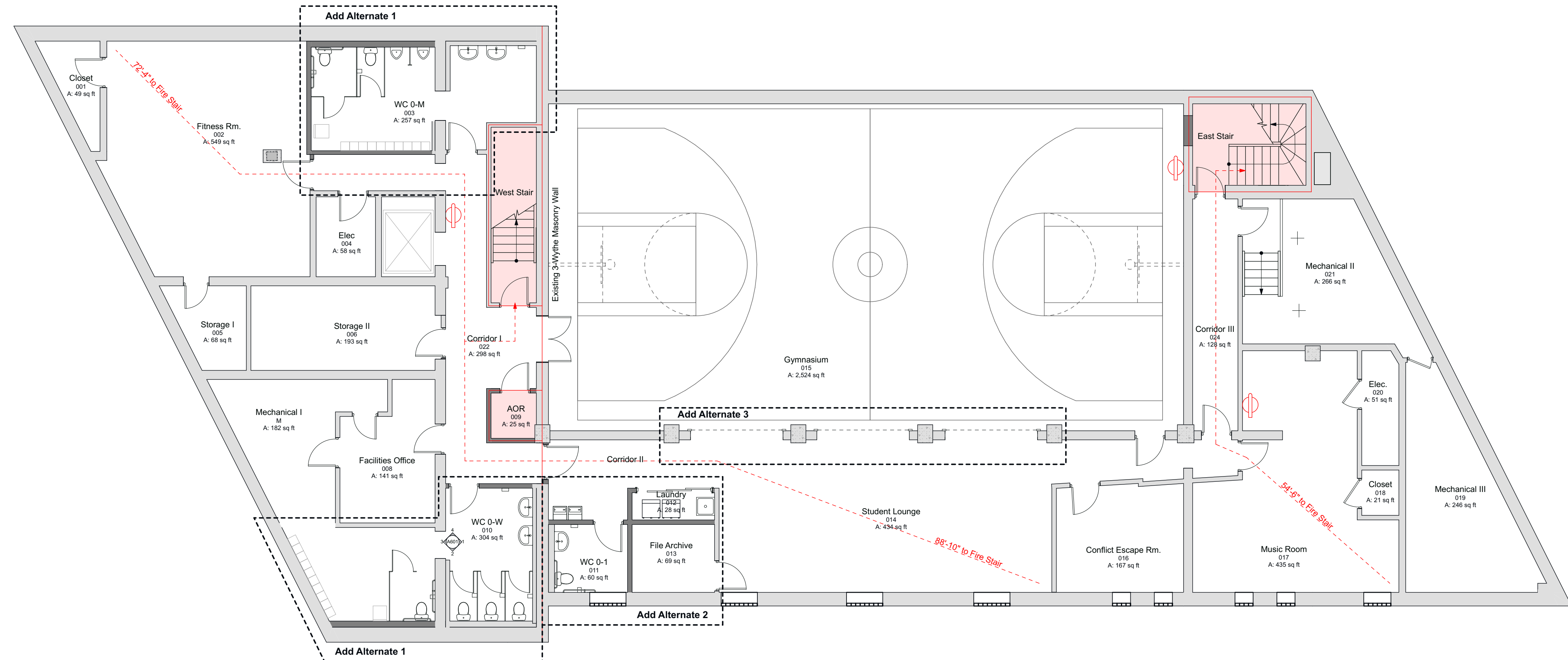
Demolition Reflected Ceiling Plan

Loren Juhl School Remodeling
4219 N Lincoln Ave., Chicago, IL

AD04



2 First Floor Egress
SCALE: 1/8" = 1'-0"



1 Lower Level Egress
SCALE: 1/8" = 1'-0"

Key

- Ⓧ Exit
- - - Exit Pathway
- 2HR Rated Partition
- Rated Area
- ⊕ Fire Extinguisher



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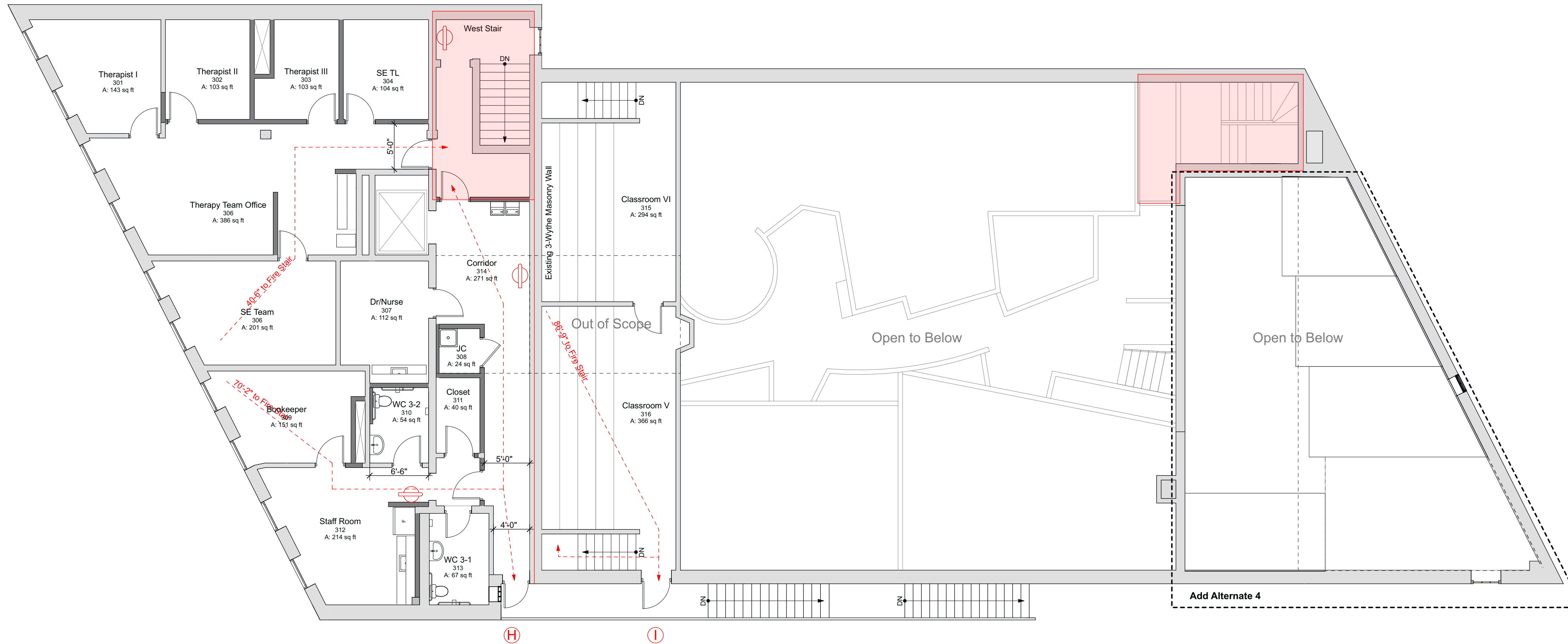
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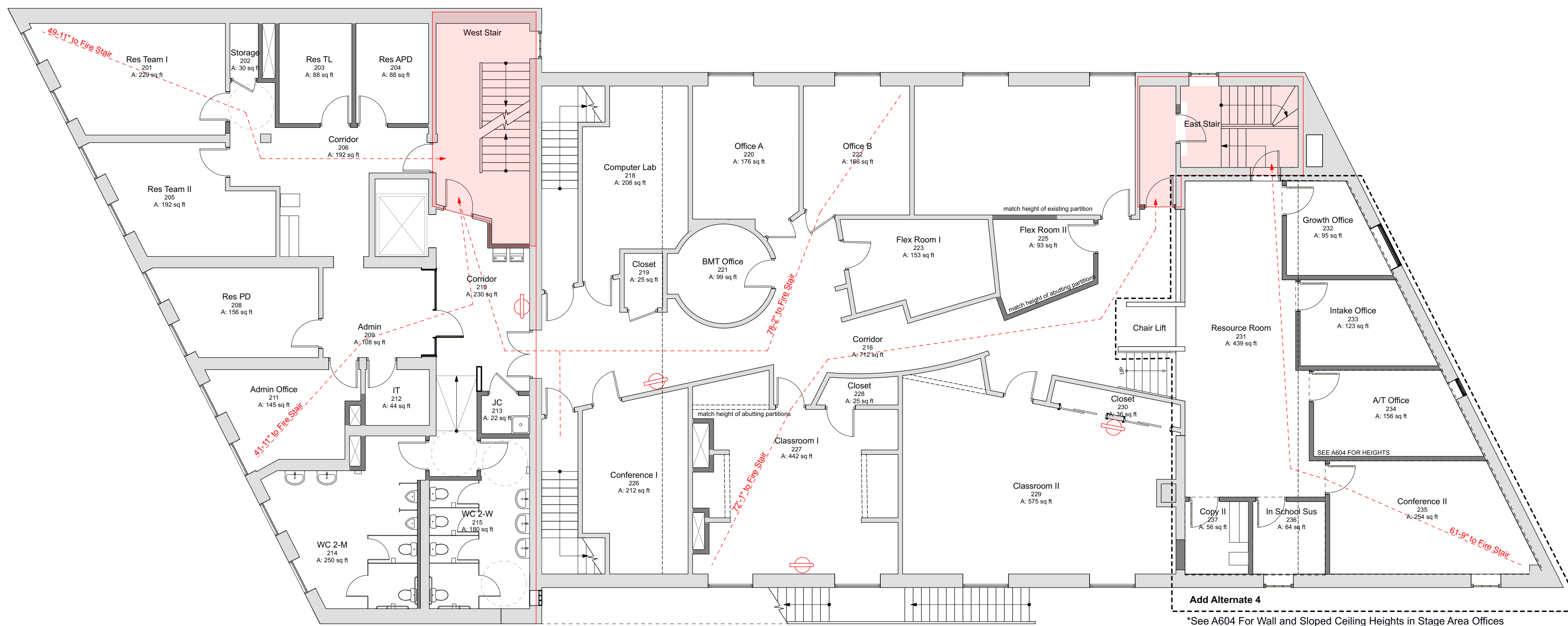
Egress Plans I

Loren Juhl School
Remodeling
4219 N Lincoln Ave., Chicago, IL

AK01



2 Third Floor Egress
SCALE: 1/8" = 1'-0"



1 Second Floor Egress
SCALE: 1/8" = 1'-0"

Key

- Exit
- Exit Pathway
- 2HR Rated Partition
- Rated Area
- Fire Extinguisher



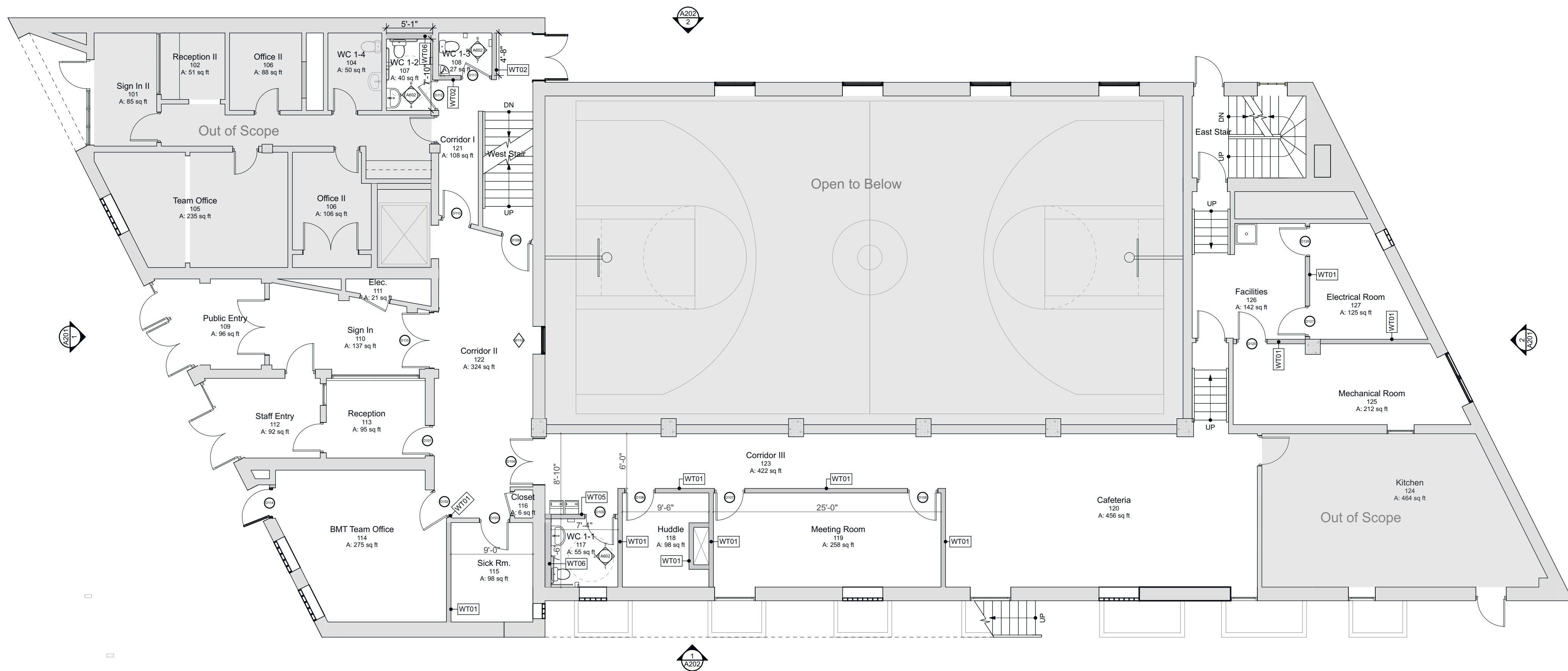
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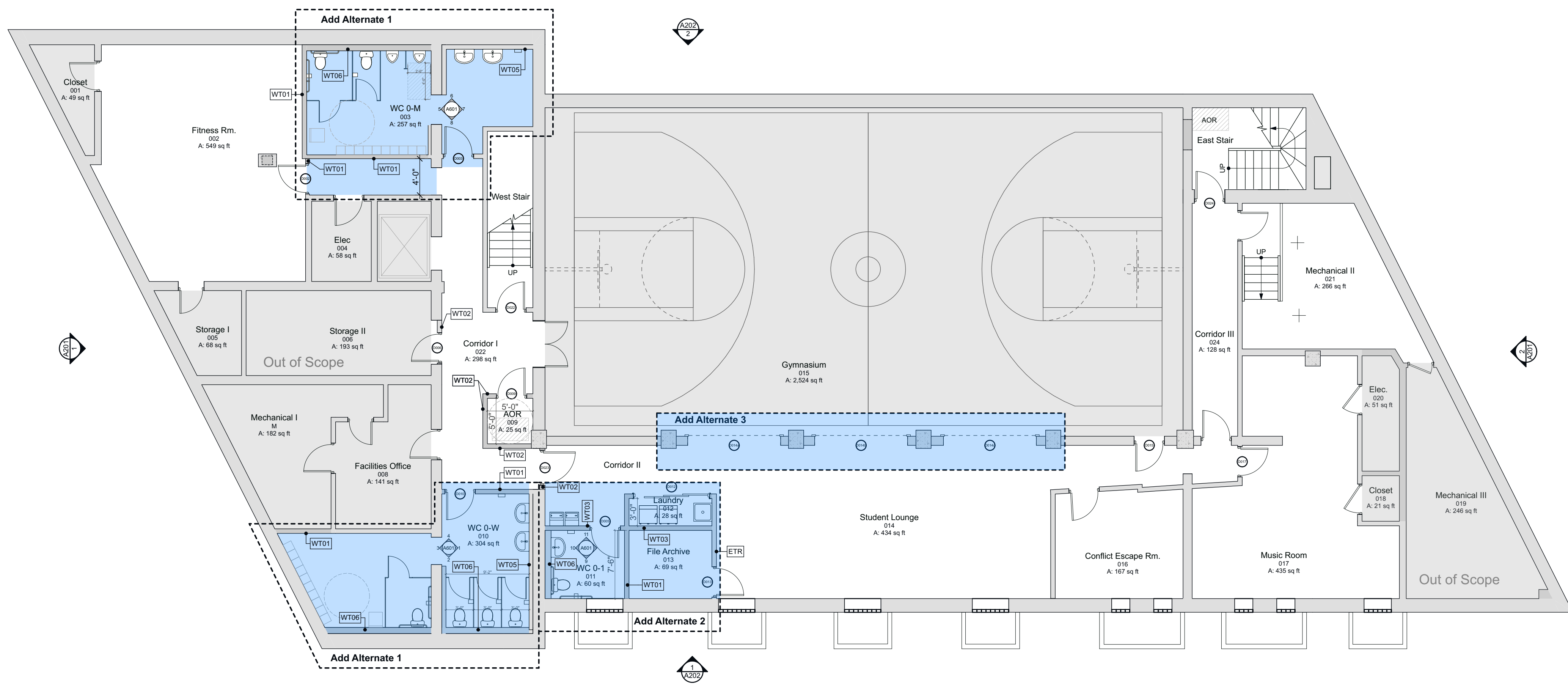
Egress Plans II

Loren Juhl School Remodeling
4219 N Lincoln Ave., Chicago, IL

AK02



2 First Floor
SCALE: 1/8" = 1'-0"



1 Lower Level
SCALE: 1/8" = 1'-0"

- Plan Notes:
1. Areas shown in gray are out of scope.
 2. Walls and Floors not within the scope of project and shall be protected during construction.
 3. Provide all labeled doors and windows as shown and dimensioned on plan. (see A401)
 4. Provide 3" x 3" x 48" corner guards with aluminum retainers on all exposed drywall corners at new walls.
 5. Dimensions to be verified in field. Existing walls to be verified as code compliant.
 6. All new handrails to be mounted at 34" above finished stair nosing and extend as shown on plan. No openings larger than 4" dia. shall be permitted.



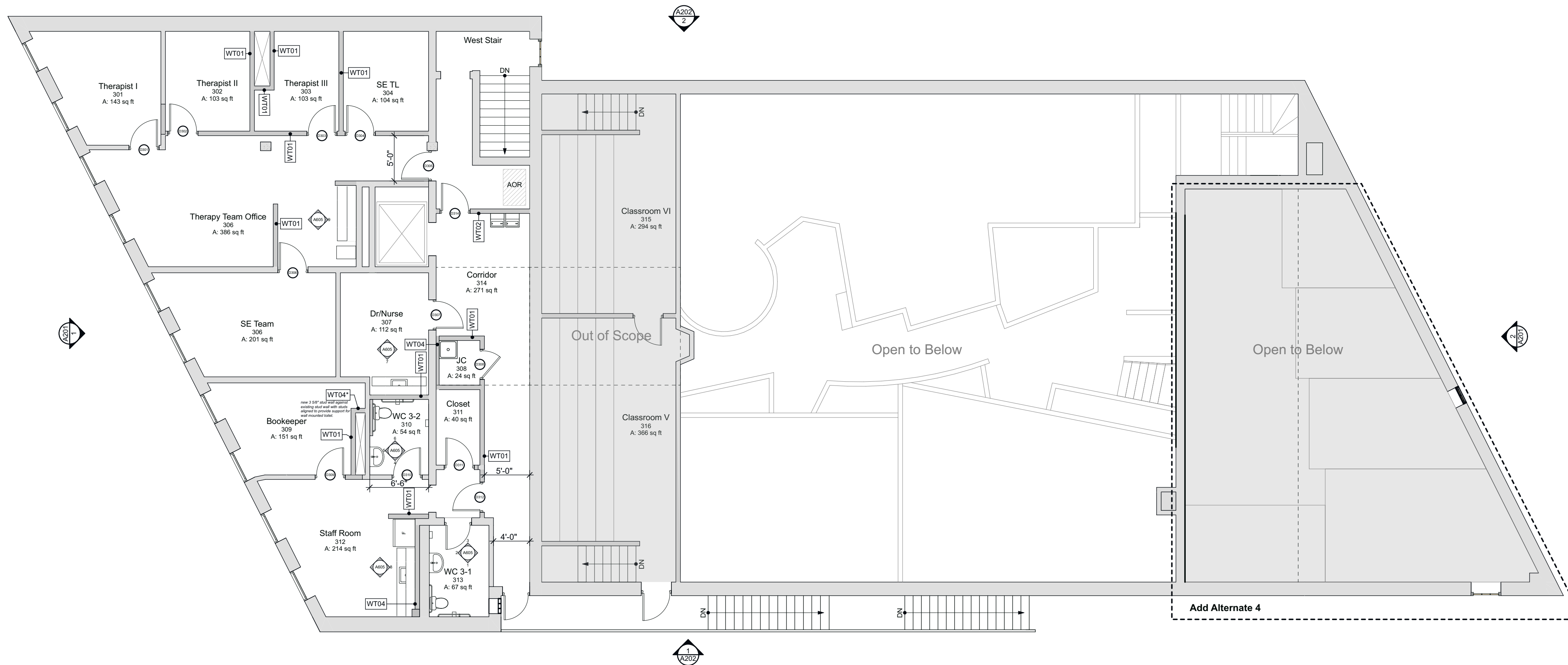
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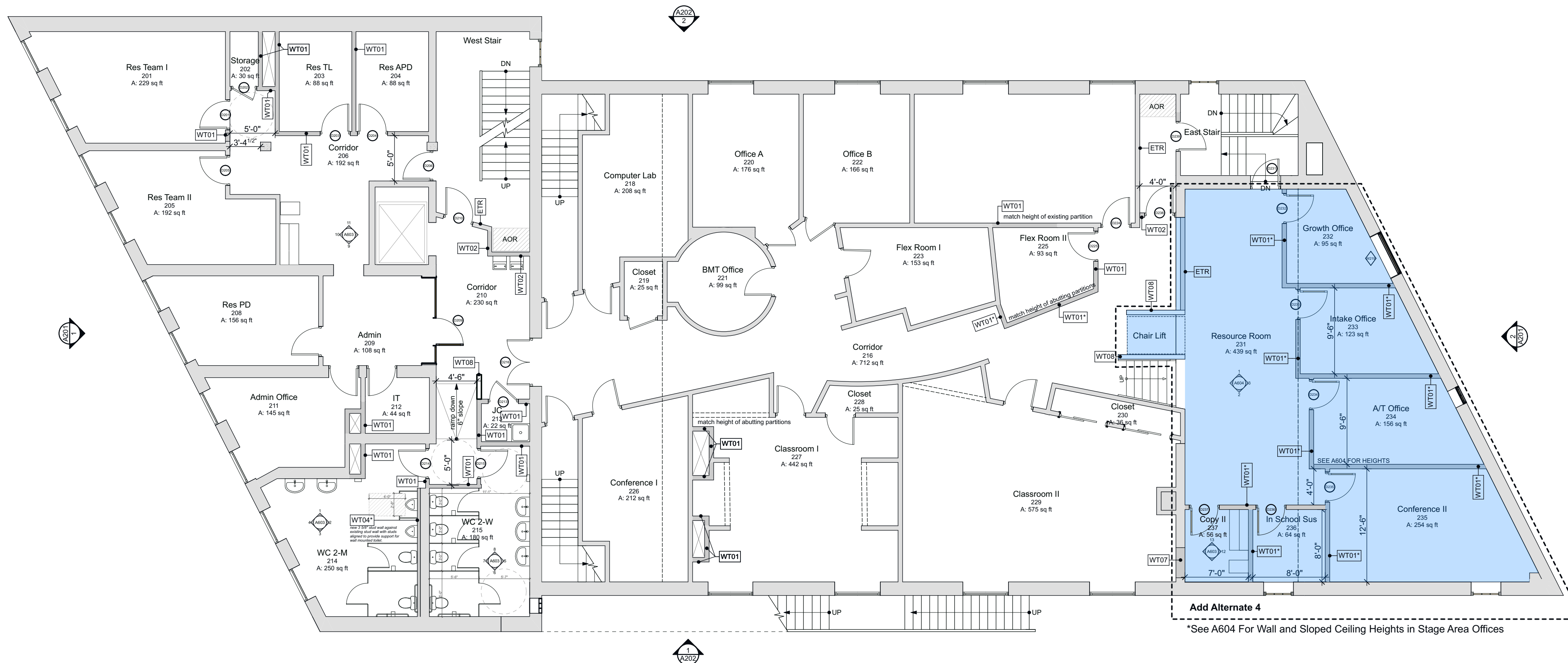
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Floor Plans I

Loren Juhl School
Remodeling
4219 N Lincoln Ave., Chicago, IL



2 Third Floor
SCALE: 1/8" = 1'-0"



1 Second Floor
SCALE: 1/8" = 1'-0"

Plan Notes:

1. Areas shown in gray are out of scope.
2. Walls and Floors not within the scope of project and shall be protected during construction.
3. Provide all labeled doors and windows as shown and dimensioned on plan. (see A401)
4. Provide 3" x 3" x 48" corner guards with aluminum retainers on all exposed drywall corners at new walls.
5. Dimensions to be verified in field. Existing walls to be verified as code compliant.
6. All new handrails to be mounted at 34" above finished stair nosing and extend as shown on plan. No openings larger than 4" dia. shall be permitted.

*See A604 For Wall and Sloped Ceiling Heights in Stage Area Offices

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architecture . interiors

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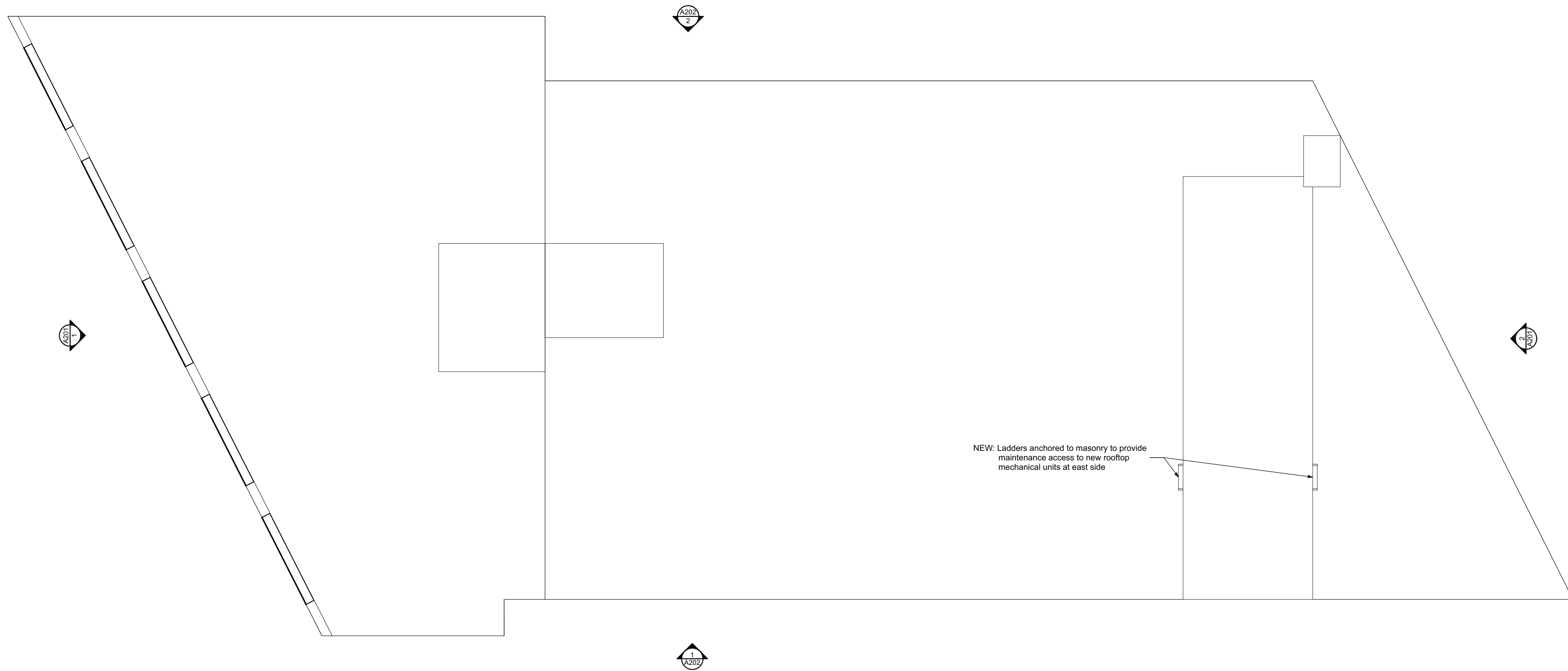
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Floor Plans II

Loren Juhl School
Remodeling
4219 N Lincoln Ave., Chicago, IL

A102



1 Roof
SCALE: 1/8" = 1'-0"



4629 N Broadway
Chicago, IL 60640

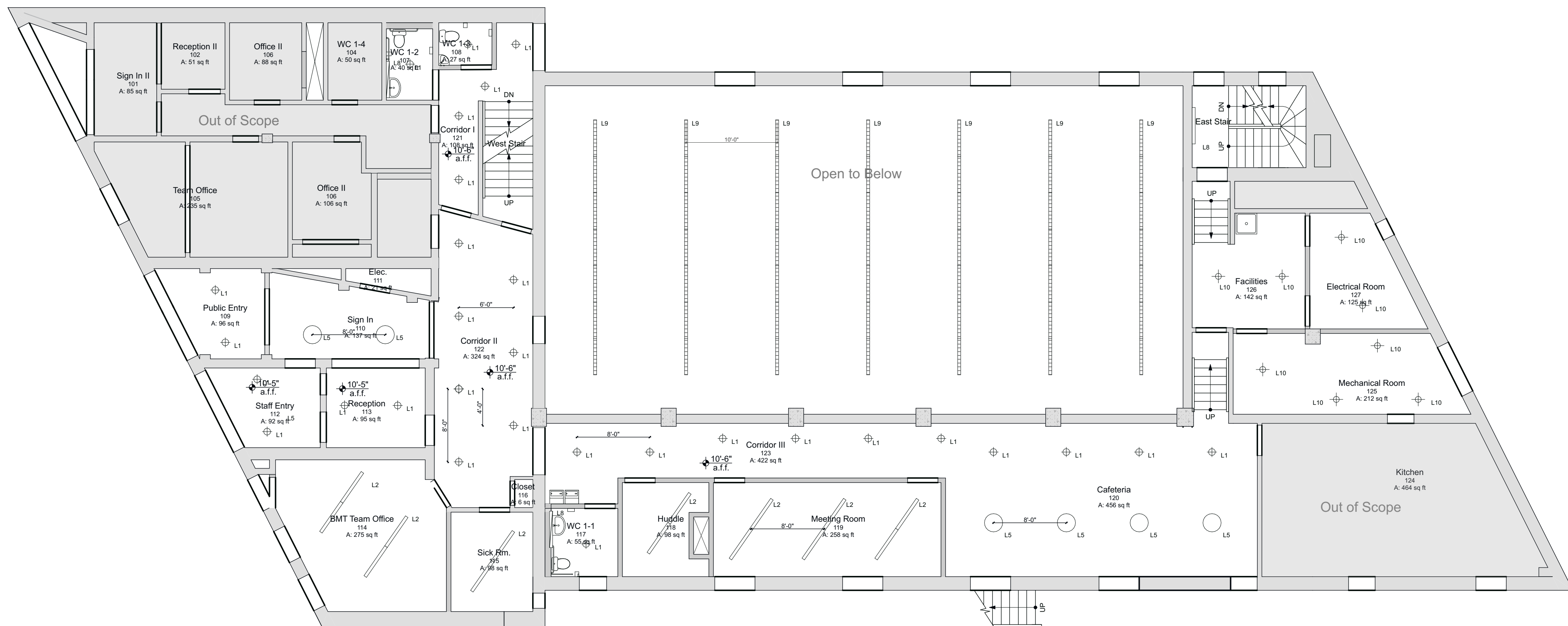
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06/11/24	Issue for Bid	05

Roof Plan

Loren Juhl School
Remodeling
4219 N Lincoln Ave., Chicago, IL

A103



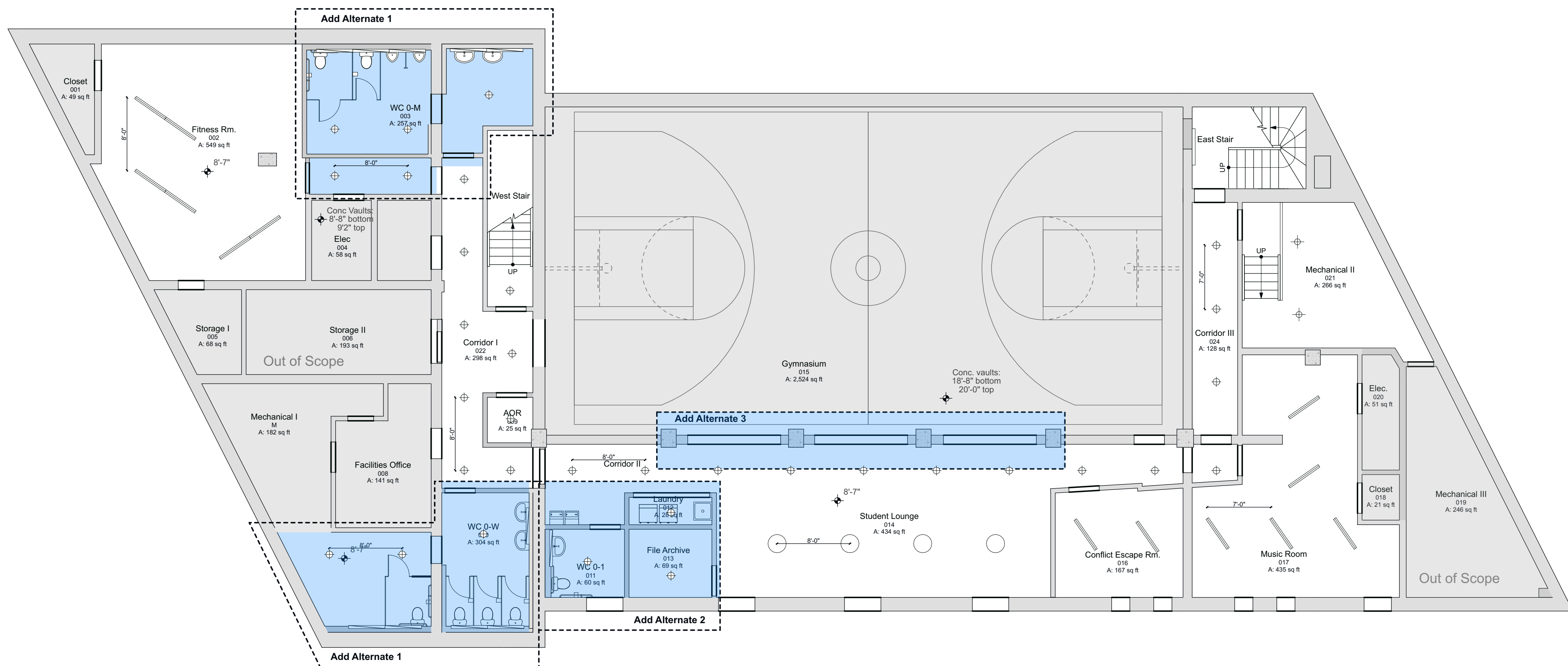
Ceiling Type Key

	Exposed Concrete & Plaster Over Concrete Ceilings
	Gypsum Ceiling
	Acoustic Ceiling Tile
	Out of Scope

Lighting Key

ID	Symbol	Description
L1		Focalpoint ID 3.5" Cylinder Surface Mount
L2		Focalpoint Seem 2 Direct/Indirect Suspended
L3		Focalpoint Seem 2 Direct - Ceiling Mount
L4		Ligman Sandy 2 Small Surface Light
L5		Focalpoint Skydome Surface Mount 2'
L6		Focalpoint Skydome Recessed 2'
L7		Focalpoint Skydome 4' Suspended
L8		Focal Point Seem 2 Wall Mount
L9		TBD Linear Fixture nested between vaults
L10		6" Surface Mount Utility Room Light
ETR	varies	Existing to Remain

2 First Floor
SCALE: 1/8" = 1'-0"



1 Lower Level
SCALE: 1/8" = 1'-0"



4629 N Broadway
Chicago, IL 60640

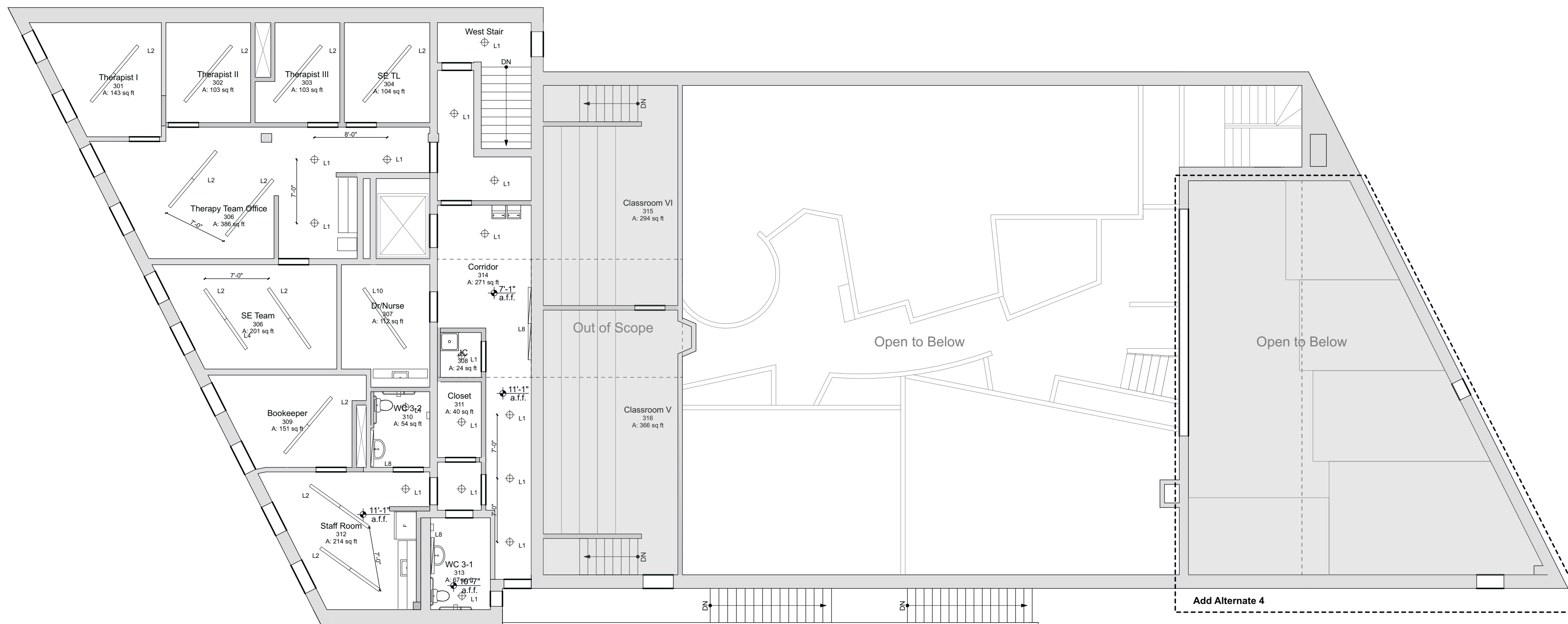
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Reflected Ceiling Plans I

Loren Juhl School
Remodeling
4219 N Lincoln Ave., Chicago, IL

A104



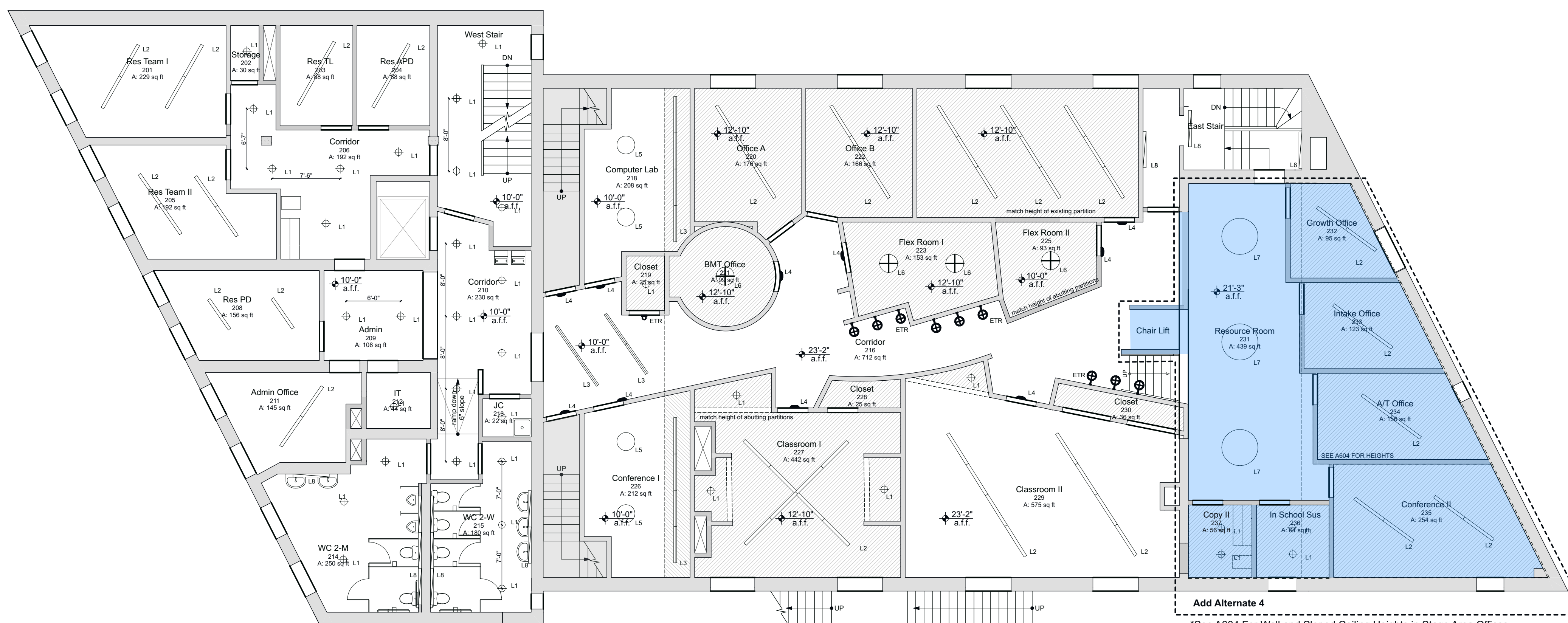
Ceiling Type Key

[Symbol]	Exposed Concrete & Plaster Over Concrete Ceilings
[Symbol]	Gypsum Ceiling
[Symbol]	Acoustic Ceiling Tile
[Symbol]	Out of Scope

Lighting Key

ID	Symbol	Description
L1	[Symbol]	Focalpoint ID 3.5" Cylinder Surface Mount
L2	[Symbol]	Focalpoint Seem 2 Direct/Indirect Suspended
L3	[Symbol]	Focalpoint Seem 2 Direct - Ceiling Mount
L4	[Symbol]	Ligman Sandy 2 Small Surface Light
L5	[Symbol]	Focalpoint Skydome Surface Mount 2'
L6	[Symbol]	Focalpoint Skydome Recessed 2'
L7	[Symbol]	Focalpoint Skydome 4' Suspended
L8	[Symbol]	Focal Point Seem 2 Wall Mount
L9	[Symbol]	TBD Linear Fixture nested between vaults
L10	[Symbol]	6" Surface Mount Utility Room Light
ETR	[Symbol]	Existing to Remain

2 RCP Third Floor
SCALE: 1/8" = 1'-0"



1 Second Floor
SCALE: 1/8" = 1'-0"



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Reflected Ceiling Plans II

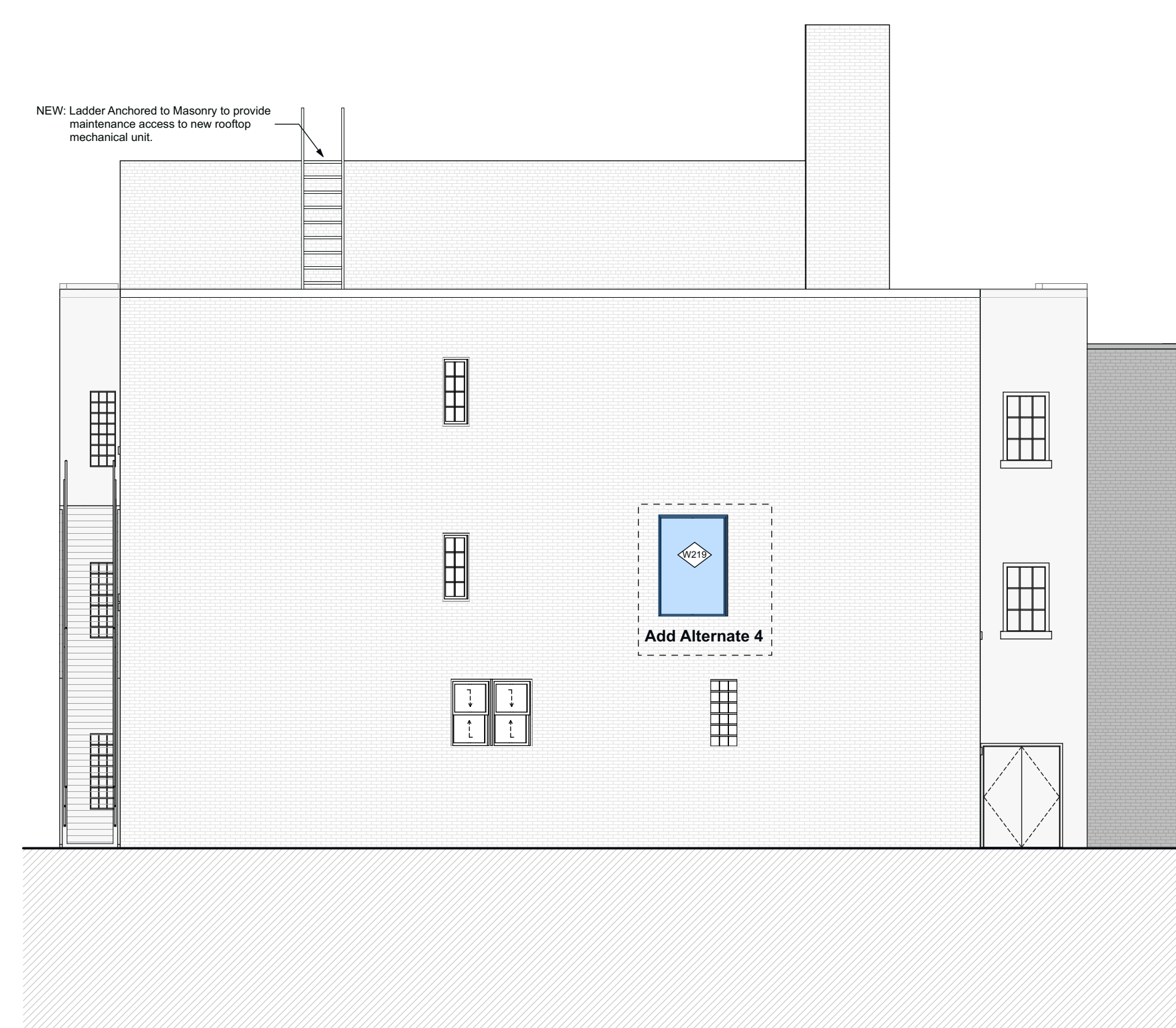
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A105



1 West Elevation- Lincoln Ave
SCALE: 1/8" = 1'-0"

Scope of work is limited to new door in existing opening (labeled) and roof access ladder for mechanical units as noted.



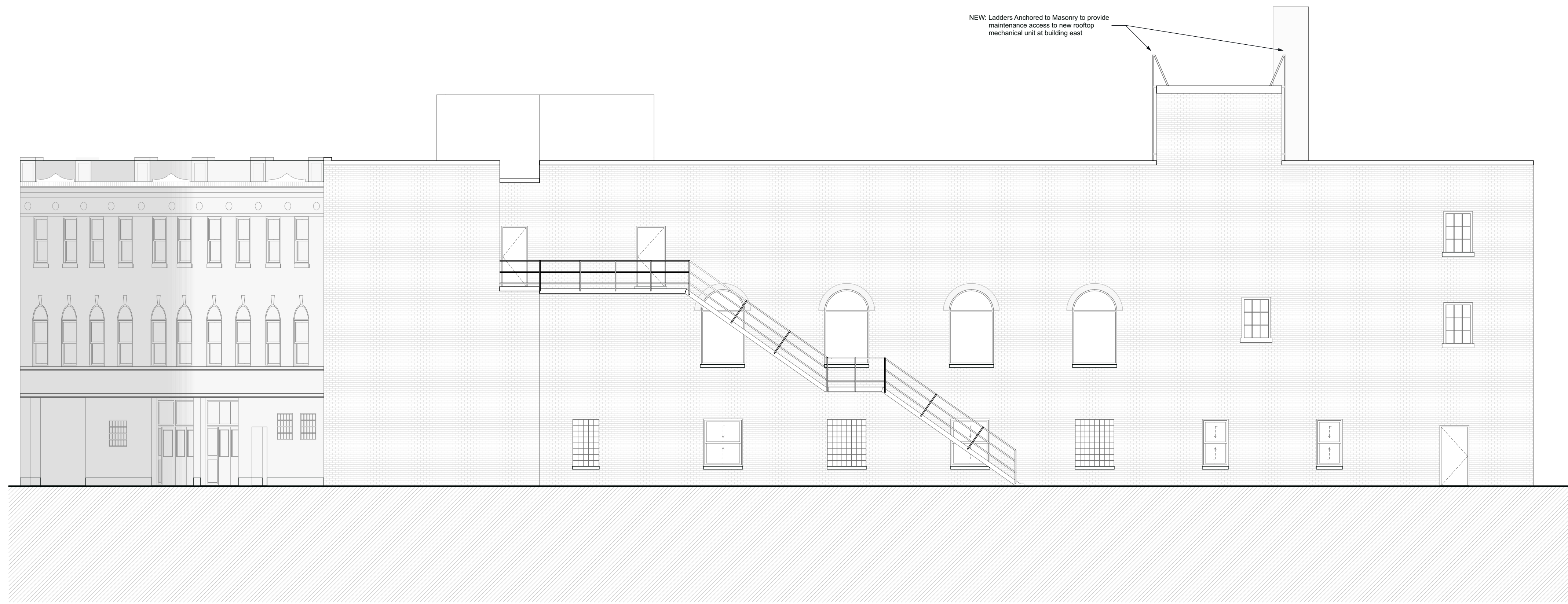
2 East Elevation- Alley
SCALE: 1/8" = 1'-0"

Scope of work is limited to new window in existing opening (labeled) and roof access ladder for mechanical units as noted.

07/11/22	Schematic Plans	01
08/03/22	Design Review	02
03/07/23	60% CDs/VE Review Set	03
05/24/24	Issue for Final Review	04
06/11/24	Issue for Bid	05

Building Elevations I

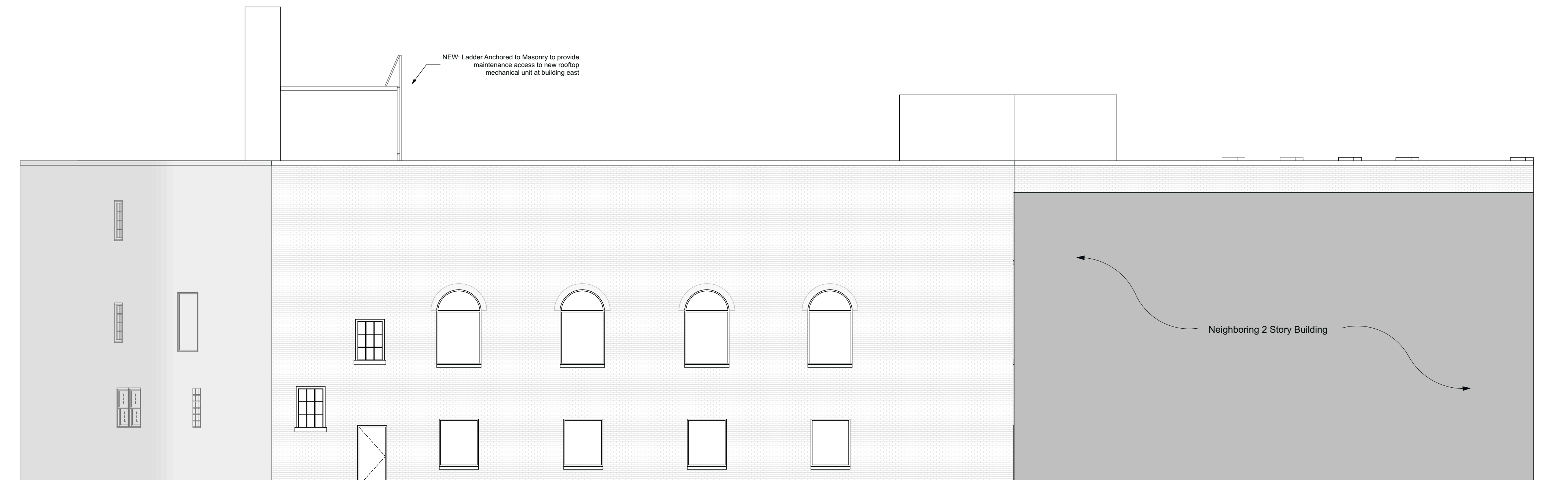
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1 South Elevation

SCALE: 1/8" = 1'-0"

No exterior work on this elevation. Only item in scope is new roof access ladder for mechanicals as depicted.



2 North Elevation

SCALE: 1/8" = 1'-0"

No exterior work on this elevation. Only item in scope is new roof access ladder for mechanicals as depicted.



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06/11/24	Issue for Bid	05

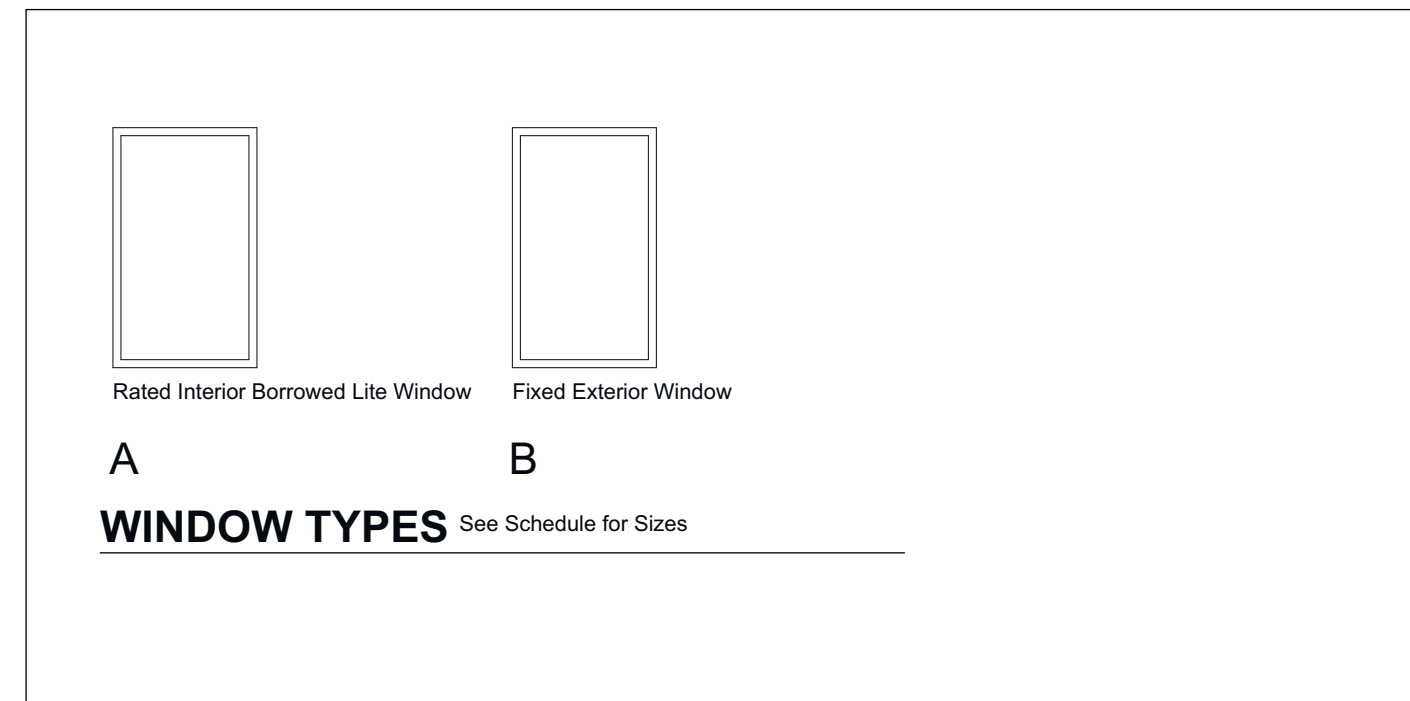
Building Elevations II

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A202

WINDOWS

Window Schedule				
ID	Nominal Size (W x H)	Frame Type	Glazing Type	Notes
W119	3'-0"x5'-0"	A	R	UL 10C 90 Minute Firelite Glass
W219	5'-0"x6'-8"	B		Add Alternate 4



A
Rated Interior Borrowed Lite Window

B
Fixed Exterior Window

WINDOW TYPES See Schedule for Sizes

Window Notes

1. All opening dimensions and window sizes to be verified in field

Specialty Glazing Key

R Rated Glass in single corridor window application as noted in schedule.



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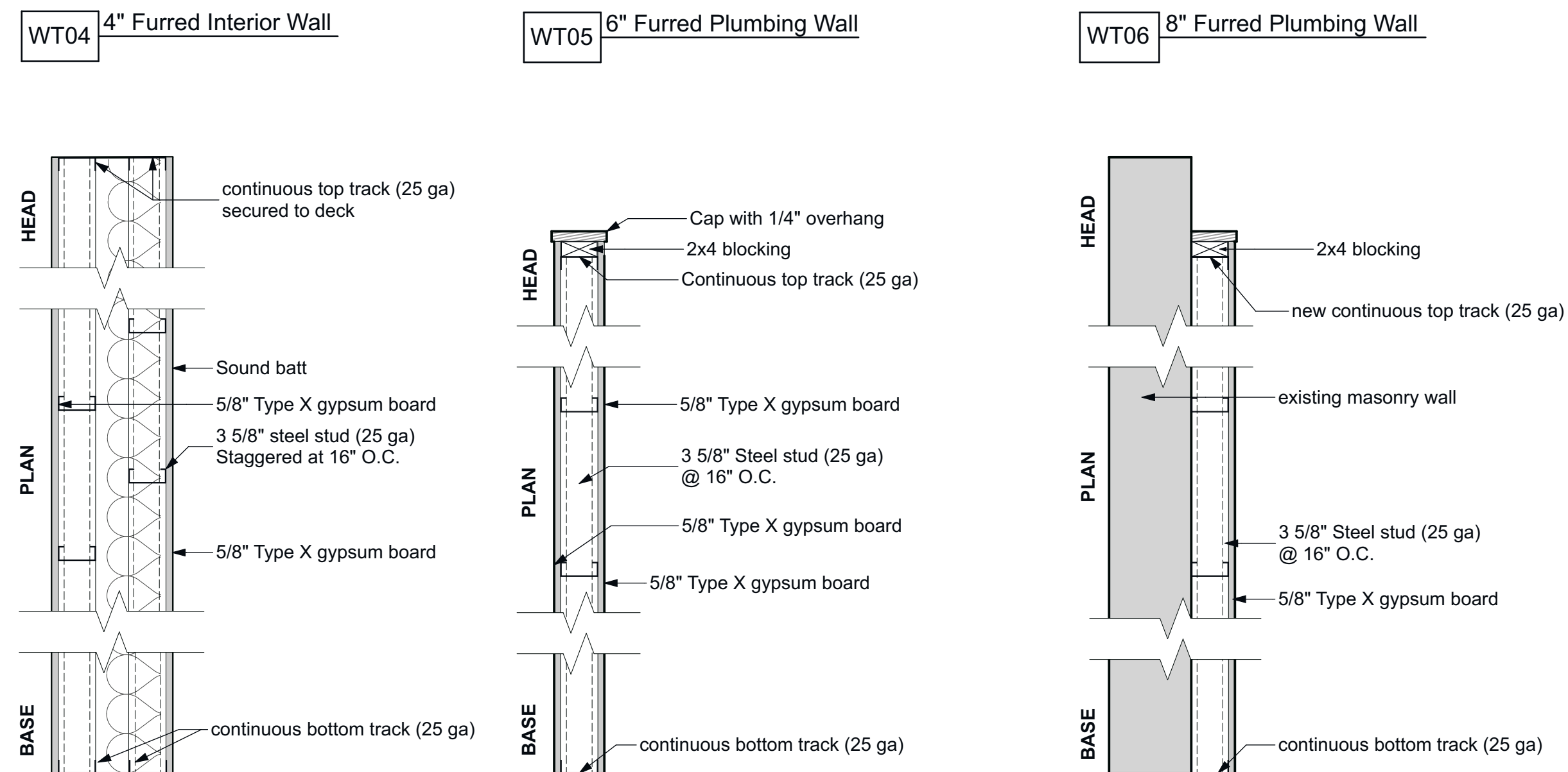
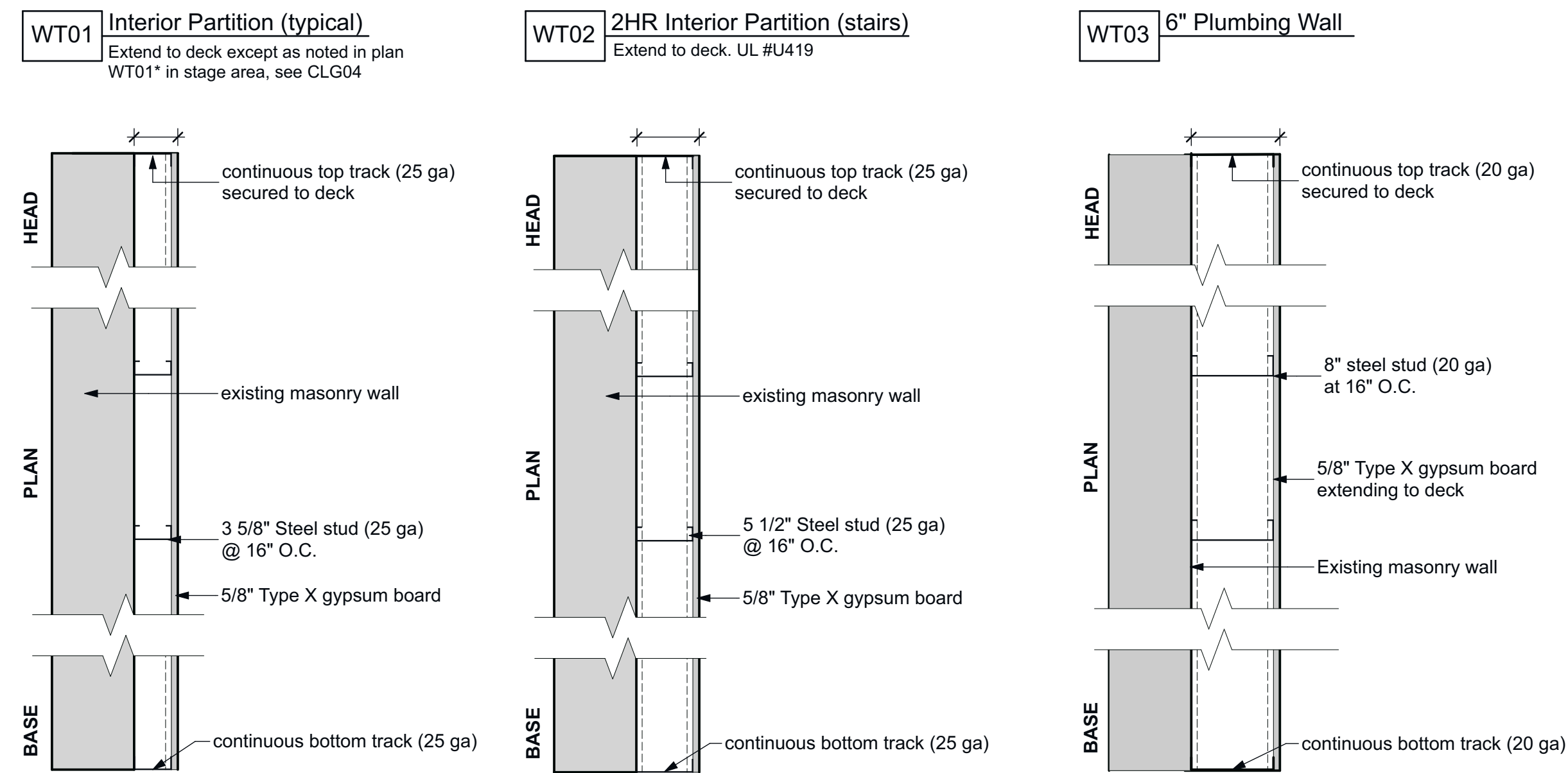
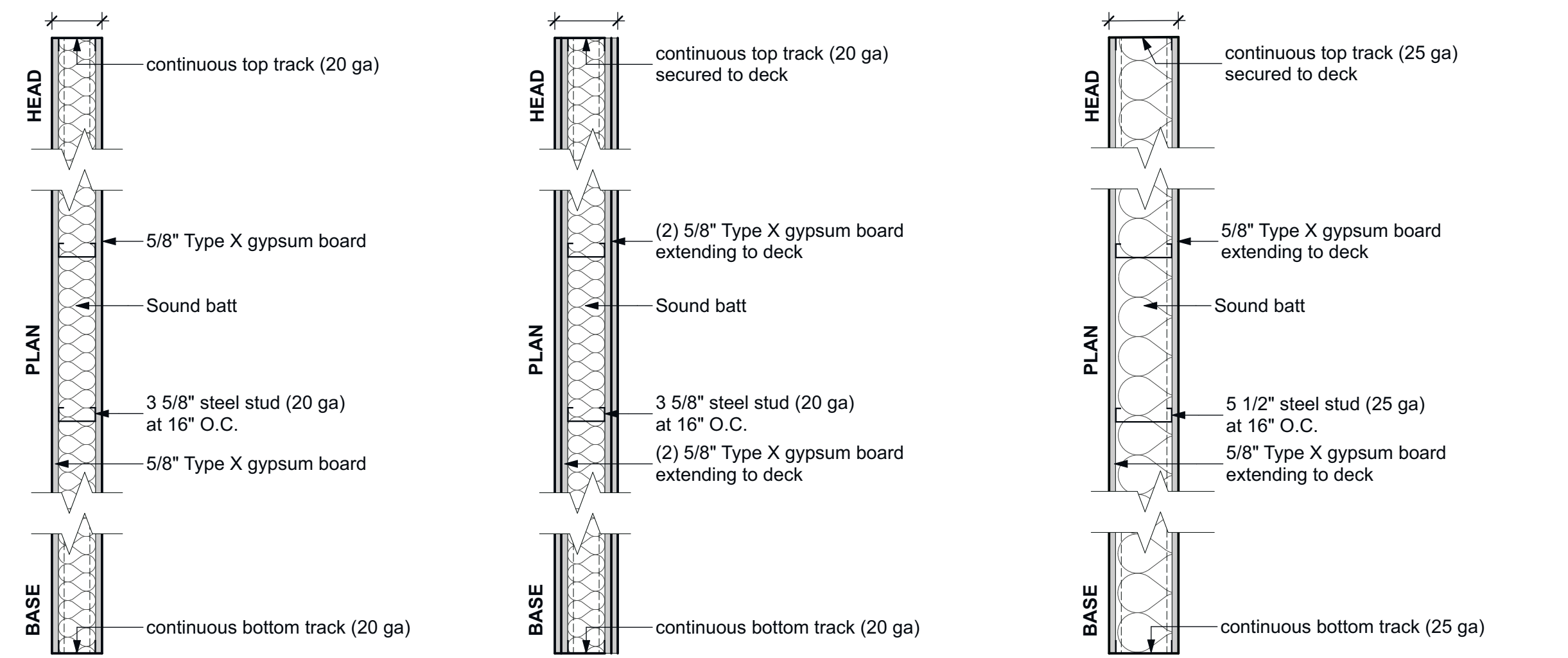
07/11/22	Schematic Plans	01
08/03/22	Design Review	02
03/07/23	60% CDs/VE Review Set	03
05/24/24	Issue for Final Review	04
06/11/24	Issue for Bid	05

Schedules: Windows

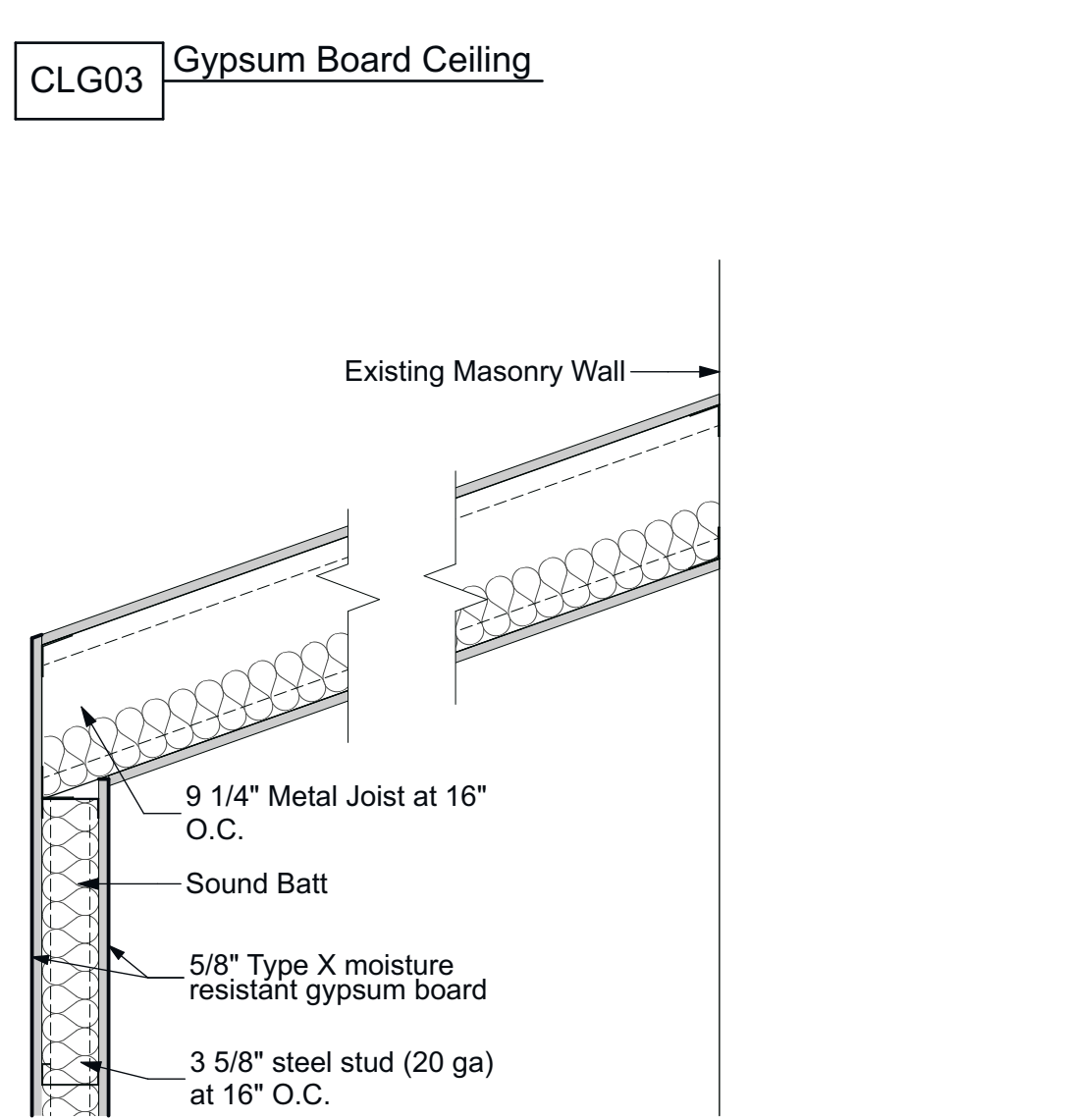
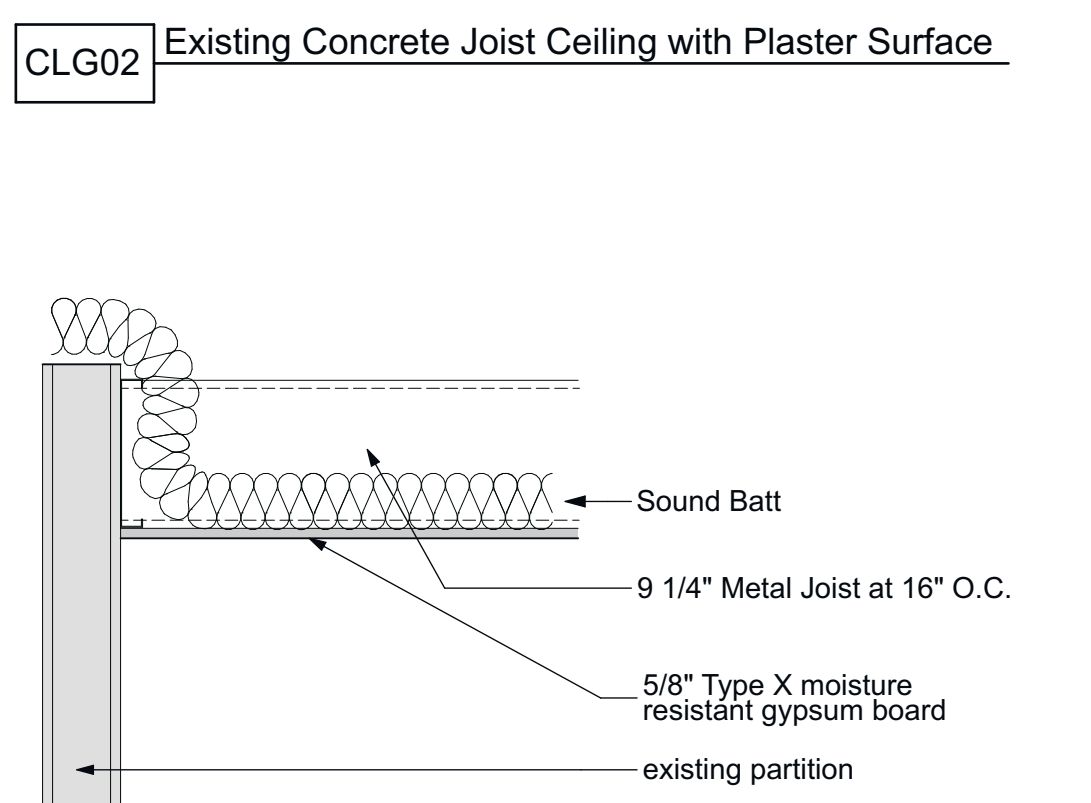
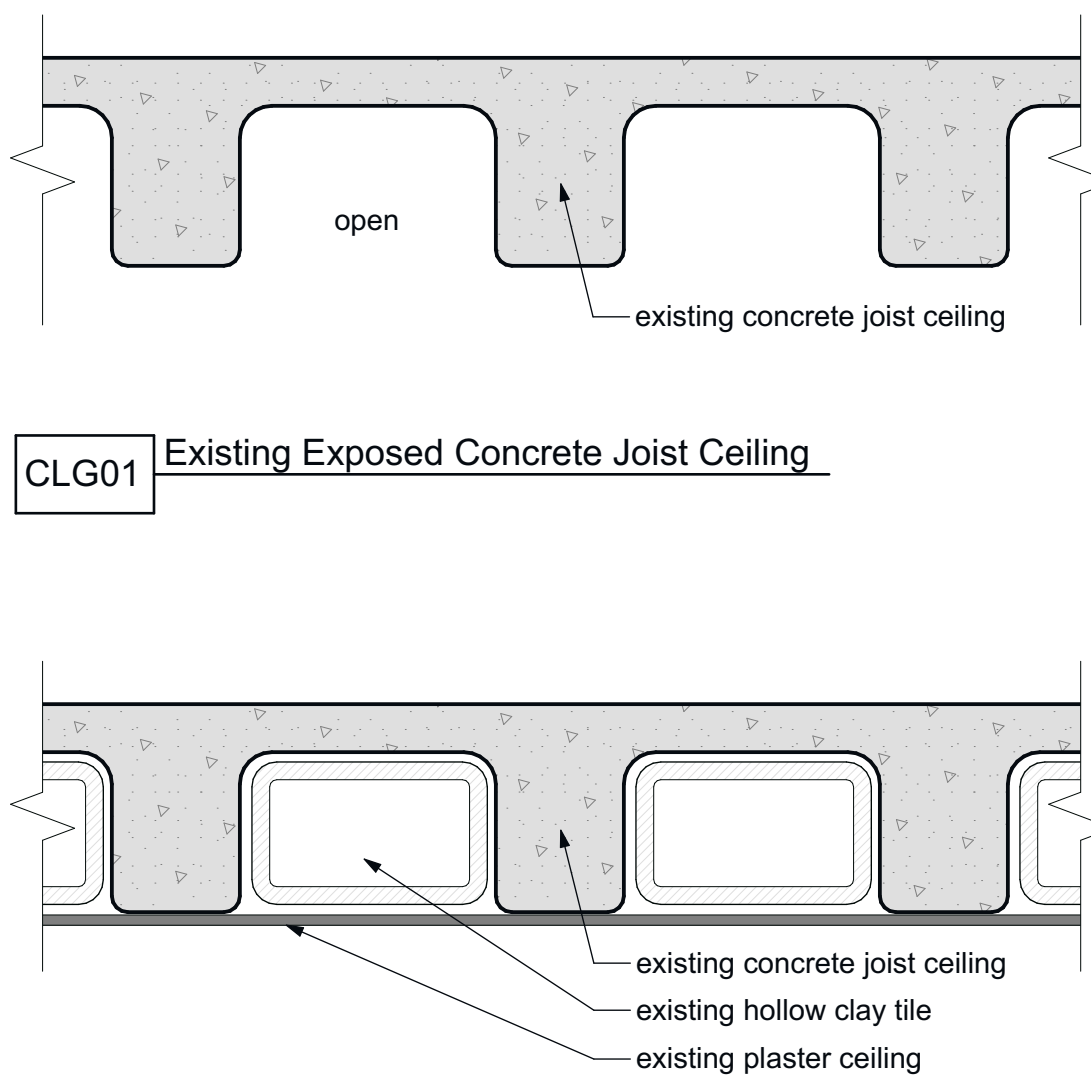
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A403

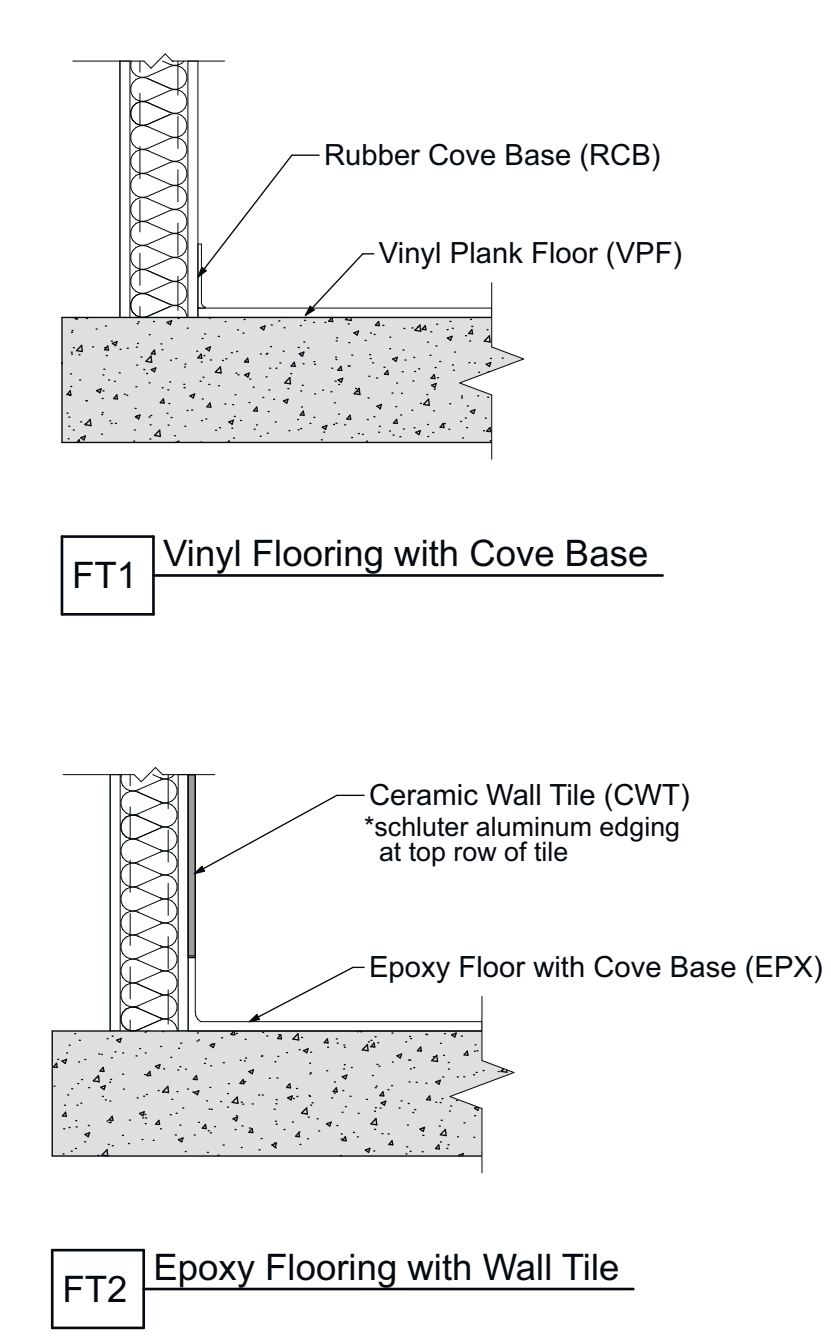
Wall Types



Ceiling Types



Flooring Types



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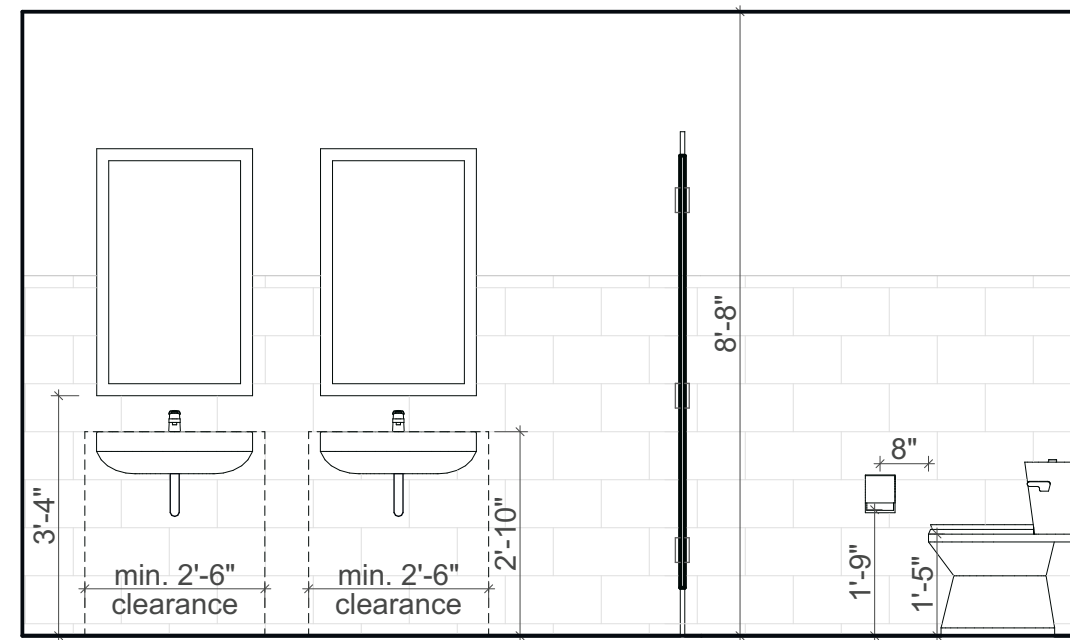
07/11/22	Schematic Plans	01
08/03/22	Design Review	02
03/07/23	60% CDs/VE Review Set	03
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06/11/24	Issue for Bid	05

Assemblies

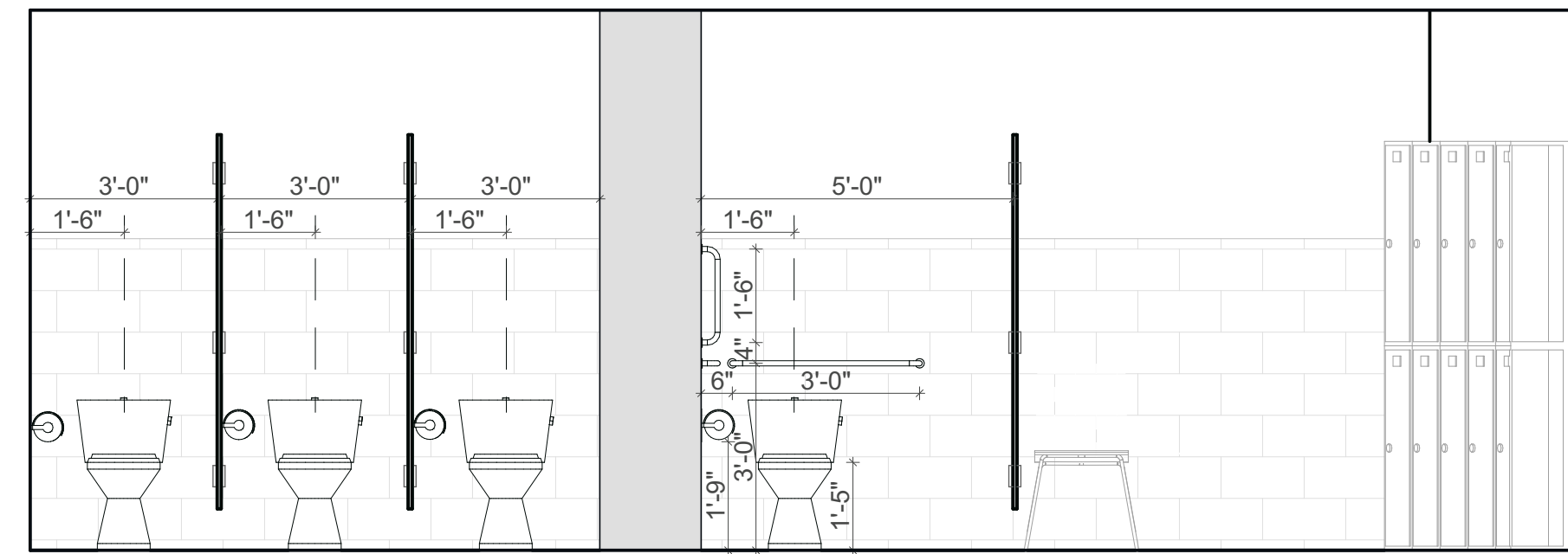
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A404

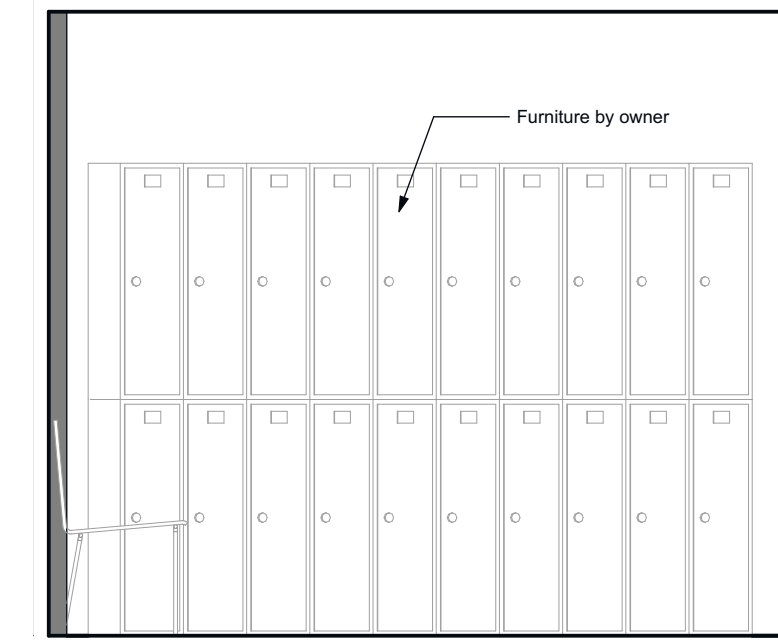
WC 0-W: Women's Shared Restroom



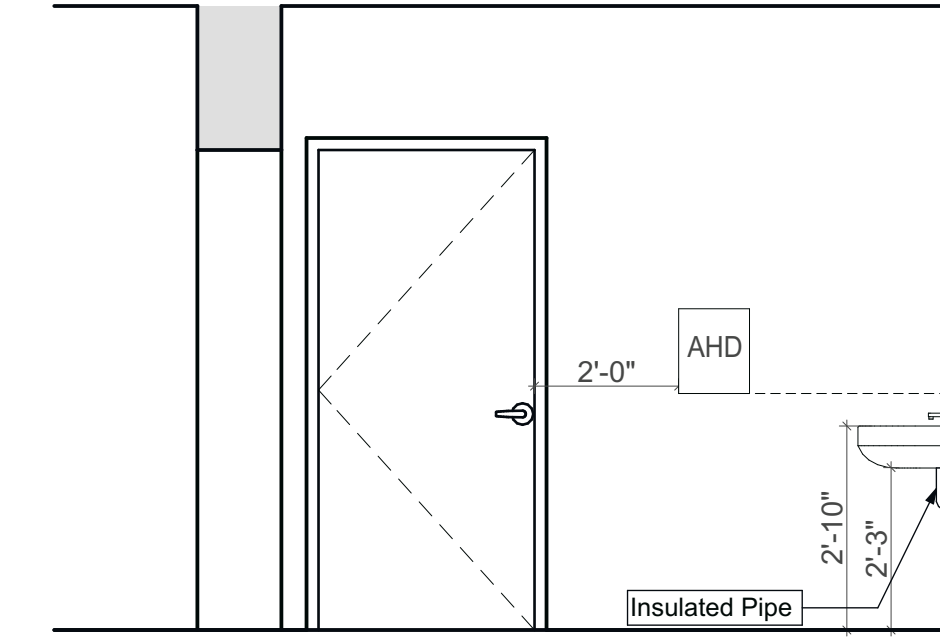
1 WC 0-W: E
A601 SCALE: 3/8" = 1'-0"



2 WC 0-W: S
A601 SCALE: 3/8" = 1'-0"

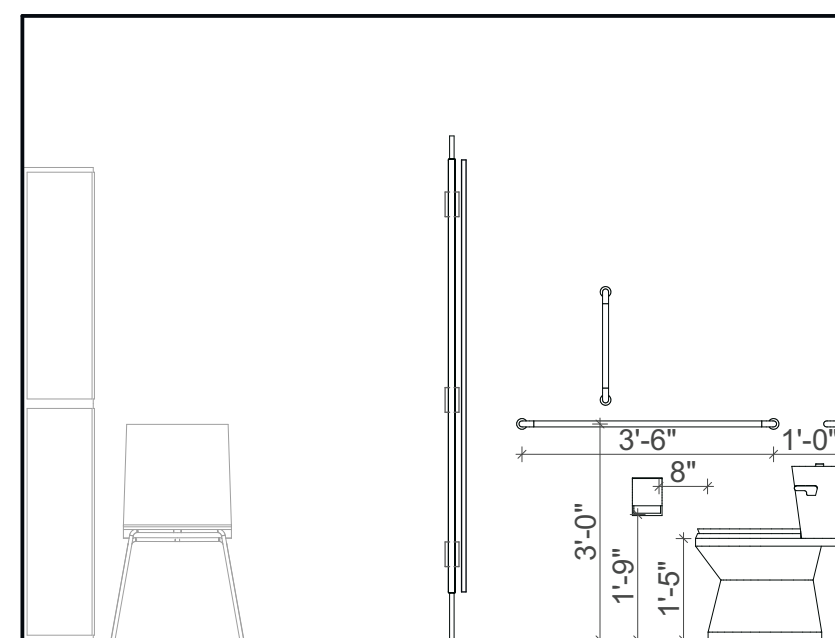


3 WC 0-W: W
A601 SCALE: 3/8" = 1'-0"

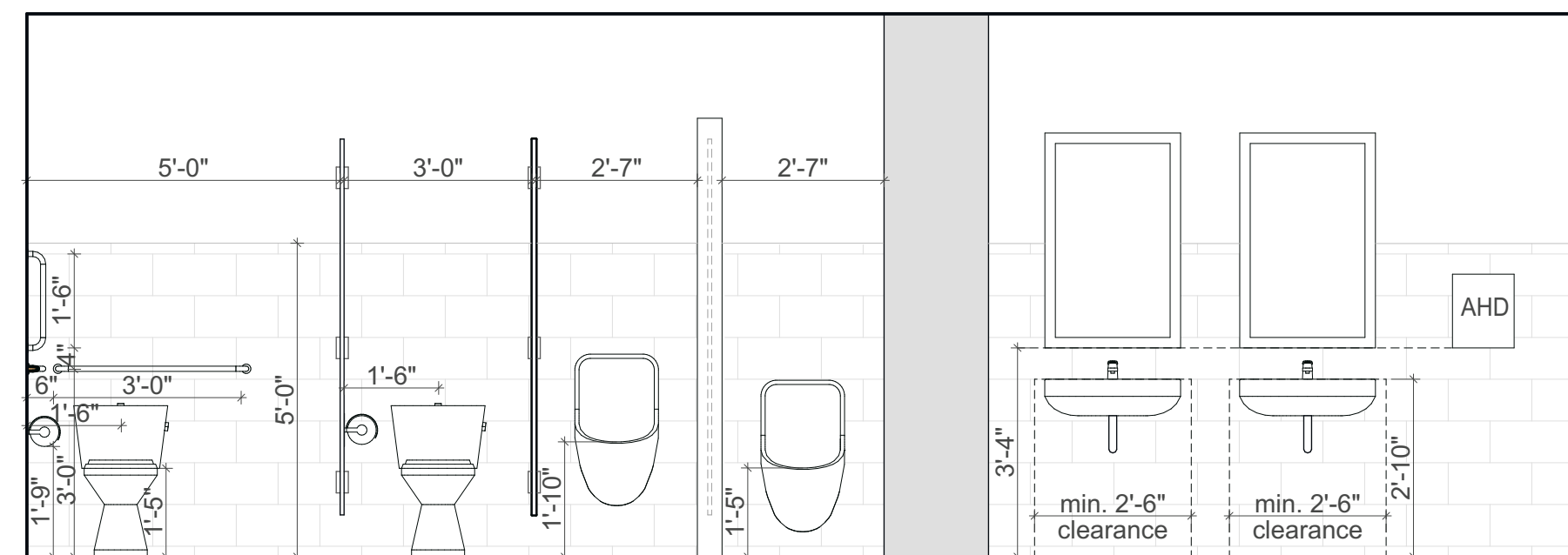


4 WC 0-W: N
A601 SCALE: 3/8" = 1'-0"

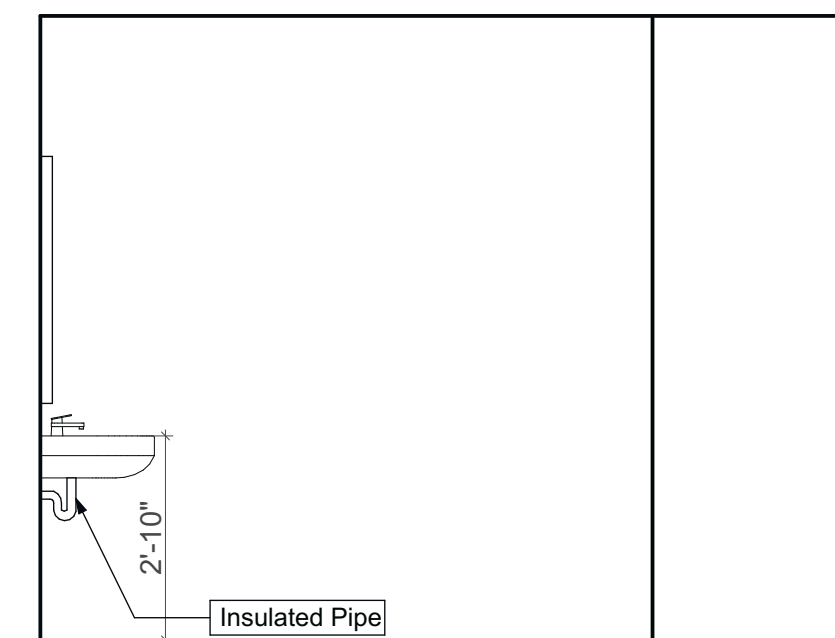
WC 0-M: Men's Shared Restroom



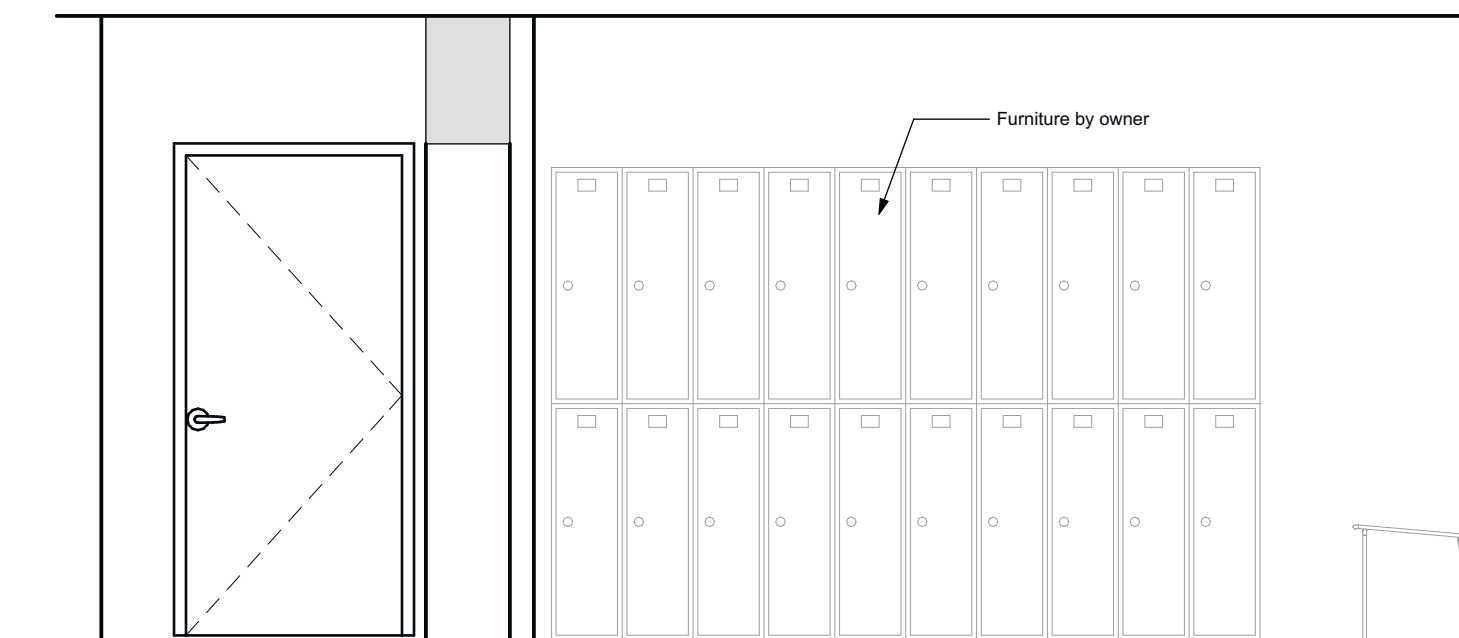
5 WC 0-M: W
A601 SCALE: 3/8" = 1'-0"



6 WC 0-M: N
A601 SCALE: 3/8" = 1'-0"



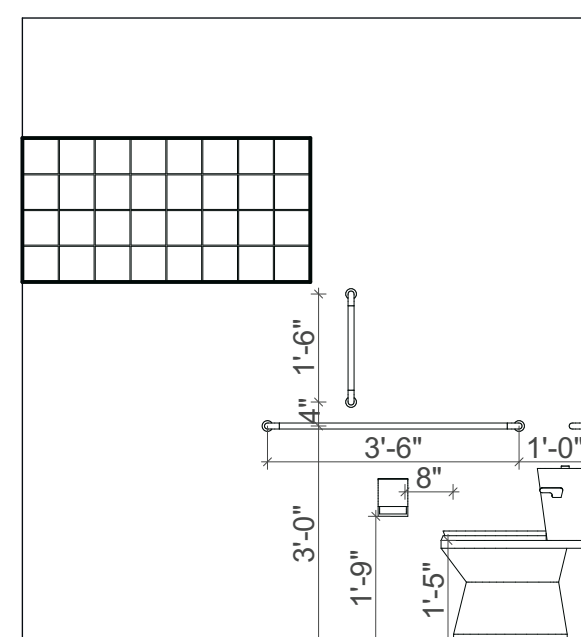
7 WC 0-M: E
A601 SCALE: 3/8" = 1'-0"



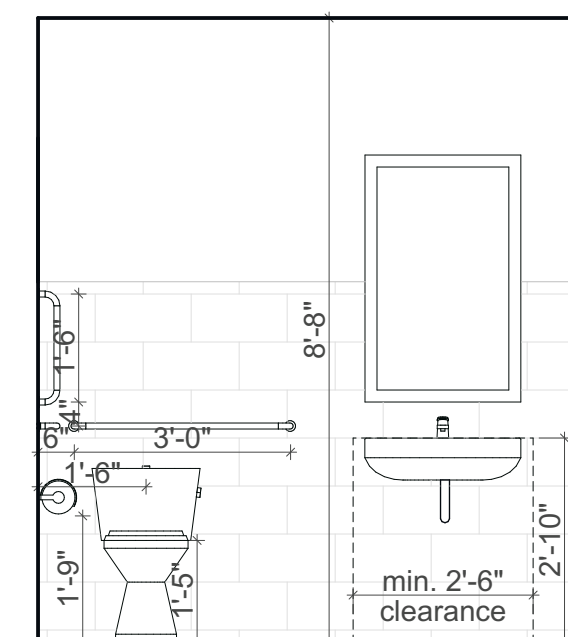
8 WC 0-M: S
A601 SCALE: 3/8" = 1'-0"

ADD ALTERNATE #1 LOCKER ROOMS

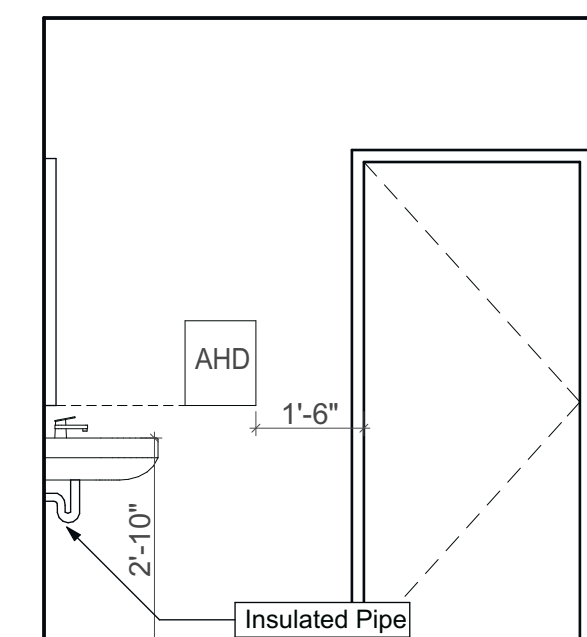
WC 0-W: Single User Restroom



9 WC 0-1: S
A601 SCALE: 3/8" = 1'-0"



10 WC 0-1: W
A601 SCALE: 3/8" = 1'-0"



11 WC 0-1: N
A601 SCALE: 3/8" = 1'-0"

ADD ALTERNATE #2 BASEMENT ADA RESTROOM & LAUNDRY

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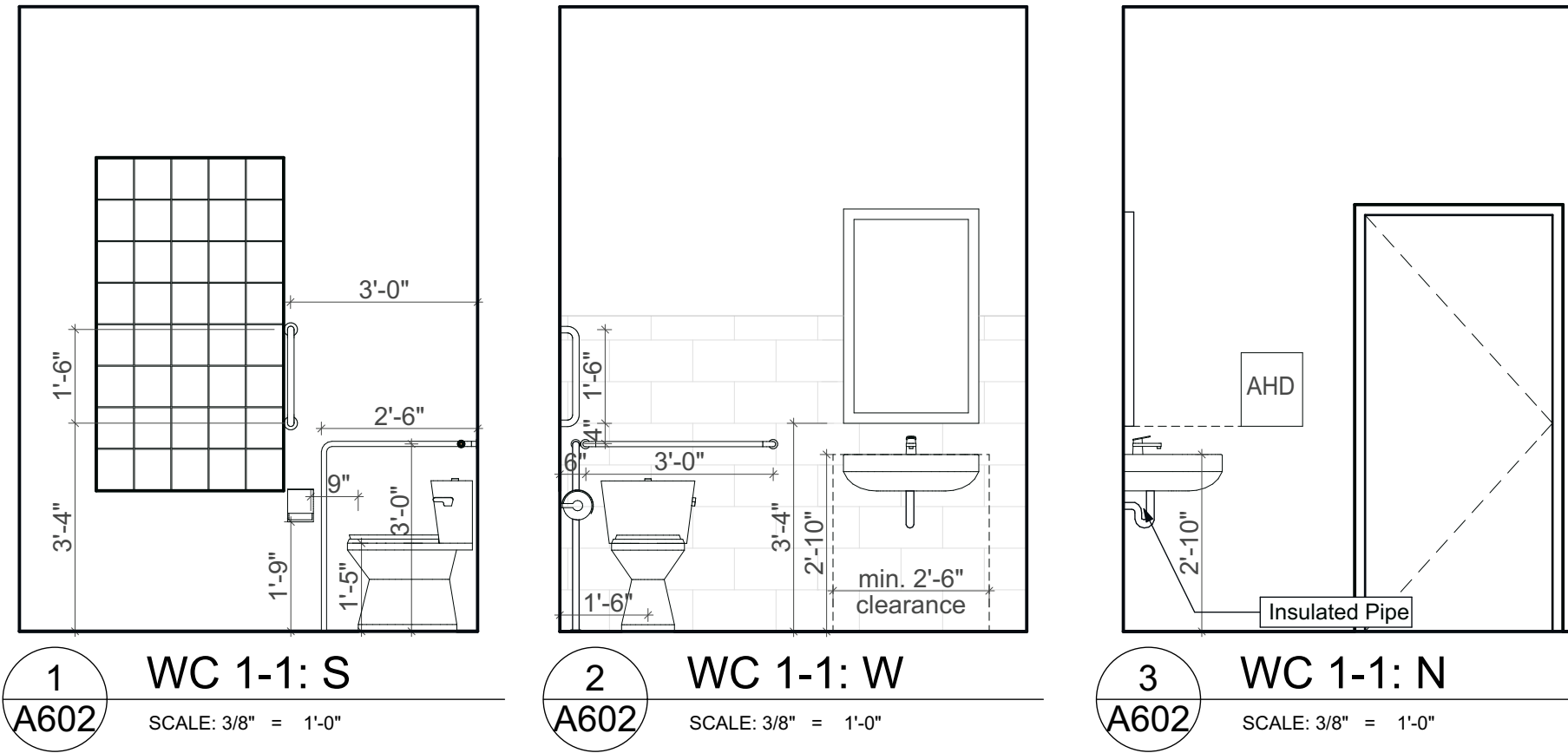
07/11/22	Schematic Plans	01
08/03/22	Design Review	02
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06/11/24	Issue for Bid	05

Interior Elevations: Lower Level

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A601

WC 1-1 Single User Restroom 1

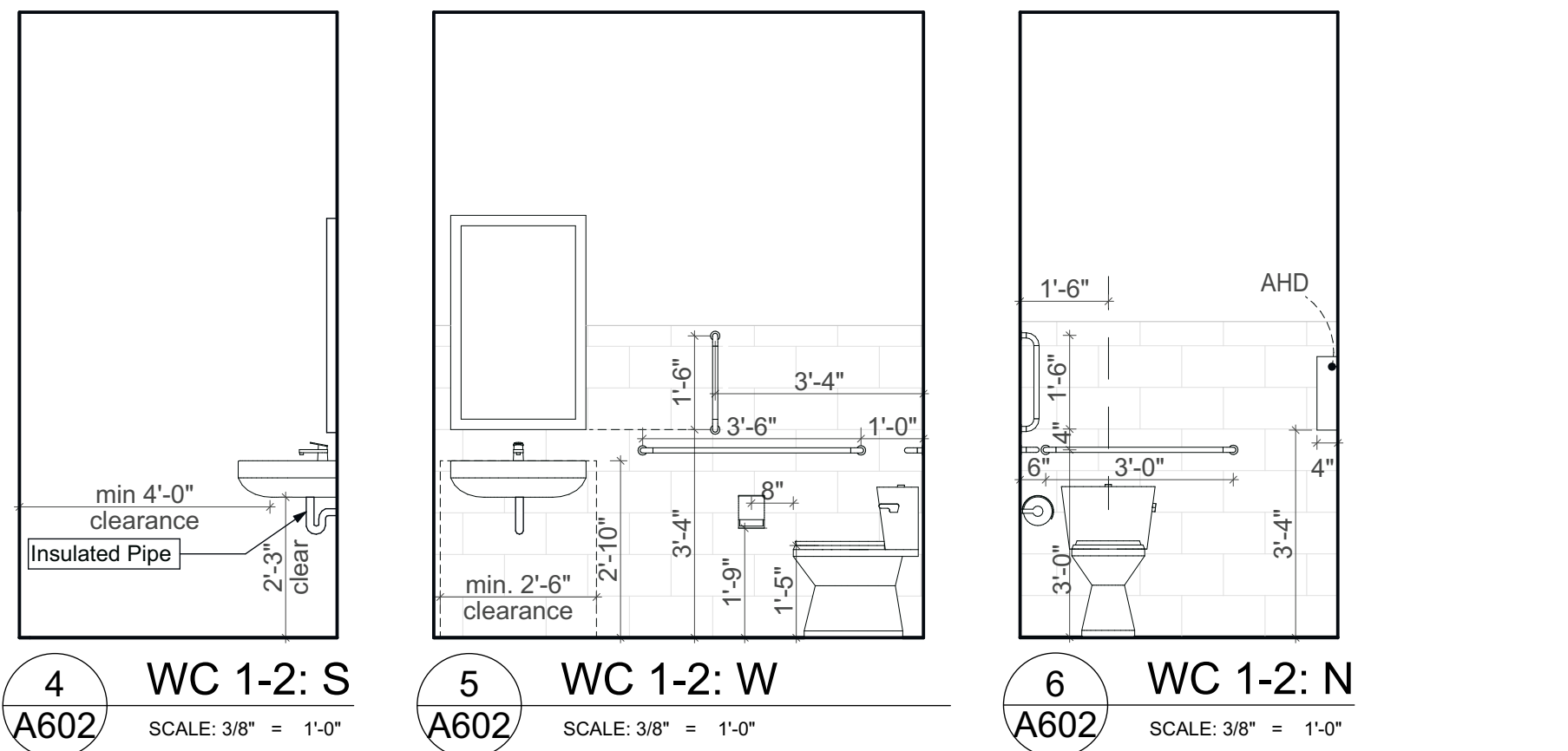


1 WC 1-1: S
A602 SCALE: 3/8" = 1'-0"

2 WC 1-1: W
A602 SCALE: 3/8" = 1'-0"

3 WC 1-1: N
A602 SCALE: 3/8" = 1'-0"

WC 1-2 Single User Restroom 2

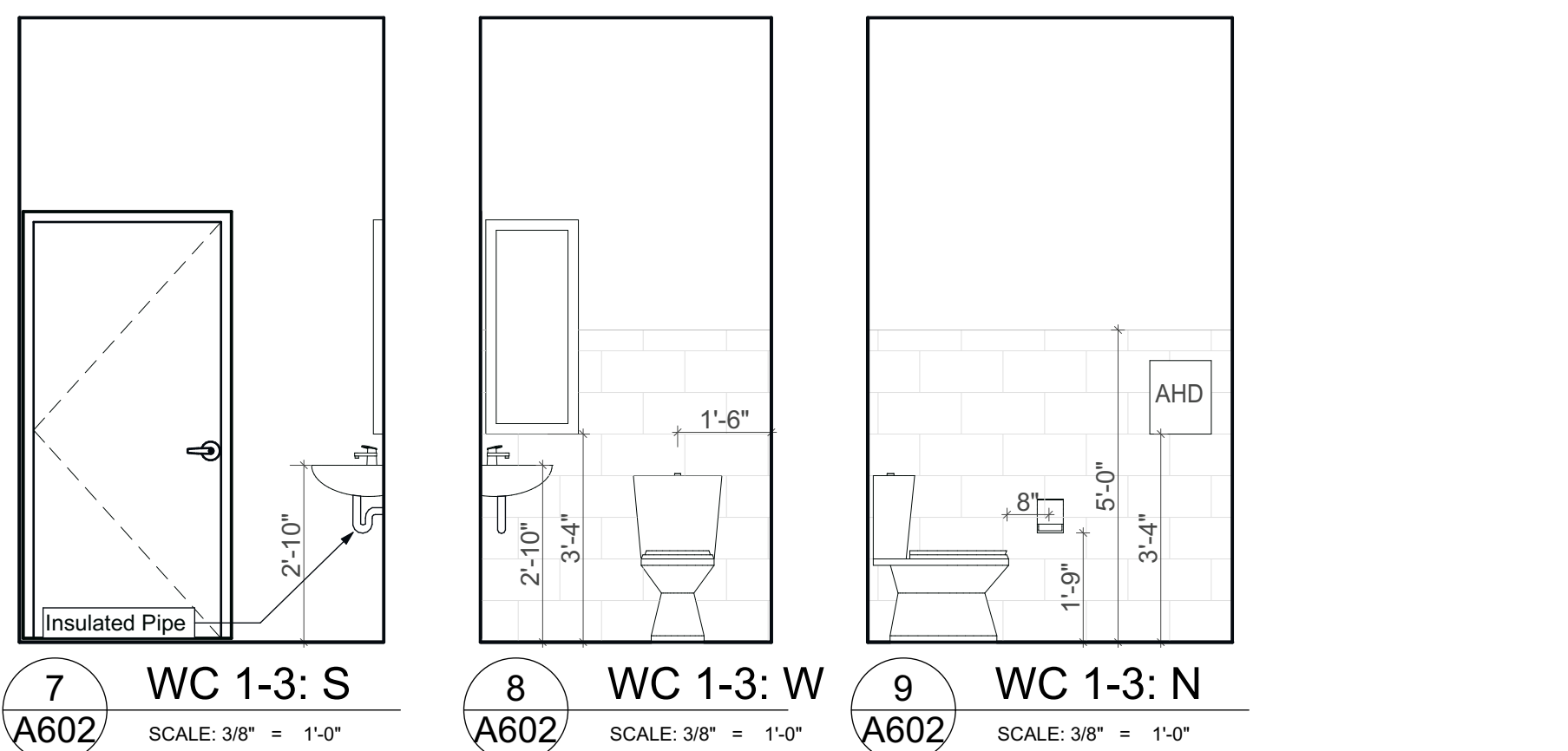


4 WC 1-2: S
A602 SCALE: 3/8" = 1'-0"

5 WC 1-2: W
A602 SCALE: 3/8" = 1'-0"

6 WC 1-2: N
A602 SCALE: 3/8" = 1'-0"

WC 1-2 Single User Restroom 3



7 WC 1-3: S
A602 SCALE: 3/8" = 1'-0"

8 WC 1-3: W
A602 SCALE: 3/8" = 1'-0"

9 WC 1-3: N
A602 SCALE: 3/8" = 1'-0"



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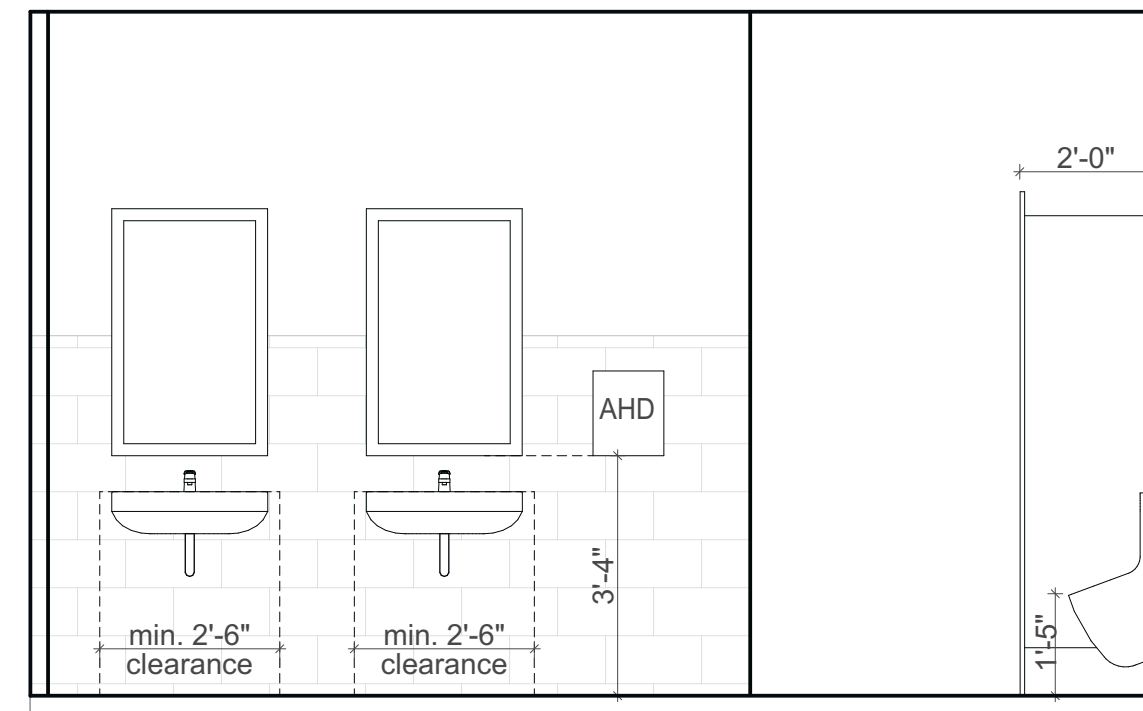
07/11/22	Schematic Plans	01
08/03/22	Design Review	02
03/07/23	60% CDs/VE Review Set	03
05/24/24	Issue for Final Review	04
06/11/24	Issue for Bid	05

Interior Elevations: 1st Floor

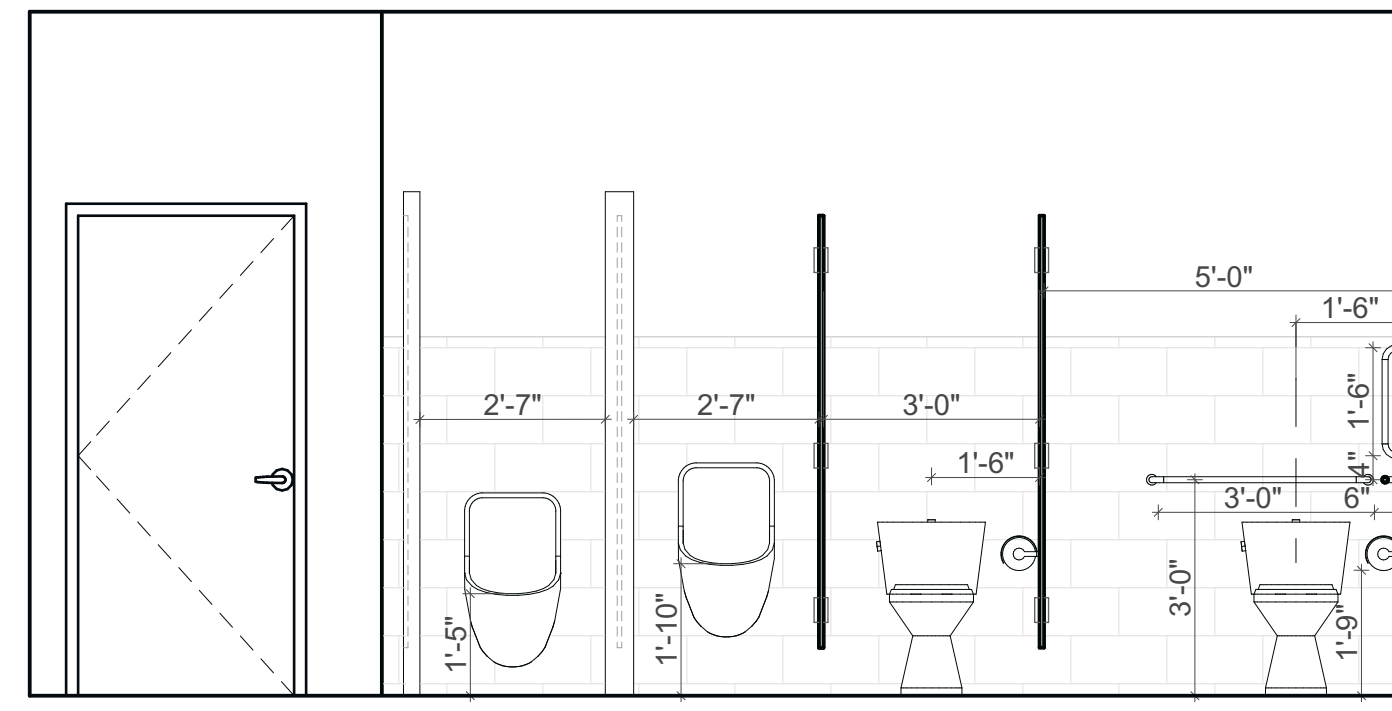
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A602

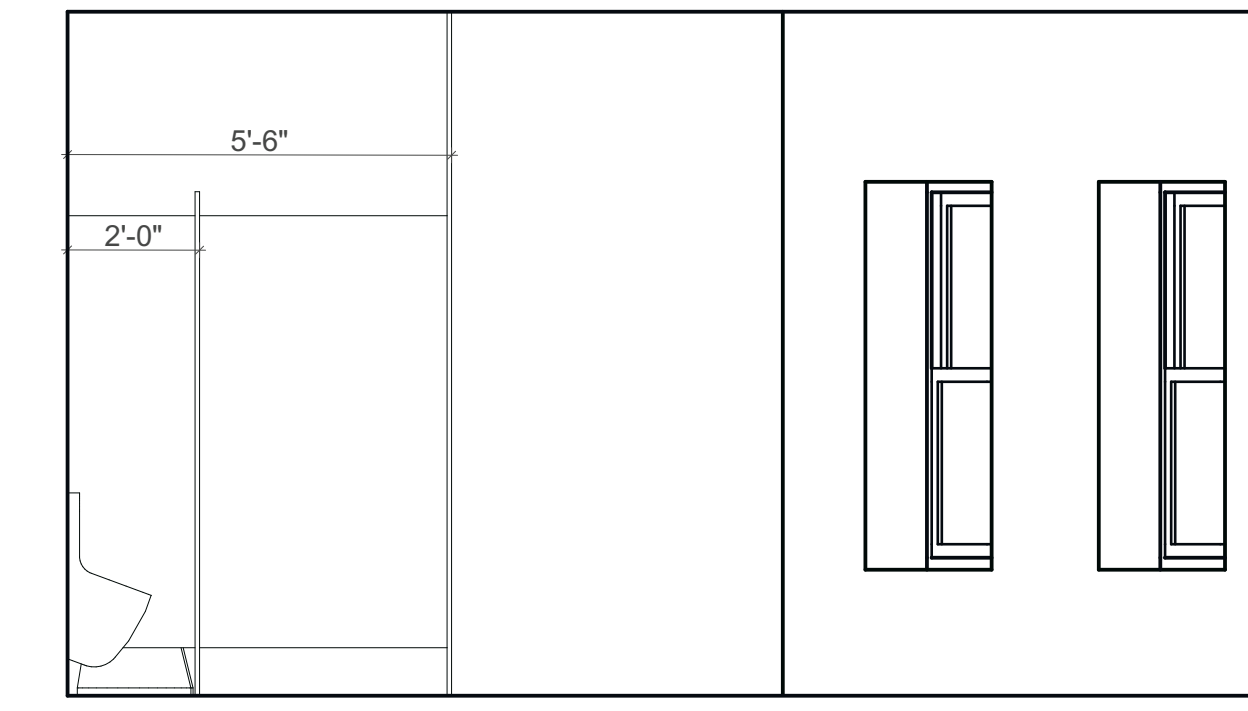
WC 2-M Men's Shared Restroom



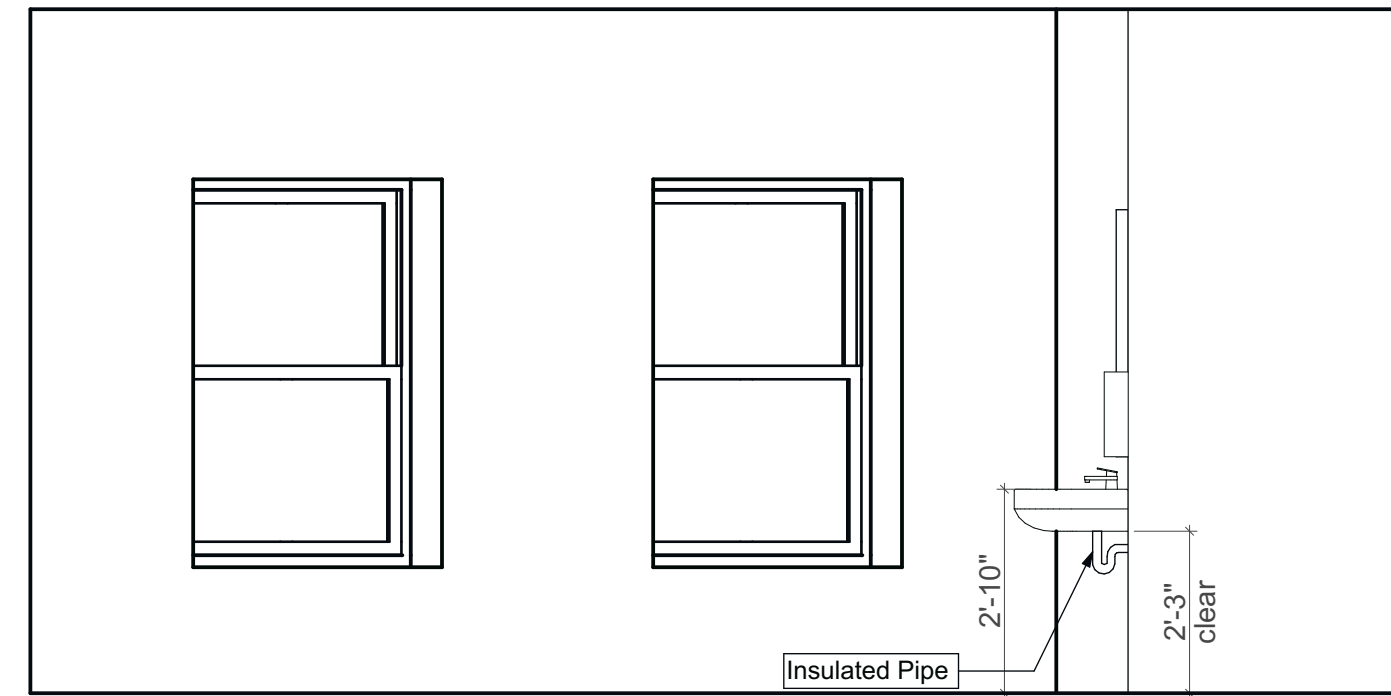
1 WC 2-M: N
A603 SCALE: 3/8" = 1'-0"



2 WC 2-M: E
A603 SCALE: 3/8" = 1'-0"

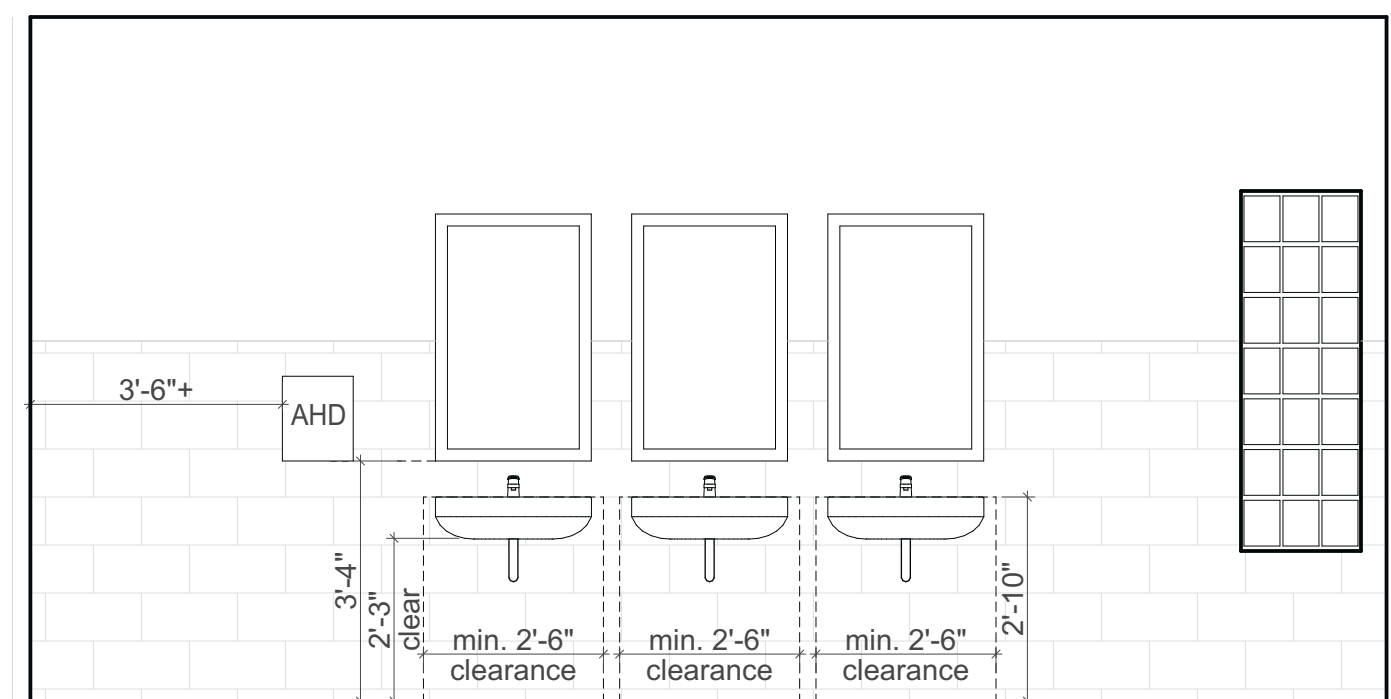


3 WC 2-M: S
A603 SCALE: 3/8" = 1'-0"

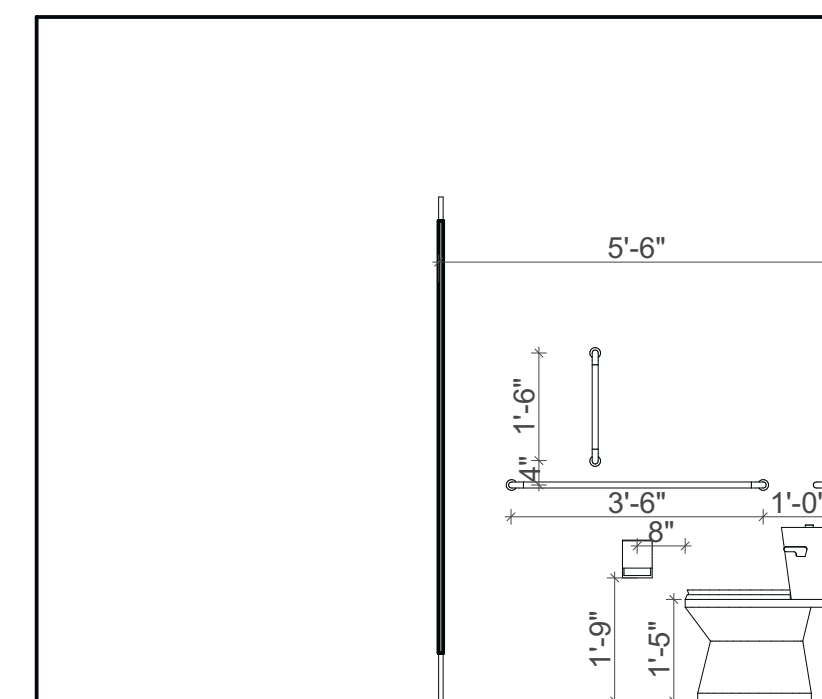


4 WC 2-M: W
A603 SCALE: 3/8" = 1'-0"

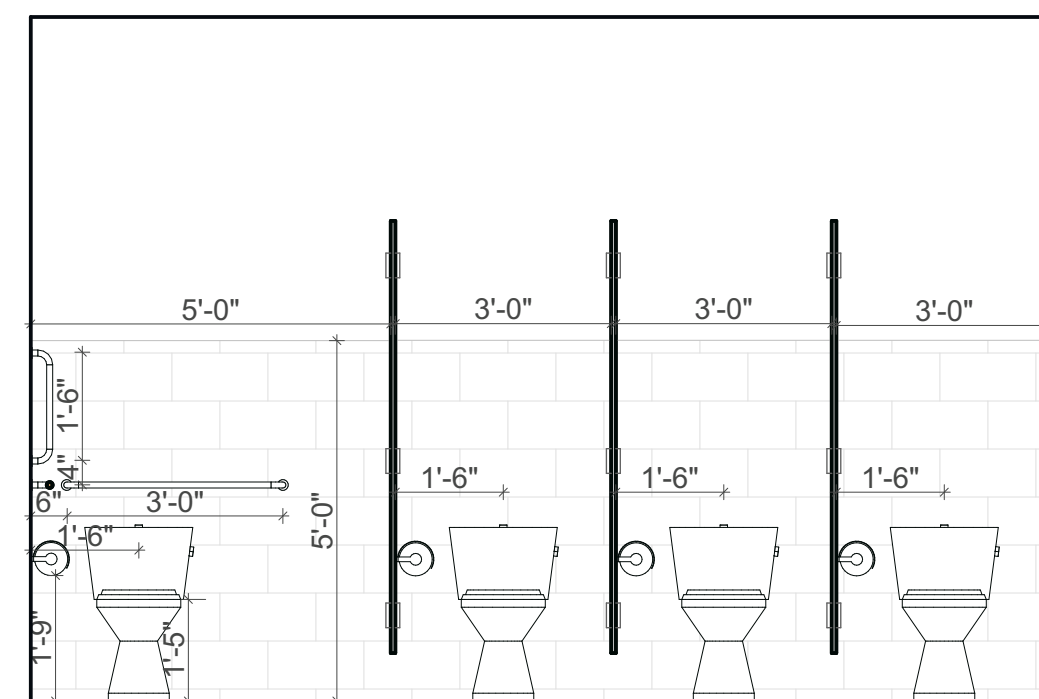
WC 2-1 Women's Shared Restroom



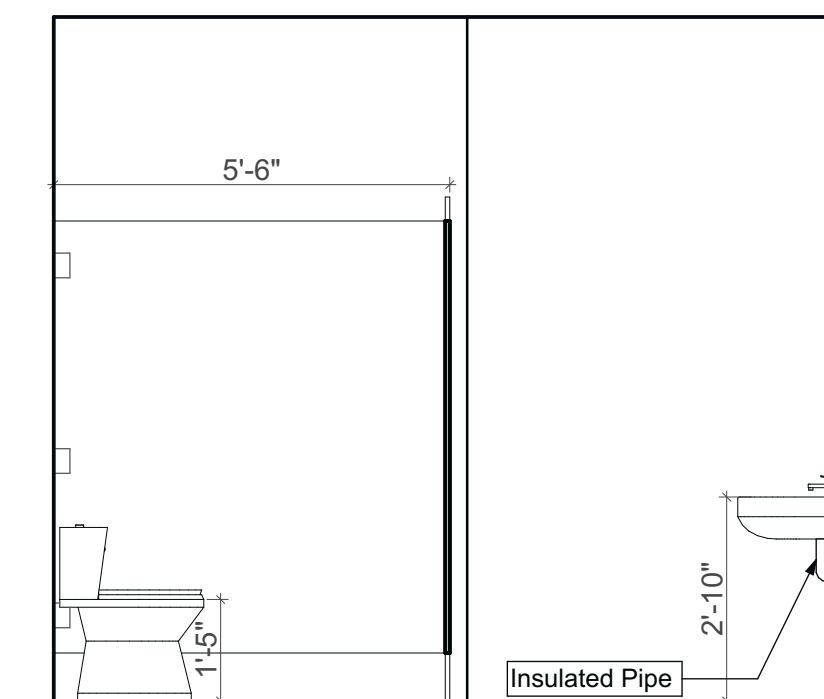
5 WC 2-W: E
A603 SCALE: 3/8" = 1'-0"



6 WC 2-W: S
A603 SCALE: 3/8" = 1'-0"

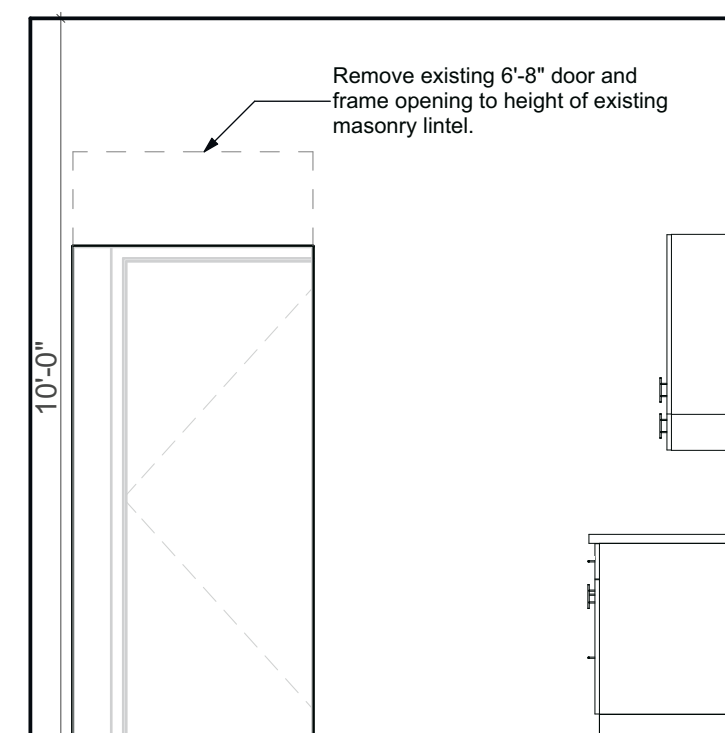


7 WC-W: W
A603 SCALE: 3/8" = 1'-0"

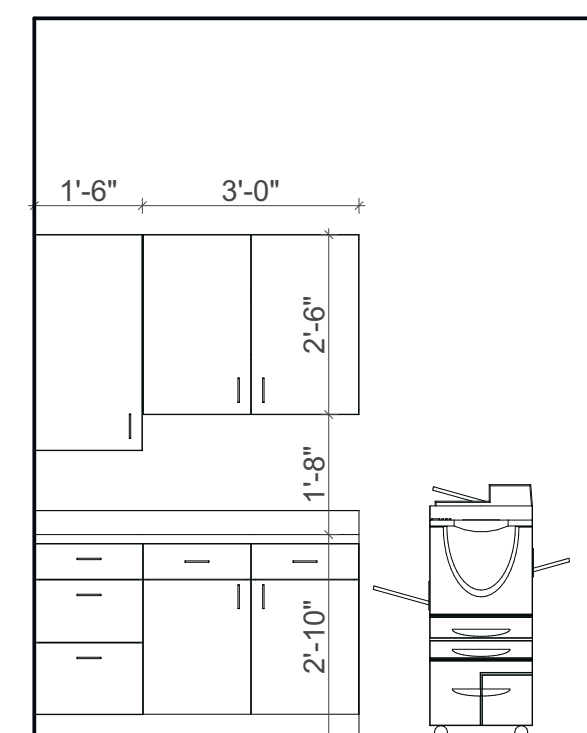


8 WC-W: N
A603 SCALE: 3/8" = 1'-0"

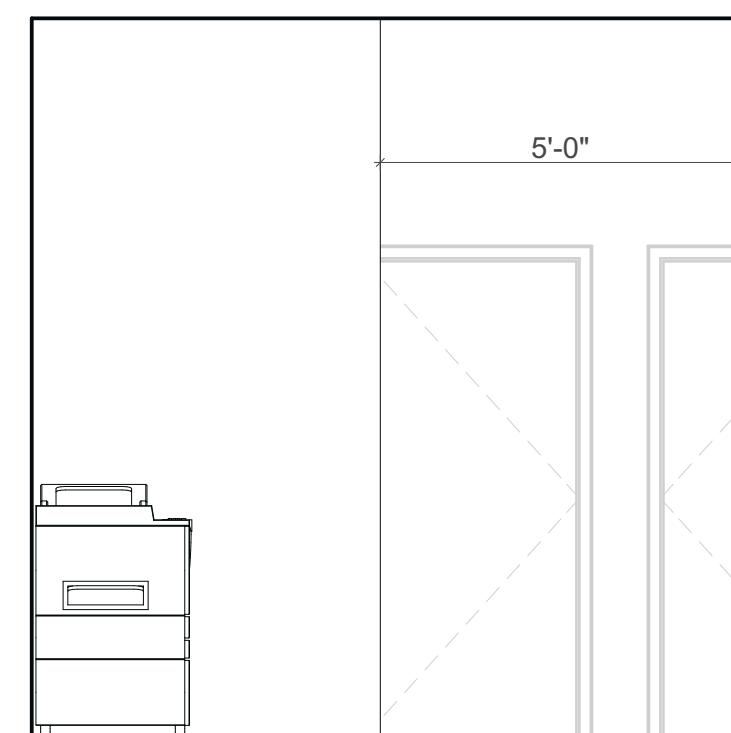
Copy I



9 Copy I: S
A603 SCALE: 3/8" = 1'-0"

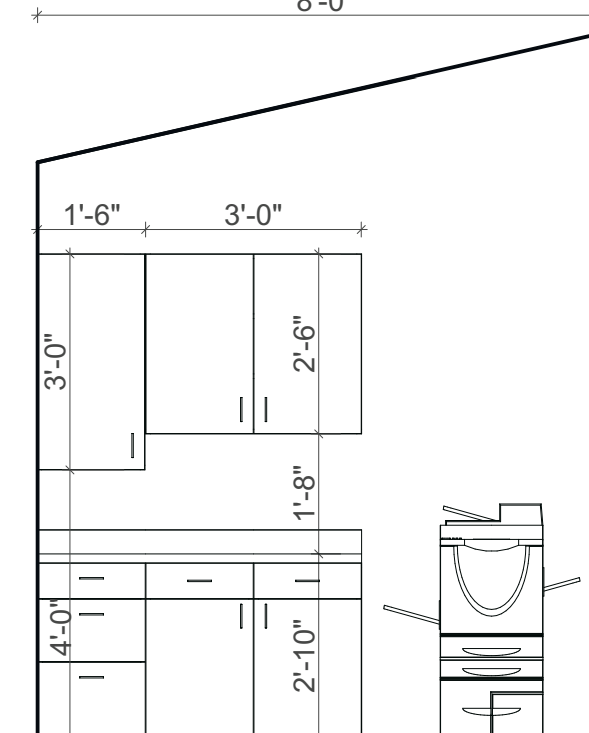


10 Copy I: W
A603 SCALE: 3/8" = 1'-0"

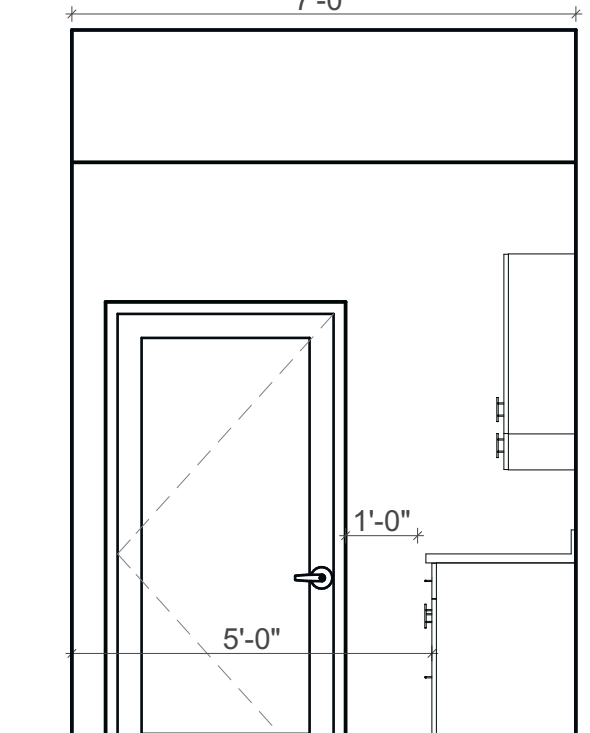


11 Copy I: N
A603 SCALE: 3/8" = 1'-0"

Copy II



12 Copy II: E
A603 SCALE: 3/8" = 1'-0"



13 Copy II: N
A603 SCALE: 3/8" = 1'-0"

ADD ALTERNATE #4 RESOURCE CENTER

Thresholds has standard millwork package from Studio41: All Millwork Stock by Smart Cabinetry, Lexington Cognac Maple Cabinet

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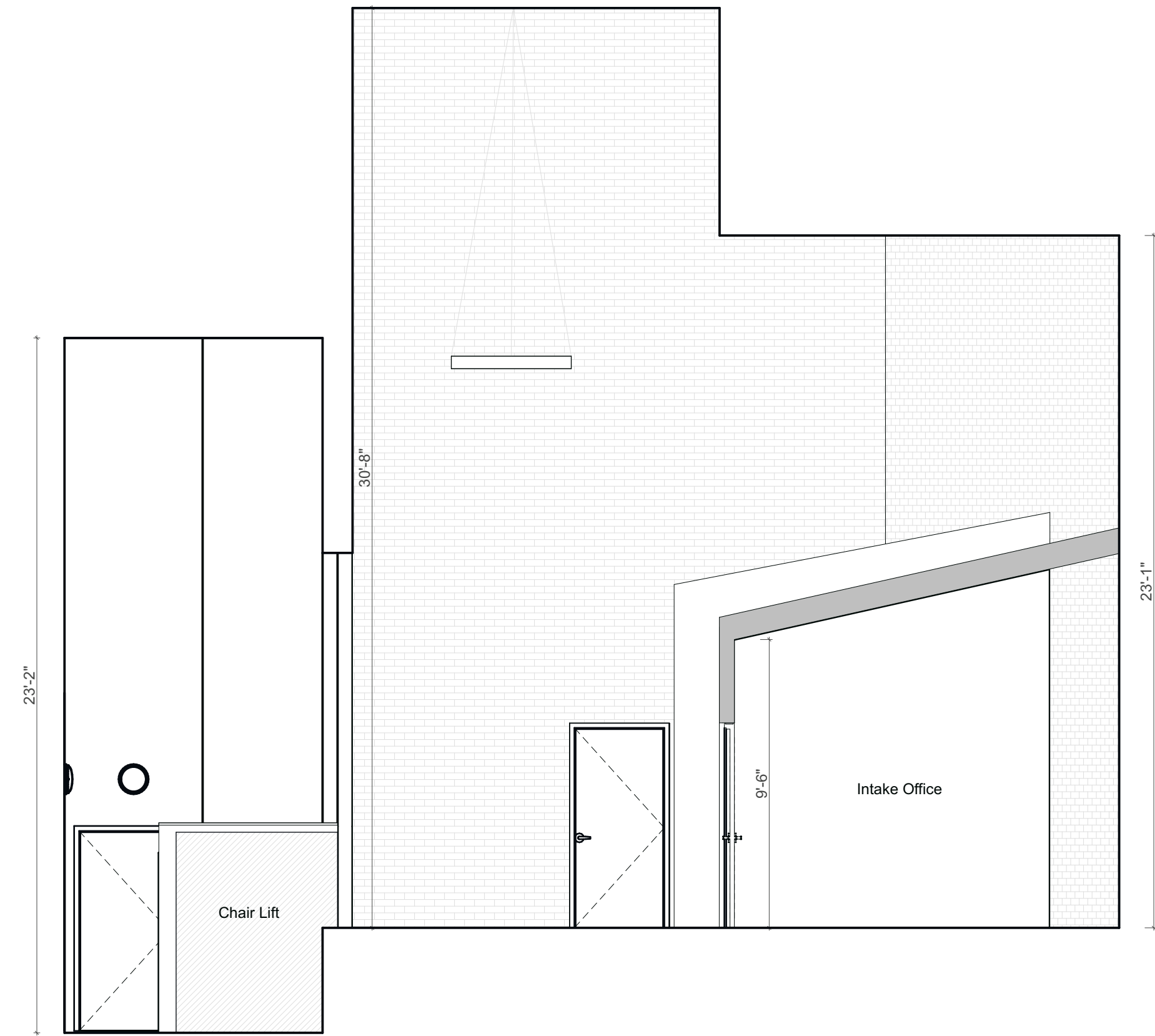
07/11/22	Schematic Plans	01
08/03/22	Design Review	02
03/07/23	60% CDs/VE Review Set	03
05/24/24	Issue for Final Review	04
06/11/24	Issue for Bid	05

Interior Elevations: 2nd Floor

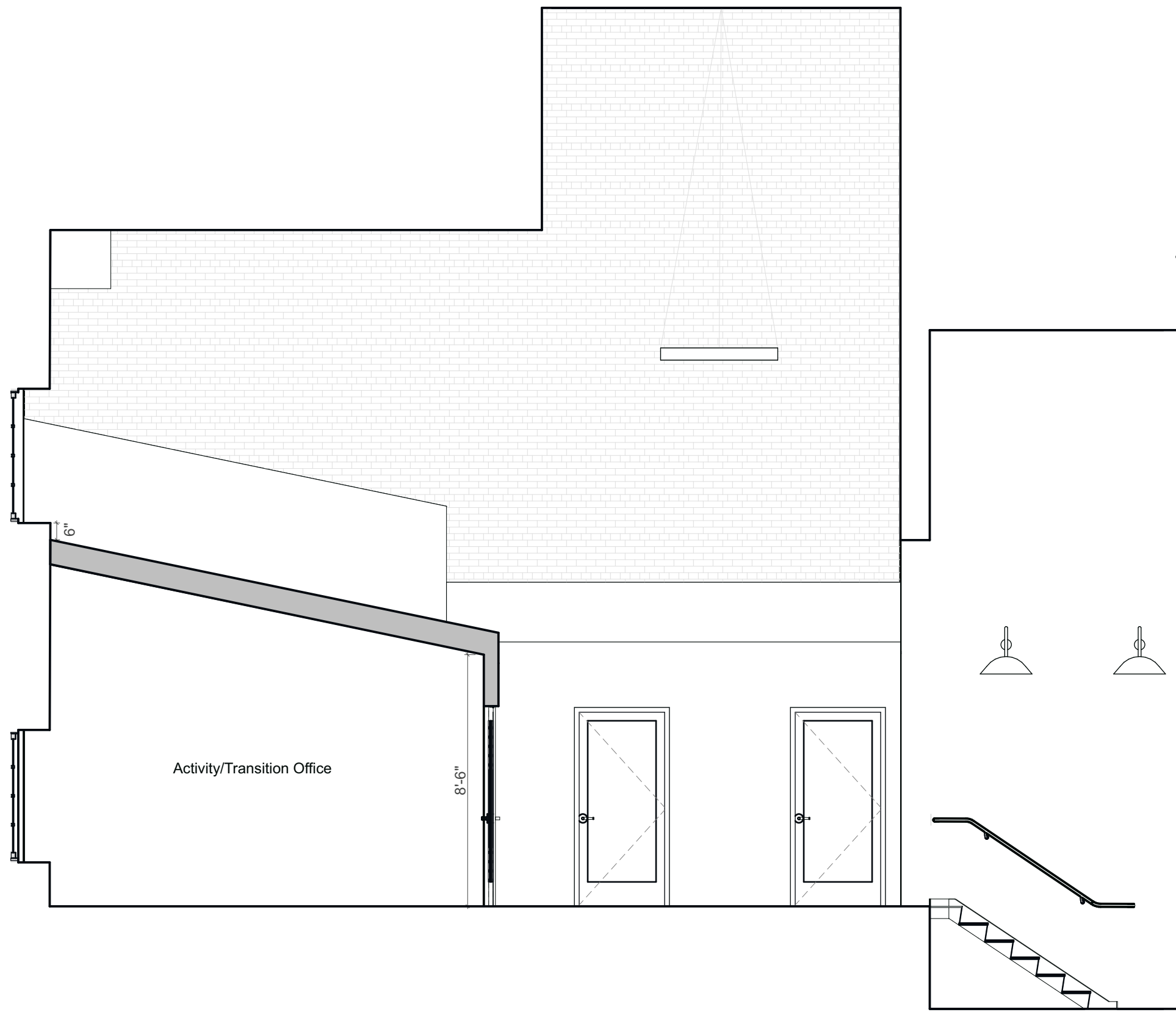
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A603

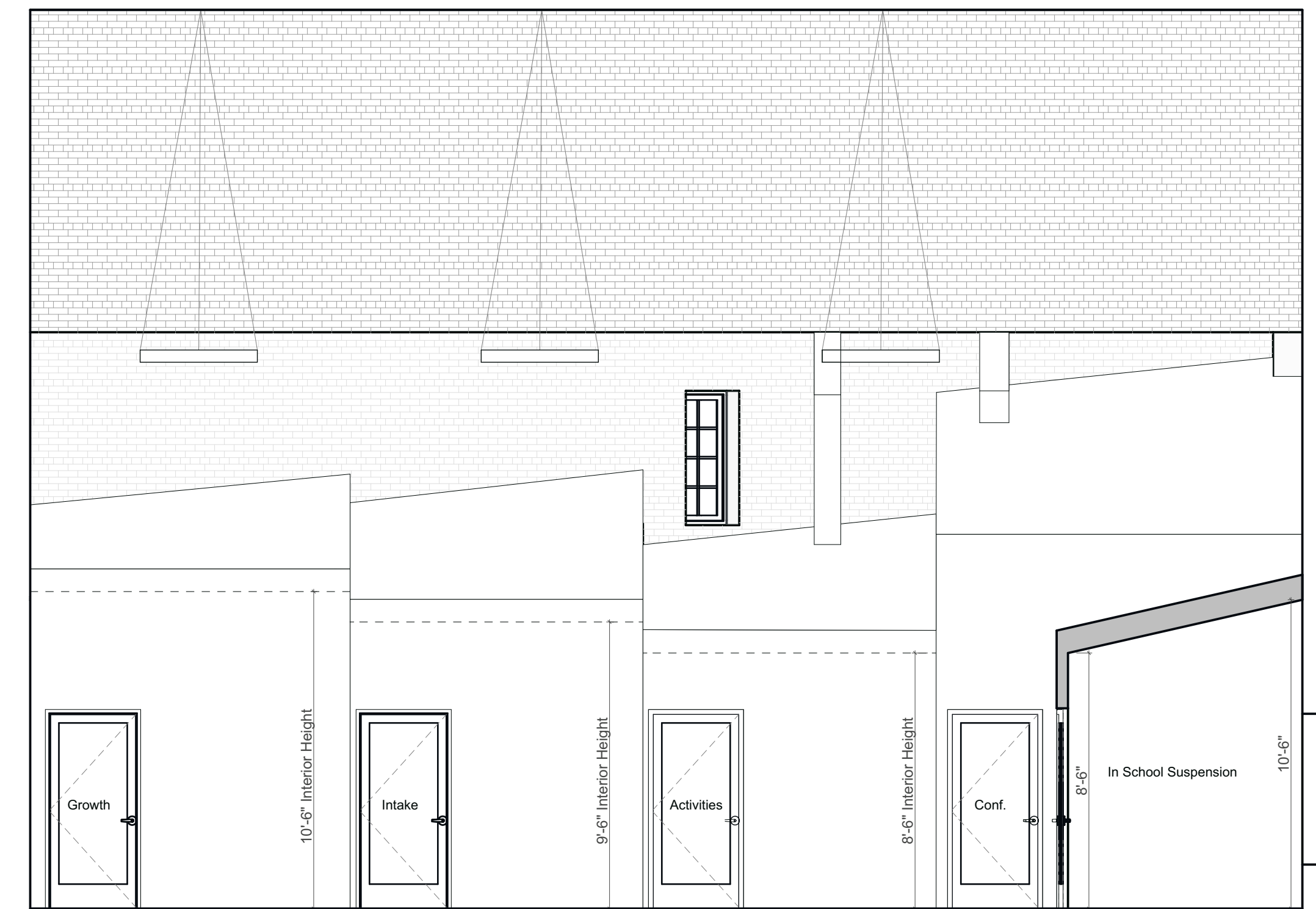
Stage Area Resource Center



Resource Lounge: N
A604 SCALE: 1/4" = 1'-0"



Resource Lounge: S
A604 SCALE: 1/4" = 1'-0"



Resource Lounge: E
A604 SCALE: 1/4" = 1'-0"

ADD ALTERNATE #4 RESOURCE CENTER



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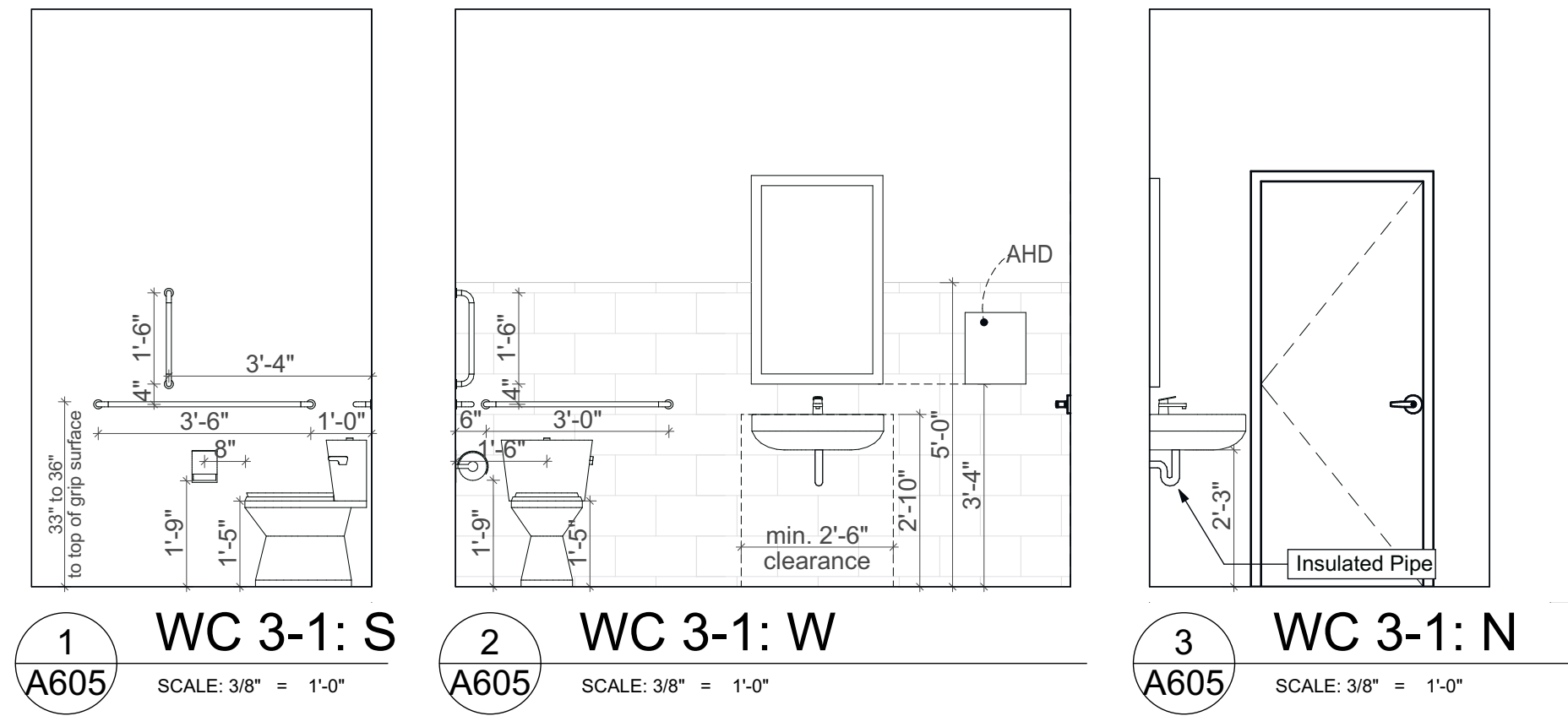
07/11/22	Schematic Plans	01
08/03/22	Design Review	02
03/07/23	60% CDs/VE Review Set	03
05/24/24	Issue for Final Review	04
06/11/24	Issue for Bid	05

Interior Elevations: 2nd Floor II

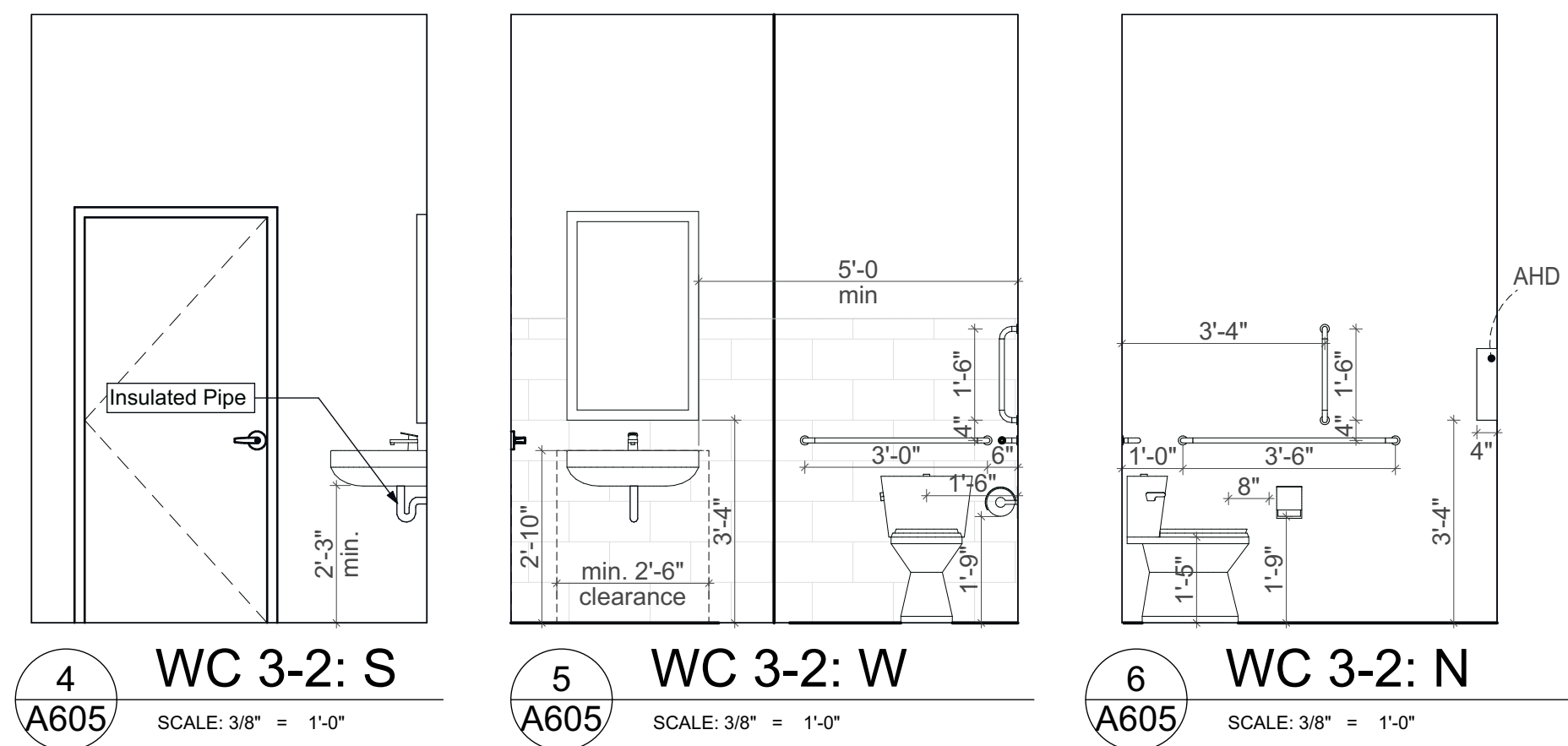
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A604

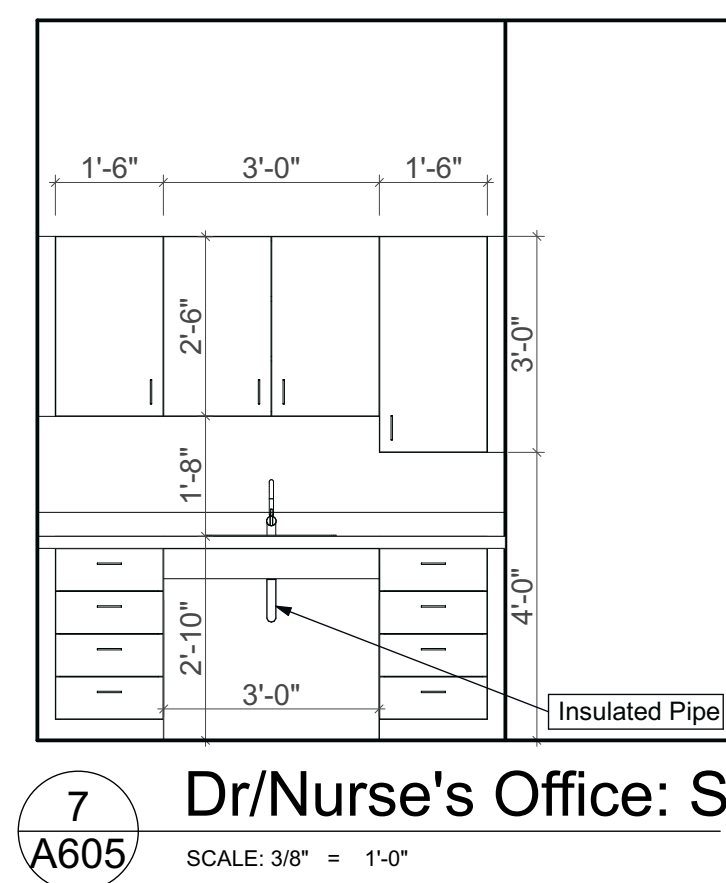
WC 3-1 Remodeled Single User Restroom



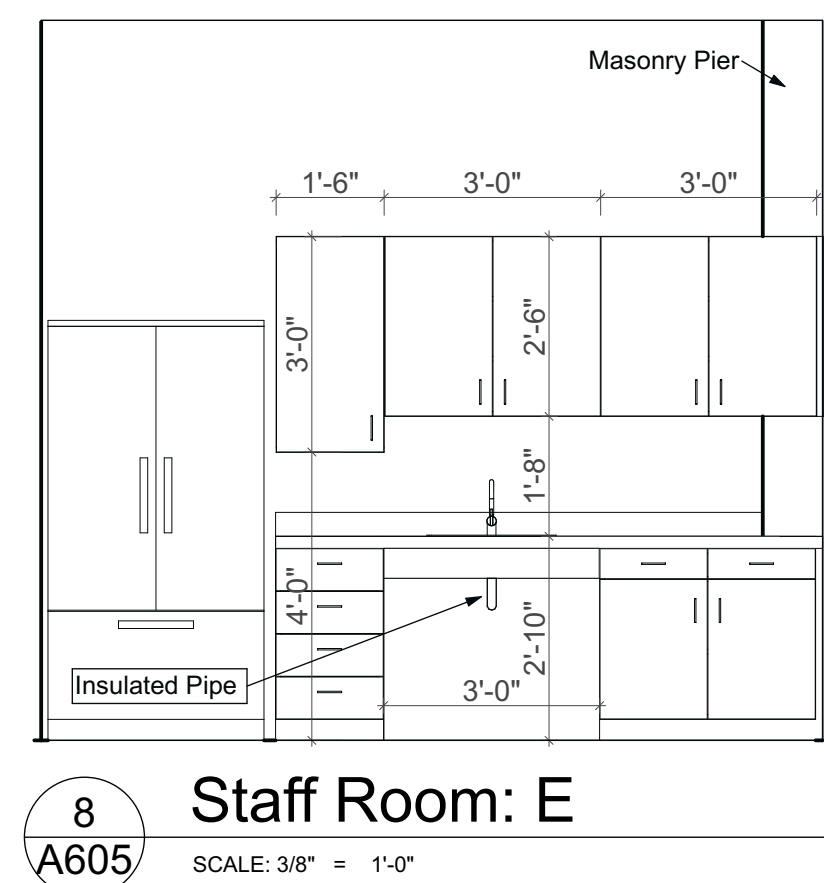
WC 3-2 New Single User Restroom



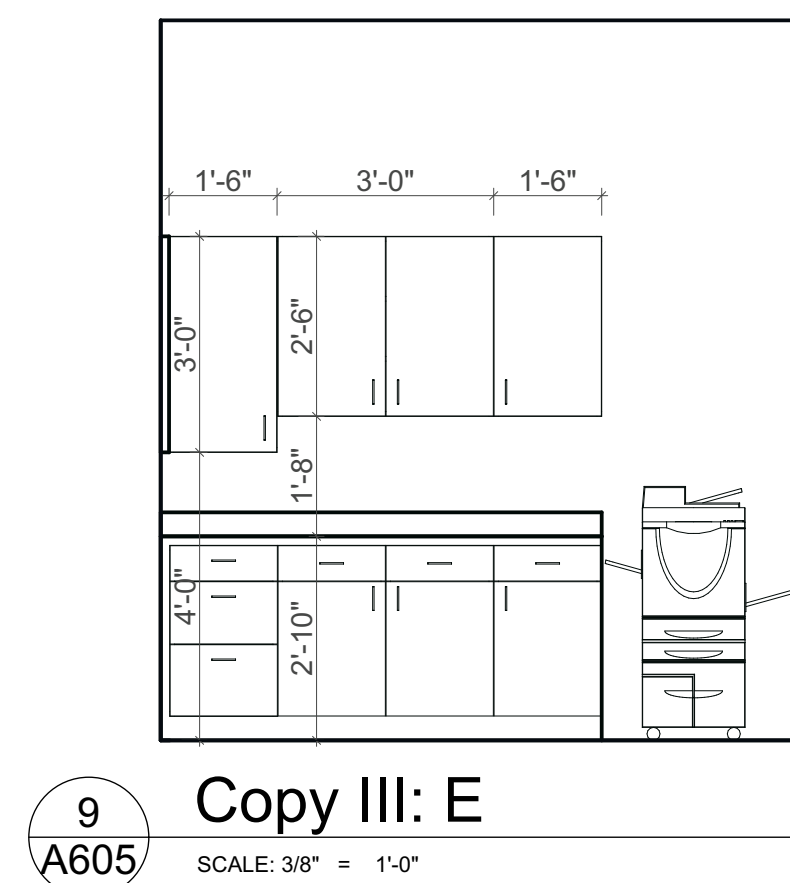
Dr/Nurse's Office



Staff Room



Therapy Team Office/Copy III



Thresholds has standard millwork package from Studio41: All Millwork Stock by Smart Cabinetry, Lexington Cognac Maple Cabinet



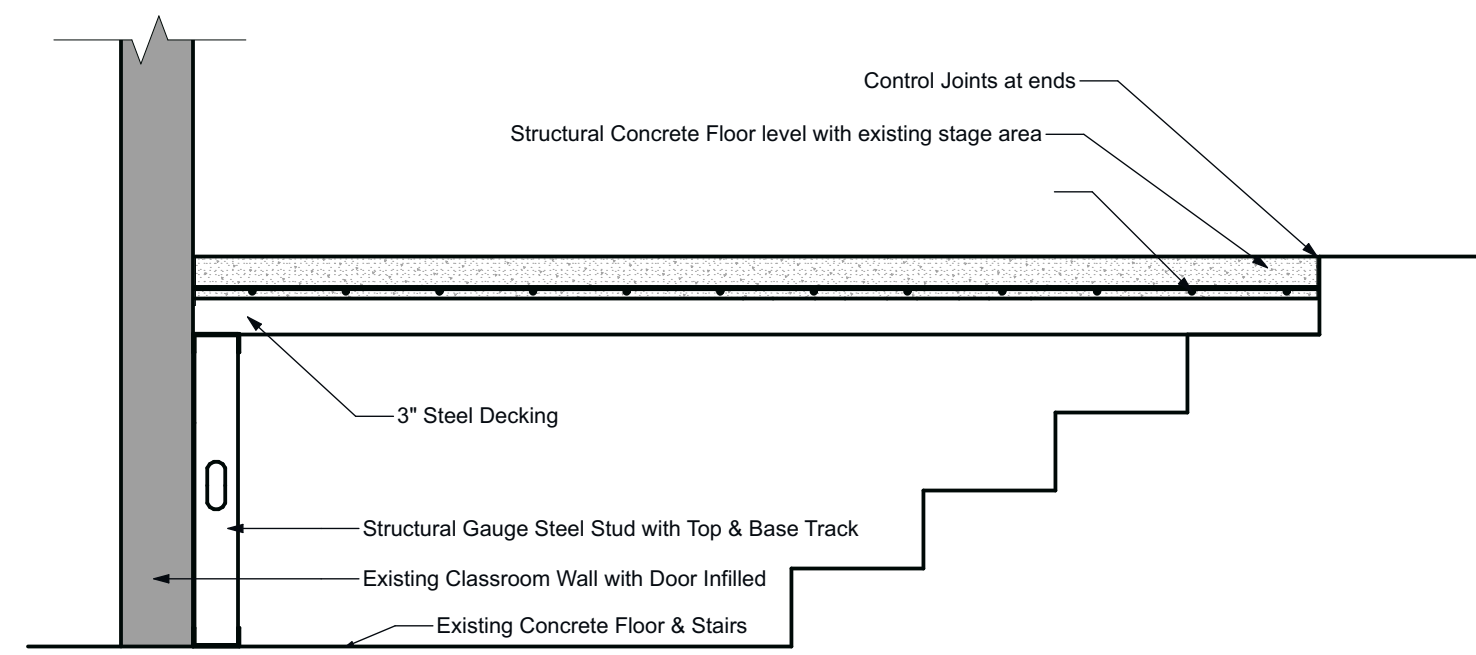
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Interior Elevations: 3rd Floor

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A605



1
A701

Stage Stair Infill

SCALE: 3/4" = 1'-0"

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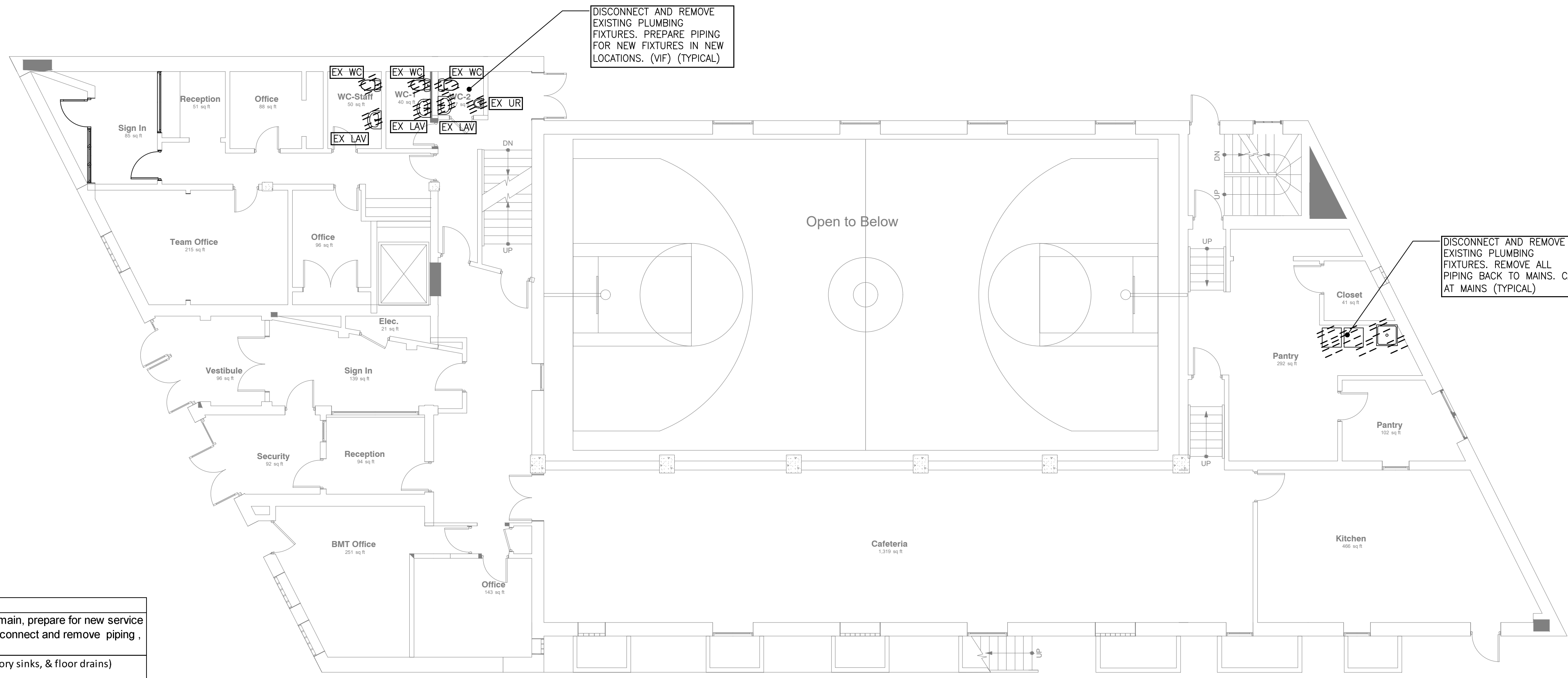
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07/11/22	Schematic Plans	01
08/03/22	Design Review	02
03/07/23	60% CDs/VE Review Set	03
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06/11/24	Issue for Bid	05

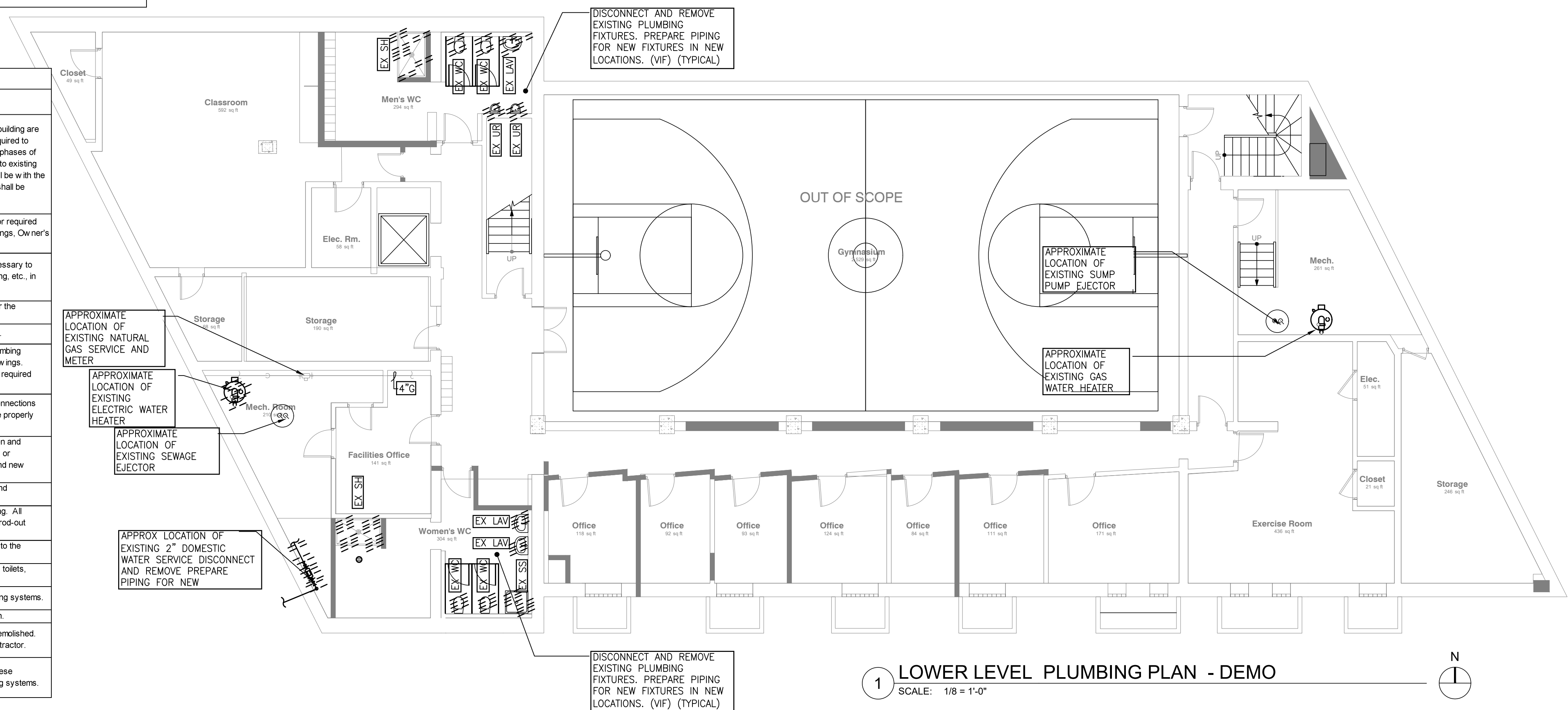
Details

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A701



2 FIRST FLOOR PLUMBING PLAN - DEMO
SCALE: 1/8" = 1'-0"

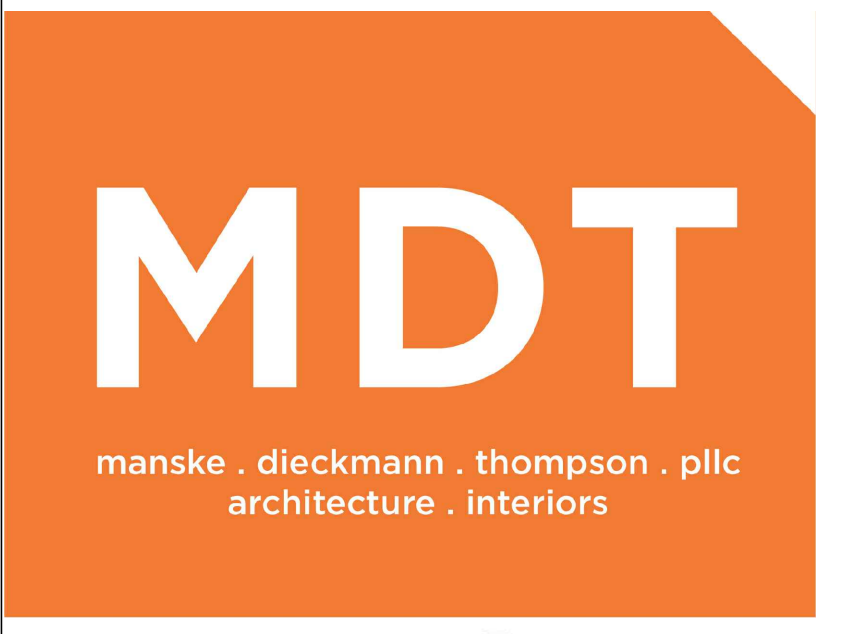


1 LOWER LEVEL PLUMBING PLAN - DEMO
SCALE: 1/8" = 1'-0"

PLUMBING SCOPE OF WORK DEMOLITION
Disconnect and remove existing domestic water service main, back to city main, prepare for new service plumbing contractor to verify existing conditions and extend of removal. Disconnect and remove piping, no "dead ends" branch lines shall remain, prepare area for new piping
Disconnect and remove existing plumbing fixtures (water closets, urinals, lavatory sinks, & floor drains) prepare for area for new plumbing fixture and new piping
Disconnect and remove existing electric water heater including not limited to hot, cold piping and power source
Jet-clean all underground sanitary piping and basins. Video tape and provide plan-keyed report of pipe conditions including exact location and magnitude of needed repairs. Provide cost to repair damage piping.

GENERAL PLUMBING DEMOLITION NOTES

1	The Contractor shall maintain all services in the existing building for all periods that portions of the building are occupied by the Owner. This shall include all temporary or permanent piping connections, etc., required to provide and maintain present building systems and the equipment served during new construction phases of the work. In the case of change-over piping and where new service connections are to be made to existing services and service interruptions, if one can in no way be avoided, the service interruptions shall be with the minimum of inconvenience to the Owner. All costs incurred in order to comply with the foregoing shall be included in the Contractor's original bid for the work without further costs to the Owner.
2	The Contractor(s) shall furnish all materials, equipment, scaffolding, rigging and labor necessary for required demolition of Plumbing systems through-out and in accordance with all governing codes, the drawings, Owner's requirements and as specified.
3	The Contractor(s) shall take such protective measures and precautions as may be required or necessary to prevent injury or accidents to workmen or passers-by. Provide guard rails, fences, planking, lighting, etc., in accordance with the particular conditions and O.S.H.A. requirements.
4	The Contractor(s) shall provide all necessary information regarding existing Plumbing equipment for the electrical demolition.
5	Remove all debris from the job site daily and leave all work and equipment in a clean working order.
6	Layout is diagrammatic and Contractor(s) shall verify all equipment, piping, plumbing shafts and plumbing fixtures in the field. Verify all conditions, such as interior wall systems, etc., with other trades' draw ings. Minimize the damage to existing ceilings and walls and coordinate with the General Contractor any required changes. Coordinate all work with the other trades.
7	Disconnect, remove and cap-off all above grade plumbing piping and all plumbing fixtures. All disconnections shall be in a concealed locations, for example: below the floor and in the walls. Drain lines shall be properly plugged, flanged or capped.
8	Remove all unused plumbing stack drains, water and vent lines, and downspouts. During demolition and remodeling, reroute active piping through adjacent walls (approved by the Architect) for temporary or permanent installation. All Plumbing stacks in the project shall to remain active despite demolition and new construction activity.
9	All existing plumbing fixtures and piping to be retained shall be covered and sealed from damage and construction dust.
10	Verify in the field the locations and conditions of all existing, above and below grade plumbing piping. All existing drain lines (above and below grade) that new piping to be connected, shall be completely rod-out cleaned before and after construction.
11	If the Contractor(s) discover any problems with the existing systems, they should report in writing to the Architect for direction for repair or other corrections of the existing systems.
12	Remove all specified plumbing equipment, piping and fixtures. This includes the removal of existing toilets, lavatories, sinks, drinking fountains, etc., as noted or as required by the architectural work.
13	See architectural drawings for the scope of the new work and the necessary demolition of plumbing systems.
14	Temporarily reroute water, sanitary, vent and/or storm piping to accommodate phased construction.
15	Safety disconnect all plumbing and piping connections to the buildings and apartment units being demolished. Verify the buildings and phasing with the architectural and civil site plans and with the general contractor.
16	Obtain from the Owner all existing drawings and equipment information for the project. Refer to these documents in determining existing conditions and requirements for restoring and balancing plumbing systems.



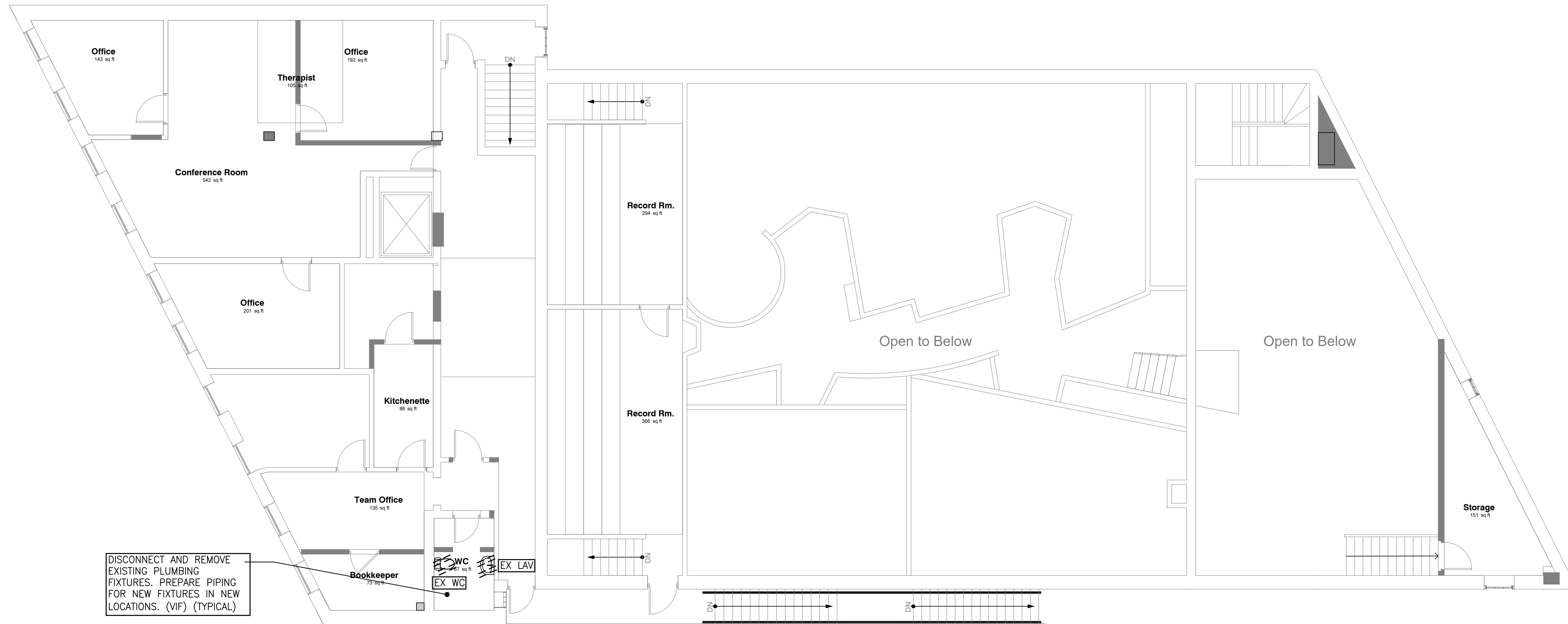
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PLUMBING DEMO FLOOR PLAN

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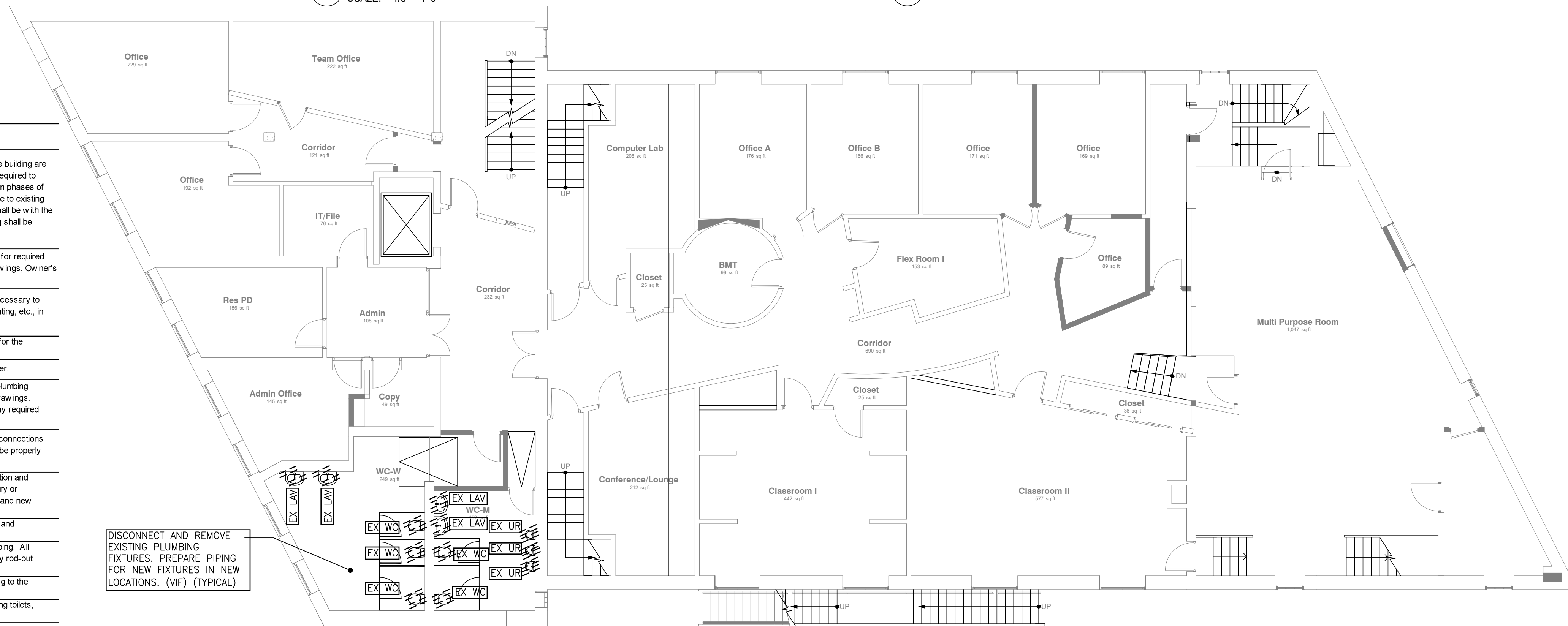
PD1.1



PLUMBING SCOPE OF WORK DEMOLITION
 Disconnect and remove existing plumbing fixtures (water closets, urinals, lavatory sinks, & floor drains) prepare for area for new plumbing fixture and new piping. Disconnect and remove piping, no "dead ends" branch lines shall remain, prepare area for new piping

2 THIRD FLOOR PLUMBING PLAN - DEMO
 SCALE: 1/8" = 1'-0"

GENERAL PLUMBING DEMOLITION NOTES	
1	The Contractor shall maintain all services in the existing building for all periods that portions of the building are occupied by the Owner. This shall include all temporary or permanent piping connections, etc., required to provide and maintain present building systems and the equipment served during new construction phases of the work. In the case of change-over piping and where new service connections are to be made to existing services and service interruptions. If one can in no way be avoided, the service interruptions shall be with the minimum of inconvenience to the Owner. All costs incurred in order to comply with the foregoing shall be included in the Contractor's original bid for the work without further costs to the Owner.
2	The Contractor(s) shall furnish all materials, equipment, scaffolding, rigging and labor necessary for required demolition of Plumbing systems through-out and in accordance with all governing codes, the drawings, Owner's requirements and as specified.
3	The Contractor(s) shall take such protective measures and precautions as maybe required or necessary to prevent injury or accidents to workmen or passers-by. Provide guard rails, fences, planking, lighting, etc., in accordance with the particular conditions and O.S.H.A. requirements.
4	The Contractor(s) shall provide all necessary information regarding existing Plumbing equipment for the electrical demolition.
5	Remove all debris from the job site daily and leave all work and equipment in a clean working order.
6	Layout is diagrammatic and Contractor(s) shall verify all equipment, piping, plumbing shafts and plumbing fixtures in the field. Verify all conditions, such as interior wall systems, etc. with other trades' drawings. Minimize the damage to existing ceilings and walls and coordinate with the General Contractor any required changes. Coordinate all work with the other trades.
7	Disconnect, remove and cap-off all above grade plumbing piping and all plumbing fixtures. All disconnections shall be in a concealed locations, for example: below the floor and in the walls. Drain lines shall be properly plugged, flanged or capped.
8	Remove all unused plumbing stack drains, water and vent lines, and downspouts. During demolition and remodeling, reroute active piping through adjacent walls (approved by the Architect) for temporary or permanent installation. All Plumbing stacks in the project shall remain active despite demolition and new construction activity.
9	All existing plumbing fixtures and piping to be retained shall be covered and sealed from damage and construction dust.
10	Verify in the field the locations and conditions of all existing, above and below grade plumbing piping. All existing drain lines (above and below grade) that new piping to be connected, shall be completely rod-out cleaned before and after construction.
11	If the Contractor(s) discover any problems with the existing systems, they should report in writing to the Architect for direction for repair or other corrections of the existing systems.
12	Remove all specified plumbing equipment, piping and fixtures. This includes the removal of existing toilets, lavatories, sinks, drinking fountains, etc., as noted or as required by the architectural work.
13	See architectural drawings for the scope of the new work and the necessary demolition of plumbing systems.
14	Temporarily reroute water, sanitary, vent and/or storm piping to accommodate phased construction.
15	Safely disconnect all plumbing and piping connections to the buildings and apartment units being demolished. Verify the buildings and phasing with the architectural and civil site plans and with the general contractor.
16	Obtain from the Owner all existing drawings and equipment information for the project. Refer to these documents in determining existing conditions and requirements for restoring and balancing plumbing systems.



1 SECOND FLOOR PLUMBING PLAN - DEMO
 SCALE: 1/8" = 1'-0"



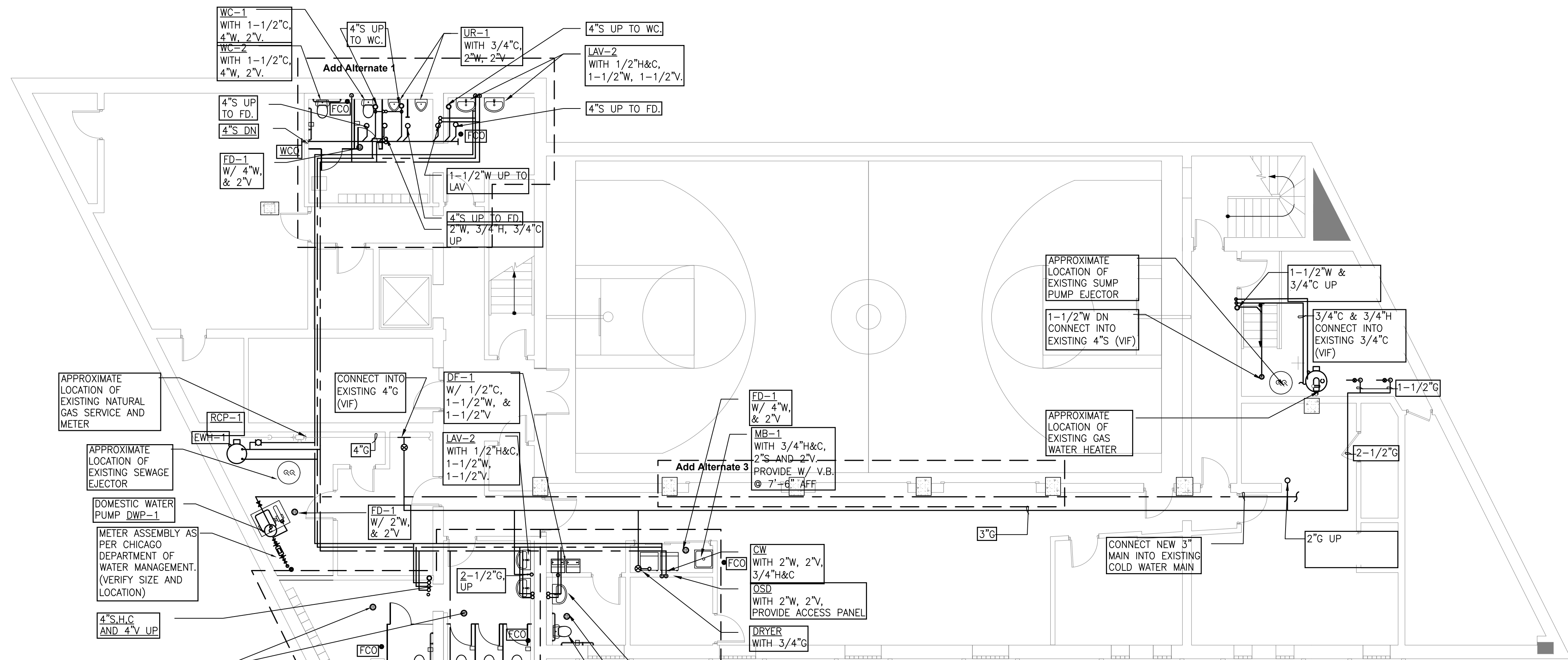
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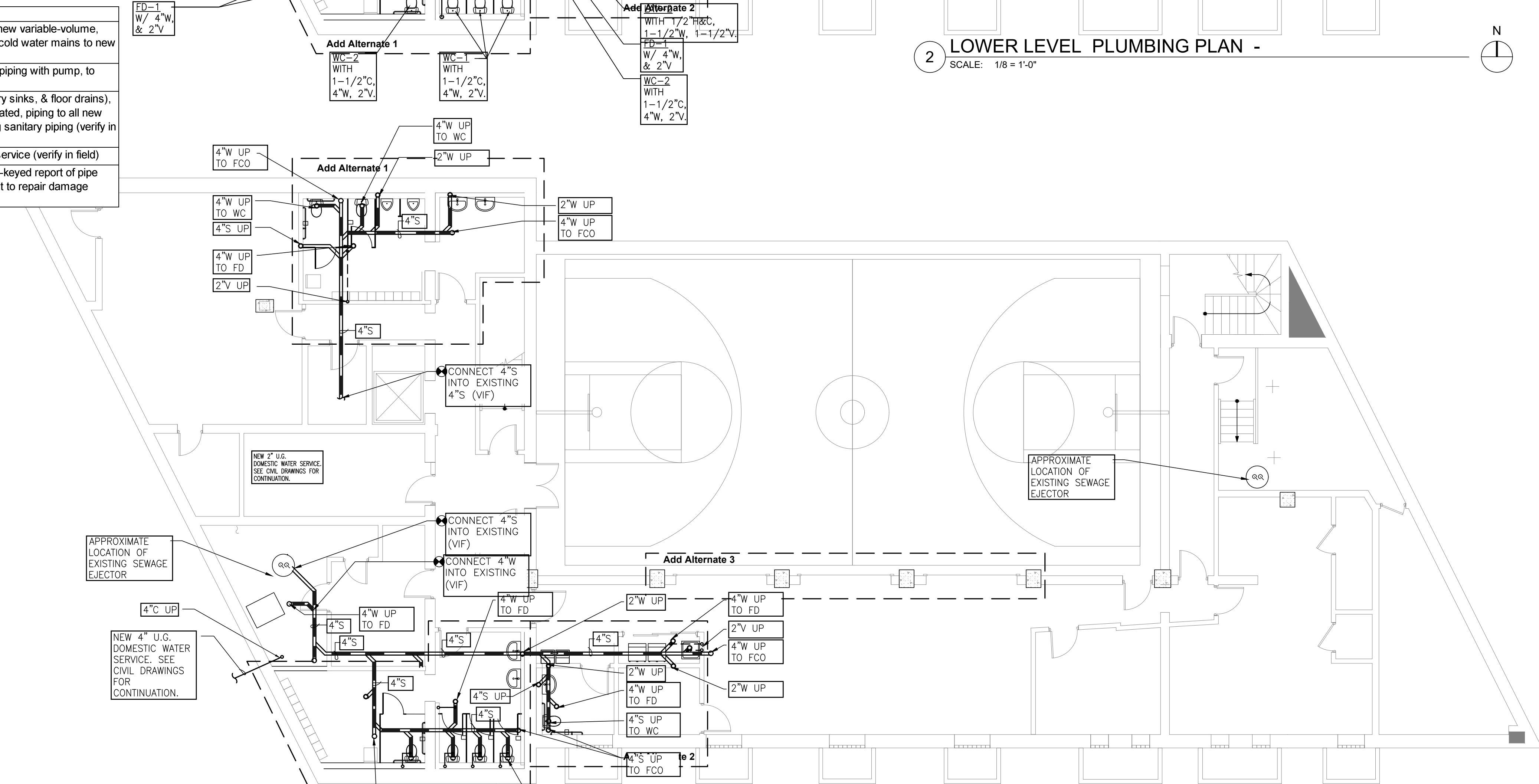
PLUMBING DEMO FLOOR PLAN

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PD1.2



2 LOWER LEVEL PLUMBING PLAN -
SCALE: 1/8" = 1'-0"



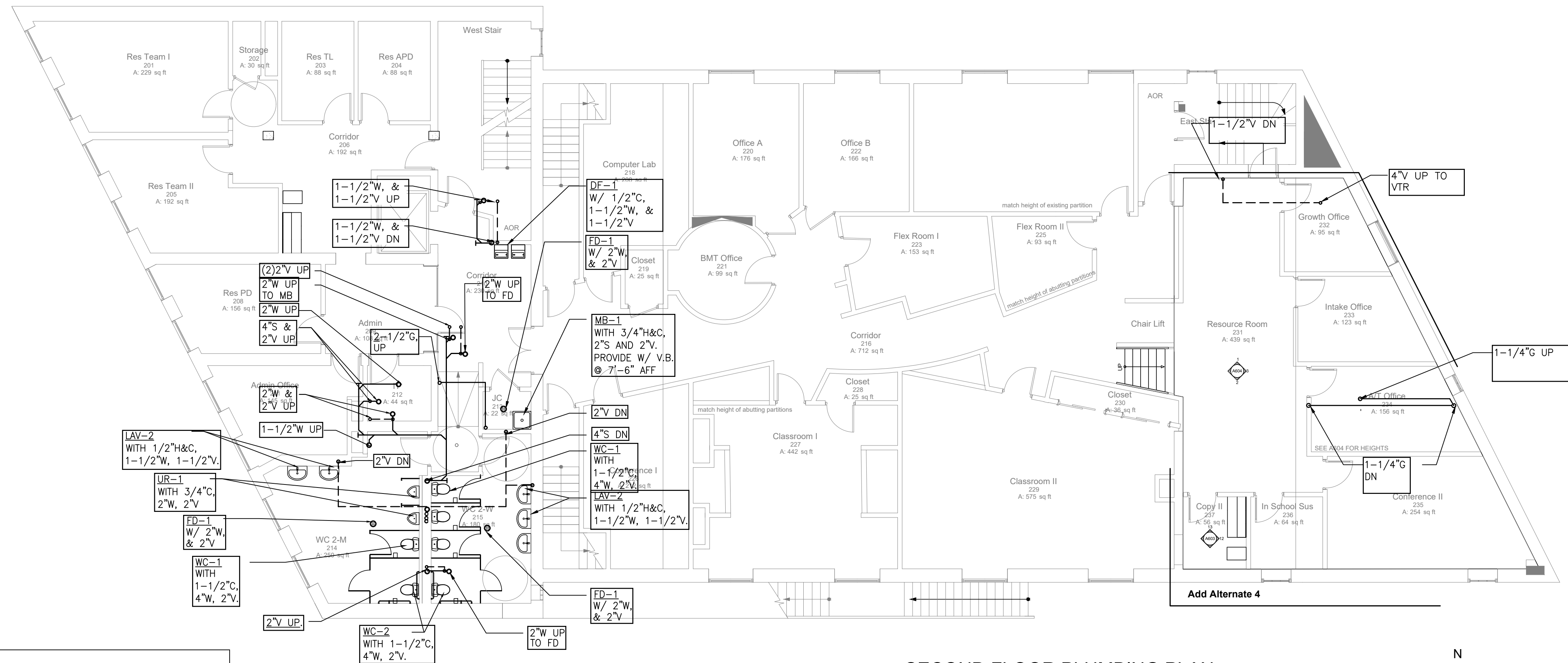
1 LOWER LEVEL SUBSURFACE PLUMBING PLAN -
SCALE: 1/8" = 1'-0"

PLUMBING SCOPE OF WORK
Provide a new 4 inch water service into existing west mechanical room; provide new variable-volume, water pressure booster pump (up to 107 GPM at 25 psi); Provide new, insulated cold water mains to new plumbing fixtures and reconnect to existing water main.
Provide with new electric water heater and hot water supply and return insulated piping with pump, to serve new plumbing fixtures and remaining plumbing fixtures.
Provide new Mens and Womens plumbing fixtures (water closets, urinals, lavatory sinks, & floor drains), drinking fountains, mop basin(s), and hose bibs. Provide cold and hot water insulated, piping to all new fixtures. Provide new drain and vent piping to new fixtures and connect to existing sanitary piping (verify in the field).
Provide natural gas piping to all new HVAC units connect to existing natural gas service (verify in field)
Jet-clean all underground sanitary piping and basins. Video tape and provide plan-keyed report of pipe conditions including exact location and magnitude of needed repairs. Provide cost to repair damage piping.

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	ISSUE FOR BIDDING	6/11/24

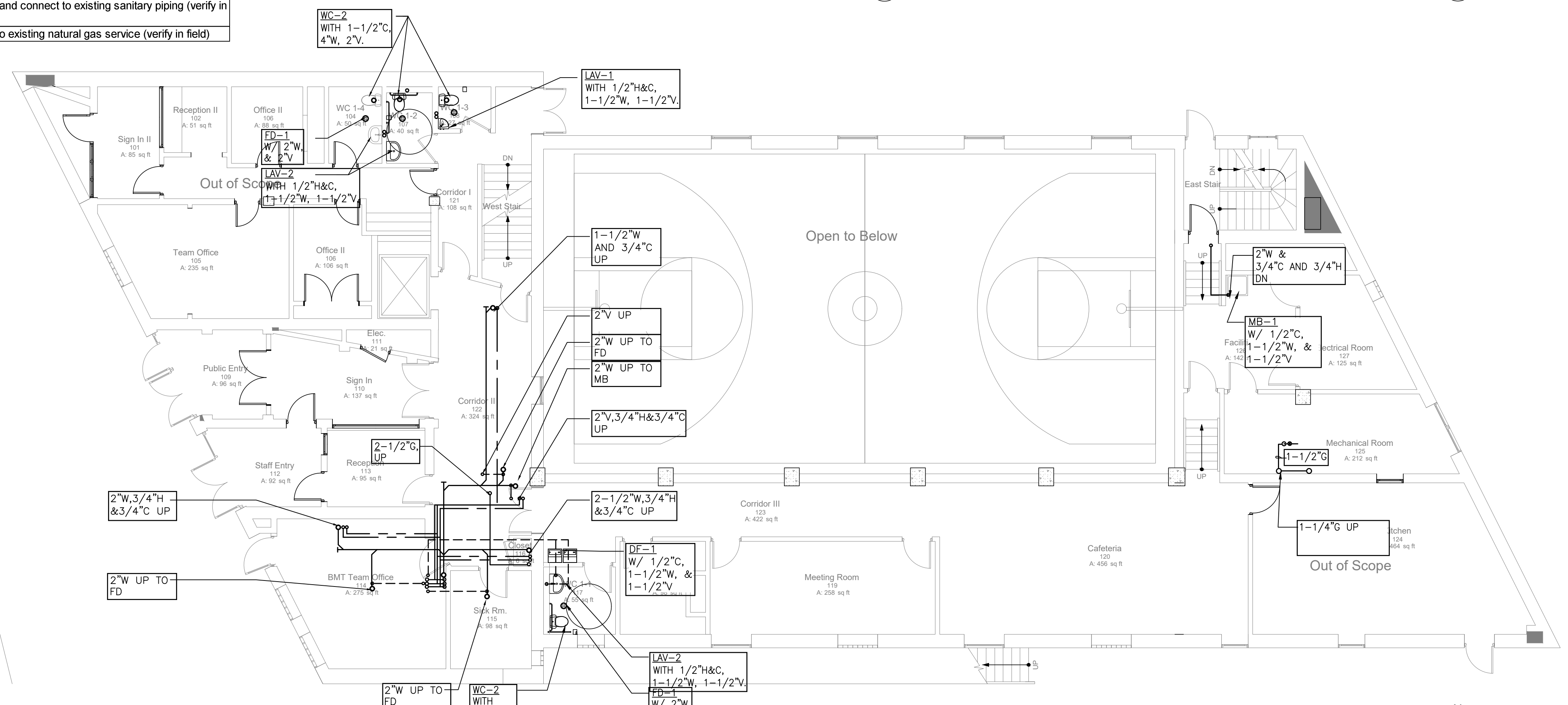
LOWER LEVEL AND 1ST FLOOR
PLUMBING FLOOR PLAN -

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4219 N Lincoln Ave. Chicago, IL



2 SECOND FLOOR PLUMBING PLAN -
SCALE: 1/8" = 1'-0"

PLUMBING SCOPE OF WORK
 Provide new Mens and Womens plumbing fixtures (water closets, urinals, lavatory sinks, & floor drains), drinking fountains, mop basin(s), and hose bibs. Provide cold and hot water insulated, piping to all new fixtures. Provide new drain and vent piping to new fixtures and connect to existing sanitary piping (verify in the field).
 Provide natural gas piping to all new HVAC units connect to existing natural gas service (verify in field)



1 FIRST FLOOR PLUMBING PLAN -
SCALE: 1/8" = 1'-0"



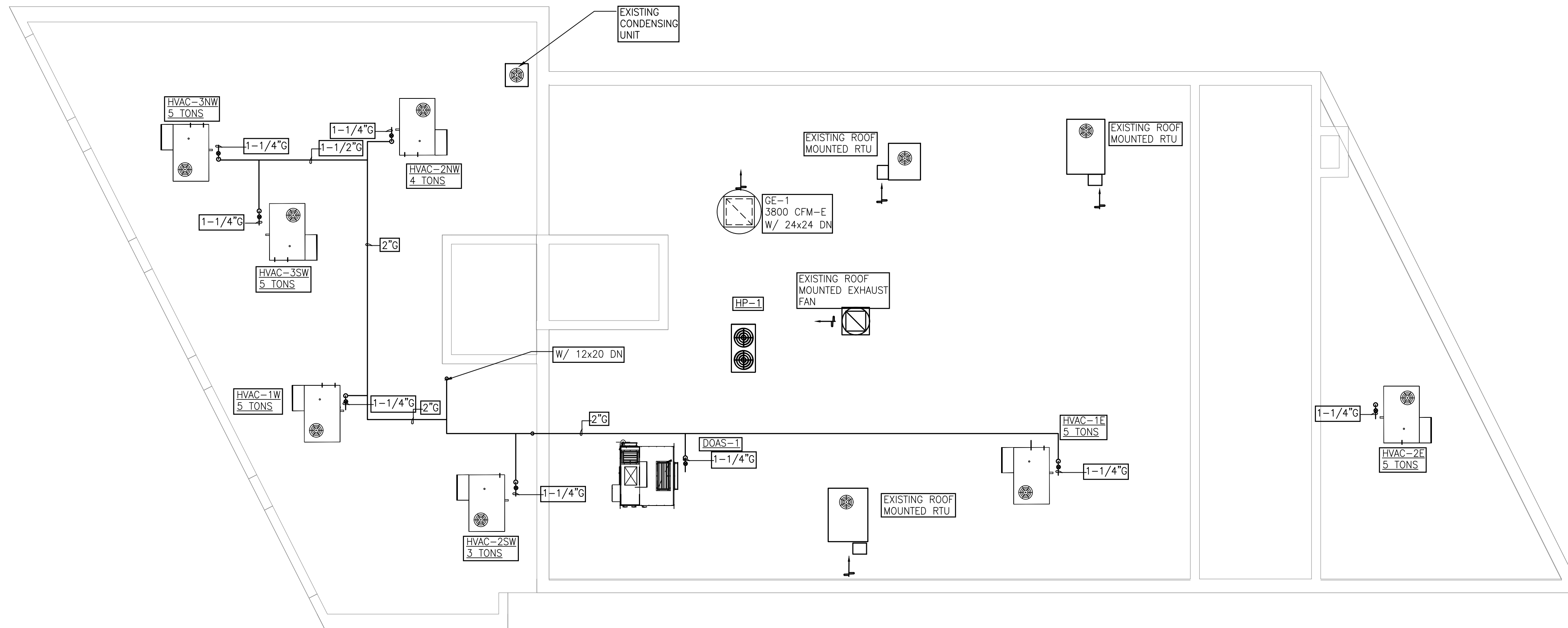
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1ST AND 2ND FLOOR PLUMBING FLOOR PLAN -

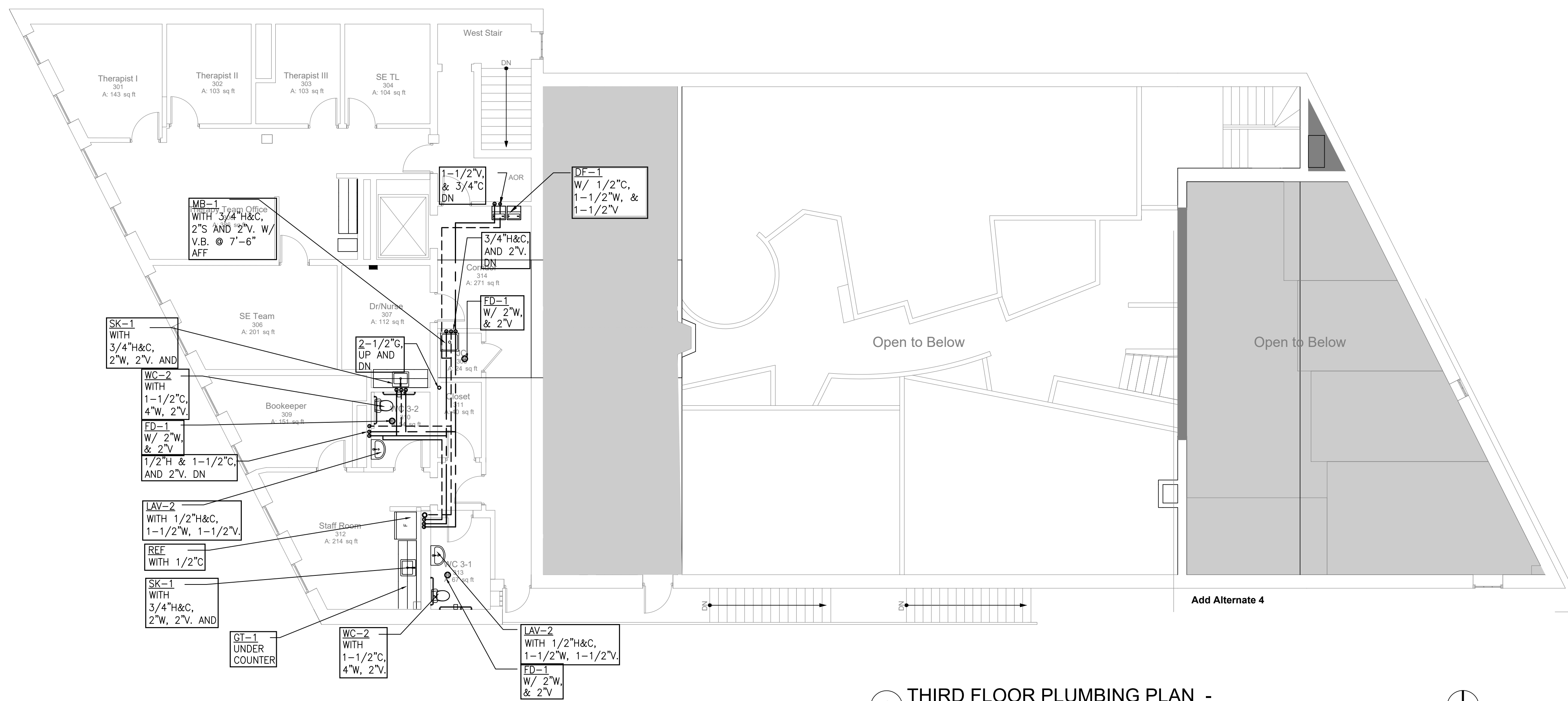
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P1.2



2 ROOF PLUMBING PLAN -
SCALE: 1/8" = 1'-0"

PLUMBING SCOPE OF WORK
 Provide new Mens and Womens plumbing fixtures (water closets, urinals, lavatory sinks, & floor drains), drinking fountains, mop basin(s), and hose bibs. Provide cold and hot water insulated, piping to all new fixtures. Provide new drain and vent piping to new fixtures and connect to existing sanitary piping (verify in the field).
 Provide natural gas piping to all new HVAC units connect to existing natural gas service (verify in field)



1 THIRD FLOOR PLUMBING PLAN -
SCALE: 1/8" = 1'-0"



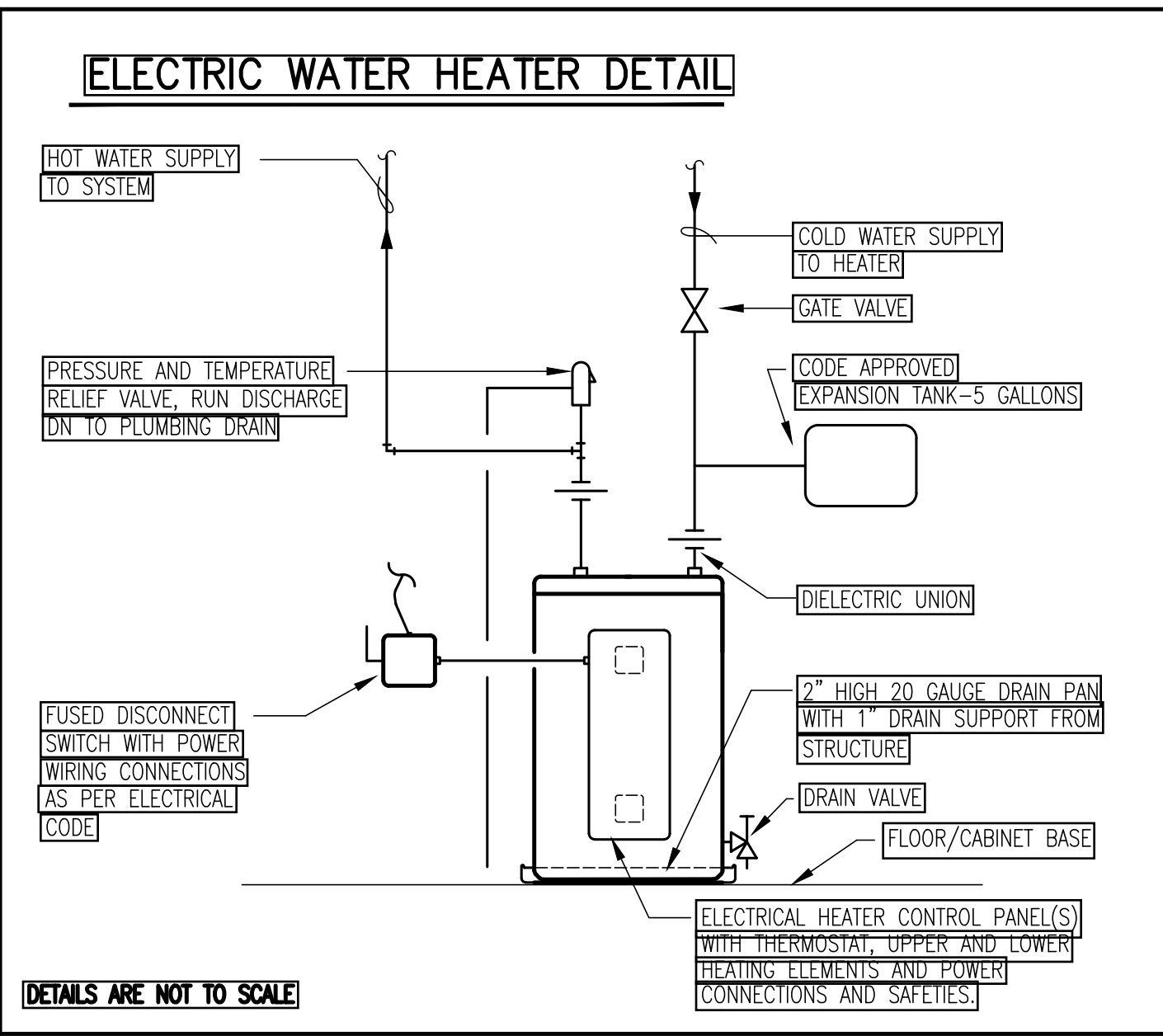
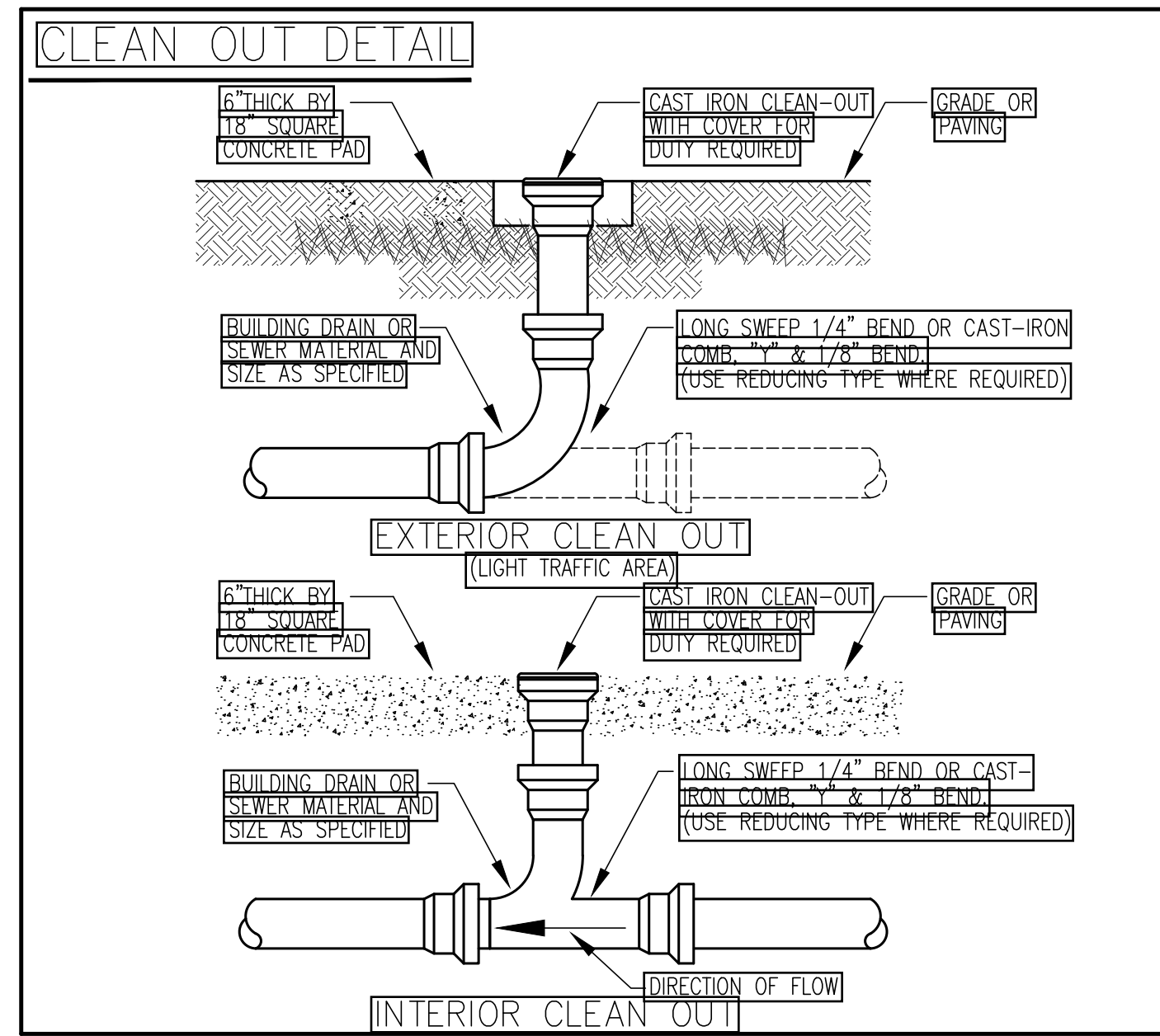
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3RD FLOOR PLUMBING FLOOR PLAN -

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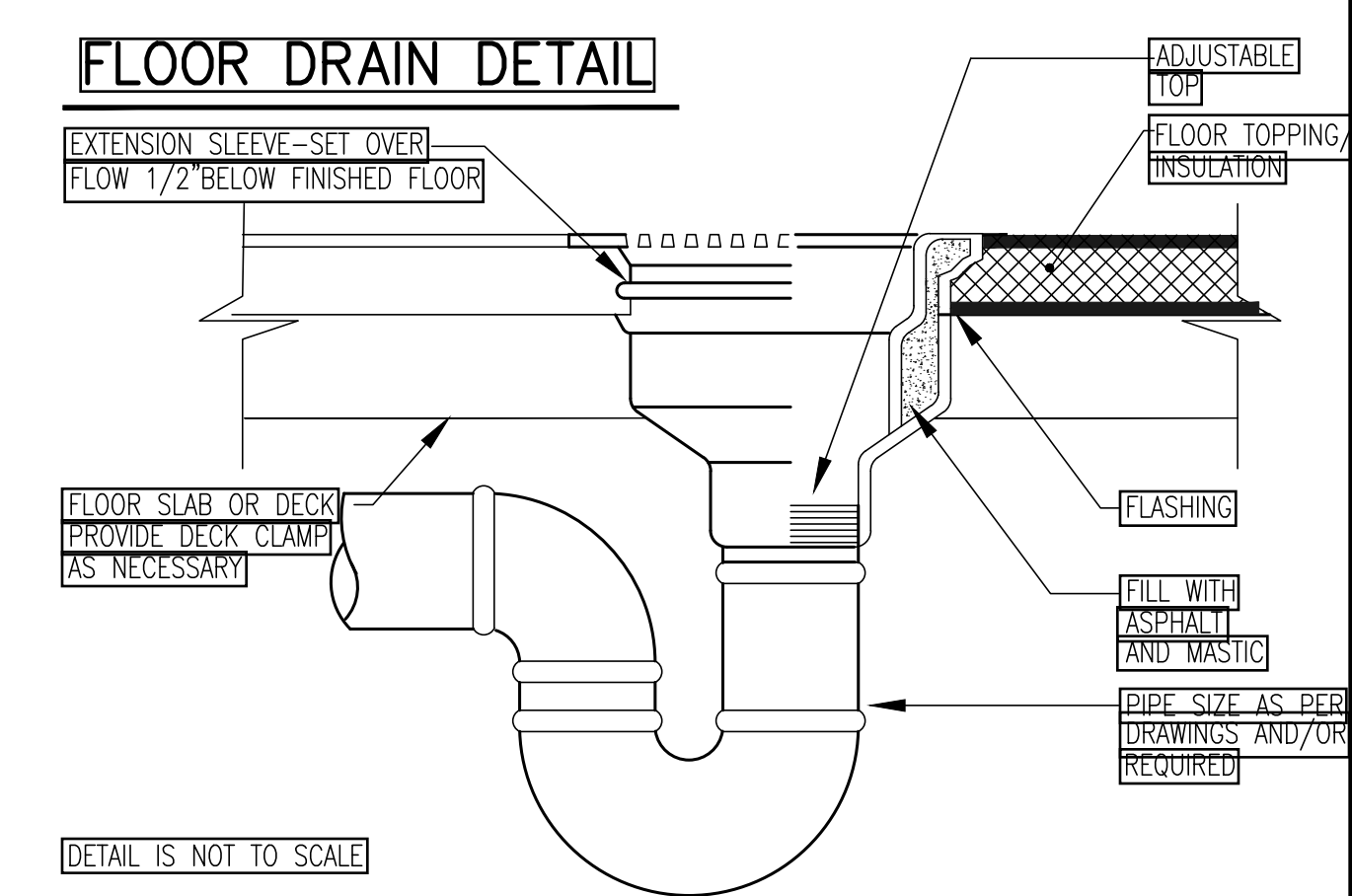
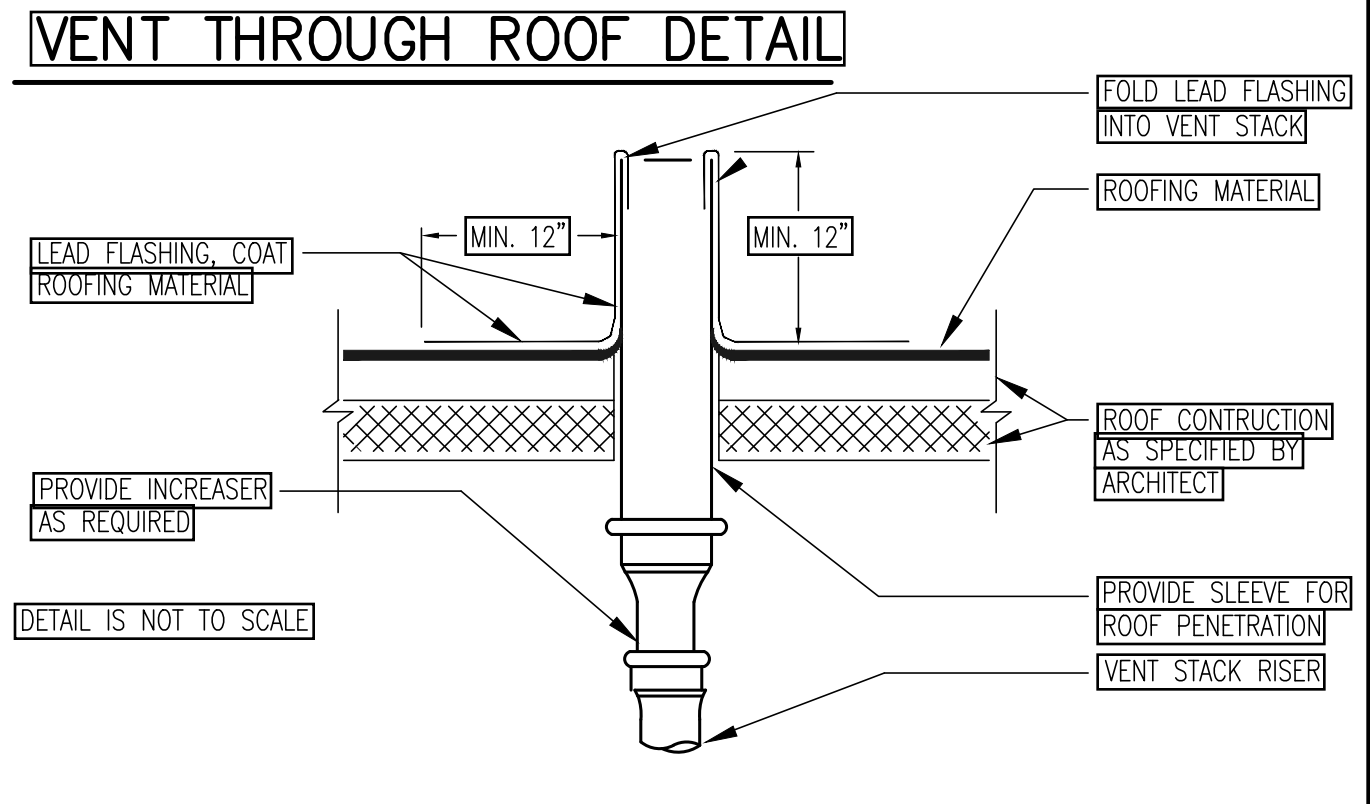
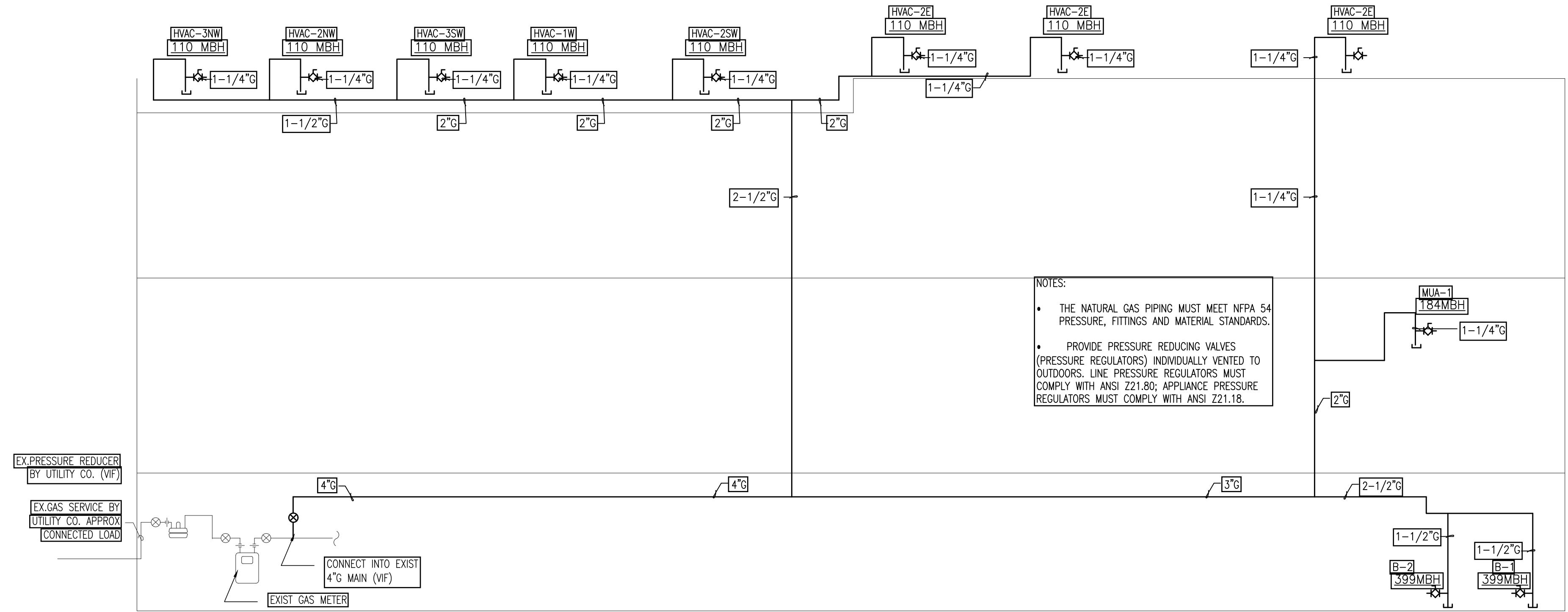
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PLUMBING SYMBOL LIST

NOTE THAT ALL SYMBOLS MAY NOT BE USED FOR THIS PROJECT.

PIPE FITTINGS	ABBREVIATIONS
GATE VALVE ON VERTICAL PIPE	AD AREA DRAIN
STRAINER	AFF ABOVE FINISHED FLOOR
DIRECTION OF FLOW	BFP BACKFLOW PREVENTER
GATE VALVE	CI CAST IRON
CHECK VALVE	CW CLOTHES WASHING MACHINE
BALANCING COCK OR NATURAL GAS COCK	DN DOWN
PITCH DOWN IN DIRECTION OF FLOW	DV DRAIN VALVE
RISER (ELBOW) DOWN	DS DOWN SPOUT
CAPPED PIPE END	DW DISH WASHING MACHINE
RISER (TEE) DOWN	DWP DOMESTIC WATER PUMP
RISER (ELBOW) UP	EX EXISTING
RISER (TEE) UP	FBO FURNISHED BY OTHERS
UNION (FLANGED)	FD FLOOR DRAIN
UNION	FS FLOOR SINK
VENT PIPING	GC GENERAL CONTRACTOR
STORM DRAIN, SUSPENDED DOWNSPOUT (DS)	GPM GALLONS PER MINUTE
SANITARY (SOIL) OR WASTE SEWER (SW)	GT GREASE TRAP
FOOTING OR SUB-SOIL DRAIN TILE	HB ROSE BIBB
DOMESTIC COLD WATER (CW OR C)	HD HUB OR FUNNEL DRAIN
DOMESTIC HOT WATER SUPPLY (HW OR H)	INV ELEV INVERT ELEVATION
(WITH TEMPERATURE IF NOT 140F)	KS KITCHEN STACK
CLEAN OUT (CO) PLUG	KW KITCHEN WASTE
YARD CLEAN OUT	LAV LAVATORY
FLOOR CLEAN OUT	MB MOP BASIN
WALL CLEAN OUT (WCO)	NFSC NON-FREEZE SILL COCK
NATURAL GAS-LOW PRESSURE	NIC NOT IN CONTRACT
PIPE GUIDE OR SLEEVE	OSD OPEN SITE DRAIN
	PS PLUMBING STACK
	RD ROOF DRAIN
	ROB ROD OUT BASIN
	SK SINK
	SS SERVICE SINK OR STAINLESS STEEL
	SE SEWAGE EJECTOR
	SP SUMP PUMP
	TYP TYPICAL
	U.G UNDER GROUND
	UR URINAL
	VIF VERIFY IN FIELD
	VTR VENT THRU ROOF
	WS WASTE STACK
	WC WATER CLOSET (TOILET)
	YCO YARD CLEAN OUT



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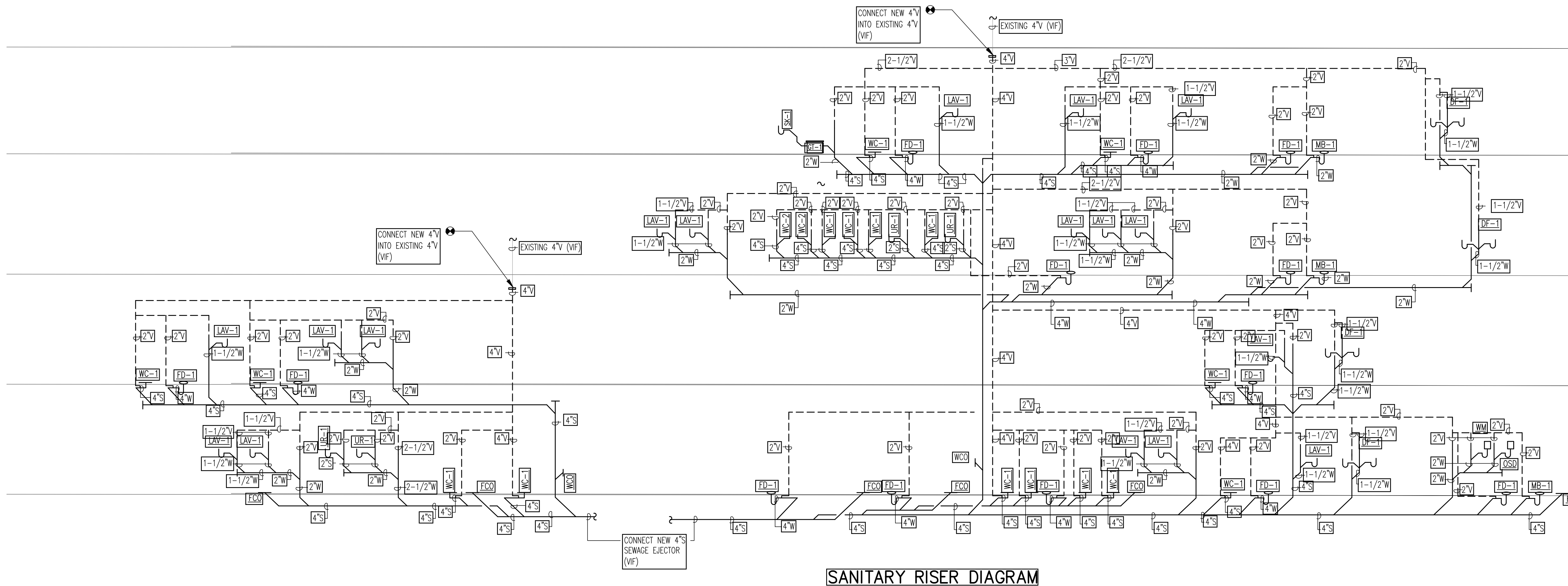
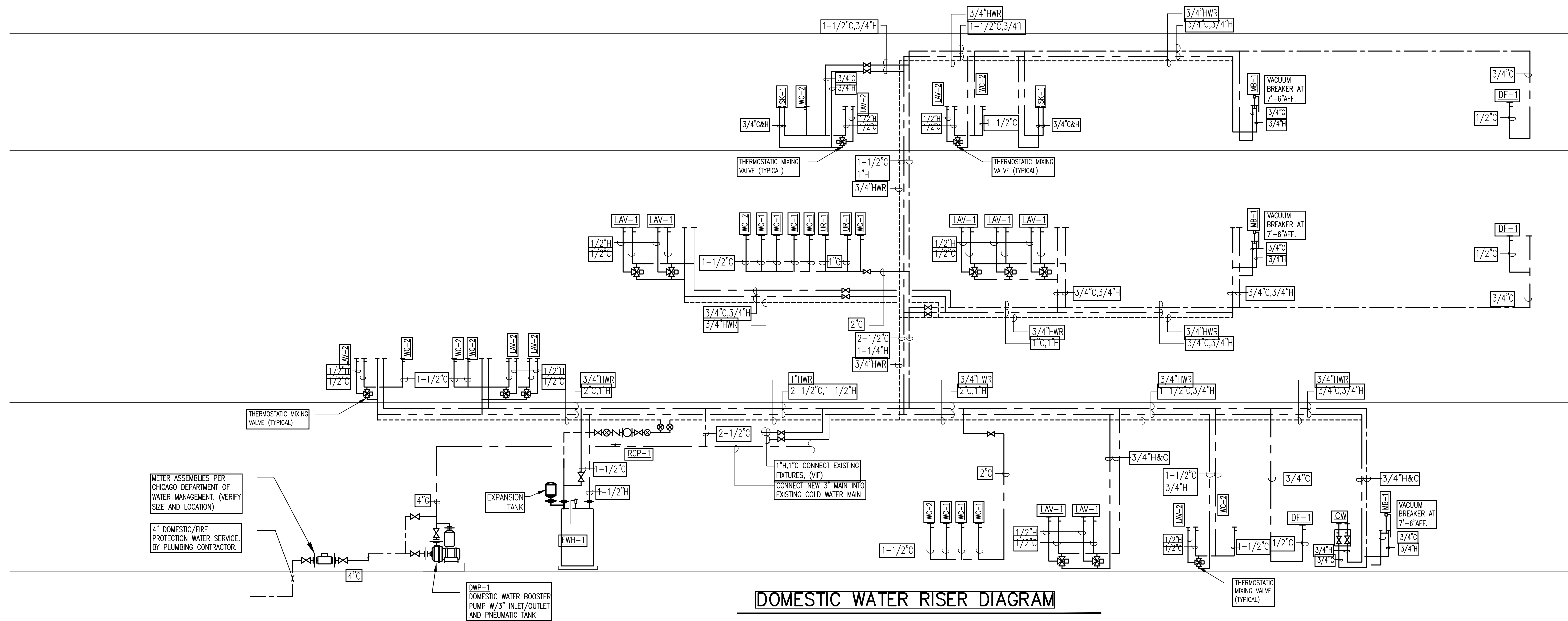


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PLUMBING DETAILS

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MDT

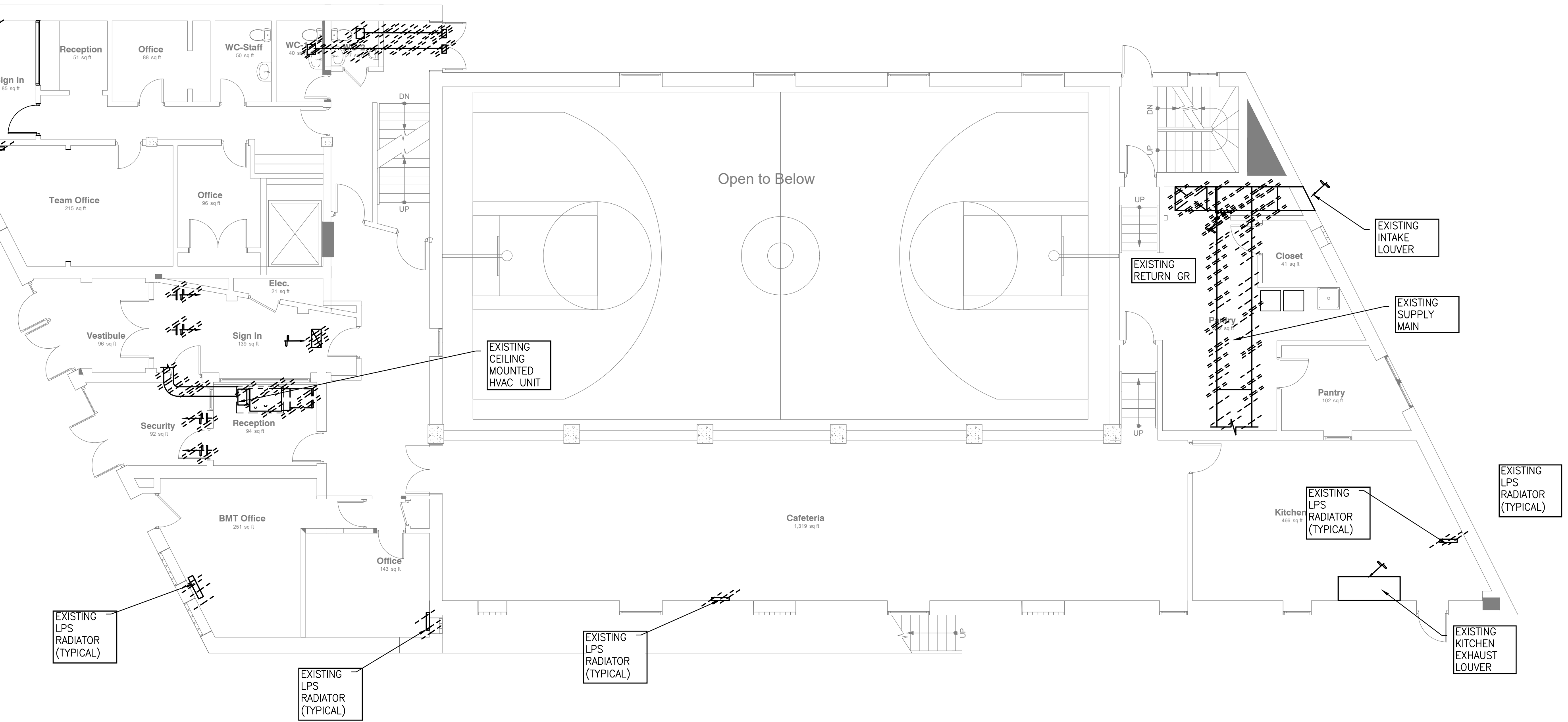
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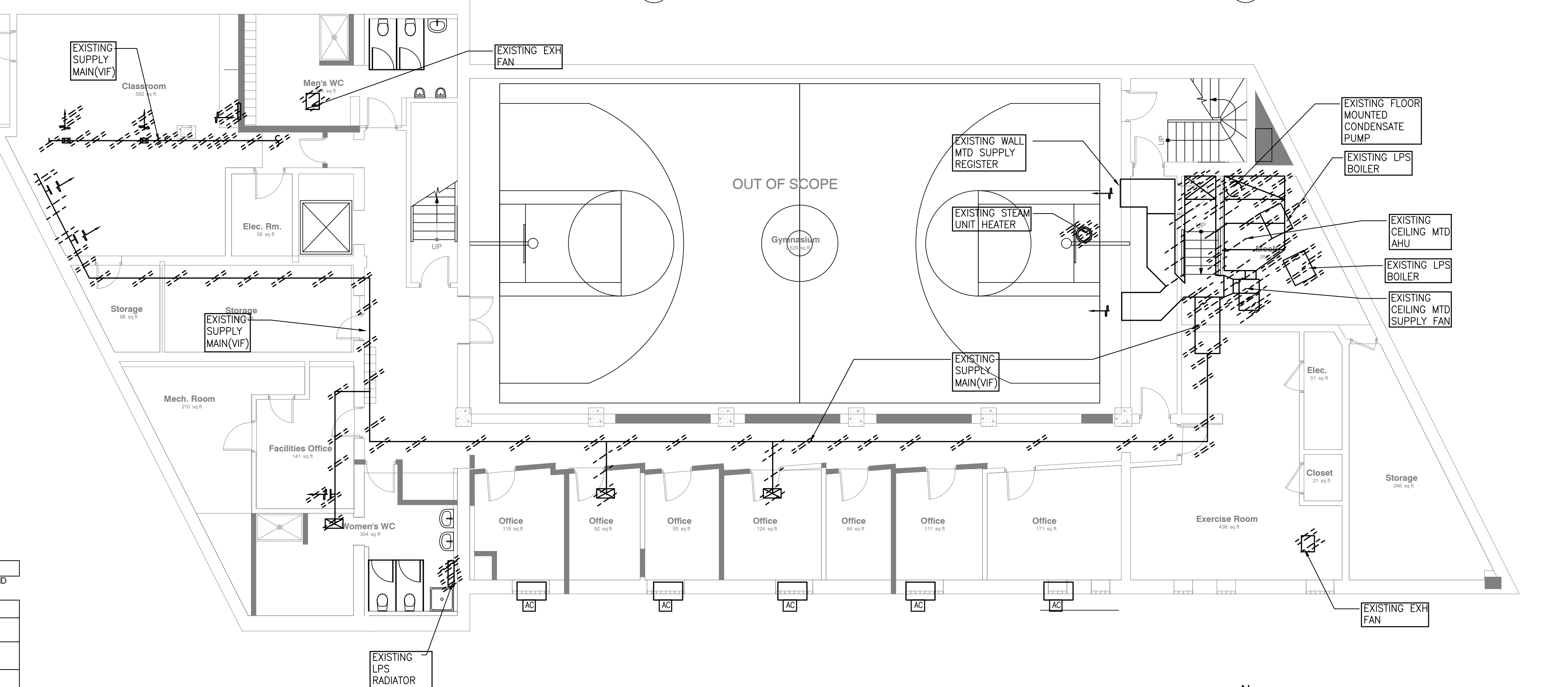
MECHANICAL SCOPE OF WORK FIRST FLOOR - DEMOLITION
DISCONNECT AND REMOVE EXISTING CEILING MOUNTED FURNACE INCLUDING BUT NOT LIMITED TO GAS PIPING, FLUES AND ASSOCIATED SUPPLY AND RETURN DUCTWORK. PREPARE.
DISCONNECT AND REMOVE EXISTING CAST IRON TYPE HEATING ELEMENT, COVER, VALVES, BRACKETS, LOW PRESSURE STEAM SUPPLY AND CONDENSATE RETURN. PIPING REMOVE ALL PIPING BACK TO BOILER ROOM.
DISCONNECT AND REMOVE EXISTING CEILING MOUNTED EXHAUST FAN AND ASSOCIATED DUCTWORK.
TEST EXISTING KITCHEN EXHAUST FAN, AIR VOLUMES AT HOOD, PROVIDE COMPLETE AIR VOLUME TESTING, ADJUSTING AND BALANCING TO MEET DESIGN REQUIREMENTS.
RECONDITION EXISTING KITCHEN HOODS PROVIDING CODE REQUIRED EXHAUST AIR, FIRE SUPPRESSION GAS SAFETY SHUT-OFF, MANUAL AND AUTOMATIC CONTROLS AND INTERLOCKS.
HVAC CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE ACTUAL SIZE OF THE EXISTING DUCTWORK, PIPING, ETC., INDICATED ON THE DRAWINGS.



2 FIRST FLOOR MECHANICAL PLAN - DEMO
SCALE: 1/8" = 1'-0"

GENERAL HVAC DEMOLITION NOTES

- THE CONTRACTOR(S) SHALL FURNISH ALL MATERIALS, EQUIPMENT, SCAFFOLDING, RIGGING, AND LABOR NECESSARY FOR REQUIRED DEMOLITION OF MECHANICAL SYSTEMS THROUGHOUT, IN ACCORDANCE WITH ALL GOVERNING CODES, THE DRAWINGS, OWNER'S REQUIREMENTS, AND AS SPECIFIED.
- THE CONTRACTOR(S) SHALL TAKE SUCH PROTECTIVE MEASURES AND PRECAUTIONS AS MAY BE REQUIRED OR NECESSARY TO PREVENT INJURY OR ACCIDENTS TO WORKMEN OR PASSERS-BY. PROVIDE GUARD RAILS, FENCES, PLANKING, LIGHTING, ETC., IN ACCORDANCE WITH THE PARTICULAR CONDITIONS AND O.S.H.A. REQUIREMENTS.
- THE CONTRACTOR(S) SHALL PROVIDE ALL NECESSARY INFORMATION REGARDING EXISTING MECHANICAL EQUIPMENT FOR THE ELECTRICAL DEMOLITION.
- ANY DEMOLITION OF CONTROL WIRING, DEVICES, ETC. SHALL BE DONE BY THE CONTRACTOR(S). THIS INCLUDES HEATING SYSTEM, EXHAUST FANS, STEAM RADIATORS, CONDENSATE PIPING AND INSULATION, ETC.
- REMOVE ALL DEBRIS FROM THE JOB SITE DAILY AND LEAVE ALL WORK AND EQUIPMENT IN A CLEAN WORKING ORDER.
- LAY OUT IS DIAGRAMMATIC AND CONTRACTOR(S) SHALL VERIFY ALL EQUIPMENT, PIPING, AND DUCTWORK AS PER FIELD CONDITIONS. EXACT LOCATION OF PIPING, HVAC EQUIPMENT, DUCTWORK, RADIATORS, VALVES, ETC. SHALL ALSO BE VERIFIED IN THE FIELD. VERIFY ALL CONDITIONS, SUCH AS INTERIOR WALL SYSTEMS, ETC. WITH OTHER TRADES' DRAWINGS. MINIMIZE THE DAMAGE TO EXISTING ROOF, STRUCTURAL ELEMENTS, CEILINGS AND WALLS AND COORDINATE ANY REQUIRED CHANGES WITH THE GENERAL CONTRACTOR. COORDINATE ALL WORK WITH THE OTHER TRADES.
- ALL EXISTING HVAC EQUIPMENT, SUPPLY, RETURN, EXHAUST AND OTHER DUCTWORK, REGISTERS, DIFFUSERS, PIPES AND RADIATION TO BE RETAINED IN THE PROJECT AREA SHALL BE COVERED AND SEALED FROM DAMAGE AND CONSTRUCTION DUST.
- REMOVE ALL SPECIFIED MECHANICAL EQUIPMENT AND RELATED DUCTWORK AND PIPING AND OUTLETS SHALL BE REMOVED. THIS INCLUDES THE ENTIRE ROOFTOP UNITS, GAS CONNECTIONS, POWER CONNECTIONS, CONTROL CONNECTIONS, ALL ROOF SUPPORTS AND CURBS. ALL REMOVED IS PROPERTY OF THE OWNER AND IF DIRECTED, SALVAGED EQUIPMENT SHALL BE TURNED OVER TO THE OWNER, OTHERWISE SHALL BE COMPLETELY REMOVED FROM THE SITE AND DISPOSED OF IN PROPER MANNERS.
- SEE ARCHITECTURAL DRAWINGS FOR THE SCOPE OF THE NEW WORK AND THE NECESSARY DEMOLITION OF MECHANICAL SYSTEMS.
- PROPER AIR QUALITY SHALL BE MAINTAINED IN THE CONSTRUCTION AREAS AS WELL AS IN ANY OCCUPIED AREAS. TESTING OF AIR QUALITY CONSTRUCTION SHALL BE DONE AS FREQUENTLY AS NECESSARY.
- SEE THE PHASING DIRECTION FROM THE OWNER TO DETERMINE THE TIMING AND AMOUNT OF DEMOLITION THAT IS NEEDED. TEMPORARILY REROUTE HVAC PIPING, DUCTWORK AND/OR TEMPERATURE CONTROLS TO ACCOMMODATE PHASED CONSTRUCTION.
- SAFELY DISCONNECT ALL HVAC SYSTEMS AND PIPING CONNECTIONS TO THE BUILDING BEING DEMOLISHED. VERIFY THE PHASING WITH THE GENERAL CONTRACTOR.
- OBTAIN FROM THE OWNER ALL EXISTING DRAWINGS AND EQUIPMENT INFORMATION FOR THE PROJECT. REFER TO THESE DOCUMENTS IN DETERMINING EXISTING CONDITIONS AND REQUIREMENTS FOR RESTORING AND BALANCING MECHANICAL SYSTEMS.



1 LOWER LEVEL MECHANICAL PLAN - DEMO
SCALE: 1/8" = 1'-0"

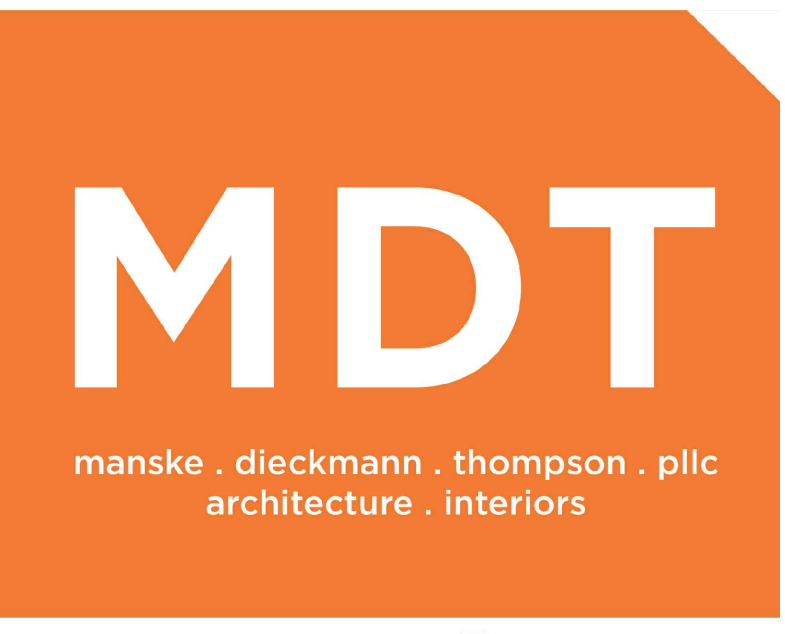
MECHANICAL SCOPE OF WORK LOWER LEVEL - DEMOLITION
DISCONNECT AND REMOVE EXISTING AHU INCLUDING BUT NOT LIMITED TO STEAM COIL, SUPPLY FAN AND ASSOCIATED SUPPLY AND RETURN DUCTWORK. PREPARE DUCTWORK FOR NEW AHU.
DISCONNECT AND REMOVE EXISTING CONDENSATE PUMP.
DISCONNECT AND REMOVE EXISTING LOW PRESSURE STEAM BOILERS INCLUDING BUT NOT LIMITED TO LPS PIPING, NATURAL GAS, FLUE.
DISCONNECT AND REMOVE EXISTING CAST IRON TYPE HEATING ELEMENT, COVER, VALVES, BRACKETS, LOW PRESSURE STEAM SUPPLY AND CONDENSATE RETURN. PIPING REMOVE ALL PIPING BACK TO BOILER ROOM.
DISCONNECT AND REMOVE EXISTING CEILING MOUNTED STEAM UNIT HEATER VALVES, BRACKETS, LOW PRESSURE STEAM SUPPLY AND CONDENSATE RETURN. PIPING REMOVE ALL PIPING BACK TO BOILER ROOM.
DISCONNECT AND REMOVE EXISTING CEILING MOUNTED EXHAUST FAN AND ASSOCIATED DUCTWORK.
HVAC CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE ACTUAL SIZE OF THE EXISTING DUCTWORK, PIPING, ETC., INDICATED ON THE DRAWINGS.

Revisions	Transmittal Set Name	Date
	ISSUE FOR BIDDING	6/11/24

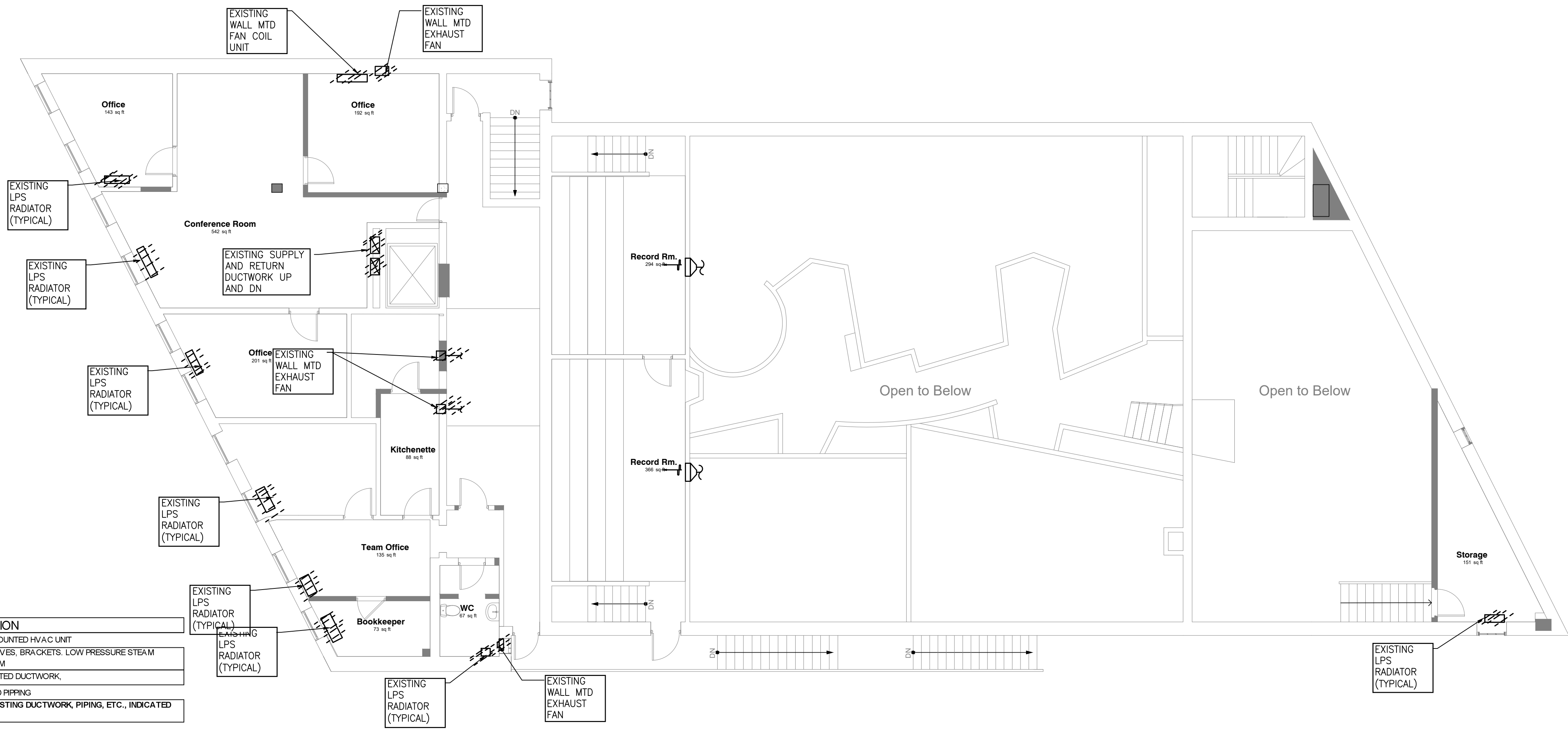
MECHANICAL DEMO FLOOR PLAN

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MD1.1

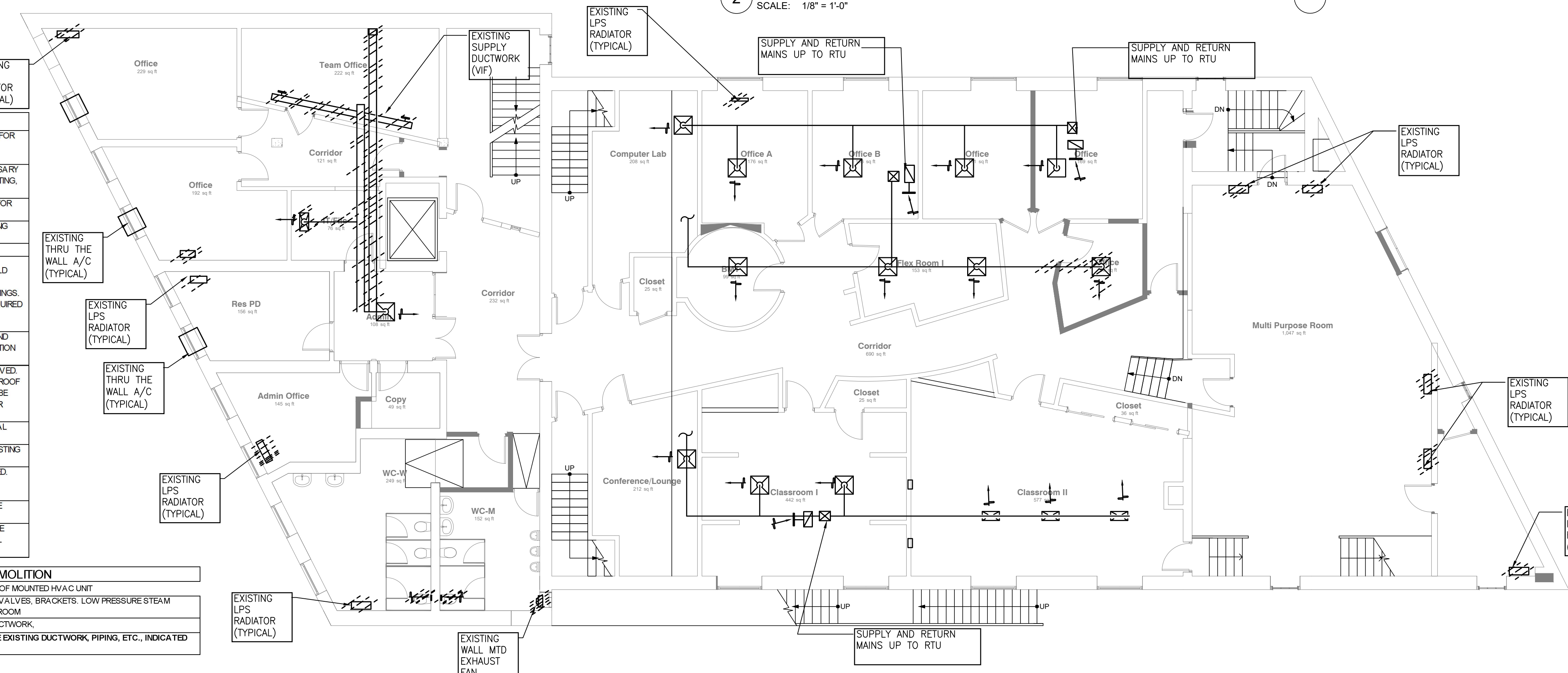


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MECHANICAL SCOPE OF WORK THIRD FLOOR - DEMOLITION
 DISCONNECT AND REMOVE EXISTING SUPPLY AND RETURN DUCTWORK UP TO ROOF MOUNTED HVAC UNIT
 DISCONNECT AND REMOVE EXISTING CAST IRON TYPE HEATING ELEMENT, COVER, VALVES, BRACKETS, LOW PRESSURE STEAM SUPPLY AND CONDENSATE RETURN PIPING REMOVE ALL PIPING BACK TO BOILER ROOM
 DISCONNECT AND REMOVE EXISTING TOILET / GENERAL EXHAUST FANS AND ASSOCIATED DUCTWORK
 DISCONNECT AND REMOVE EXISTING WALL MOUNTED FAN COIL UNIT AND ASSOCIATED PIPING
 HVAC CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE ACTUAL SIZE OF THE EXISTING DUCTWORK, PIPING, ETC., INDICATED ON THE DRAWINGS.

2 THIRD FLOOR MECHANICAL PLAN - DEMO
 SCALE: 1/8" = 1'-0"



GENERAL HVAC DEMOLITION NOTES
 THE CONTRACTOR(S) SHALL FURNISH ALL MATERIALS, EQUIPMENT, SCAFFOLDING, RIGGING, AND LABOR NECESSARY FOR REQUIRED DEMOLITION OF MECHANICAL SYSTEMS THROUGHOUT, IN ACCORDANCE WITH ALL GOVERNING CODES, THE DRAWINGS, OWNER'S REQUIREMENTS, AND AS SPECIFIED.
 THE CONTRACTOR(S) SHALL TAKE SUCH PROTECTIVE MEASURES AND PRECAUTIONS AS MAY BE REQUIRED OR NECESSARY TO PREVENT INJURY OR ACCIDENTS TO WORKMEN OR PASSERS-BY. PROVIDE GUARD RAILS, FENCES, PLANKING, LIGHTING, ETC., IN ACCORDANCE WITH THE PARTICULAR CONDITIONS AND O.S.H.A. REQUIREMENTS.
 THE CONTRACTOR(S) SHALL PROVIDE ALL NECESSARY INFORMATION REGARDING EXISTING MECHANICAL EQUIPMENT FOR THE ELECTRICAL DEMOLITION.
 ANY DEMOLITION OF CONTROL WIRING, DEVICES, ETC. SHALL BE DONE BY THE CONTRACTOR(S). THIS INCLUDES HEATING SYSTEM, EXHAUST FANS, STEAM RADIATORS, CONDENSATE PIPING AND INSULATION, ETC.
 REMOVE ALL DEBRIS FROM THE JOB SITE DAILY AND LEAVE ALL WORK AND EQUIPMENT IN A CLEAN WORKING ORDER.
 LAYOUT IS DIAGRAMMATIC, AND CONTRACTOR(S) SHALL VERIFY ALL EQUIPMENT, PIPING, AND DUCTWORK AS PER FIELD CONDITIONS. EXACT LOCATION OF PIPING, HVAC EQUIPMENT, DUCTWORK, RADIATORS, VALVES, ETC. SHALL ALSO BE VERIFIED IN THE FIELD. VERIFY ALL CONDITIONS, SUCH AS INTERIOR WALL SYSTEMS, ETC. WITH OTHER TRADES' DRAWINGS. MINIMIZE THE DAMAGE TO EXISTING ROOF, STRUCTURAL ELEMENTS, CEILINGS AND WALLS AND COORDINATE ANY REQUIRED CHANGES WITH THE GENERAL CONTRACTOR. COORDINATE ALL WORK WITH THE OTHER TRADES.
 ALL EXISTING HVAC EQUIPMENT, SUPPLY, RETURN, EXHAUST AND OTHER DUCTWORK, REGISTERS, DIFFUSERS, PIPES AND RADIATION TO BE RETAINED IN THE PROJECT AREAS SHALL BE COVERED AND SEALED FROM DAMAGE AND CONSTRUCTION DUST.
 REMOVE ALL SPECIFIED MECHANICAL EQUIPMENT AND RELATED DUCTWORK AND PIPING AND OUTLETS SHALL BE REMOVED. THIS INCLUDES THE ENTIRE ROOFTOP UNITS, GAS CONNECTIONS, POWER CONNECTIONS, CONTROL CONNECTIONS, ALL ROOF SUPPORTS AND CURBS. ALL REMOVED IS PROPERTY OF THE OWNER AND IF DIRECTED, SALVAGED EQUIPMENT SHALL BE TURNED OVER TO THE OWNER, OTHERWISE SHALL BE COMPLETELY REMOVED FROM THE SITE AND DISPOSED OF IN PROPER MANNERS.
 SEE ARCHITECTURAL DRAWINGS FOR THE SCOPE OF THE NEW WORK AND THE NECESSARY DEMOLITION OF MECHANICAL SYSTEMS.
 PROPER AIR QUALITY SHALL BE MAINTAINED IN THE CONSTRUCTION AREAS AS WELL AS IN ANY OCCUPIED AREAS. TESTING OF AIR QUALITY CONSTRUCTION SHALL BE DONE AS FREQUENTLY AS NECESSARY.
 SEE THE PHASING DIRECTION FROM THE OWNER TO DETERMINE THE TIMING AND AMOUNT OF DEMOLITION THAT IS NEEDED.
 TEMPORARILY REROUTE HVAC PIPING, DUCTWORK AND/OR TEMPERATURE CONTROLS TO ACCOMMODATE PHASED CONSTRUCTION.
 SAFELY DISCONNECT ALL HVAC SYSTEMS AND PIPING CONNECTIONS TO THE BUILDING BEING DEMOLISHED. VERIFY THE PHASING WITH THE GENERAL CONTRACTOR.
 OBTAIN FROM THE OWNER ALL EXISTING DRAWINGS AND EQUIPMENT INFORMATION FOR THE PROJECT. REFER TO THESE DOCUMENTS IN DETERMINING EXISTING CONDITIONS AND REQUIREMENTS FOR RESTORING AND BALANCING MECHANICAL SYSTEMS.

MECHANICAL SCOPE OF WORK SECOND FLOOR - DEMOLITION
 DISCONNECT AND REMOVE EXISTING SUPPLY AND RETURN DUCTWORK UP TO ROOF MOUNTED HVAC UNIT
 DISCONNECT AND REMOVE EXISTING CAST IRON TYPE HEATING ELEMENT, COVER, VALVES, BRACKETS, LOW PRESSURE STEAM SUPPLY AND CONDENSATE RETURN PIPING REMOVE ALL PIPING BACK TO BOILER ROOM
 DISCONNECT AND REMOVE EXISTING TOILET EXHAUST FANS AND ASSOCIATED DUCTWORK
 HVAC CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE ACTUAL SIZE OF THE EXISTING DUCTWORK, PIPING, ETC., INDICATED ON THE DRAWINGS.

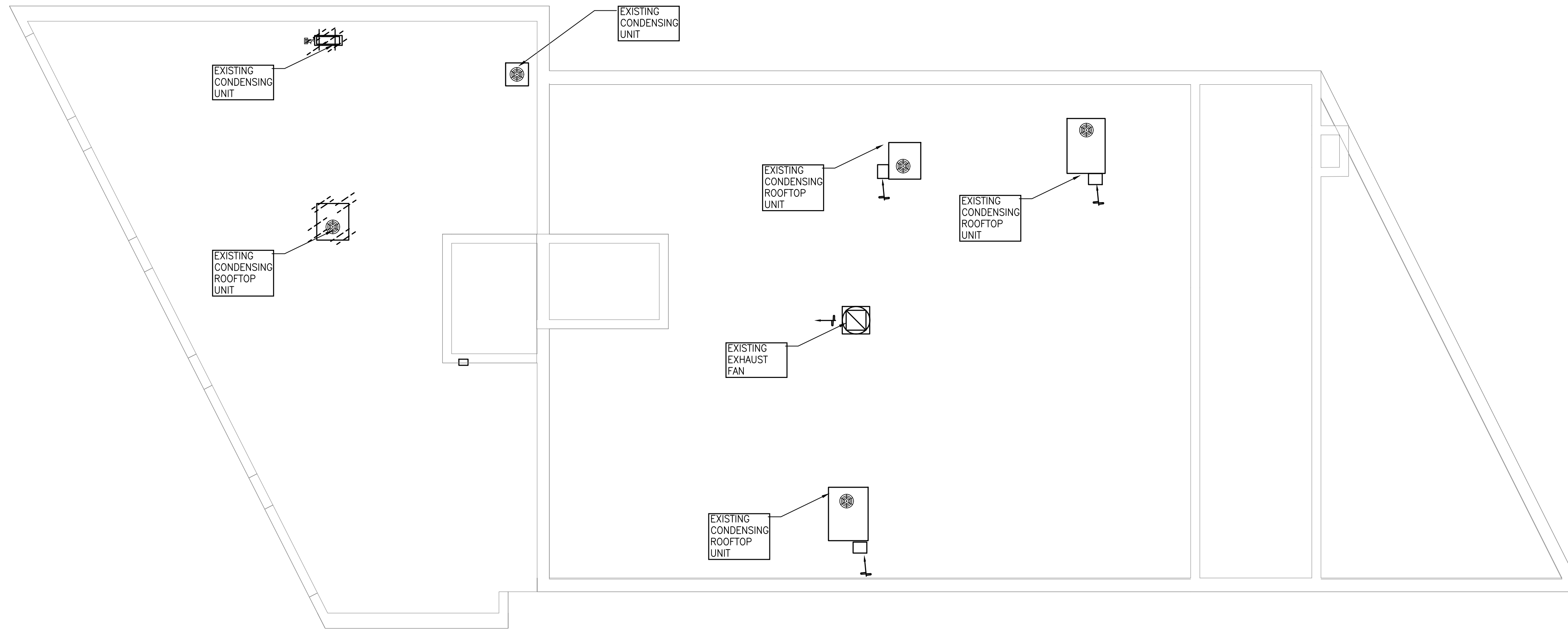
1 SECOND FLOOR MECHANICAL PLAN - DEMO
 SCALE: 1/8" = 1'-0"

Revisions	Transmittal Set Name	Date
	ISSUE FOR BIDDING	6/11/24

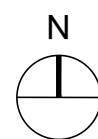
MECHANICAL DEMO FLOOR PLAN

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1 ROOF MECHANICAL PLAN - DEMO
SCALE: 1/8" = 1'-0"



MECHANICAL SCOPE OF WORK ROOF - DEMOLITION
DISCONNECT AND REMOVE EXISTING ROOF MOUNTED HVAC UNIT DISCONNECT AND REMOVE ALL SUPPLY AND RETURN DUCTWORK INCLUDING BUT NOT LIMITED TO GAS PIPING POWER AND CONTROL WIRING

DISCONNECT AND REMOVE EXISTING ROOF MOUNTED CONDENSING UNIT INCLUDING BUT NOT LIMITED TO POWER AND CONTROL WIRING

HVAC CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE ACTUAL SIZE OF THE EXISTING DUCTWORK, PIPING, ETC., INDICATED ON THE DRAWINGS.

GENERAL HVAC DEMOLITION NOTES	
1	THE CONTRACTOR(S) SHALL FURNISH ALL MATERIALS, EQUIPMENT, SCAFFOLDING, RIGGING, AND LABOR NECESSARY FOR REQUIRED DEMOLITION OF MECHANICAL SYSTEMS THROUGHOUT, IN ACCORDANCE WITH ALL GOVERNING CODES, THE DRAWINGS, OWNER'S REQUIREMENTS, AND AS SPECIFIED.
2	THE CONTRACTOR(S) SHALL TAKE SUCH PROTECTIVE MEASURES AND PRECAUTIONS AS MAY BE REQUIRED OR NECESSARY TO PREVENT INJURY OR ACCIDENTS TO WORKMEN OR PASSERS-BY. PROVIDE GUARD RAILS, FENCES, PLANKING, LIGHTING, ETC., IN ACCORDANCE WITH THE PARTICULAR CONDITIONS AND O.S.H.A. REQUIREMENTS.
3	THE CONTRACTOR(S) SHALL PROVIDE ALL NECESSARY INFORMATION REGARDING EXISTING MECHANICAL EQUIPMENT FOR THE ELECTRICAL DEMOLITION.
4	ANY DEMOLITION OF CONTROL WIRING, DEVICES, ETC. SHALL BE DONE BY THE CONTRACTOR(S). THIS INCLUDES HEATING SYSTEM, EXHAUST FANS, STEAM RADIATORS, CONDENSATE PIPING AND INSULATION, ETC.
5	REMOVE ALL DEBRIS FROM THE JOB SITE DAILY AND LEAVE ALL WORK AND EQUIPMENT IN A CLEAN WORKING ORDER.
6	LAYOUT IS DIAGRAMMATIC. AND CONTRACTOR(S) SHALL VERIFY ALL EQUIPMENT, PIPING, AND DUCTWORK AS PER FIELD CONDITIONS. EXACT LOCATION OF PIPING, HVAC EQUIPMENT, DUCTWORK, RADIATORS, VALVES, ETC. SHALL ALSO BE VERIFIED IN THE FIELD. VERIFY ALL CONDITIONS, SUCH AS INTERIOR WALL SYSTEMS, ETC. WITH OTHER TRADES DRAWINGS. MINIMIZE THE DAMAGE TO EXISTING, ROOF, STRUCTURAL ELEMENTS, CEILING AND WALLS AND COORDINATE ANY REQUIRED CHANGES WITH THE GENERAL CONTRACTOR. COORDINATE ALL WORK WITH THE OTHER TRADES.
7	ALL EXISTING HVAC EQUIPMENT, SUPPLY, RETURN EXHAUST AND OTHER DUCTWORK, REGISTERS, DIFFUSERS, PIPES AND RADIATION TO BE RETAINED IN THE PROJECT AREAS SHALL BE COVERED AND SEALED FROM DAMAGE AND CONSTRUCTION DUST.
8	REMOVE ALL SPECIFIED MECHANICAL EQUIPMENT AND RELATED DUCTWORK AND PIPING AND OUTLETS SHALL BE REMOVED. THIS INCLUDES THE ENTIRE ROOFTOP UNITS, GAS CONNECTIONS, POWER CONNECTIONS, CONTROL CONNECTIONS, ALL ROOF SUPPORTS AND CURBS. ALL REMOVED IS PROPERTY OF THE OWNER AND IF DIRECTED, SALVAGED EQUIPMENT SHALL BE TURNED OVER TO THE OWNER, OTHERWISE SHALL BE COMPLETELY REMOVED FROM THE SITE AND DISPOSED OF IN PROPER MANNERS.
9	SEE ARCHITECTURAL DRAWINGS FOR THE SCOPE OF THE NEW WORK AND THE NECESSARY DEMOLITION OF MECHANICAL SYSTEMS.
10	PROPER AIR QUALITY SHALL BE MAINTAINED IN THE CONSTRUCTION AREAS AS WELL AS IN ANY OCCUPIED AREAS. TESTING OF AIR QUALITY CONSTRUCTION SHALL BE DONE AS FREQUENTLY AS NECESSARY.
11	SEE THE PHASING DIRECTION FROM THE OWNER TO DETERMINE THE TIMING AND AMOUNT OF DEMOLITION THAT IS NEEDED. TEMPORARILY REROUTE HVAC PIPING, DUCTWORK AND/OR TEMPERATURE CONTROLS TO ACCOMMODATE PHASED CONSTRUCTION.
12	SAFELY DISCONNECT ALL HVAC SYSTEMS AND PIPING CONNECTIONS TO THE BUILDING BEING DEMOLISHED. VERIFY THE PHASING WITH THE GENERAL CONTRACTOR.
13	OBTAIN FROM THE OWNER ALL EXISTING DRAWINGS AND EQUIPMENT INFORMATION FOR THE PROJECT. REFER TO THESE DOCUMENTS IN DETERMINING EXISTING CONDITIONS AND REQUIREMENTS FOR RESTORING AND BALANCING MECHANICAL SYSTEMS.



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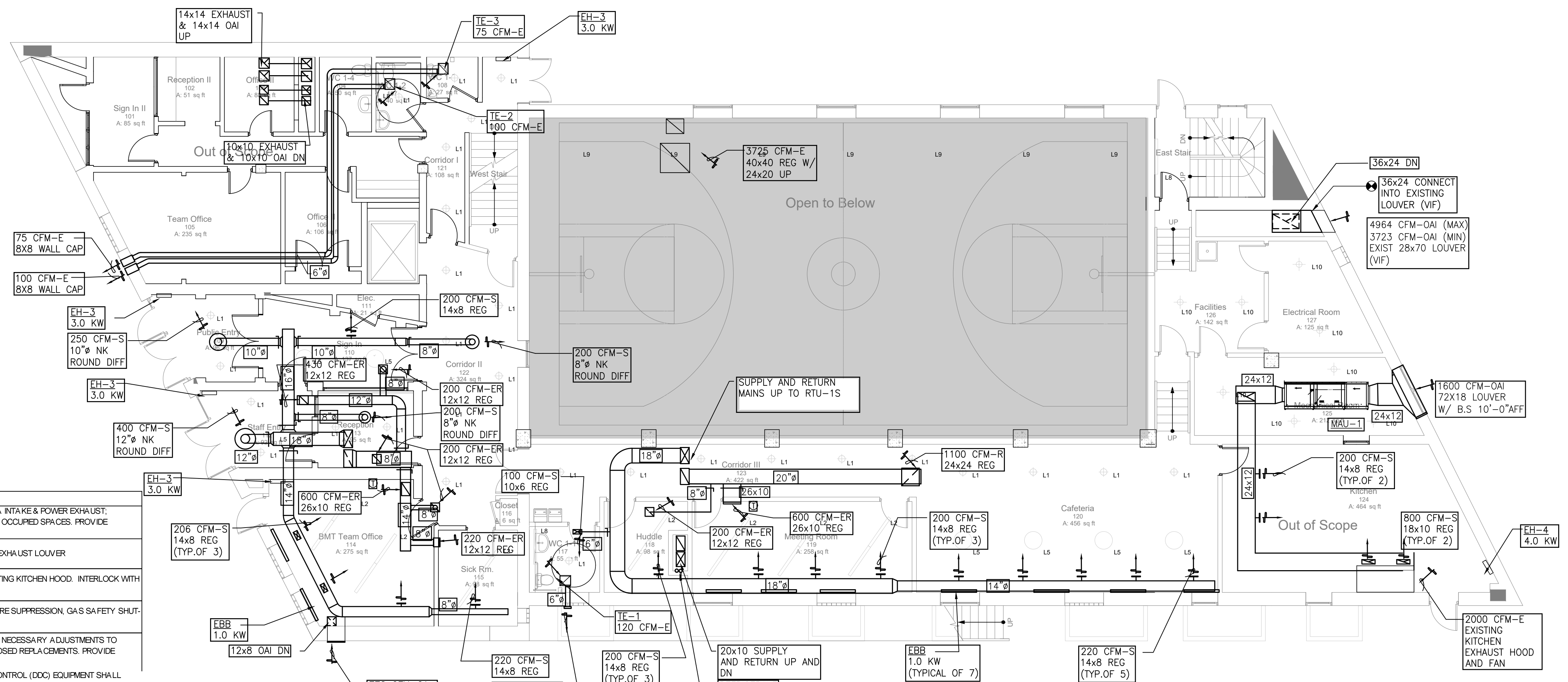
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Revisions	Transmittal Set Name	Date
	ISSUE FOR BIDDING	6/11/24

MECHANICAL DEMO FLOOR PLAN

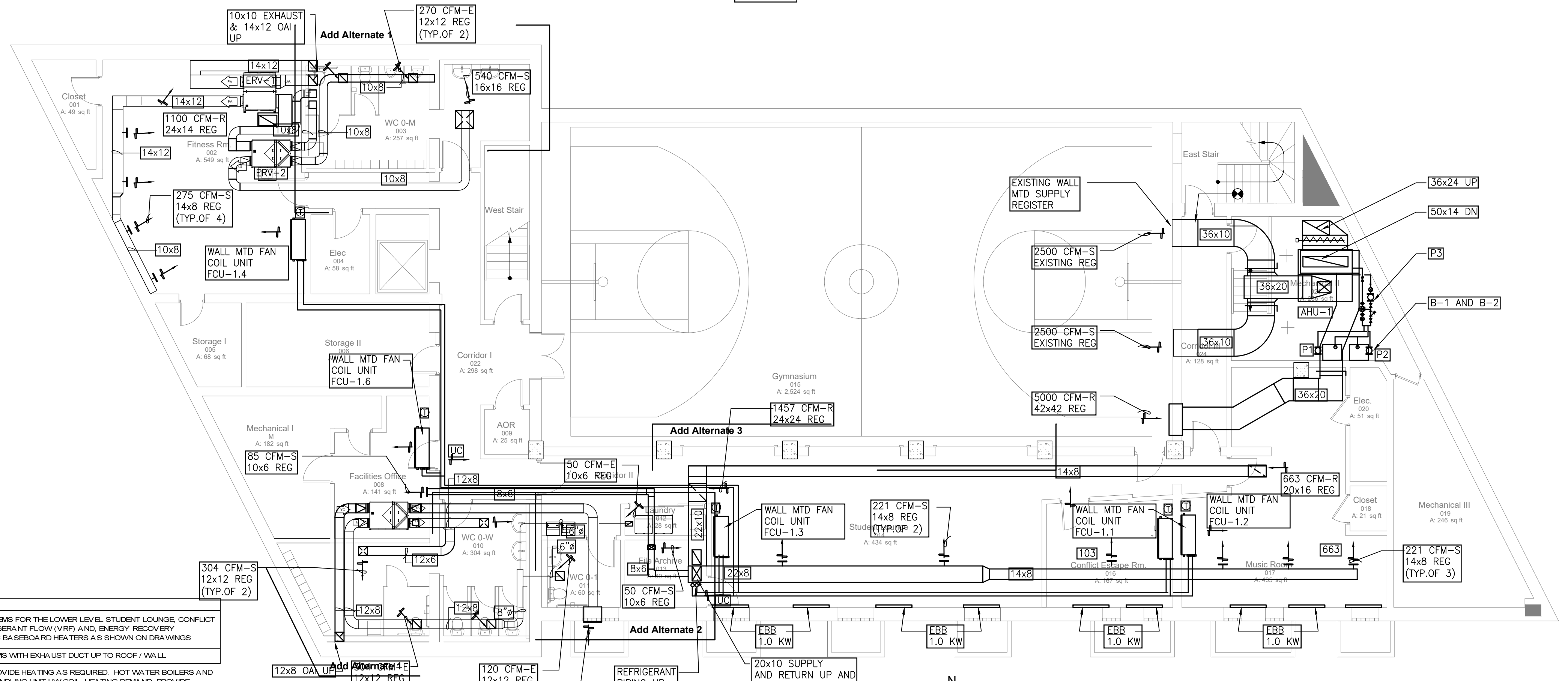
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MECHANICAL SCOPE OF WORK FIRST FLOOR
 PROVIDE ROOF MOUNTED UNITS WITH GAS-FIRED HEATING, ELECTRIC A/C, AIR ECONOMIZER W/ OA INTAKE & POWER EXHAUST, SUPPLY & RETURN DUCTWORK FROM ROOF TOP UNITS TO 1ST LEVEL CEILINGS REGISTERS IN ALL OCCUPIED SPACES. PROVIDE ELECTRIC BASEBOARD HEATERS AS SHOWN ON DRAWINGS.
 INSTALL NEW CEILING CABINET TYPE TOILET EXHAUST FAN WITH NEW EXHAUST DUCT TO WALL EXHAUST LOUVER
 PROVIDE GAS FIRED HEATING-ONLY MAKE-UP AIR UNIT ON THE FIRST FLOOR WITH DUCT TO EXISTING KITCHEN HOOD. INTERLOCK WITH EXISTING KITCHEN EXHAUST FAN/HOOD
 RECONDITION EXISTING KITCHEN HOOD PROVIDING CODE-REQUIRED EXHAUST AIR, SUPPLY AIR, FIRE SUPPRESSION, GAS SAFETY SHUT-OFF, PROVIDE MANUAL AND AUTOMATIC CONTROLS AND INTERLOCKS.
 RECONDITION EXISTING KITCHEN EXHAUST FAN PROVIDING CODE-REQUIRED EXHAUST AIR, MAKE NECESSARY ADJUSTMENTS TO ENSURE PROPER OPERATION. DOCUMENT AND REPORT IN WRITING FANHOOD DEFECTS OF PROPOSED REPLACEMENTS. PROVIDE WRITTEN REPORT TO OWNER FOR APPROVAL AS REQUIRED.
 ALL NEW HVAC EQUIPMENT SHALL BE ASHRAE BAC-NET COMPATIBLE. LOCAL DIRECT DIGITAL CONTROL (DDC) EQUIPMENT SHALL PROVIDE CONNECTIONS BETWEEN EACH HVAC UNIT AND CENTRAL BAS. THE BAS SHALL BE TOTAL INTEGRATED FOR USER INTERFACE AND SEPARATELY FOR HVAC CONTRACTOR ALARM AND TROUBLE-SHOOTING STANDPOINT. PROVIDE USER-FRIENDLY WIRELESS ACCESS TO HVAC CONTROLS.

2 FIRST FLOOR MECHANICAL PLAN
 SCALE: 1/8" = 1'-0"



MECHANICAL SCOPE OF WORK LOWER LEVEL
 PROVIDE NEW HEATING, VENTILATION, AND AIR CONDITIONING (HVAC) SYSTEMS FOR THE LOWER LEVEL, STUDENT LOUNGE, CONFLICT ROOM, MUSIC ROOM AND FITNESS ROOM WITH DUCTLESS, VARIABLE REFRIGERANT FLOW (VRF) AND ENERGY RECOVERY VENTILATORS (ERVS) WITH EXHAUST DUCT UP TO ROOF. PROVIDE ELECTRIC BASEBOARD HEATERS AS SHOWN ON DRAWINGS.
 PROVIDE NEW ENERGY RECOVERY VENTILATORS (ERVS), FOR TOILET ROOMS WITH EXHAUST DUCT UP TO ROOF/WALL
 PROVIDE GYMNASIUM AIR HANDLING UNIT WITH HOT WATER COIL. SHALL PROVIDE HEATING AS REQUIRED. HOT WATER BOILERS AND PUMPS WILL BE FULLY MODULATING CONTROL, BASED ON THE AIR HANDLING UNIT HW COIL. HEATING DEMAND. PROVIDE OUTSIDE AIR INTAKE AND NEW ROOF MOUNTED EXHAUST FAN
 ALL NEW HVAC EQUIPMENT SHALL BE ASHRAE BAC-NET COMPATIBLE. LOCAL DIRECT DIGITAL CONTROL (DDC) EQUIPMENT SHALL PROVIDE CONNECTIONS BETWEEN EACH HVAC UNIT AND CENTRAL BAS. THE BAS SHALL BE TOTAL INTEGRATED FOR USER INTERFACE AND SEPARATELY FOR HVAC CONTRACTOR ALARM AND TROUBLE-SHOOTING STANDPOINT. PROVIDE USER-FRIENDLY WIRELESS ACCESS TO HVAC CONTROLS.

1 LOWER LEVEL MECHANICAL PLAN
 SCALE: 1/8" = 1'-0"

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LOWER LEVEL AND 1ST FLOOR
 MECHANICAL FLOOR PLAN

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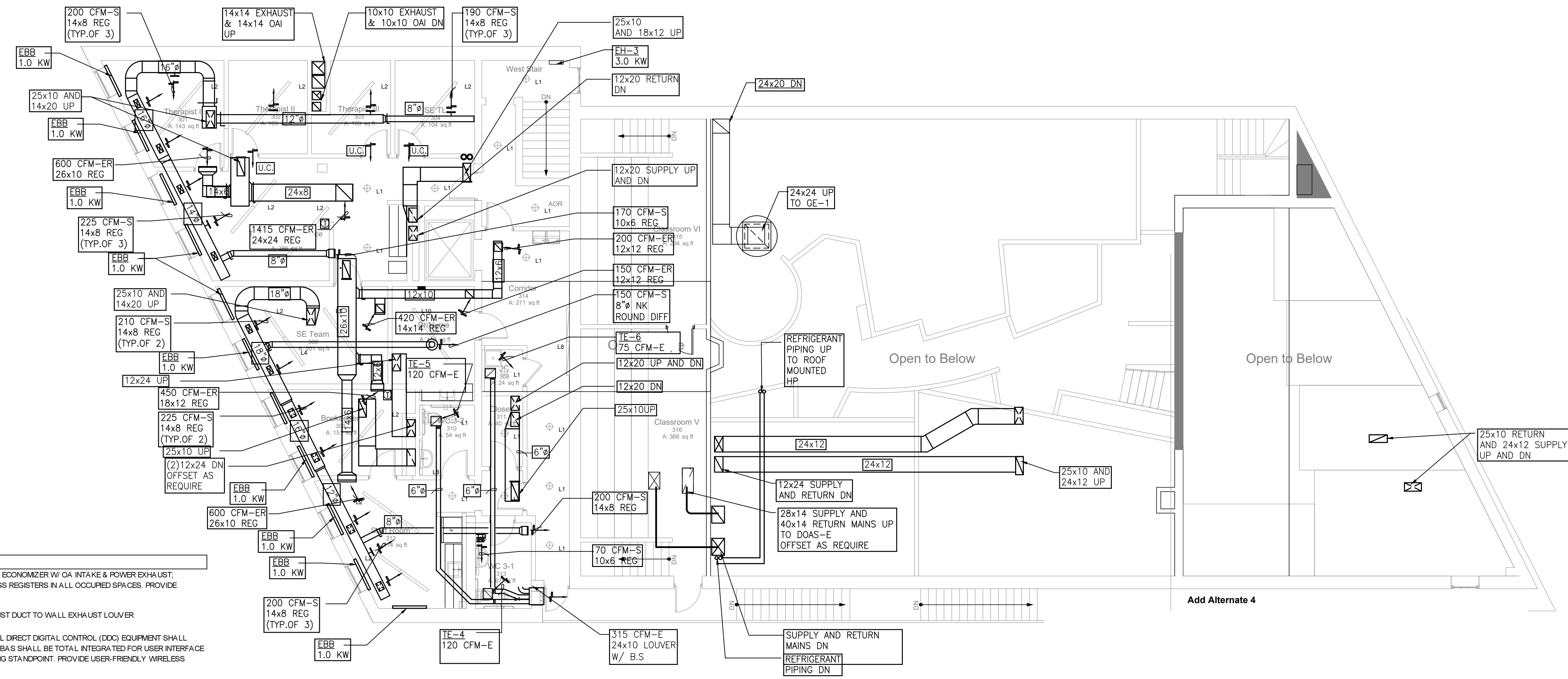
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	ISSUE FOR BIDDING	6/11/24

SECOND AND THIRD FLOOR MECHANICAL FLOOR PLAN

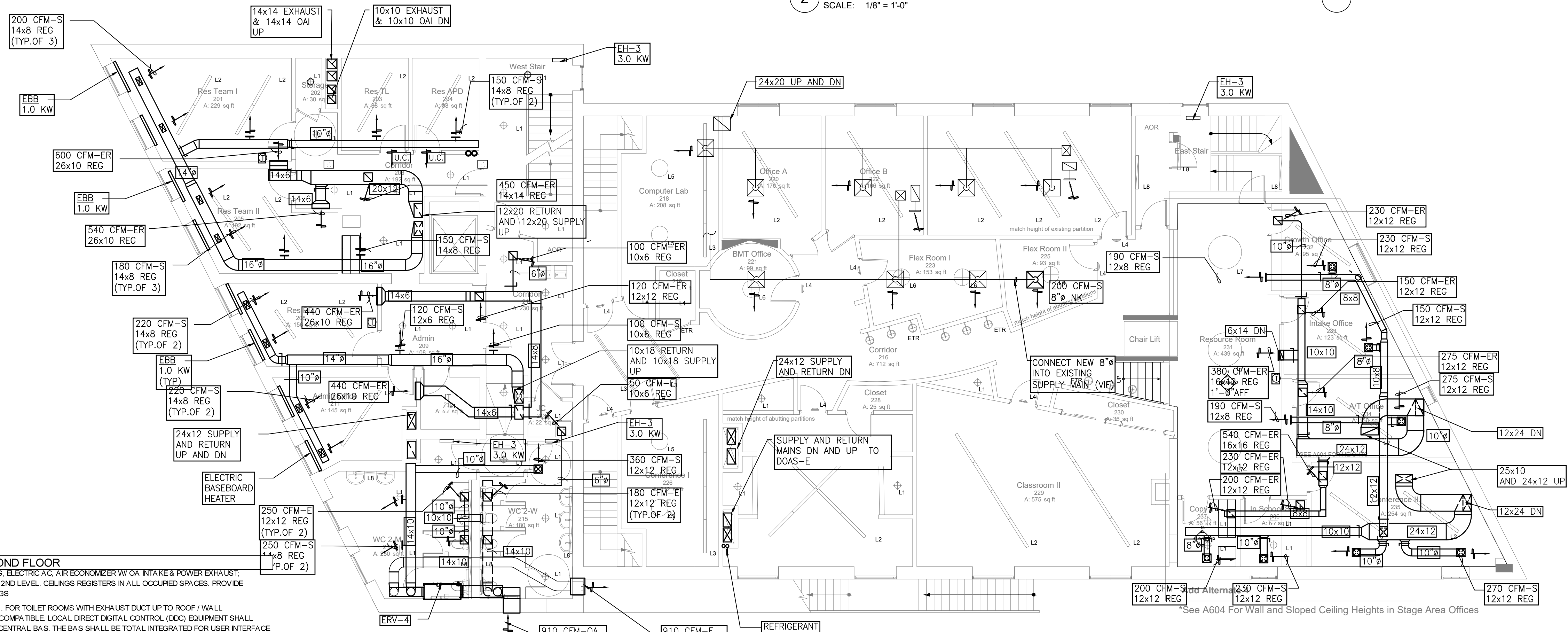
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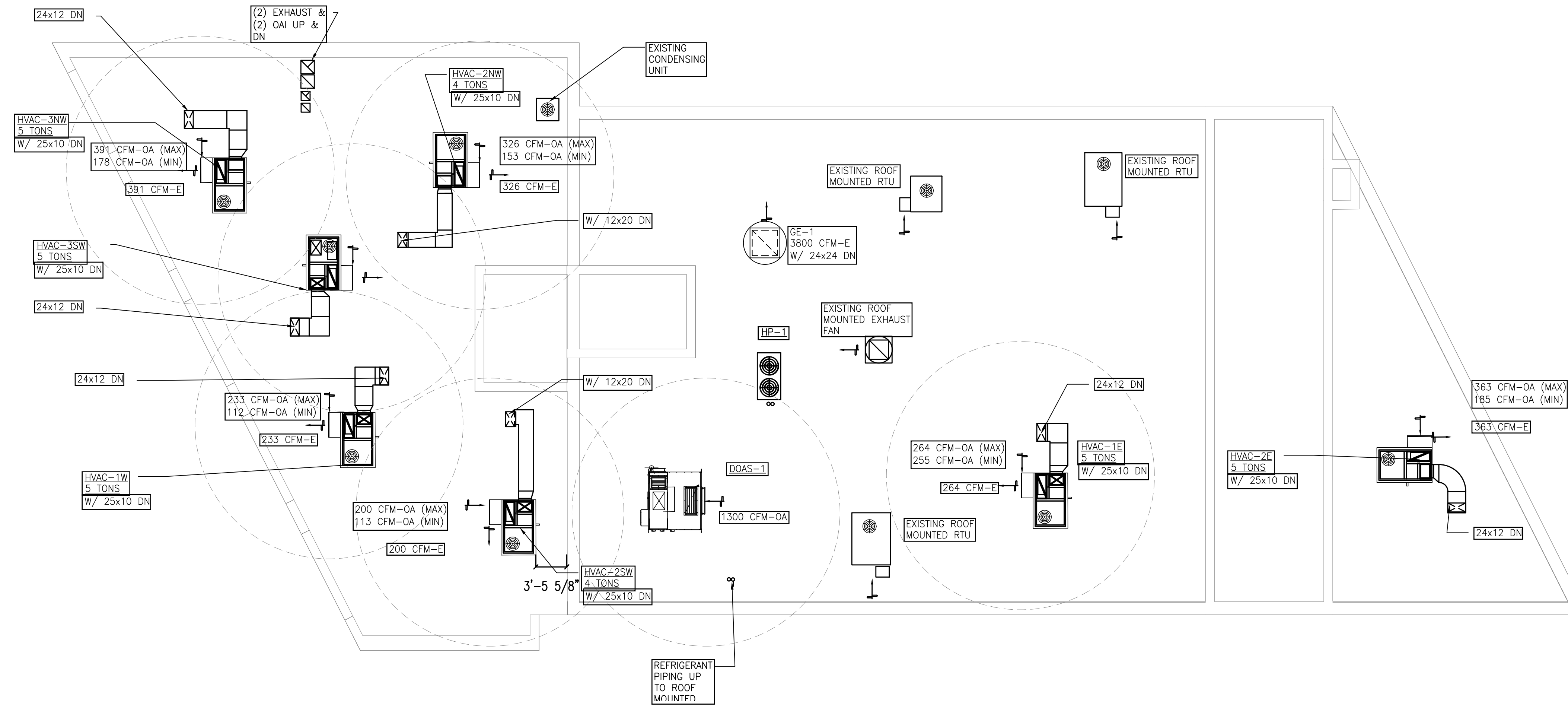
MECHANICAL SCOPE OF WORK THIRD FLOOR
PROVIDE ROOF MOUNTED UNITS WITH GAS-FIRED HEATING, ELECTRIC A/C, AIR ECONOMIZER W/ OA INTAKE & POWER EXHAUST. SUPPLY & RETURN DUCTWORK FROM ROOFTOP UNITS TO 2ND LEVEL. CEILING REGISTERS IN ALL OCCUPIED SPACES. PROVIDE ELECTRIC BASEBOARD HEATERS AS SHOWN ON DRAWINGS.
INSTALL NEW CEILING CABINET TYPE TOILET EXHAUST FAN WITH NEW EXHAUST DUCT TO WALL EXHAUST LOUVER
ALL NEW HVAC EQUIPMENT SHALL BE ASHRAE BAC-NET COMPATIBLE. LOCAL DIRECT DIGITAL CONTROL (DDC) EQUIPMENT SHALL PROVIDE CONNECTIONS BETWEEN EACH HVAC UNIT AND CENTRAL BAS. THE BAS SHALL BE TOTAL INTEGRATED FOR USER INTERFACE AND SEPARATELY FOR HVAC CONTRACTOR ALARM AND TROUBLE-SHOOTING STANDPOINT. PROVIDE USER-FRIENDLY WIRELESS ACCESS TO HVAC CONTROLS.

THIRD FLOOR MECHANICAL PLAN
SCALE: 1/8" = 1'-0"

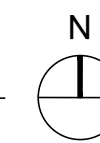


MECHANICAL SCOPE OF WORK SECOND FLOOR
PROVIDE ROOF MOUNTED UNITS WITH GAS-FIRED HEATING, ELECTRIC A/C, AIR ECONOMIZER W/ OA INTAKE & POWER EXHAUST. SUPPLY & RETURN DUCTWORK FROM ROOFTOP UNITS TO 2ND LEVEL. CEILING REGISTERS IN ALL OCCUPIED SPACES. PROVIDE ELECTRIC BASEBOARD HEATERS AS SHOWN ON DRAWINGS.
PROVIDE NEW ENERGY RECOVERY VENTILATORS (ERVs), FOR TOILET ROOMS WITH EXHAUST DUCT UP TO ROOF / WALL
ALL NEW HVAC EQUIPMENT SHALL BE ASHRAE BAC-NET COMPATIBLE. LOCAL DIRECT DIGITAL CONTROL (DDC) EQUIPMENT SHALL PROVIDE CONNECTIONS BETWEEN EACH HVAC UNIT AND CENTRAL BAS. THE BAS SHALL BE TOTAL INTEGRATED FOR USER INTERFACE AND SEPARATELY FOR HVAC CONTRACTOR ALARM AND TROUBLE-SHOOTING STANDPOINT. PROVIDE USER-FRIENDLY WIRELESS ACCESS TO HVAC CONTROLS.

SECOND FLOOR MECHANICAL PLAN
SCALE: 1/8" = 1'-0"



1 ROOF MECHANICAL PLAN
SCALE: 1/8" = 1'-0"



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Revisions	Transmittal Set Name	Date
	ISSUE FOR BIDDING	6/11/24

ROOF MECHANICAL FLOOR PLAN

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2ND FLOOR HVAC-2SW								
208	RES PD	6,100	ASHRAE GUIDE	55	440	2	6824	
209	ADMIN	INTERIOR	ASHRAE GUIDE	0	120	0	0	
210	CORRIDOR	INTERIOR	ASHRAE GUIDE	0	100	0	0	
211	ADMIN OFFICE	6500	ASHRAE GUIDE	59	440	2	6824	
212	IT	INTERIOR	ASHRAE GUIDE	0	0	0	0	
213	JC	INTERIOR	ASHRAE GUIDE	0	0	0	0	
214	WC 2-M	1200	ASHRAE GUIDE	11	3	10236		
215	WC W-W	1200	ASHRAE GUIDE	11	3	10236		
HEAT LOSS				15,000	115	1,100	10	0
HEAT LOSS W/ PICK-UP (10 PERCENT)				16500				
VENTILATION HEAT LOSS					CFM	CFM	KW	BTUHR
335								
CFM X 1/3 X 1.08 X 80F =				9648				
TOTAL HEAT LOSS				26148	BTU/HOUR			
HEATING EQUIPMENT								
48FCB04L3A-50U3F0				88000	BTU/HOUR			
					BTU/HOUR			
ELECTRIC HEAT (KW)								
10				34130	BTU/HOUR OUTPUT			
TOTAL OUTPUT				122130	BTU/HOUR OUTPUT			

2ND FLOOR HVAC-2SE								
231	RESOURCE LOUNGE	1,300	ASHRAE GUIDE	12	380	0	0	
232	GROWTH OFFICE	5900	ASHRAE GUIDE	54	230	0	0	
233	INTAKE	2700	ASHRAE GUIDE	25	150	0	0	
234	ACTIVITY/TRANSITION	5700	ASHRAE GUIDE	52	275	0	0	
235	CONFERENCE	11500	ASHRAE GUIDE	105	540	0	0	
236	IN SCHOOL SUS	4900	ASHRAE GUIDE	45	230	0	0	
237	COPY	1700	ASHRAE GUIDE	15	200	0	0	
HEAT LOSS				33,700	306	2,005	0	0
HEAT LOSS W/ PICK-UP (10 PERCENT)				37070				
VENTILATION HEAT LOSS					CFM	CFM	KW	BTUHR
335								
CFM X 1/3 X 1.08 X 80F =				9648				
TOTAL HEAT LOSS				46718	BTU/HOUR			
HEATING EQUIPMENT								
48FCM06L3A-5-6U2D0				88000	BTU/HOUR			
					BTU/HOUR			
ELECTRIC HEAT (KW)								
0								
TOTAL OUTPUT				88000	BTU/HOUR OUTPUT			

THIRD FLOOR HVAC-3NW								
301	THERAPIST	11,200	ASHRAE GUIDE	102	600	2	6824	
307	THERAPIST	2900	ASHRAE GUIDE	26	190	0	0	
308	THERAPIST	2900	ASHRAE GUIDE	26	190	0	0	
309	SETL	2900	ASHRAE GUIDE	26	190	0	0	
310	THERAPY TEAM OFFICE	8200	ASHRAE GUIDE	75	675	2	6824	
311	BREAKROOM	900	ASHRAE GUIDE	8	170	0	0	
HEAT LOSS				29,000	264	2,015	4	0
HEAT LOSS W/ PICK-UP (10 PERCENT)				31900				
VENTILATION HEAT LOSS					CFM	CFM	KW	BTUHR
335								
CFM X 1/3 X 1.08 X 80F =				9648				
TOTAL HEAT LOSS				41548	BTU/HOUR			
HEATING EQUIPMENT								
48FCM06L3A-5-6U2D0				88000	BTU/HOUR			
					BTU/HOUR			
ELECTRIC HEAT (KW)								
4				13652	BTU/HOUR OUTPUT			
TOTAL OUTPUT				101652	BTU/HOUR OUTPUT			

THIRD FLOOR HVAC-3SW								
306	SET TEAM	7,300	ASHRAE GUIDE	66	420	2	6824	
307	NURSE	600	ASHRAE GUIDE	5	150	0	0	
308	JANITORS	INTERIOR	ASHRAE GUIDE	0	0	0	0	
309	BOOKKEEPER	7000	ASHRAE GUIDE	64	450	2	6824	
310	WC 3-2	INTERIOR	ASHRAE GUIDE	0	0	0	0	
311	CLOSET	INTERIOR	ASHRAE GUIDE	0	0	0	0	
312	STAFF ROOM	11200	ASHRAE GUIDE	102	600	3	10236	
313	WC 3-1	2600	ASHRAE GUIDE	24	70	0	0	
314	CORRIDOR	4700	ASHRAE GUIDE	43	200	0	0	
HEAT LOSS				33,400	261	1,890	7	0
HEAT LOSS W/ PICK-UP (10 PERCENT)				36740				
VENTILATION HEAT LOSS					CFM	CFM	KW	BTUHR
335								
CFM X 1/3 X 1.08 X 80F =				9648				
TOTAL HEAT LOSS				46388	BTU/HOUR			
HEATING EQUIPMENT								
48FCM06L3A-5-6U2D0				88000	BTU/HOUR			
					BTU/HOUR			
ELECTRIC HEAT (KW)								
7				23891	BTU/HOUR OUTPUT			
TOTAL OUTPUT				111891	BTU/HOUR OUTPUT			

HEATING DATA - PUBLIC AREAS								
ROOM NO.	USE OF SPACE	HEAT LOSS (BTUHR)	BASIS OF CALCULATIONS	RECD CODE CFM at 175F	ACTUAL CFM at 175F	ELECTRIC HEAT (KW)	ELECTRIC HEAT OUTPUT (BTUHR)	
LOWER LEVEL								
2	FITNESS ROOM	8,400	ASHRAE GUIDE	76	1100	0	0	
	WC 0-1M	200	ASHRAE GUIDE	2	540	0	0	
	FACILITIES	4100	ASHRAE GUIDE	37	85	0	0	
	WC-0W	200	ASHRAE GUIDE	2	608	0	0	
	WC 0-1	2000	ASHRAE GUIDE	18	0	0	0	
	LAUNDRY	INTERIOR	ASHRAE GUIDE	0	0	0	0	
	FILE ARCHIVE	INTERIOR	ASHRAE GUIDE	0	50	0	0	
	STUDENT LOUNGE	2500	ASHRAE GUIDE	23	442	4	13648	
	GYMNASIUM	1300	ASHRAE GUIDE	12	5000	0	0	
	CONFLICT	6500	ASHRAE GUIDE	59	103	2	6824	
	MUSIC	7200	ASHRAE GUIDE	65	683	3	10236	
HEAT LOSS				32,400	295	8,590	9	0
HEAT LOSS W/ PICK-UP (10 PERCENT)				35940				
VENTILATION HEAT LOSS					CFM	CFM	KW	BTUHR
1,041								
CFM X 1/3 X 1.08 X 80F =				29881				
TOTAL HEAT LOSS				65621	BTU/HOUR			
HEATING EQUIPMENT								
AHU-1 (B-1,B-2)				798000	BTU/HOUR			
DCA-5				120000	BTU/HOUR			
FCU-1, 1, FCU-1.2, FCU-1.3, FCU-1.4					BTU/HOUR			
ELECTRIC HEAT (KW)								
9				30717	BTU/HOUR OUTPUT			
TOTAL OUTPUT				948717	BTU/HOUR OUTPUT			

1ST FLOOR HVAC-1W									
109	VESTIBULE	10,700	ASHRAE GUIDE	97	250	3	10236		
110	SHOW R	INTERIOR	ASHRAE GUIDE	0	200	0	0		
111	ELECTRICAL	INTERIOR	ASHRAE GUIDE	0	0	0	0		
112	SECURITY	10400	ASHRAE GUIDE	95	400	3	10236		
113	RECEPTION	INTERIOR	ASHRAE GUIDE	0	200	0	0		
114	BMT	13400	ASHRAE GUIDE	122	600	5	17060		
115	SICK RM	5800	ASHRAE GUIDE	53	220	0	0		
122	CORRIDOR	INTERIOR	ASHRAE GUIDE	0	200	0	0		
HEAT LOSS				40,300	366	2,070	11	10,236	
HEAT LOSS W/ PICK-UP (10 PERCENT)				44330		CFM	CFM	KW	BTUHR
VENTILATION HEAT LOSS									
335									
CFM X 1/3 X 1.08 X 80F =				9648					
TOTAL HEAT LOSS				53978	BTU/HOUR				
HEATING EQUIPMENT									
48FCM06L3A-5-6U2D0				88000	BTU/HOUR				
					BTU/HOUR				
ELECTRIC HEAT (KW)									
11				37543	BTU/HOUR OUTPUT				
TOTAL OUTPUT				125543	BTU/HOUR OUTPUT				

1ST FLOOR HVAC-1E									
117	WC-1-	4,700	ASHRAE GUIDE	43	100	0	0		
118	HIDDLE	21000	ASHRAE GUIDE	191	200	0	0		
119	MEETING ROOM	9000	ASHRAE GUIDE	82	600	3	10236		
120	CAFETERIA	11500	ASHRAE GUIDE	105	1100	4	13648		
122	CORRIDOR	INTERIOR	ASHRAE GUIDE	0	0	0	0		
124	KITCHEN	13400	ASHRAE GUIDE	122	2000	4	13648		
HEAT LOSS				59,600	542	4,000	11	0	
HEAT LOSS W/ PICK-UP (10 PERCENT)				65580		CFM	CFM	KW	BTUHR
VENTILATION HEAT LOSS									
335									
CFM X 1/3 X 1.08 X 80F =				9648					
TOTAL HEAT LOSS				75208	BTU/HOUR				
HEATING EQUIPMENT									
48FCM06L3A-5-6U2D0				88000	BTU/HOUR				
					BTU/HOUR				
ELECTRIC HEAT (KW)									
11				37543	BTU/HOUR OUTPUT				
TOTAL OUTPUT				125543	BTU/HOUR OUTPUT				

2ND FLOOR HVAC-2NW									
201	RES TEAM	12,200	ASHRAE GUIDE	111	600	2	6824		
202	STORAGE	1200	ASHRAE GUIDE	11	0	0	0		
203	RES TL	2000	ASHRAE GUIDE	18	150	0	0		
204	RES AFD	2000	ASHRAE GUIDE	18	150	0	0		
205	RES TEAM	6900	ASHRAE GUIDE	63	540	2	6824		
206	CORRIDOR	INTERIOR	ASHRAE GUIDE	0	0	0	0		
207	COPY	INTERIOR	ASHRAE GUIDE	0	150	0	0		
HEAT LOSS				24,300	221	1,590	4	0	
HEAT LOSS W/ PICK-UP (10 PERCENT)				26730		CFM	CFM	KW	BTUHR
VENTILATION HEAT LOSS									
335									
CFM X 1/3 X 1.08 X 80F =				9648					
TOTAL HEAT LOSS				36378	BTU/HOUR				
HEATING EQUIPMENT									
48FCM05L3A-5-6U2D0				88000	BTU/HOUR				
					BTU/HOUR				
ELECTRIC HEAT (KW)									
4				13652	BTU/HOUR OUTPUT				
TOTAL OUTPUT				101652	BTU/HOUR OUTPUT				

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Revisions	Transmittal Set Name	Date
	ISSUE FOR BIDDING	6/11/24

MECHANICAL SCHEDULES

Loren Juhl School

Remodeling
4219 N Lincoln Ave. Chicago, IL

M2.2

AIR HANDLING UNIT SCHEDULE																																	
TAG	LOCATION	AREA SERVED	AIR VOLUMES			SUPPLY FAN					ELECTRICAL DATA			AIR HANDLING UNIT SECTIONS (LENGTH & TAG)					UNIT DATA				NOTES										
			MAX SUPPLY AIR (CFM)	MIN OUTSIDE AIR (CFM)	MAX OUTSIDE AIR (CFM)	TOTAL SP (INCH)	EXT SP (INCH)	FAN SPEED (RPM)	SOUND LEVEL	TYPE	CLASS	HP	VOLTS	PHASES	HERTZ	FILTER	HEATING & COOLING COIL	SUPPLY FAN	TOTAL	VFD	UNIT WEIGHT (LBS)	DIMENSIONS (L X W X H FT IN)		MANFR	MODEL								
AHU1	LOWER LEVEL MECH RM	GYM	5000	3800	5000	2.5	1.50	1108		BELOW	PLENUM	II	5 HP	208	3	60	F-1	H-C-1															1, 2, 3, 4

AIR COIL SCHEDULE (HYDRONIC) HEATING																																						
TAG	LOCATION	AREA SERVED	MAX SUPPLY AIR (CFM)	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	FACE AREA (SQ FT)	COIL DATA								MAX FACE VELOCITY (FPM)	MAX AIR PRES DROP (IN WC)	AIR TEMPERATURE (DEG F)				WATER TEMP (DEG F)		COIL FLOW DATA			UNIT DATA		NOTES										
							QUANTITY	TYPE	WIDTH (INCH)	HEIGHT (INCH)	MIN ROWS	MAX FIN IN	FLUID TYPE	TUBE DIA (IN)			TUBE THICKNESS (IN)	ENTER DB	ENTER WB	LEAV DB	LEAV WB	ENTERING	LEAVING	RATE (GPM)	MAX PD (FT)	MAX VEL (FPS)	MANFR		MODEL									
HC-1	AHU-1	GYM	5000	556.1	NA	9.93	1	SINGLE CIRCUIT												2	11	UP TO 30% PG	0.50	NA	503.5	10.40	-10	NA	77.8	NA	180	160	56.9	10.4	4.3	CARRIER	39MN 10W	1

HEATING BOILER SCHEDULE											
92% EFFICIENCY, CONDENSING, GAS-FIRED, PACKAGED FORCED DRAFT HOT WATER BOILER											
BOILER TAG	MAKE/MODEL NO.	LOCATION	TOTAL INPUT CAPACITY (MBH)	GROSS OUTPUT CAPACITY (MBH)	DIMENSIONS ("DX"WX"H)	DRY WEIGHT (LBS)	SQ. FT. SURFACE PER BHP	MINIMUM THERMAL EFFICIENCY (%)	COMB AIR AND FUE SIZE (IN-DIAM)	HOT WATER SUPPLY & RETURN PIPE SIZE (INCH DIAM)	
B-1 B-2	HTR-ELITE FT-399	MECH RM	399	367	24X 26 X 36.25	300	NA	95%	4 INCH AND 4 INCH CPVC	1-1/2" GAS, 1" & 3/4" DRAINS, 3/4" GAS VENT, 1/4" GAS PILOT	

PUMP SCHEDULE											
CENTRIFUGAL PUMPS SHALL BE BELL & GOSSETT, GRUNDFOS, EQUAL MODELS. IN-LINE CENTRIFUGAL, BRONZE FITTED PUMP; PROVIDE WITH STARTER/DISCONNECT SWITCH; INSTALL WITH STRAINER, CHECK VALVE, GATE VALVES, FLEXIBLE CONNECTORS, BALANCING VALVE, AND GAUGE TAPS. FULLY MODULATING ECM CONTROLS WITH DIRECT CONNECTION TO TEMPERATURE AND FLOW CONTROLS.											
UNIT TAG	SERVICE	LOCATION	WATER FLOW RATE (GPM)	HEAD (FEET)	MOTOR RPM	MOTOR HP	VOLT/PHASE	TYPE	SUCTION & DISCHARGE SIZE (INCHES)	SERIES-MODEL	NOTES
P-1 P-2	BOILER	BOILER RM	40	15	1800	0.5	120/1	IN-LINE BOOSTER	1.5	GRUNDFOS MAGNA3 40-120	AHU-1 CONTROL PACKAGE
P-3	AHU-1 HOT WATER COIL	MECH ROOM	56	15	1800	0.5	120/1	IN-LINE BOOSTER	1.5	GRUNDFOS MAGNA3 40-120	AHU-1 CONTROL PACKAGE

HYDRONIC SYSTEM FEEDER SHALL INCLUDE 17 LITRE (4.5 U.S. GALLON) STORAGE/MIXING TANK WITH MOLDED-IN LEVEL GAUGE, 125 MM (5") FILL/ACCESS OPENING AND COVER; PUMP SUCTION HOSE WITH INLET STRAINER; PRESSURE PUMP WITH FUSE PROTECTION; LOW FLUID LEVEL PUMP CUT-OUT FLOAT SWITCH; MANUAL DIVERter VALVE FOR PURGING AIR AND AGITATING CONTENTS OF STORAGE TANK; DIGITAL PRESSURE SWITCH ADJUSTABLE FROM 0 KPA (0 PSIG) TO 310 KPA (45 PSIG) CUT-OUT PRESSURE; FACTORY CUT-OUT PRESSURE SET TO 115 KPA (18 PSIG); DIGITAL PRESSURE DISPLAY, VISUAL ALARM ON LOW LEVEL, LOW LEVEL ALARM COMES WITH REMOTE DRY CONTACTS; WALL MOUNTING BRACKET. UNIT TO BE C/W UL LISTED AND FUSED. POWER SUPPLY ADAPTER WITH LED POWER INDICATOR LIGHT, 100-240VAC/50-60HZ/1 TO 24 VDC.

GAS-FIRED HEATING AND VENTILATING UNIT SCHEDULE											
DIRECT-FIRED SERIES, INDOOR HORIZONTAL OA LOUVER, FILTER AND BLOWER SECTION, GAS-DIRECT FIRED, AND FULL VENTILATION CONTROLS; FULLY ELECTRONIC MODULATING BURNERS; ALL REQUIRED GAS SAFETIES; UL/ETL LISTING/GAGA APPROVAL; SAFETY: PROVIDE SMOKE DETECTOR ON THE SUPPLY OUTLET TO SHUT-DOWN THE UNITS ON SMOKE DETECTOR SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR. PROVIDE WITH VARIABLE SPEED SUPPLY FAN WITH PRESSURE CONTROL TO MAINTAIN +0.10 W.C.											
UNIT TAG	SERVICE	MODEL NUMBER	MINIMUM GAS HEATING INPUT CAPACITY (BTUH)	MAXIMUM GAS HEATING OUTPUT CAPACITY (BTUH)	SUPPLY AIR QUANTITY (CFM)	MOTOR HP	MCA/MOP	DIMENSIONS (W'x L' x H')	WGT (LBS)	TEMP RISE (DEG F)	THERMAL EFFICIENCY (%)
MAU-1	MAKE-UP AIR	A2-D-250-200	184622	169852	2250	1	4.8/15	38 X 115 X 37	900	69.6	93%

GRILLES REGISTERS AND DIFFUSERS			
REGISTER TYPE	MODEL NO.	DESCRIPTION	NOTES
SUPPLY REGISTER (REG)	PRICE 620DAL (ALUMINUM)	DOUBLE-DEFLECTION REGISTER WITH OPPOSED BLADE DAMPER AND WHITE BAKED ENAMEL FINISH	NOTE: ALL DIFFUSERS, REGISTERS AND GRILLES SHALL HAVE FINISHES APPROVED BY THE ARCHITECT. FRAMES TO MATCH FLOOR, WALL AND CEILING FINISHES. MAXIMUM NOISE LEVELS OF NC-25 AND OPPOSED BLADE DAMPERS, UNLESS NOTED AS A GRILLE (GR) IS WITHOUT A DAMPER. EXACT REGISTER LOCATIONS, TYPES AND FINISHES SHALL BE APPROVED BY THE ARCHITECT PRIOR TO PURCHASE OR INSTALLATION.
SUPPLY REGISTER (REG) SPIRAL DUCT MOUNTED	PRICE 50G AL (ALUMINUM)	DOUBLE-DEFLECTION REGISTER WITH BALANCING DAMPER AND WHITE BAKED ENAMEL FINISH. OPEN CELL FOAM GASKET ATTACHED TO THE NECK PROVIDES A TIGHT SEAL. AROUND OPENINGS IN THE DUCT, CONFORMS TO ANY DUCT DIAMETER. AIR SCOOP (AS) OR STEEL OPPOSED BLADE DAMPER (VCS).	
EXHAUST/RETURN REGISTERS (REG)	PRICE 630DAL (ALUMINUM)	45 DEGREE FIXED BLADE REGISTER WITH 3/4" ON CENTER BLASES, OPPOSED BLADE DAMPER AND WHITE BAKED ENAMEL FINISH. GRILLE (GR) IS WITHOUT DAMPER.	
DOOR GRILLE (DG)	PRICE SERIES ATG	ALUMINUM DOOR RETURN GRILLE WITH V-SHAPED DEFLECTIONS, 1/2 INCH ON CENTER AND 1-1/4 BORDER.	
TRANSFER GRILLE (TG)		WHEN USED FOR WALL AIR TRANSFER, PROVIDE (2) ALUMINUM GRILLES TOGETHER, ONE ON EACH SIDE OF THE WALL. VERIFY THE APPLICATION WITH THE ARCHITECT.	
SUPPLY REGISTER DUCT MOUNTED (REG)	PRICE STEEL (SDG ST), GALVANIZED STEEL (SDG GV) OR ALUMINUM (SDG AL)	MOUNTED ON ROUND OR SPIRAL DUCTS WITHOUT ANY TRANSITIONS. GASKETS AT EACH END OF THE GRILLE AND GASKET PLACED AROUND THE INLET PROVIDES AN AIR SEAL BETWEEN THE GRILLE AND THE DUCT. DOUBLE DEFLECTION ARRANGEMENT; MATCH DUCT FINISH; INDIVIDUALLY ADJUSTABLE FLOW BLADES FRONT BLADES PARALLEL TO SHORT DIMENSION. AIR SCOOP (AS) OR STEEL OPPOSED BLADE DAMPER (VCS).	
LOUVERS	VENT PRODUCTS MODEL 2600 (2") OR 2730 (4")	2 OR 4 INCH DEEP STATIONARY BLADES, AT 30/40 DEGREE ANGLE. EXTRUDED ALUMINUM (.081) FRAME AND BLADES, WITH 1/2 X 1/2 INCH ALUMINUM SCREEN FRAME TO MAKE OPENING REQUIREMENTS, INCLUDING SILL EXTENSION, SLEEVE, ETC. SIZE FOR ROUGH OPENING, PROVIDE WEATHER-SEAL TO ARCHITECTURAL OPENING, PROVIDE INSULATED, BLANK-OFF PANELS FOR UNUSED PORTIONS OF LOUVER.	
EXHAUST/RETURN FILTER GRILLE (GR)	PRICE 530FF / 630FF	SIMILAR GRILLE WITH 1 INCH FILTER FRAME, CONTINUOUS ALUMINUM HINGE, QUICK RELEASE FASTENERS. PROVIDE 6 MERV FILTERS TO MATCH AIR HANDLER FILTERS AND SIZED FOR FULL CROSSSECTION.	
		AMERICAN METAL FILTER (ODOR-U TRIM FILTER)	

EXHAUST FAN SCHEDULE										
GREENHECK, TWIN CITY OR COOK EQUAL FANS (EQUAL SIZE, CFM RPM, HP, SP, MATERIALS, CONTROLS, ETC.)										
TAG	SERVICE	AIR VOLUME (CFM)	STATIC PRESSURE (INCH)	RPM	MOTOR HP/VOLTS/PHASE	DIMENSIONS/DUCT/DAMPER (INCHES)	FAN TYPE	LOCATION	MODEL	CONTROLS
TE-1, TE-4, TE-5	TOILET ROOMS	120	0.5	950	1.7 AMPS	8H x 12W x 14L, 6 D IAM DUCT	CEILING, CENTRIFUGAL	CEILING	GREENHECK SP-8150	2
TE-2	TOILET ROOMS	100	0.5	950	1.7 AMPS	8H x 12W x 14L, 6 D IAM DUCT	CEILING, CENTRIFUGAL	CEILING	GREENHECK SP-8150	2
TE-3, TE-6	TOILET ROOMS	75	0.5	900	6 AMPS	8H x 12W x 14L, 6 D IAM DUCT	CABINET, CENTRIFUGAL	CEILING	GREENHECK SP-880	2
GE-1	GYM	3800	0.75	580	1.0 HP, 208 VOLT, 3 PHASE	50 IN DIA X 38 IN HIGH / 30 INCH X 30 INCH, 4 X 40 CURB	ROOFTOP, BELT DRIVE, CENTRIFUGAL	ROOF	GREENHECK GB-260	4

FAN CONTROLS			
1	ELECTRONIC TIME CLOCK CONTROL, ON DURING OCCUPIED PERIODS.		
2	SEPARATE LOCAL SWITCH IN SERVED ROOM WITH PILOT LIGHT AND LABEL.		
3	PROVIDE REMOTE FAN SPEED CONTROL WITH MINIMUM CODE REQUIRED EXHAUST VOLUME AT LOW SETTINGS. PROVIDE MANUAL ON/OFF CONTROL FOR MINIMUM AND MAXIMUM AIR VOLUME.		
4	INTERLOCK WITH HVAC UNIT.		

GENERAL FAN NOTES				
1	ALL FANS ARE FURNISHED AND INSTALLED BY MC. ALL STARTERS ARE FURNISHED BY MC AND INSTALLED BY EC. POWER WIRING IS BY EC AND CONTROL WIRING IS BY MC.			
2	ALL FANS SHALL BE 120 VOLT, 1 PHASE OR 240 VOLT, 3 PHASE AS NOTED AND AS VERIFIED IN THE FIELD. MODIFY THE FAN SUBMITTALS TO MATCH FIELD CONDITIONS. MECHANICAL CONTRACTOR DIRECT THE ELECTRICAL CONTRACTOR TO MODIFY THE POWER AND CONTROL CONNECTIONS AS PER THE EXISTING FIELD CONDITIONS.			
3	FOR SIDEWALL DISCHARGE FANS, PROVIDE WALL LOUVER, ELECTRIC DAMPER, INLET SCREEN GUARD, VIBRATION ISOLATION, AND SEAL WALL OPENINGS.			
4	ALL ROOF MOUNTED FANS SHALL BE BELT DRIVEN CENTRIFUGAL FANS WITH MINIMUM 12 INCH HIGH INSULATED ROOF CURB (PITCHED AS NECESSARY), WITH ELECTRIC BACKRAFT DAMPER, FLASHED INTO ROOFING SYSTEM. ALL FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR.			
5	PROVIDE FLUSH MOUNTED EXHAUST LOUVERS OPAQUE EXTERIOR WALLS, TRANSOM AND STORE FRONT SYSTEMS TO MATCH ARCHITECTURAL DETAILS.			

HVAC NOTES

CITY OF CHICAGO REQUIREMENTS		
1	THE CONTRACTOR SHALL PROVIDE ALL PERMIT APPLICATION MATERIALS FOR THE CITY OF CHICAGO.	
2	PROVIDE MINIMUM 15 FEET FROM OUTSIDE AIR INTAKES TO EXHAUST OUTLETS, PLUMBING VENTS, ETC.	
3	ALL SUPPLY REGISTERS SHALL HAVE GRILLES WITH OPPOSED BLADE DAMPERS, UNLESS NOTED OTHERWISE.	
4	ALL DUCTWORK SHALL BE RIGID, GALVANIZED STEEL, SHEET METAL AND SHALL MEET THE LATEST SMACNA CONSTRUCTION STANDARDS.	
5	THE HEATING CONTRACTOR SHALL VERIFY ALL HEAT LOSS CALCULATIONS, HEATING UNIT SIZES, AIR CONDITIONING UNIT SIZES, AIR SUPPLY, RETURN AND EXHAUST QUANTITIES (CFM). THE HEATING CONTRACTOR SHALL PROVIDE IN WRITING CERTIFICATION THAT THE HEATING SYSTEMS WILL COMPLY WITH CHAPTERS 13-180 (HEATING PROVISIONS) AND 13-184 (WARM AIR HEATING PLANTS) OF THE CHICAGO BUILDING CODE PROVIDING THE MINIMUM INDOOR TEMPERATURES (70F IN RESIDENTIAL STRUCTURES AND 65F IN OTHER HABITABLE STRUCTURES) WHEN THE OUTDOOR TEMPERATURE IS -10F.	
6	LOCKING DAMPERS SHALL BE INSTALLED ON ALL WARM AIR RUNS.	
7	FLEXIBLE DUCTWORK MAY NOT BE USED ON THIS PROJECT.	
8	THERE SHALL BE NO REFRIGERATION FITTINGS, VALVES OR DEVICES IN THE AIR STREAM.	
9	NOISE LEVEL FOR ALL HVAC EQUIPMENT SHALL NOT EXCEED 55 DBA (OR 62 DBA) AT THE LOT LINE AS PER CODE REQUIREMENTS.	
10	TRANSFER DUCTS SHALL NOT EXCEED 5 FEET IN LENGTH.	
11	OUTSIDE AIR INTAKES AND EXHAUST OUTLETS SHALL AT LEAST 10 FEET ABOVE GRADE.	
12	CLEARANCES FOR FORCED AIR FURNACES MUST CONFORM TO MANUFACTURERS REQUIREMENTS.	
13	SMOKE DETECTORS AND CARBON MONOXIDE DETECTORS ARE SHOWN ON THE ELECTRICAL DRAWINGS.	
14	PROVIDE PERMANENT ACCESS IF EQUIPMENT IS LOCATED AT A HEIGHT GREATER THAN 16 FEET ABOVE GRADE.	
15	FUEL GAS PIPING AND CONTROLS MUST CONFORM TO THE INTERNATIONAL FUEL GAS CODE (IFGC), CHAPTER 4 (WITH MODIFICATIONS AS NOTED IN ARTICLE 14).	
17	VENTING OF ALL FUEL GAS FIRED APPLIANCES MUST CONFORM TO THE INTERNATIONAL FUEL GAS CODE (IFGC).	
18	GAS PIPING IN CONCEALED LOCATIONS MUST CONFORM TO IFGC 404.3.	
19	GAS PIPING MUST BE SLOPED 1/4 INCH IN EVERY 15 FEET.	
21	FOR ALL AIR SYSTEM GREATER THAN 2000 CFM, PROVIDE WITH SMOKE DETECTOR SHUTTING DOWN SUPPLY SYSTEM UPON ACTIVATION.	

ENERGY CONSERVATION CODE NOTES:		
1	IECC 2021 C103.2 INFORMATION ON CONSTRUCTION DOCUMENTS. MECHANICAL PLANS, SPECIFICATIONS, AND/OR CALCULATIONS PROVIDE ALL INFORMATION WITH WHICH COMPLIANCE CAN BE DETERMINED FOR THE MECHANICAL SYSTEMS AND EQUIPMENT AND DOCUMENT WHERE EXCEPTIONS TO THE STANDARD ARE CLAIMED. LOAD CALCULATIONS PER A ACCEPTABLE ENGINEERING STANDARDS AND HANDBOOKS.	
2	C302.1 & R302.1 INTERIOR DESIGN CONDITIONS. THE INTERIOR DESIGN TEMPERATURES USED FOR HEATING AND COOLING LOAD CALCULATIONS SHALL BE A MAXIMUM OF 72°F (22°C) FOR HEATING AND MINIMUM OF 75°F (24°C) FOR COOLING. INTERNATIONAL ENERGY CONSERVATION CODE (IECC) 2021 INFORMATION THAT MUST BE FURNISHED BY THE CONTRACTORS INCLUDES: C303.3, C408.2.5.2 FURNISHED O&M INSTRUCTIONS FOR SYSTEMS AND EQUIPMENT TO THE BUILDING OWNER OR DESIGNATED REPRESENTATIVE. C303.3, C408.2.5.2 FURNISHED O&M MANUALS FOR HVAC SYSTEMS WITHIN 90 DAYS OF SYSTEM ACCEPTANCE. C408.2.5.1 FURNISHED HVAC AS-BUILT DRAWINGS SUBMITTED WITHIN 90 DAYS OF SYSTEM ACCEPTANCE. C408.2.5.3 AN AIR AND/OR HYDRONIC SYSTEM BALANCING REPORT IS PROVIDED FOR HVAC SYSTEMS. C408.2.5.4 FINAL COMMISSIONING REPORT DUE TO BUILDING OWNER WITHIN 90 DAYS OF RECEIPT OF CERTIFICATE OF OCCUPANCY. C408.2 COMMISSIONING SHALL BE PROVIDED FOR MECHANICAL SYSTEMS WITH TOTAL COOLING CAPACITY (40 TONS-VERIFY) AND HEATING CAPACITY (600 MBH-VARY) GREATER THAN CODE EXCEPTIONS OR AS REQUIRED BY PROJECT'S SCOPE OF WORK.	
3	PER ENERGY CONSERVATION CODE PROVIDE (18-13-503.2.9.3) AN OPERATING AND MAINTENANCE MANUAL TO THE BUILDING OWNER BY THE MECHANICAL CONTRACTOR. THE MANUAL SHALL INCLUDE, AT LEAST, THE FOLLOWING: 1. EQUIPMENT CAPACITY (INPUT AND OUTPUT) AND REQUIRED MAINTENANCE ACTIONS. 2. EQUIPMENT OPERATION AND MAINTENANCE MANUALS. 3. HVAC SYSTEM CONTROL MAINTENANCE AND CALIBRATION INFORMATION, INCLUDING WIRING DIAGRAMS, SCHEMATICS, AND CONTROL SEQUENCE DESCRIPTIONS. DESIRED OR FIELD DETERMINED SETPOINTS SHALL BE PERMANENTLY RECORDED ON CONTROL DRAWINGS, AT CONTROL DEVICES OR FOR DIGITAL CONTROL SYSTEMS, IN PROGRAMMING COMMENTS. 4. A COMPLETE WRITTEN NARRATIVE OF HOW EACH SYSTEM IS INTENDED TO OPERATE.	

REFRIGERATION NOTES:		
1	INSTALL SAFETY, PRESSURE RELIEF VALVE ON THE HIGH SIDE OF THE SYSTEM, UPSTREAM FROM ANY INTERVENING SHUT OFF VALVES.	
2	ALL EXPANSION VALVES, DEVICES AND CONNECTORS ARE TO BE REMOVED FROM THE AIR STREAM.	
3	ALL REFRIGERANT PIPING IS TO BE TYPE K OR TYPE ACR COPPER.	
4	ALL JOINTS, CONNECTIONS AND DEVICES ARE TO BE BRAZED.	

PRELIMINARY TEMPERATURE SCOPE NOTES		
AIR HANDLING UNIT AHU-1 AND EXHAUST/RETURN FAN		
SUPPLY AND ER FAN START AND STOP, AUTOMATIC AND MANUAL OVERRIDE		
OCCUPIED AND UNOCCUPIED SCHEDULE 7 DAY WEEK, FAN CYCLING, SPACE TEMPERATURE SET-BACK/SET-UP, OCCUPIED MINIMUM MIXED AIR VENTILATION, UNOCCUPIED 100% RECIRCULATION.		
HEATING, HEATING COIL AND COMPONENTS ARE ENABLED WHEN OAT IS BELOW 60F (ADJUSTABLE), MIXED AIR TEMPERATURE CONTROLS SHALL PROVIDE ENTHALPY AIR ECONOMIZER CONTROL, IN LIEU OF HEATING OR COOLING SYSTEM OPERATION.		
SUPPLY AND ER FAN AIR VOLUME CONTROL BASED ON SPACE TEMPERATURE SETTINGS, MINIMUM VENTILATION VOLUMES, RETURN AIR CO2 MAXIMUM SETTING, MAXIMUM SUPPLY PRESSURE 2/3 DOWN STREAM SETTING, ER FAN TO TRACK SUPPLY FAN AIR VOLUME WITH MAXIMUM PRESSURE SETTINGS.		
SMOKE DETECTION SUPPLY AND RETURN AIR STREAM, WITH FAN SHUT-DOWN AND ALARM RELAY.		
AHU-1 HEATING COIL		
THE AIR HANDLER HW PUMP SHALL MODULATE WATER VOLUME TO MAINTAIN A SUPPLY AIR DISCHARGE TEMPERATURE OF 75F (ADJUSTABLE) AND SPACE AIR TEMPERATURE ROOM THERMOSTAT SETTING.		
OCCUPIED AND UNOCCUPIED SCHEDULE SHALL DETERMINED THE ROOM TEMPERATURE SETPOINTS.		
THE AIR HANDLER HW PUMP SHALL SHUT-OFF WHEN THE AIR HANDLER IS OFF OR WHEN THE SUPPLY AIR DISCHARGE TEMPERATURE SETTING IS MET. THE PUMP SHALL TURN-ON TO MINIMUM VOLUME WHEN THERE IS CALL FOR HEAT.		
AHU-1 MIXED AIR TEMPERATURE (MAT) AND MIXED AIR VOLUME CONTROL		
IN OCCUPIED MODE, PROVIDE MINIMUM VENTILATION AIR BY MODULATING THE EXHAUST AIR (EA), RETURN AIR (RA) AND OUTSIDE AIR (OA) DAMPERS TO PROPORTIONAL SETTINGS.		
MINIMUM OA VOLUME SETTING SHALL BE BASED ON CO2 DEMAND CONTROL.		
IF RA CO2 EXCEEDS THE MINIMUM SETTING, INCREASE THE OA INTAKE AND MODULATE THE OA, EA AND RA DAMPERS TO REDUCE CO2 BELOW MAXIMUM SETTING.		
PROVIDE FULL ENTHALPY AIR ECONOMIZER CONTROL FOR MIXED AIR, WITH MECHANICAL HEATING AND COOLING OFF, BY MODULATING EA, RA AND OA DAMPERS.		
IN UNOCCUPIED MODE, OA AND EA VOLUME SHALL BE 0 PERCENT AND RA VOLUME SHALL BE 100 PERCENT.		
AHU-1 HOT WATER SUPPLY		
HEATING HOT WATER SUPPLY WILL BE AVAILABLE TO AHU-1 WHEN THE HOT WATER BOILERS SYSTEM AND HOT WATER PUMP P-2 IS OPERATING.		
3-WAY CONTROL VALVE AT THE AIR HANDLER PUMP WILL MODULATE WHEN P3 IS OPERATING TO MAINTAIN A CONSTANT, FLOW ACROSS THE HW COIL.		



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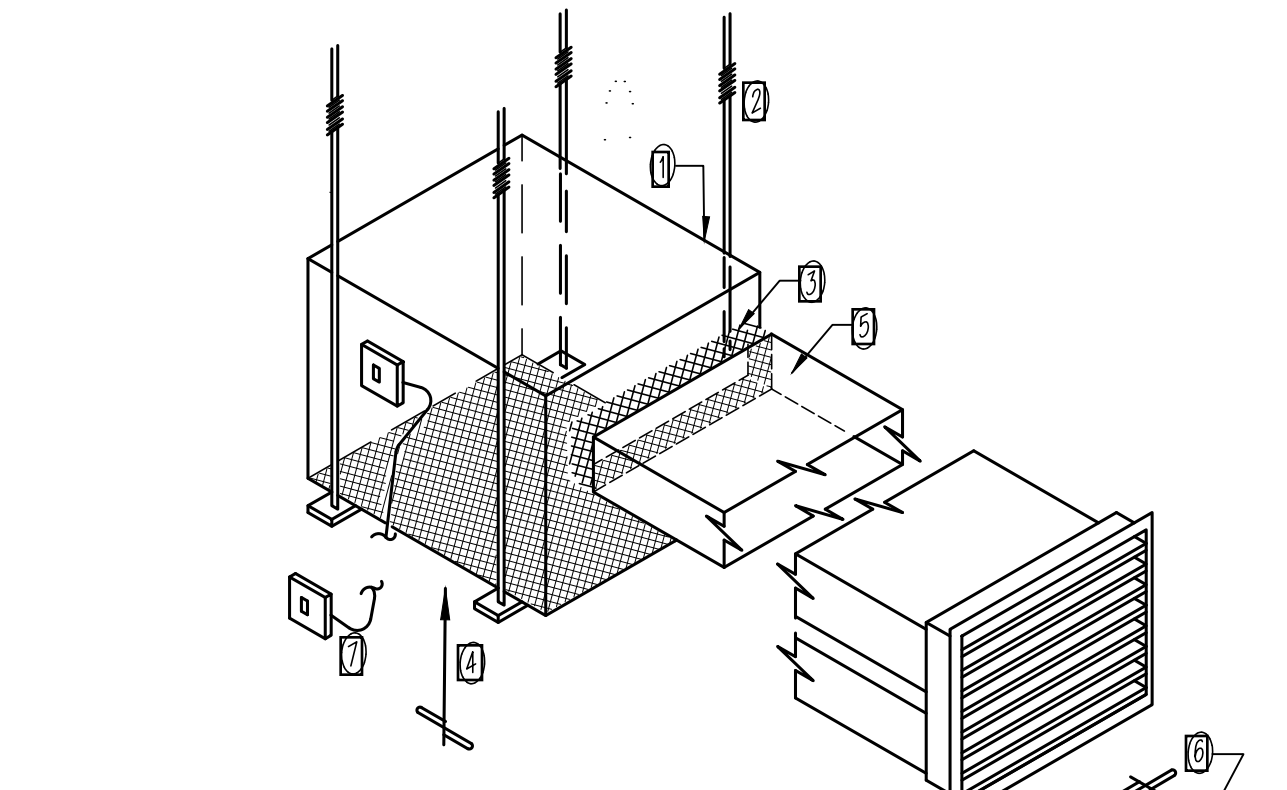


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MECHANICAL SCHEDULES	
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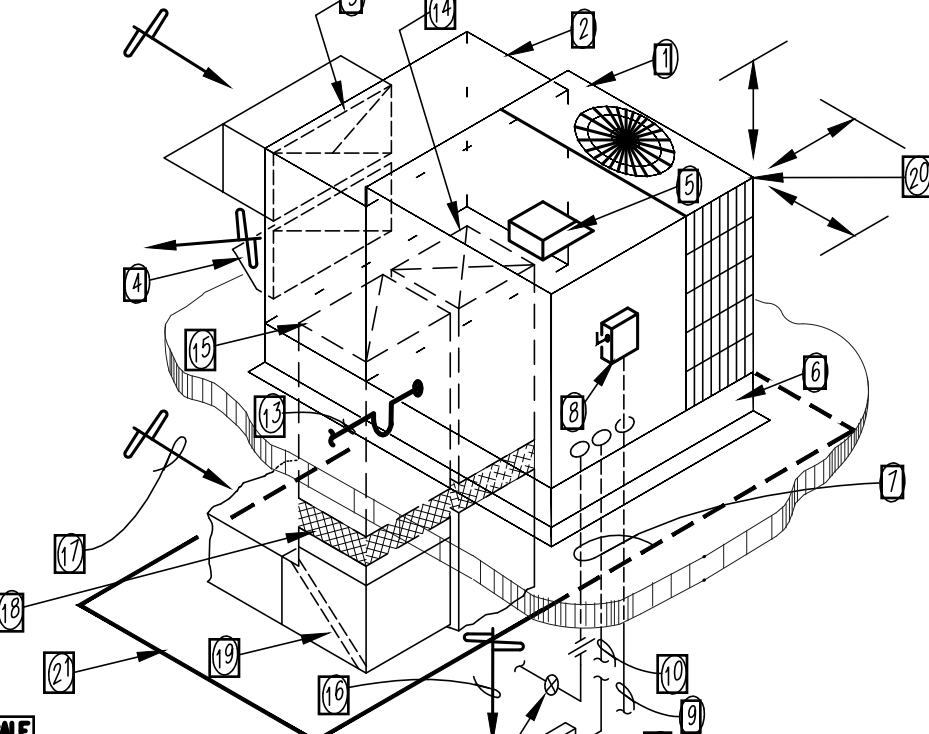
M2.3



- DETAIL IS NOT TO SCALE**
- CABINET EXHAUST FAN NOTES**
- Cabinet exhaust fan, modify layout for vertical or other type of fan arrangement and/or duct connections. All intake and/or ceiling-mounted cabinet exhaust fans shall have a minimum of 1/2" insulated lining, gravity backdraft damper, & UL listing.
 - Mount cabinet exhaust fan in at least 4 points and with vibration isolation mounts.
 - Provide flexible duct connections at duct inlet and outlet.
 - Exhaust inlet, via:
 - Ceiling-Grille Fan Configuration with full cabinet area, exhaust grille with inlet filter and/or fire damper as specified or otherwise required.
 - Outlet ductwork to match field conditions; horizontal or vertical, rectangular or round duct fittings.
 - Exhaust discharge shall have a gravity backdraft damper and birdscreen at exterior outlet; discharge method shall be as follows:
 - Roof Cap, prefabricated for pitched roofs (minimum 1/2 pitch) with flashing.
 - Roof Cap, pre-fabricated for pitched roofs (minimum 1/2 pitch) with flashing.
 - Provide cabinet exhaust fan mounted code disconnect switch, connected to remote mounted control switch as specified or as is required by actual application; local fan control mounted near exhaust inlet shall be by one of the following methods:
 - Separate local on/off switch with pilot light; or
 - Solid state, on/off speed control.
 - Provide access panel as required for servicing with clearances for the fan, motor & electrical connections.
 - All fans shall be 120 volt, single phase unless noted otherwise. All fans & control devices shall be furnished and installed by the Mechanical Contractor. All wiring is by Electrical Contractor.

CEILING CABINET EXHAUST FAN DETAIL

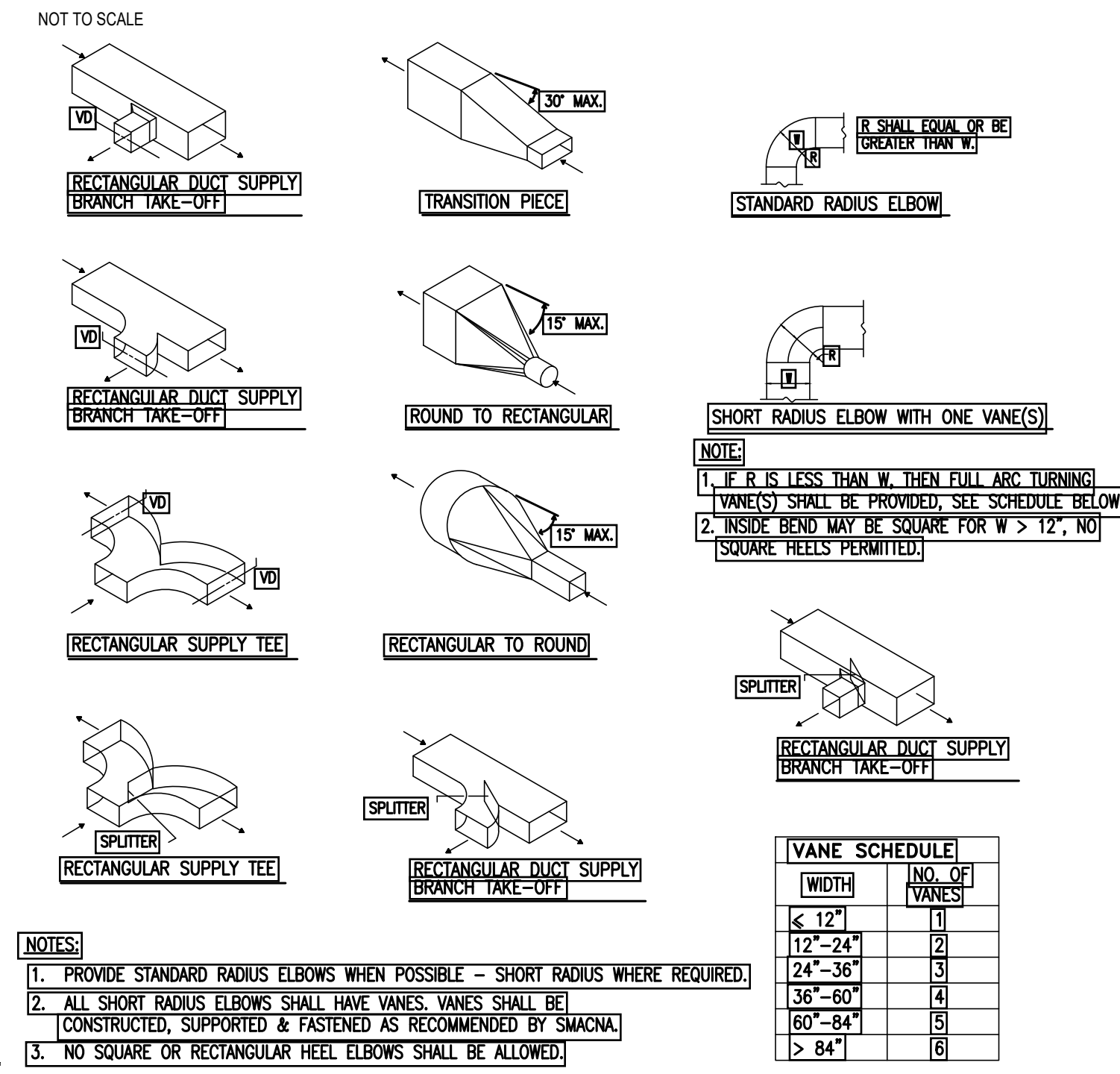
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- DETAIL IS NOT TO SCALE**
- ROOFTOP HVAC UNIT NOTES**
- Rooftop mounted heating, ventilating, and air conditioning (HVAC) with unit, evaporator coil, air-cooled condenser, compressor(s), gas-fired, unless noted, in unit or separate, with automatic controls.
 - Insulated supply, return and outside air ductwork, with UL listing for other uses.
 - Outside air intake hood with birdscreen and automatic damper.
 - Exhaust in connection or hood with birdscreen and gravity backdraft damper (as noted).
 - Sea-level flow discharge with rain cap, extend from the discharge with associated combustion air intake.
 - Rooftop mounted units pre-fabricated with insulation, flashing, counterflashing, and vibration isolation springs (as specified). Coordinate the installation with the structural and roofing contractors.
 - Flashing and electrical wiring connections to the rooftop unit shall be in a separate space inside of the curb, and separate through the roof.
 - Fused disconnect switch furnished and installed by the contractor, mounted on per applicable codes.
 - Power wiring by the electrical contractor. All field control electrical receptacle shall be provided.
 - Temperature control wiring by the mechanical contractor.
 - Electronic 24-hour time clock temperature with a minimum of 24-hour cooling/fan controls.
 - Provide controls for central temperature control/energy conservation system.
 - Provide controls for central temperature control/energy conservation system.
 - Natural gas piping run entirely on the interior with gas detector in building and in the rooftop unit.
 - Run condensate piping to roof drain or other approved drain, minimum of 4 inch trap on the piping.
 - Supply duct connections shall be in a separate space inside of the curb.
 - Return/Exhaust duct connections. Verify size by flashing manufacturer.
 - Use a minimum length of 20 feet supply duct run - (as per manufacturer layout).
 - Use a minimum length of 20 feet return duct run - (as per manufacturer layout).
 - Provide flexible connections on supply and return air ductwork (including ductwork from the building structure between the flexible connections and the rooftop unit duct connections).
 - Provide through-roof penetration with a minimum of 2" clearance for ductwork from the building structure between the flexible connections and the rooftop unit duct connections.
 - Provide through-roof penetration with a minimum of 2" clearance for ductwork from the building structure between the flexible connections and the rooftop unit duct connections.
 - Air pressure drops and noise generation. Mechanical Contractor shall seal roof structure openings, roof leakings & infiltration shall be continuous under entire HVAC unit.
 - Provide the minimum manufacturer's recommended clearances around the unit. A minimum of 4 foot clearance at all sides and overhead with no obstructions.
 - The Mechanical Contractor shall verify with other contractors that (drain or the like) is provide inside to separate enclosed mass above the rooftop unit. (City of Chicago Requirement)
 - Bevelled outside air intake with birdscreen and minimum 1/2" clearance. SMACNA standard exterior ductwork with weatherproof roof support.
 - Remove expansion valves, devices and connections from the air stream.
 - Provide safety valve of the unit compressor(s) if provided by the manufacturer (as recommended by the manufacturer).
 - Mount on high side of system; upstream of any liquid line shut-off valves.
 - A single compressor per rooftop unit unless noted otherwise; this is a self-contained air conditioning unit without return/energy recovery piping.
 - Assure a maximum code noise levels of the property (as per the 62 dBA in 62 dBa in other areas).

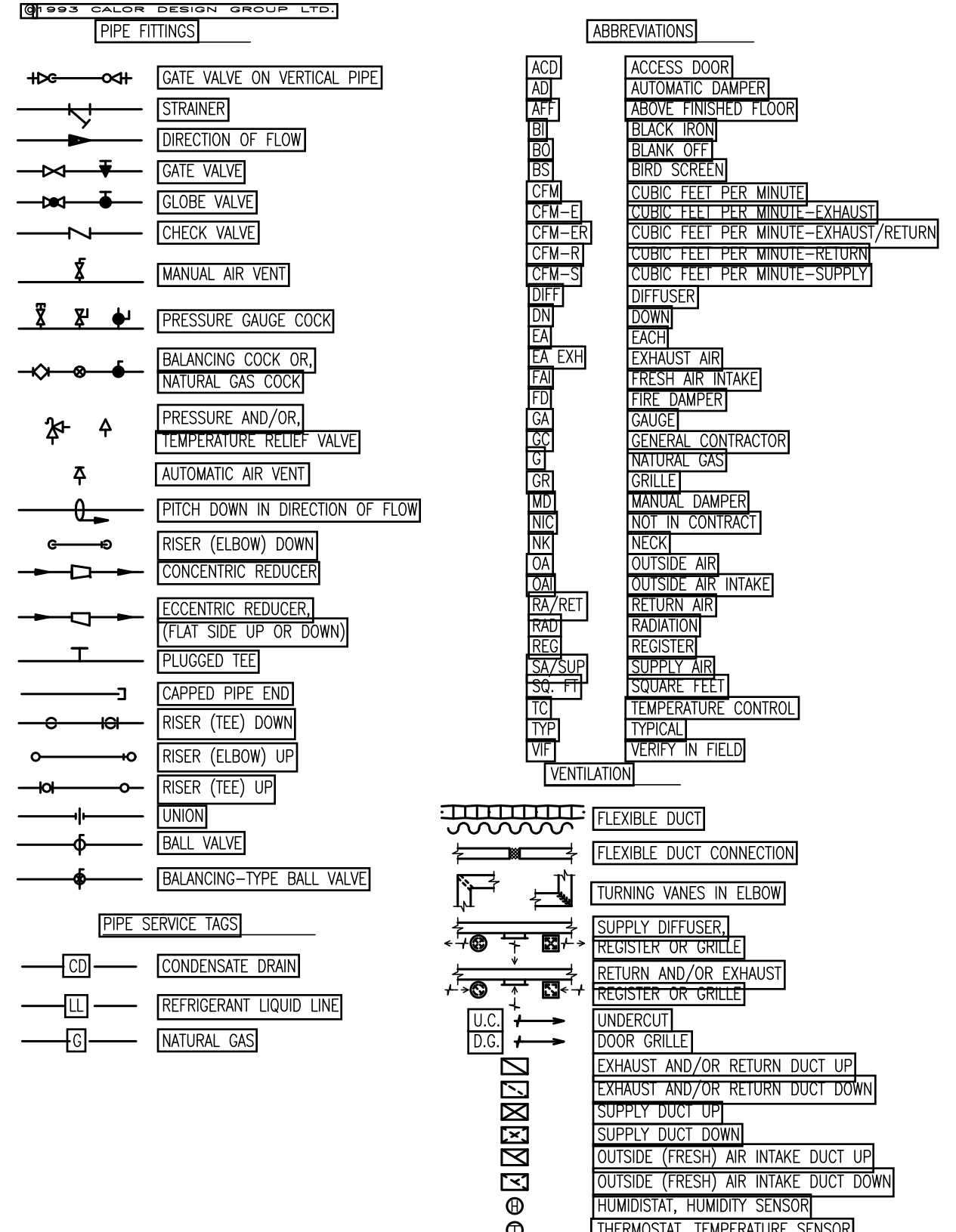
ROOF TOP HVAC UNIT DETAIL

TYPICAL DUCT DETAILS

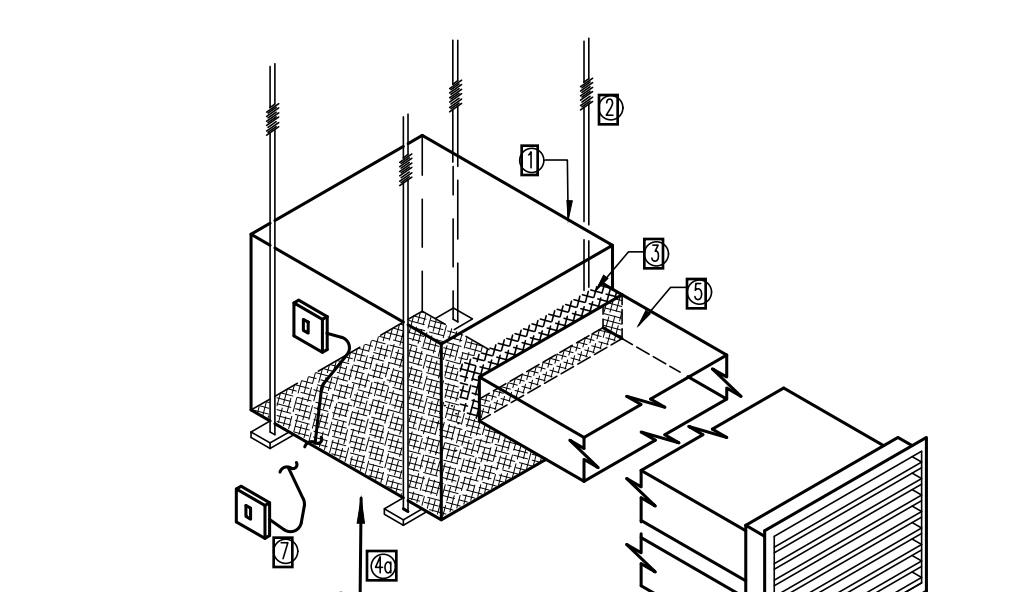


MECHANICAL SYMBOL LIST

NOTE: NOT ALL SYMBOLS ARE APPLICABLE TO THIS PROJECT

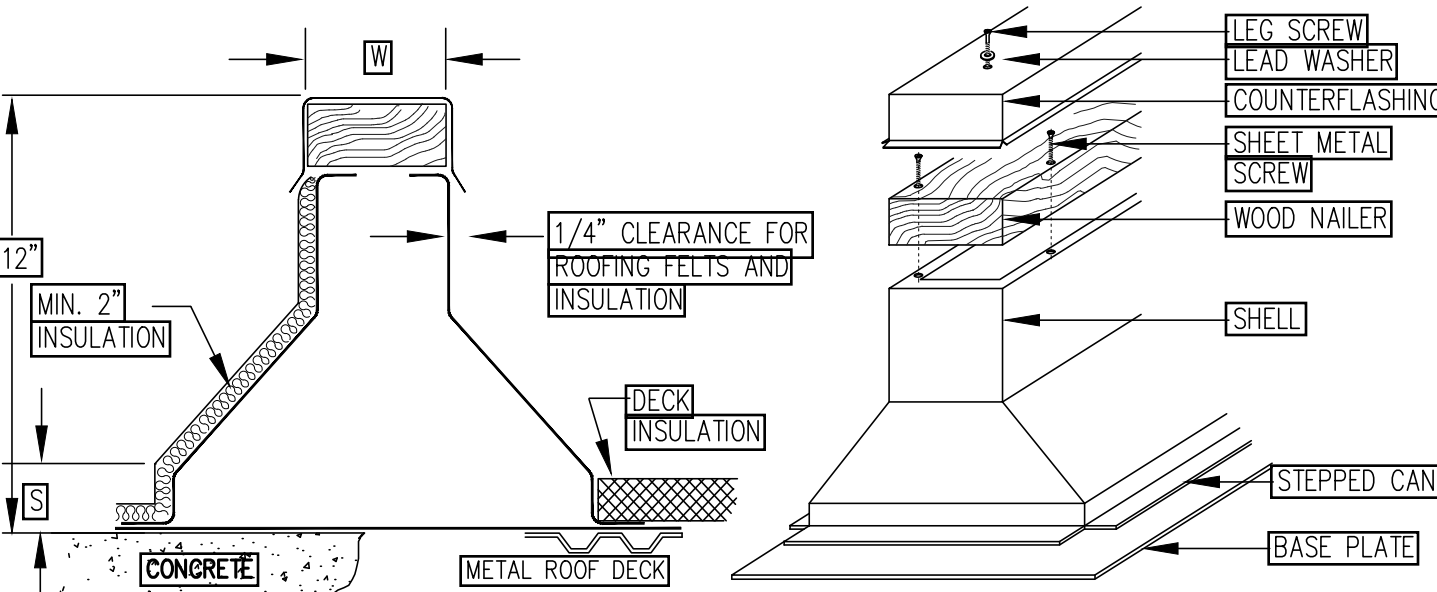


CEILING CABINET EXHAUST FAN DETAIL



- DETAIL IS NOT TO SCALE**
- CABINET EXHAUST FAN NOTES**
- Cabinet exhaust fan, modify layout for vertical or other type of fan arrangement and/or duct connections. All intake and/or ceiling-mounted cabinet exhaust fans shall have a minimum of 1/2" insulated lining, gravity back draft damper, & UL listing.
 - Mount cabinet exhaust fan in at least 4 points and with vibration isolation mounts.
 - Provide flexible duct connections at duct inlet and outlet.
 - Exhaust inlet, via:
 - Ceiling-Grille Fan Configuration with full cabinet area, exhaust grille with inlet filter and/or fire damper as specified or otherwise required.
 - Outlet ductwork to match field conditions; horizontal or vertical, rectangular or round duct fittings.
 - Exhaust discharge shall have a gravity back draft damper and bird screen at exterior outlet; discharge method shall be as follows:
 - Roof Cap, pre-fabricated for pitched roofs (minimum 1/2 pitch) with flashing.
 - Roof Cap, pre-fabricated for pitched roofs (minimum 1/2 pitch) with flashing.
 - Provide cabinet exhaust fan mounted code disconnect switch, connected to remote mounted control switch as specified or as is required by actual application; local fan control mounted near exhaust inlet shall be by one of the following methods:
 - Separate local on/off switch with pilot light.
 - Provide access panel as required for servicing with clearances for the fan, motor & electrical connections.
 - All fans shall be 120 volt, single phase unless noted otherwise. All fans & control devices shall be furnished and installed by the Mechanical Contractor. All wiring is by Electrical Contractor.

ROOF EQUIPMENT SUPPORT DETAILS



MDT

manske . dieckmann . thompson . pllc
architecture . interiors

calor
DESIGN GROUP, LTD.
Mechanical | Electrical Engineers

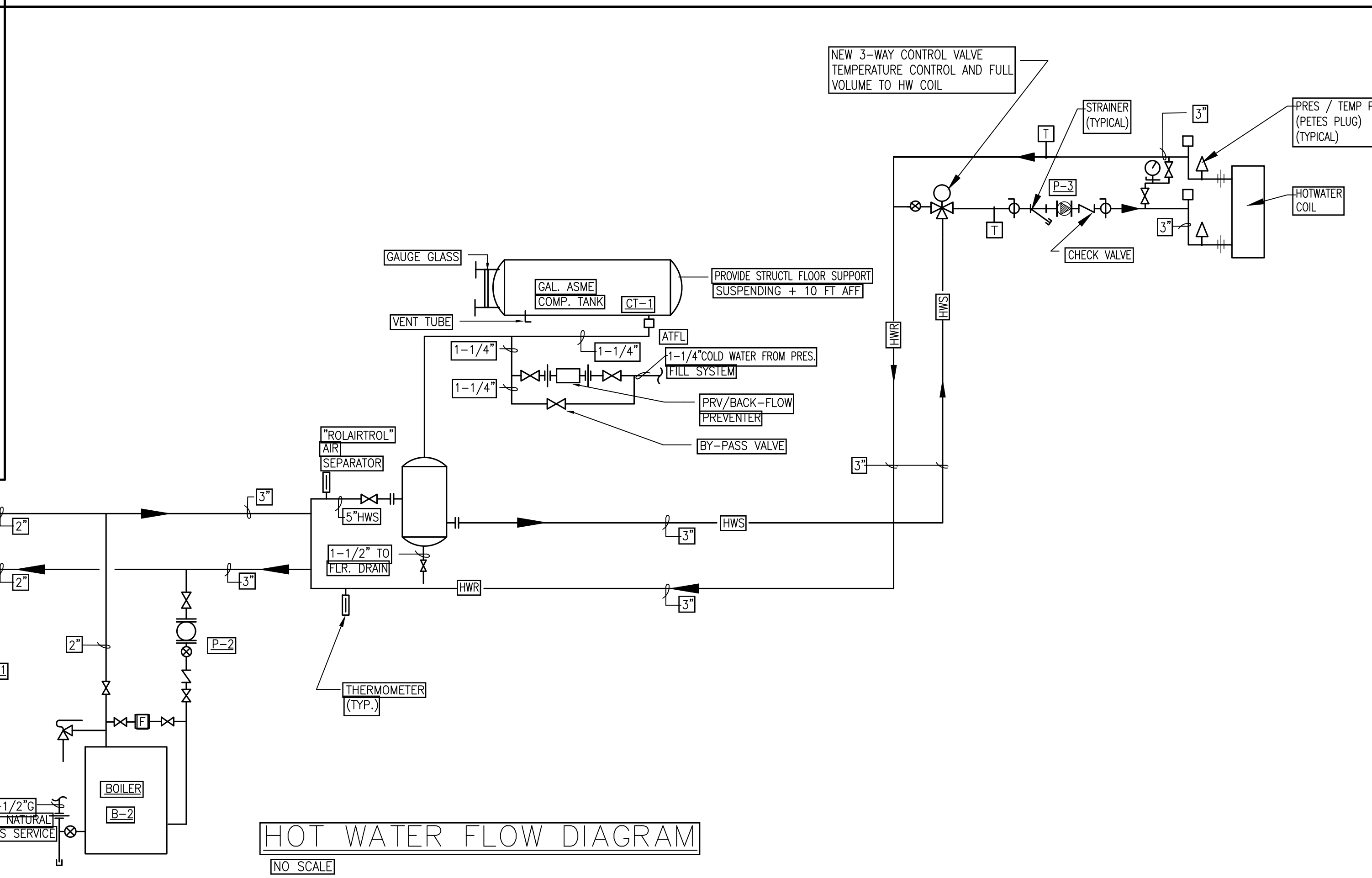
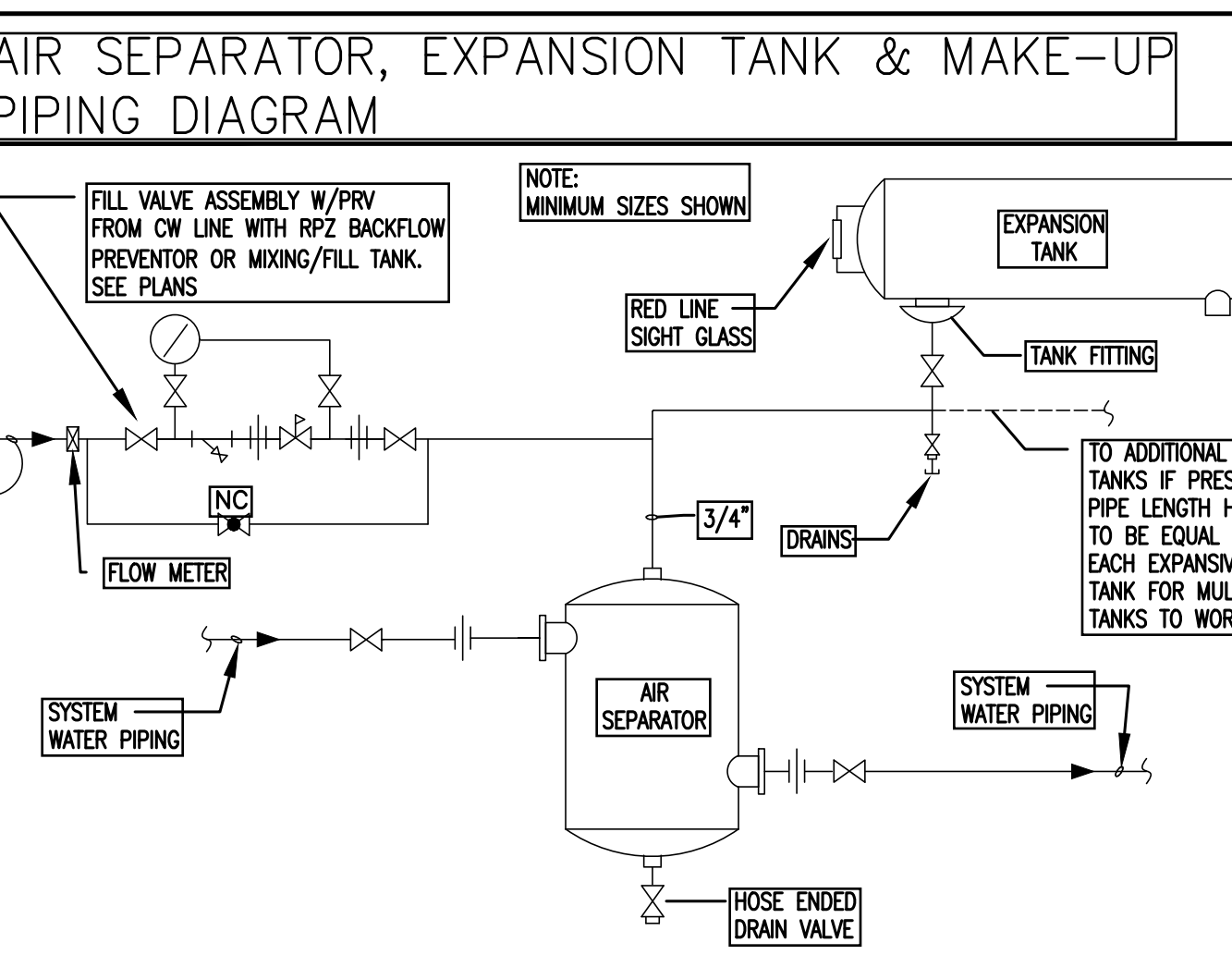
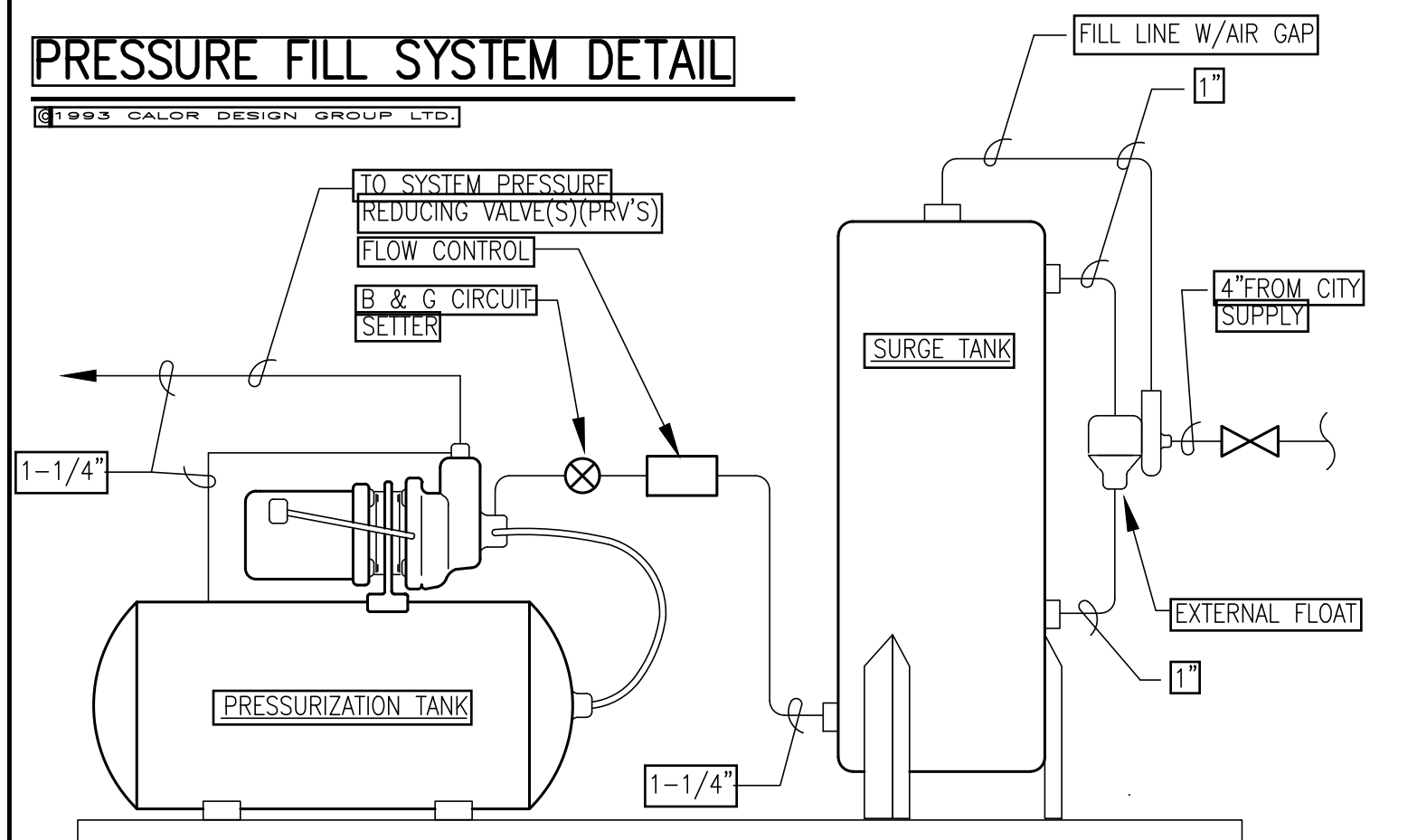
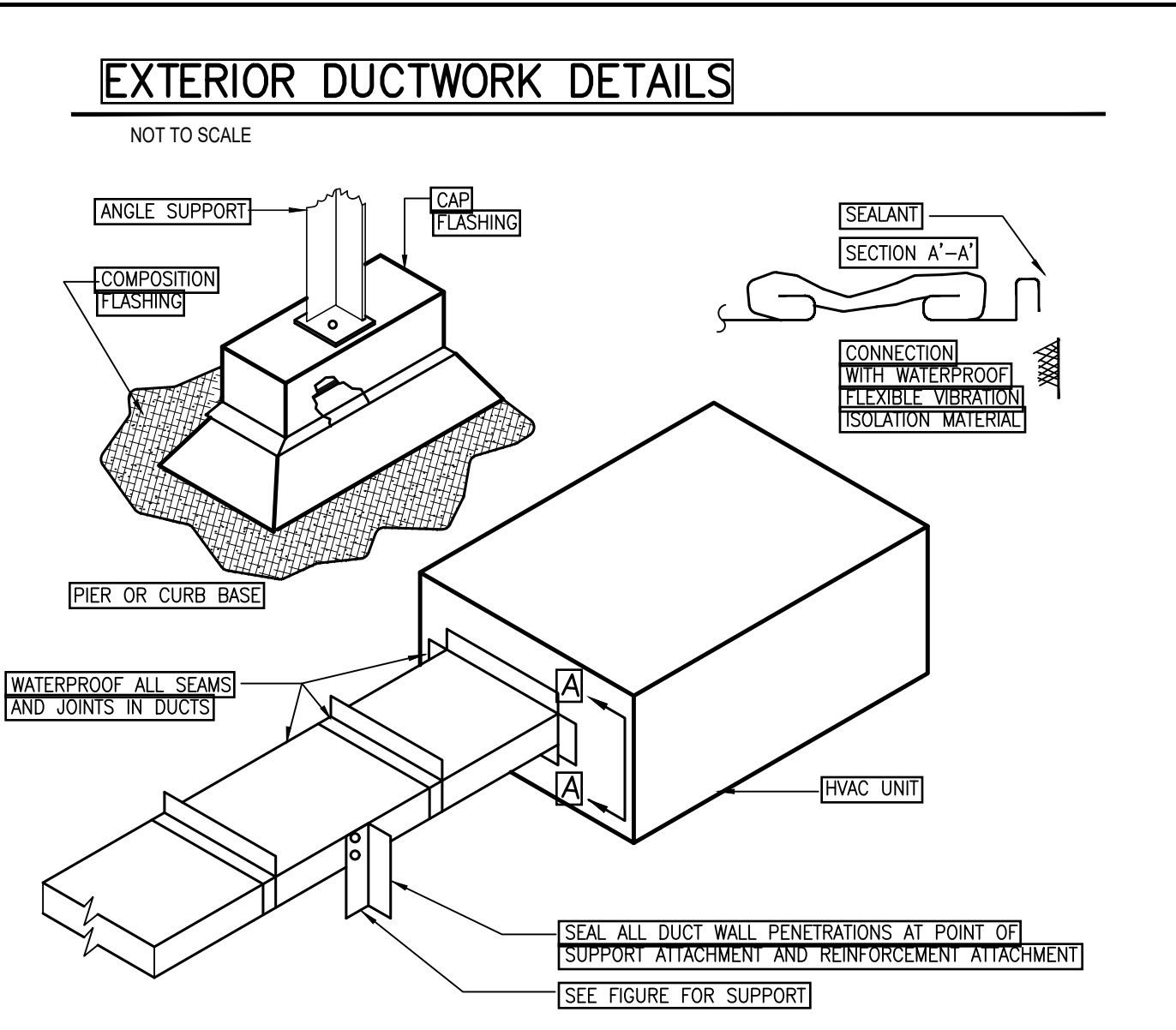
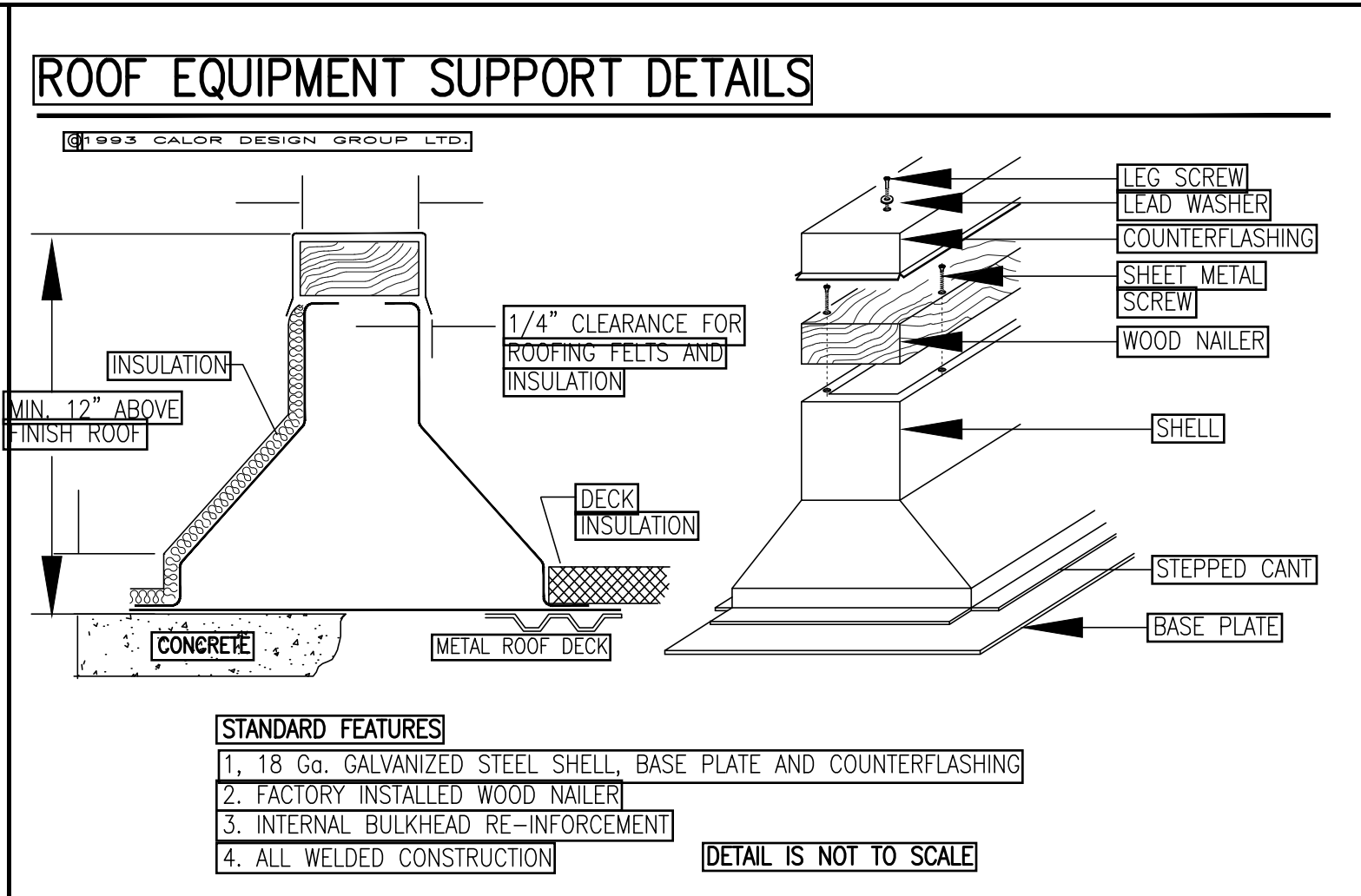
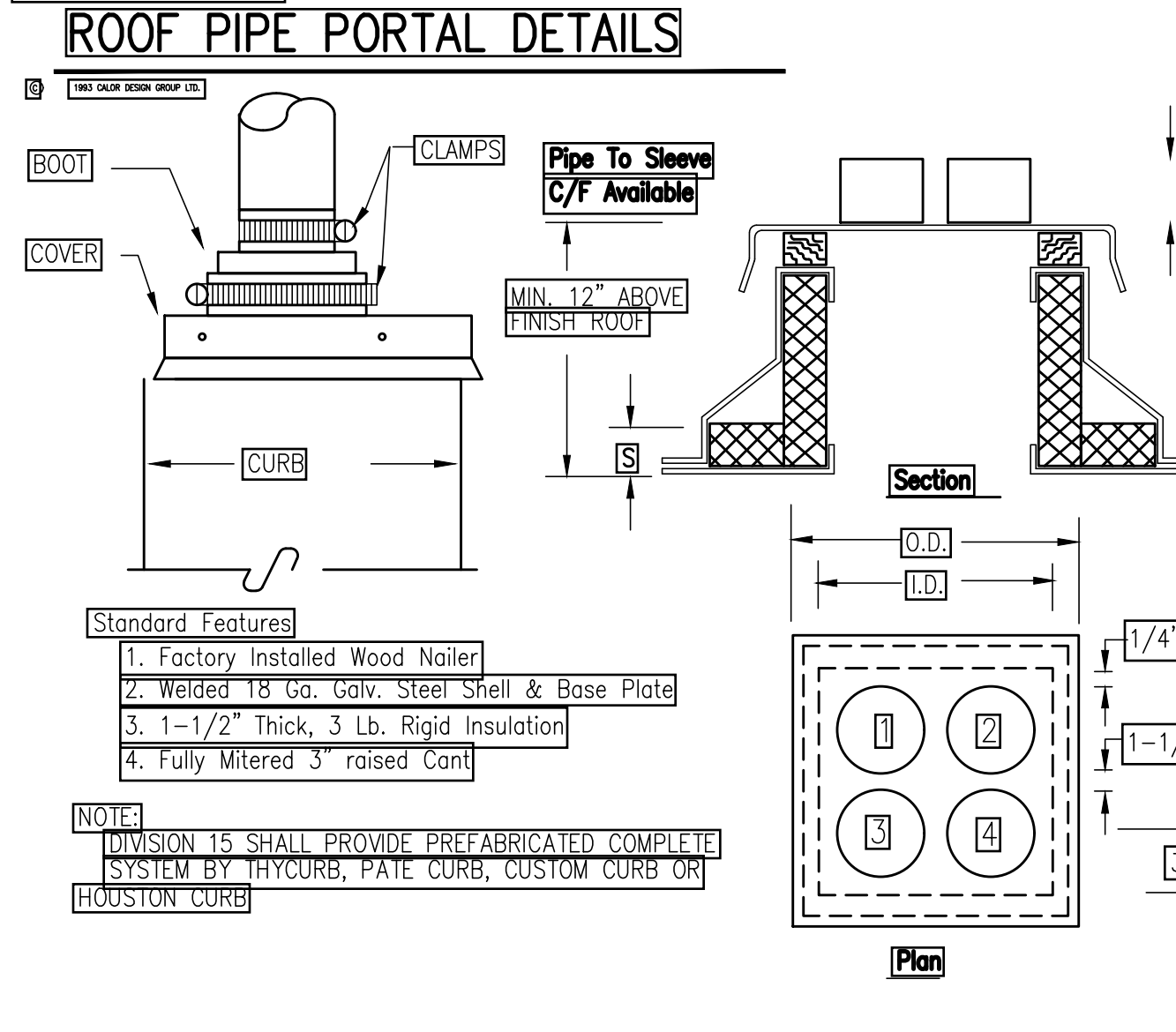
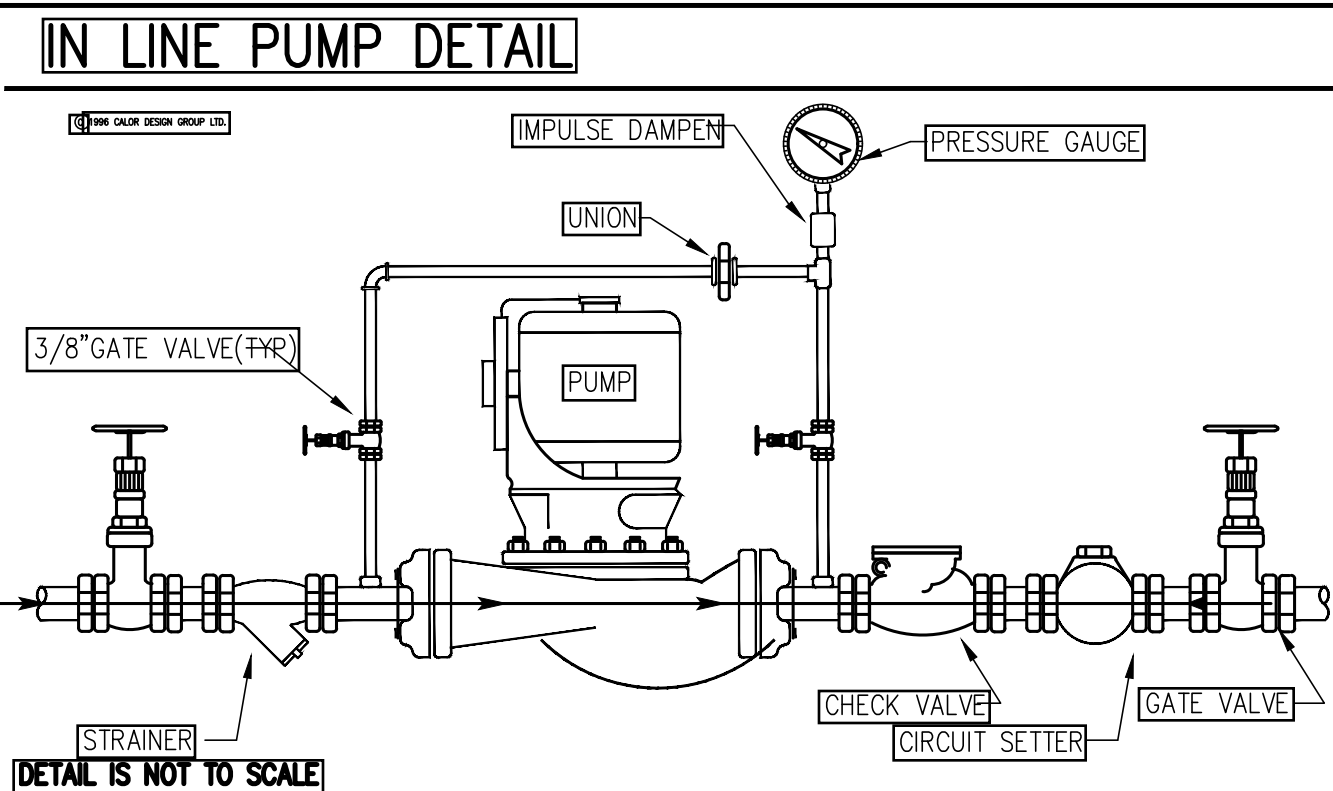
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MECHANICAL DETAILS

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M3.1

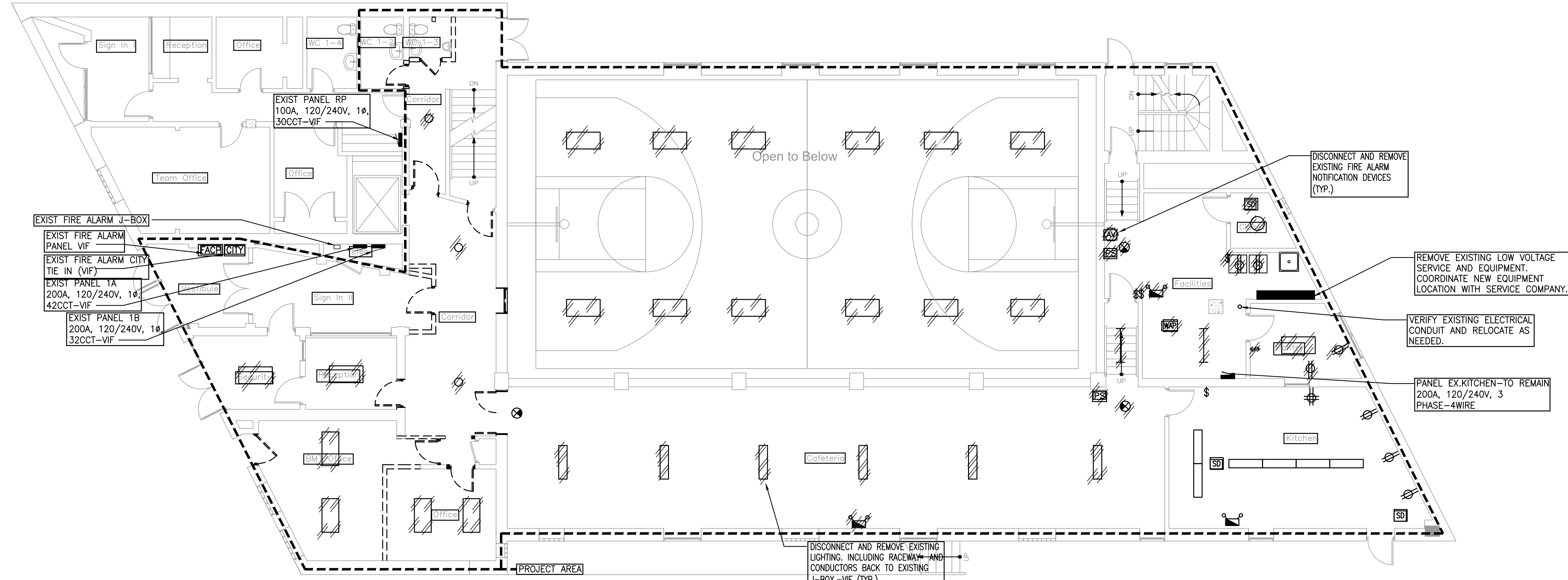


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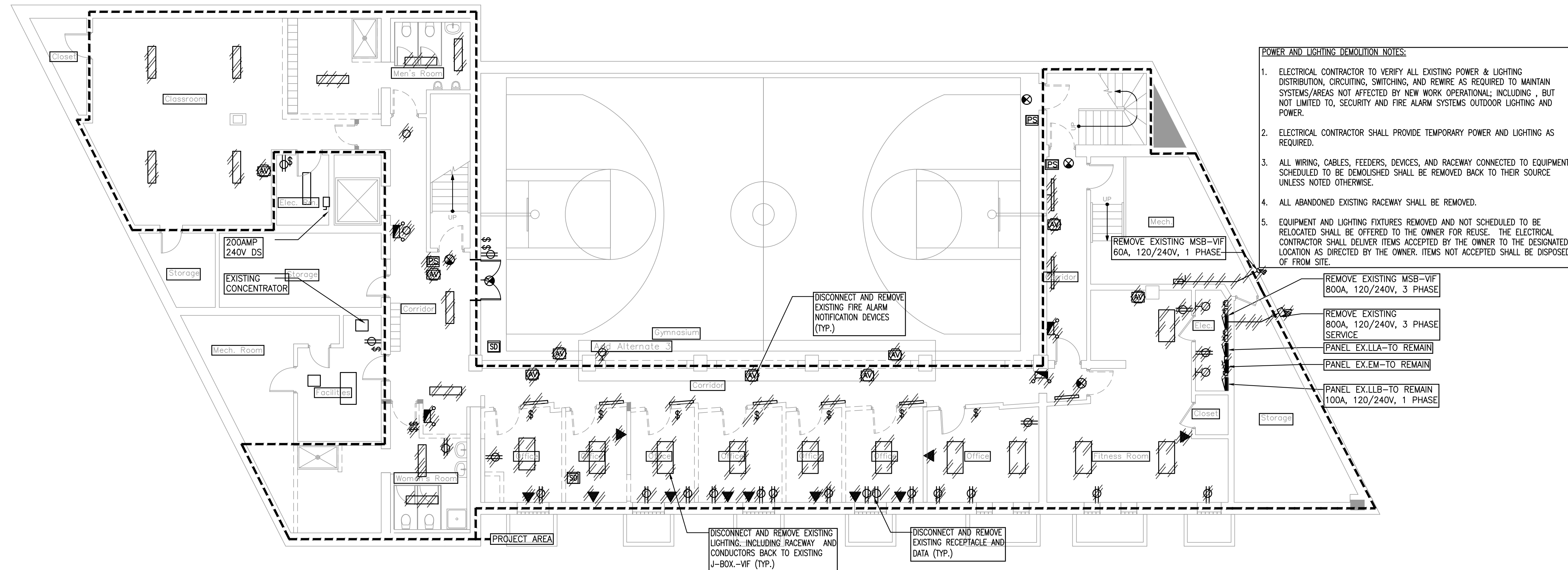
MECHANICAL DETAILS

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M3.2



2 FIRST FLOOR ELECTRICAL PLAN - DEMOLITION
SCALE: 1/8" = 1'-0"



1 LOWER LEVEL ELECTRICAL PLAN - DEMOLITION
SCALE: 1/8" = 1'-0"

POWER AND LIGHTING DEMOLITION NOTES:

1. ELECTRICAL CONTRACTOR TO VERIFY ALL EXISTING POWER & LIGHTING DISTRIBUTION, CIRCUITING, SWITCHING, AND REWIRE AS REQUIRED TO MAINTAIN SYSTEMS/AREAS NOT AFFECTED BY NEW WORK OPERATIONAL; INCLUDING , BUT NOT LIMITED TO, SECURITY AND FIRE ALARM SYSTEMS OUTDOOR LIGHTING AND POWER.
2. ELECTRICAL CONTRACTOR SHALL PROVIDE TEMPORARY POWER AND LIGHTING AS REQUIRED.
3. ALL WIRING, CABLES, FEEDERS, DEVICES, AND RACEWAY CONNECTED TO EQUIPMENT SCHEDULED TO BE DEMOLISHED SHALL BE REMOVED BACK TO THEIR SOURCE UNLESS NOTED OTHERWISE.
4. ALL ABANDONED EXISTING RACEWAY SHALL BE REMOVED.
5. EQUIPMENT AND LIGHTING FIXTURES REMOVED AND NOT SCHEDULED TO BE RELOCATED SHALL BE OFFERED TO THE OWNER FOR REUSE. THE ELECTRICAL CONTRACTOR SHALL DELIVER ITEMS ACCEPTED BY THE OWNER TO THE DESIGNATED LOCATION AS DIRECTED BY THE OWNER. ITEMS NOT ACCEPTED SHALL BE DISPOSED OF FROM SITE.



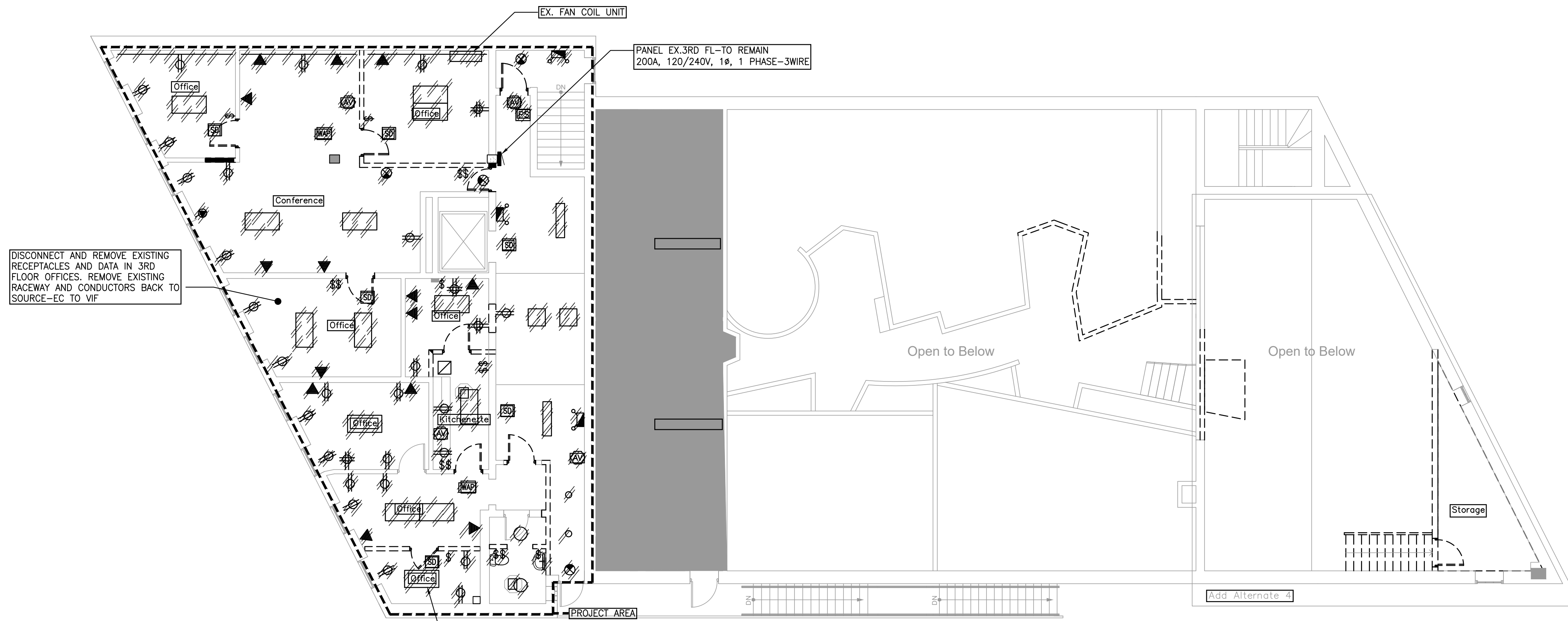
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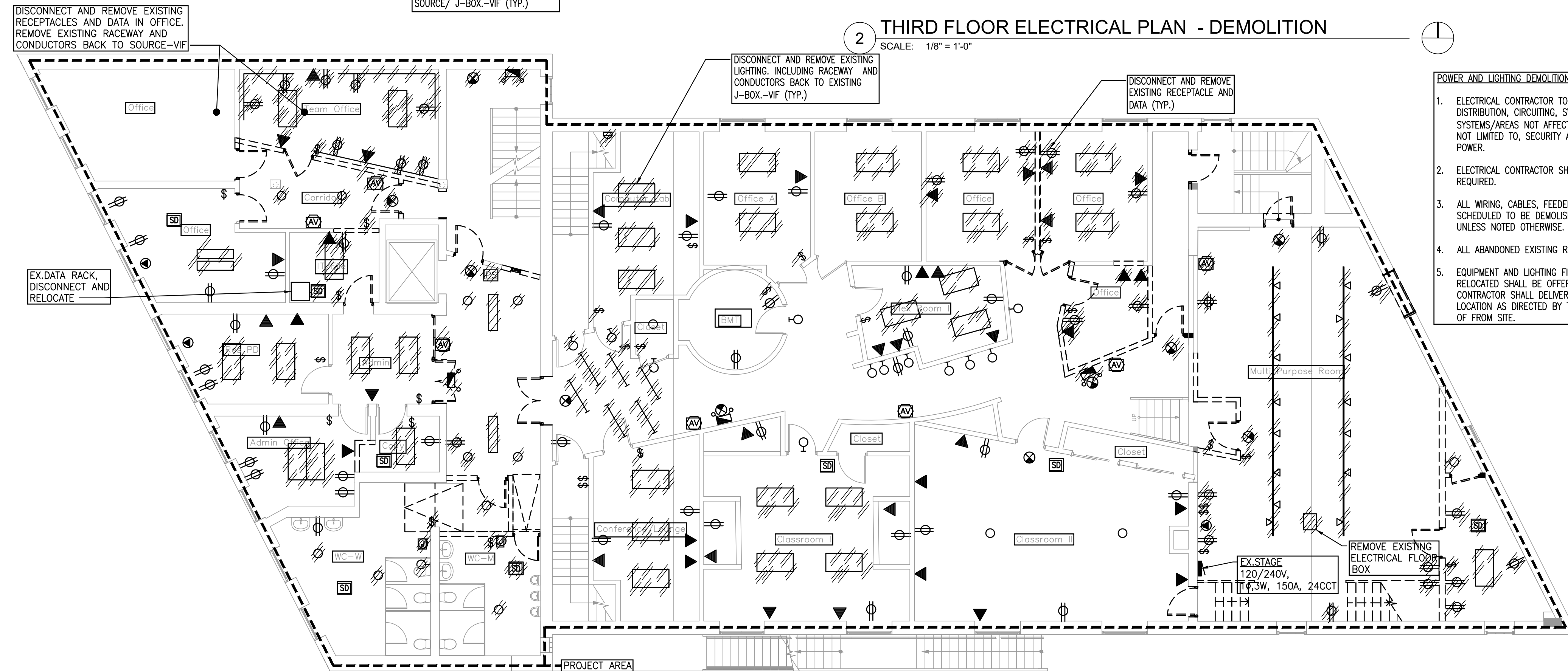
LOWER LEVEL AND FIRST FLOOR
POWER AND LIGHTING DEMOLITION
PLANS

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ED1.1



2 THIRD FLOOR ELECTRICAL PLAN - DEMOLITION
SCALE: 1/8" = 1'-0"



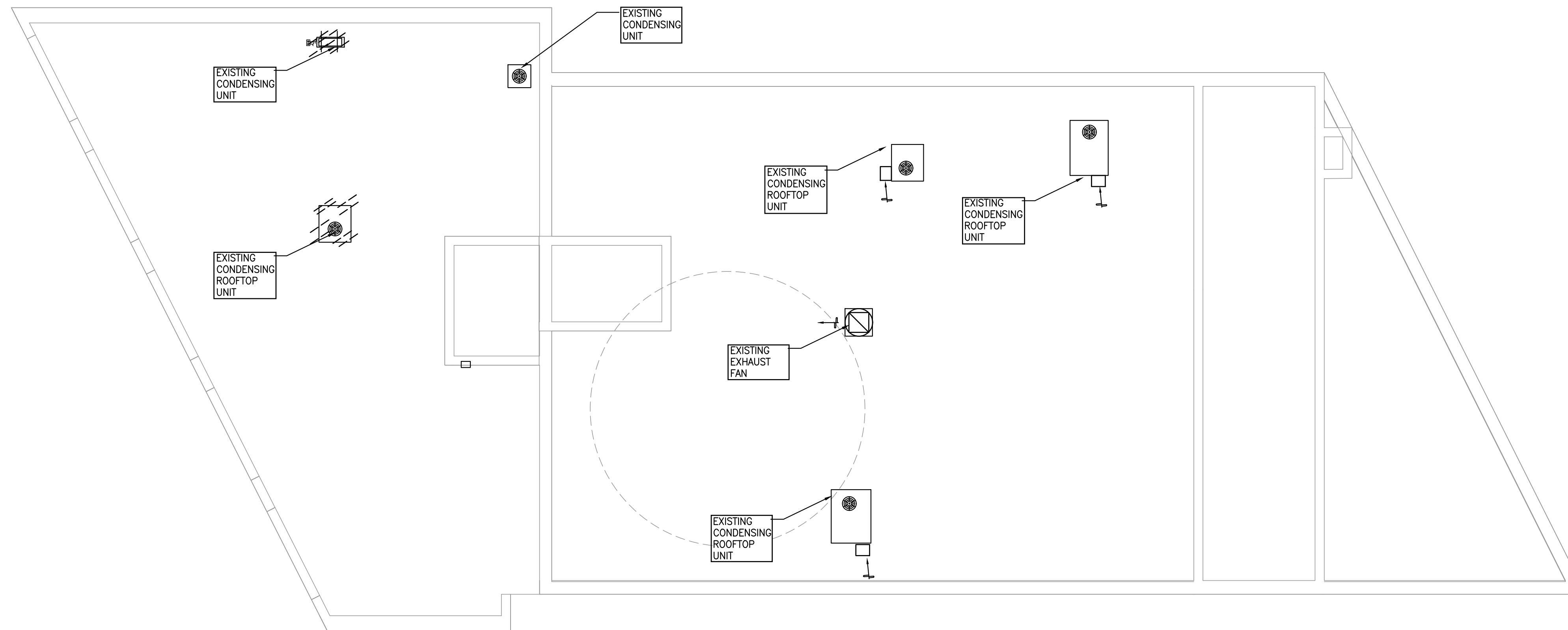
1 SECOND FLOOR ELECTRICAL PLAN - DEMOLITION
SCALE: 1/8" = 1'-0"

- POWER AND LIGHTING DEMOLITION NOTES:**
1. ELECTRICAL CONTRACTOR TO VERIFY ALL EXISTING POWER & LIGHTING DISTRIBUTION, CIRCUITING, SWITCHING, AND REWIRE AS REQUIRED TO MAINTAIN SYSTEMS/AREAS NOT AFFECTED BY NEW WORK OPERATIONAL; INCLUDING , BUT NOT LIMITED TO, SECURITY AND FIRE ALARM SYSTEMS OUTDOOR LIGHTING AND POWER.
 2. ELECTRICAL CONTRACTOR SHALL PROVIDE TEMPORARY POWER AND LIGHTING AS REQUIRED.
 3. ALL WIRING, CABLES, FEEDERS, DEVICES, AND RACEWAY CONNECTED TO EQUIPMENT SCHEDULED TO BE DEMOLISHED SHALL BE REMOVED BACK TO THEIR SOURCE UNLESS NOTED OTHERWISE.
 4. ALL ABANDONED EXISTING RACEWAY SHALL BE REMOVED.
 5. EQUIPMENT AND LIGHTING FIXTURES REMOVED AND NOT SCHEDULED TO BE RELOCATED SHALL BE OFFERED TO THE OWNER FOR REUSE. THE ELECTRICAL CONTRACTOR SHALL DELIVER ITEMS ACCEPTED BY THE OWNER TO THE DESIGNATED LOCATION AS DIRECTED BY THE OWNER. ITEMS NOT ACCEPTED SHALL BE DISPOSED OF FROM SITE.

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SECOND AND THIRD FLOOR LIGHTING DEMOLITION PL

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1 ROOF ELECTRICAL PLAN - DEMO
SCALE: 1/8" = 1'-0"

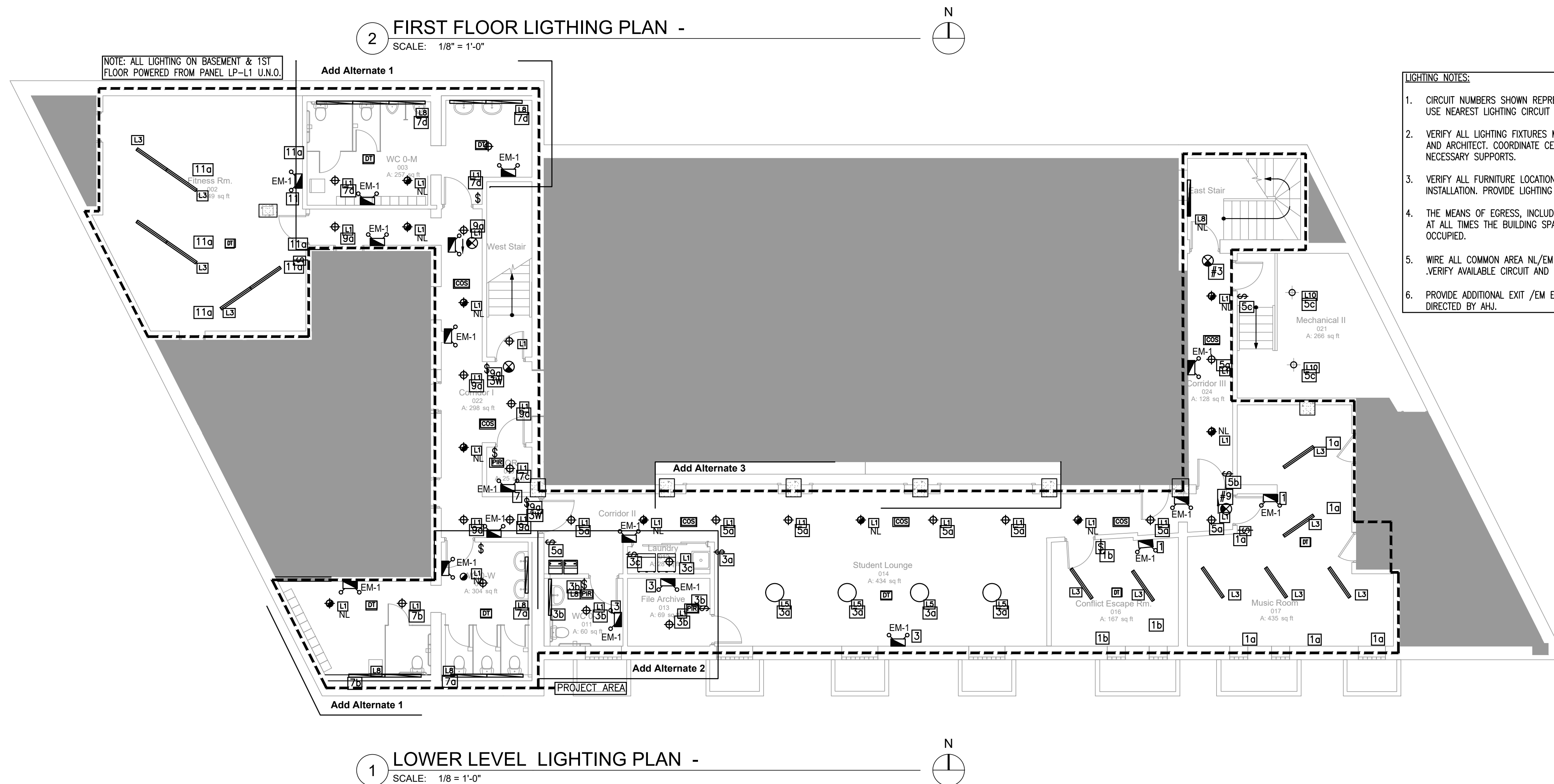
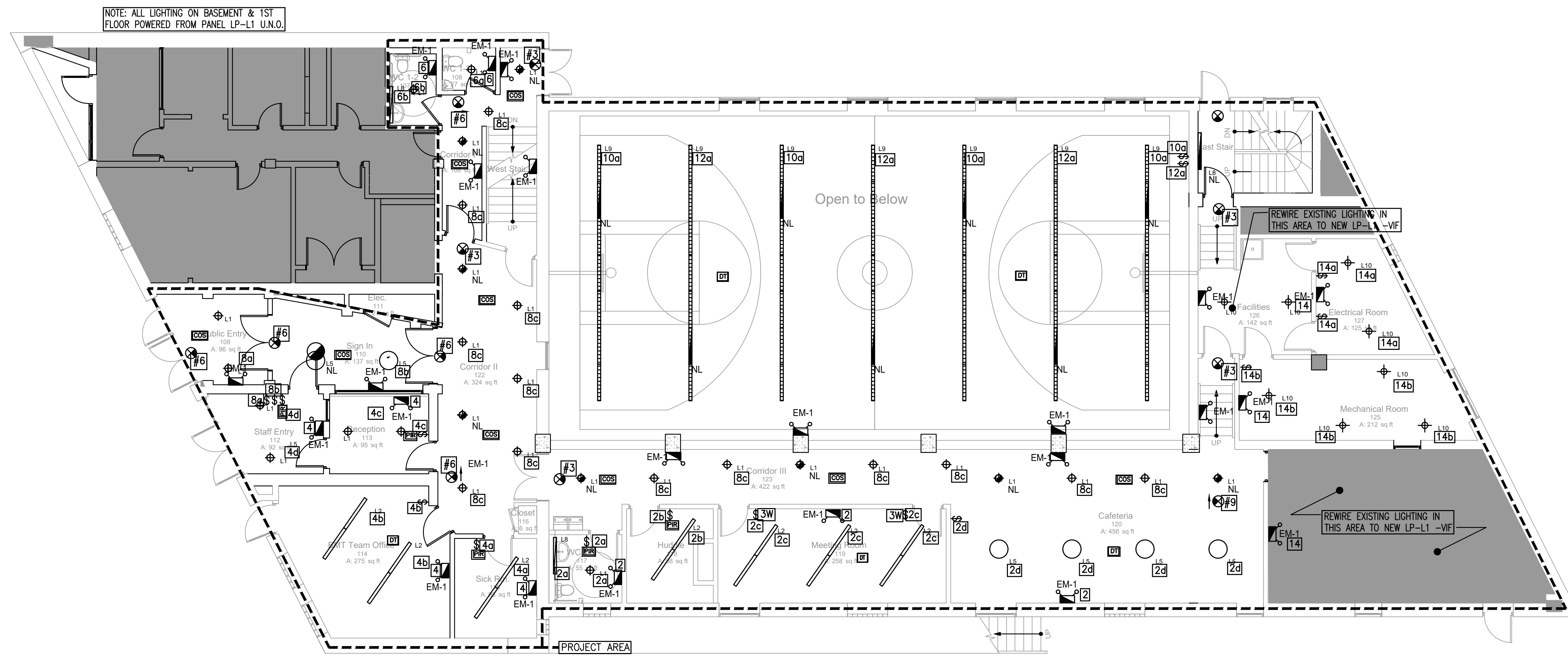


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ROOF POWER DEMOLITION

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ED 1 . 3



- LIGHTING NOTES:**
- CIRCUIT NUMBERS SHOWN REPRESENT INTENT AND ARE FOR REFERENCE ONLY. USE NEAREST LIGHTING CIRCUIT MADE AVAILABLE DURING DEMOLITION.
 - VERIFY ALL LIGHTING FIXTURES MOUNTING HEIGHTS AND LOCATIONS WITH OWNER, AND ARCHITECT. COORDINATE CEILING TYPE, EXISTING STRUCTURE, AND PROVIDE NECESSARY SUPPORTS.
 - VERIFY ALL FURNITURE LOCATIONS, SWITCHING ETC. IN ALL SPACES PRIOR TO INSTALLATION. PROVIDE LIGHTING CONTROL PER OWNER SPECIFICATIONS.
 - THE MEANS OF EGRESS, INCLUDING THE EXIT DISCHARGE, SHALL BE ILLUMINATED AT ALL TIMES THE BUILDING SPACE SERVED BY THE MEANS OF EGRESS IS OCCUPIED.
 - WIRE ALL COMMON AREA NL/EM LIGHTS AND EXIST SIGNS TO EXISTING EM PANEL. VERIFY AVAILABLE CIRCUIT AND LOAD.
 - PROVIDE ADDITIONAL EXIT /EM EGRESS LIGHTING PER FIELD INSPECTION AS DIRECTED BY AHJ.

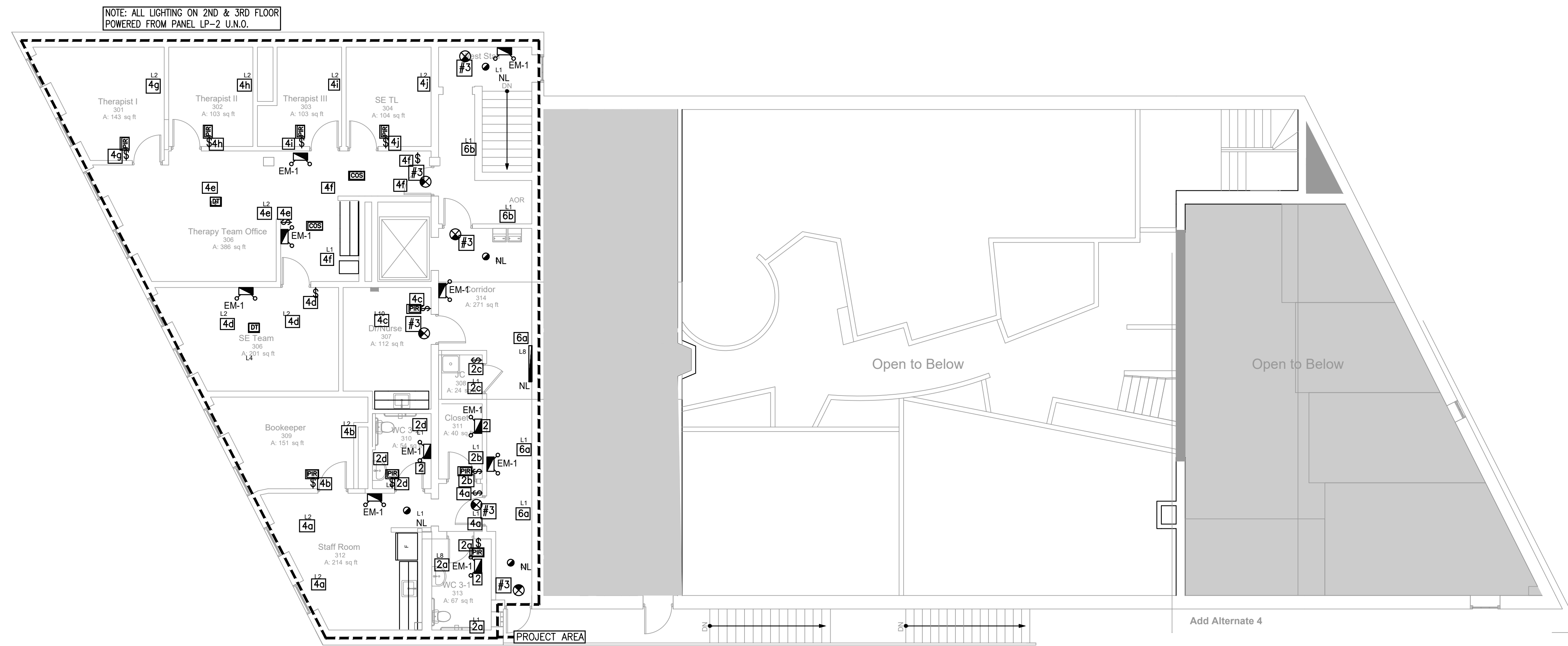


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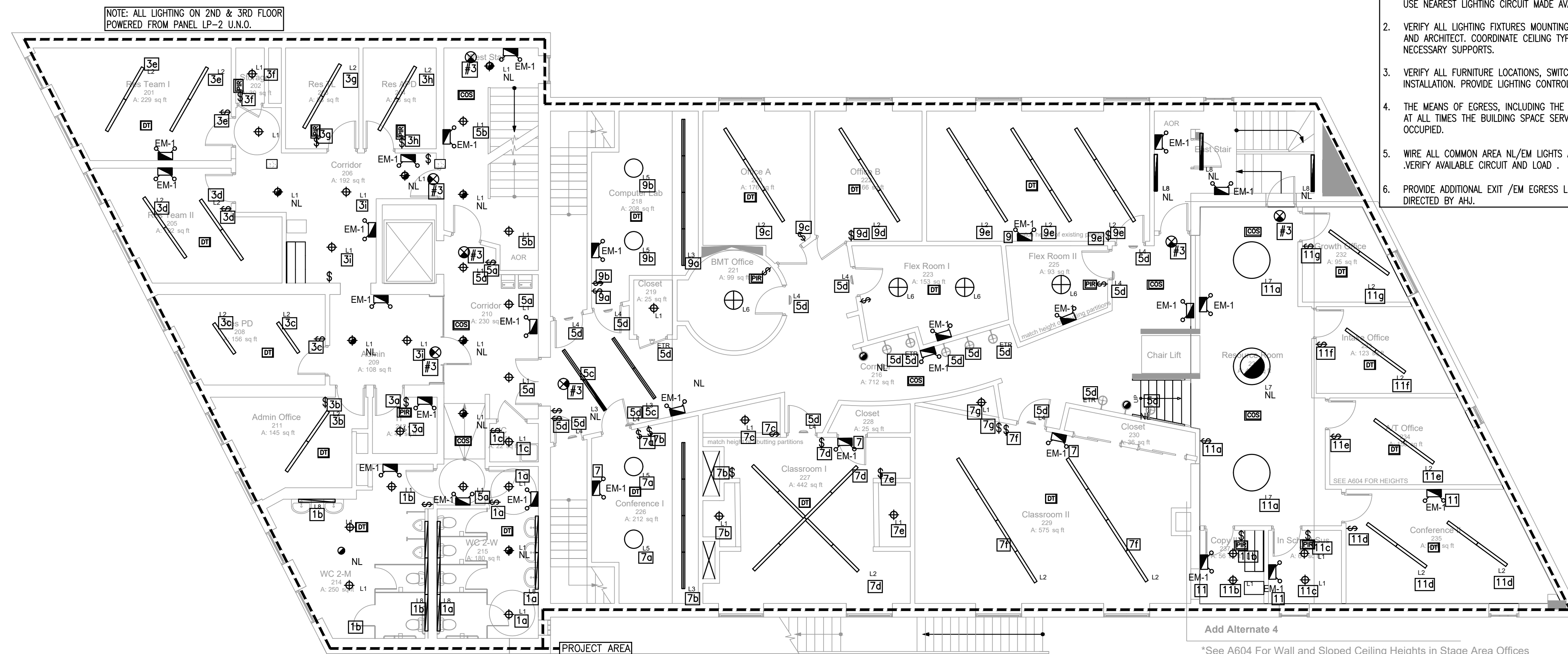
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	ISSUE FOR BIDDING	6/11/24

LOWER LEVEL AND 1ST FLOOR LIGHTING PLANS

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2 THIRD FLOOR LIGHTING PLAN -
SCALE: 1/8" = 1'-0"



1 SECOND FLOOR LIGHTING PLAN -
SCALE: 1/8" = 1'-0"

- LIGHTING NOTES:**
1. CIRCUIT NUMBERS SHOWN REPRESENT INTENT AND ARE FOR REFERENCE ONLY. USE NEAREST LIGHTING CIRCUIT MADE AVAILABLE DURING DEMOLITION.
 2. VERIFY ALL LIGHTING FIXTURES MOUNTING HEIGHTS AND LOCATIONS WITH OWNER, AND ARCHITECT. COORDINATE CEILING TYPE, EXISTING STRUCTURE, AND PROVIDE NECESSARY SUPPORTS.
 3. VERIFY ALL FURNITURE LOCATIONS, SWITCHING ETC. IN ALL SPACES PRIOR TO INSTALLATION. PROVIDE LIGHTING CONTROL PER OWNER SPECIFICATIONS.
 4. THE MEANS OF EGRESS, INCLUDING THE EXIT DISCHARGE, SHALL BE ILLUMINATED AT ALL TIMES THE BUILDING SPACE SERVED BY THE MEANS OF EGRESS IS OCCUPIED.
 5. WIRE ALL COMMON AREA NL/EM LIGHTS AND EXIST SIGNS TO EXISTING EM PANEL. VERIFY AVAILABLE CIRCUIT AND LOAD.
 6. PROVIDE ADDITIONAL EXIT /EM EGRESS LIGHTING PER FIELD INSPECTION AS DIRECTED BY A/E.



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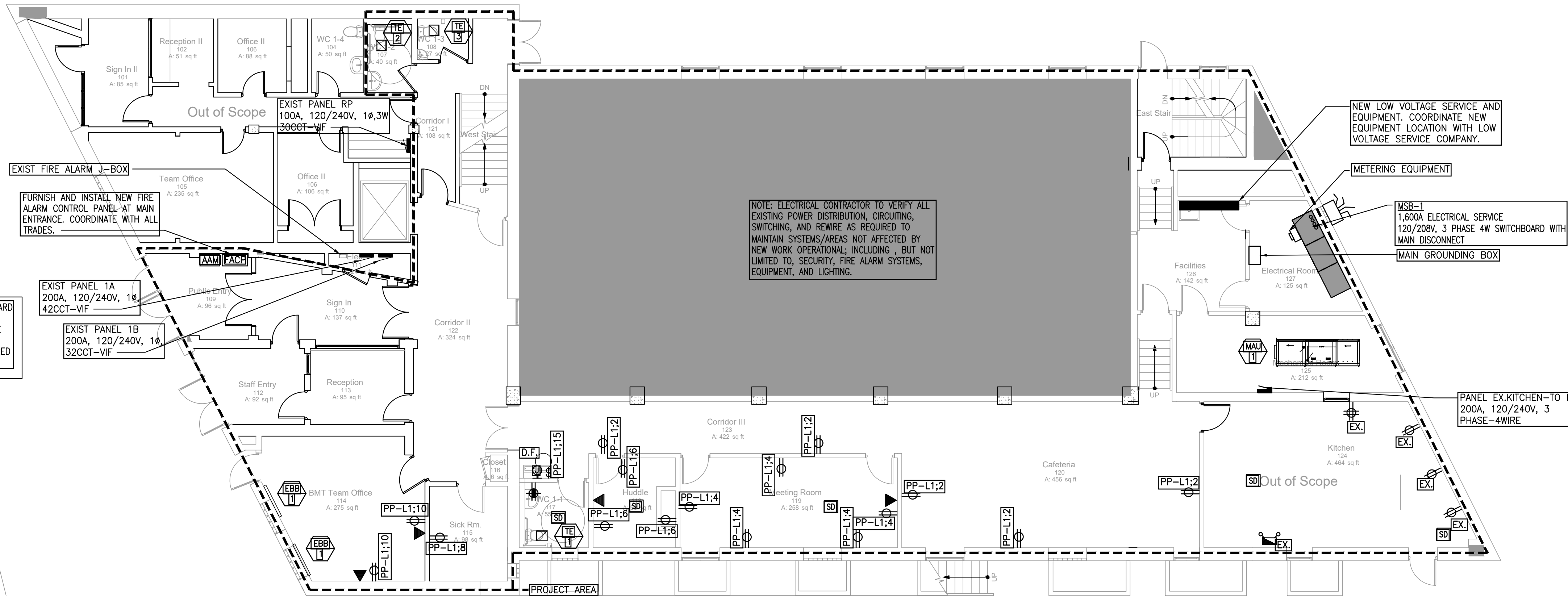
SECOND AND THIRD FLOOR LIGHTING PLAN -

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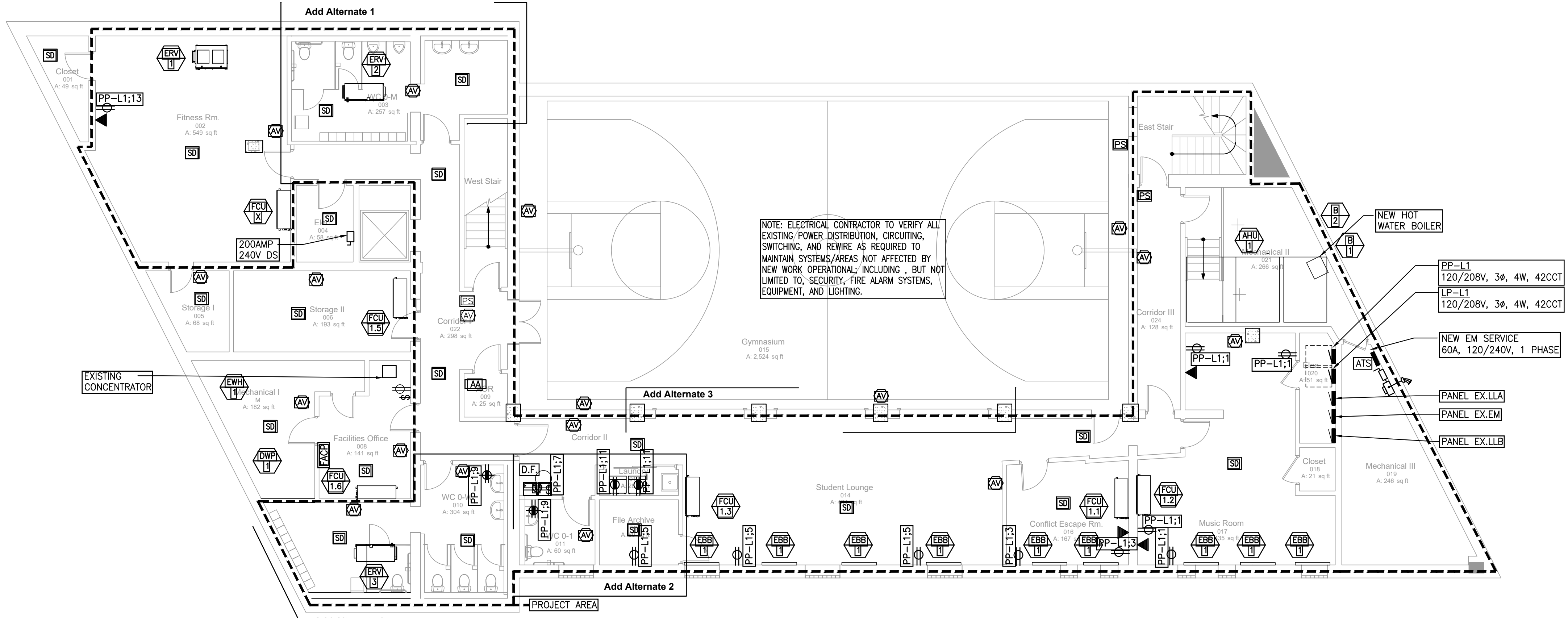
E1.2

- POWER NOTE:**
1. CIRCUIT NUMBERS SHOWN REPRESENT INTENT AND ARE FOR REFERENCE ONLY. USE NEAREST POWER CIRCUITS MADE AVAILABLE DURING DEMOLITION AS REQUIRED. INCLUDE ADDITIONAL CIRCUITS FROM EXISTING PANELS AS REQUIRED.
 2. ELECTRICAL CONTRACTOR TO VERIFY AND INSTALL ALL NEW ELECTRICAL EQUIPMENT SO AS TO MAINTAIN REQUIRED ACCESS AND WORKING SPACE CLEARANCES. COORDINATE REQUIREMENTS WITH ACTUAL EQUIPMENT.
 3. RE-BALANCE EXISTING PANELS AS REQUIRED. ADD NEW CIRCUIT BREAKERS TO EXISTING PANELS AS REQUIRED FOR EXISTING AND NEW CIRCUITS SERVING EXISTING AREAS OF NO WORK.
 4. PROVIDE NEW CIRCUIT BREAKERS IN EXISTING PANEL AS REQUIRED.
 5. VERIFY ALL POWER REQUIREMENTS IN PROJECT SPACES WITH ARCHITECT/OWNER PRIOR TO INSTALLATION.
 6. LOW VOLTAGE, COMMUNICATION, AND SECURITY INFORMATION INDICATED IS SCHEMATIC FOR REFERENCE USE ONLY. PLACEMENT OF COMPONENTS AND DEVICE REQUIREMENTS MUST BE VERIFIED WITH OWNER PRIOR TO INSTALLATION. SEE ARCHITECTURE DRAWINGS.

FURNISH AND INSTALL NEW CLASS '1' (ONE) STANDARD FIRE ALARM SYSTEM, ZONED HORIZONTALLY, WITH ANNUNCIATOR PANEL AT MAIN ENTRANCE. CITY FIRE ALARM BOX AND CITY OEMC TIE REQUIRED. RECONNECT EXISTING CITY ALARM BOX AS REQUIRED FOR NEW SYSTEM AS APPROVED BY CITY.



2 FIRST FLOOR POWER PLAN -
SCALE: 1/8" = 1'-0"



1 LOWER LEVEL POWER PLAN -
SCALE: 1/8" = 1'-0"



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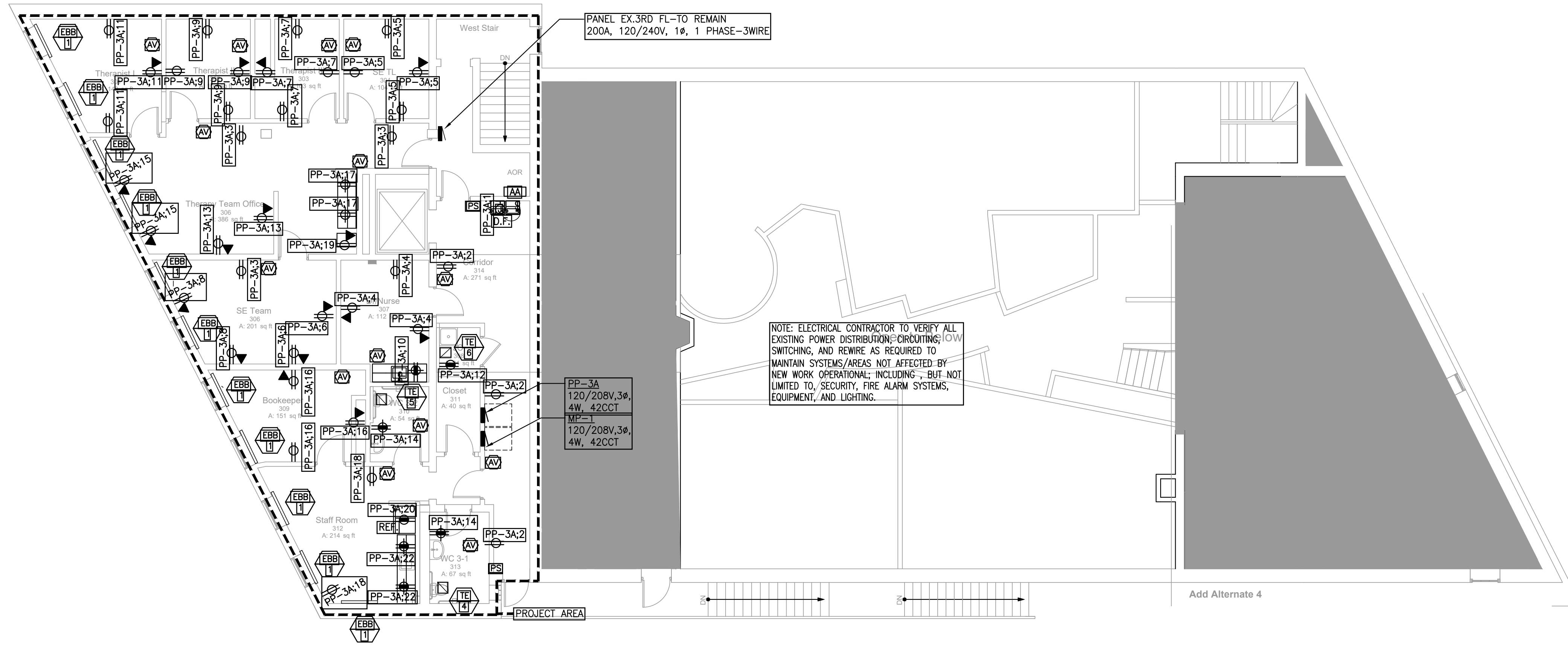
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	ISSUE FOR BIDDING	6/11/24

LOWER LEVEL AND 1ST FLOOR POWER PLANS -

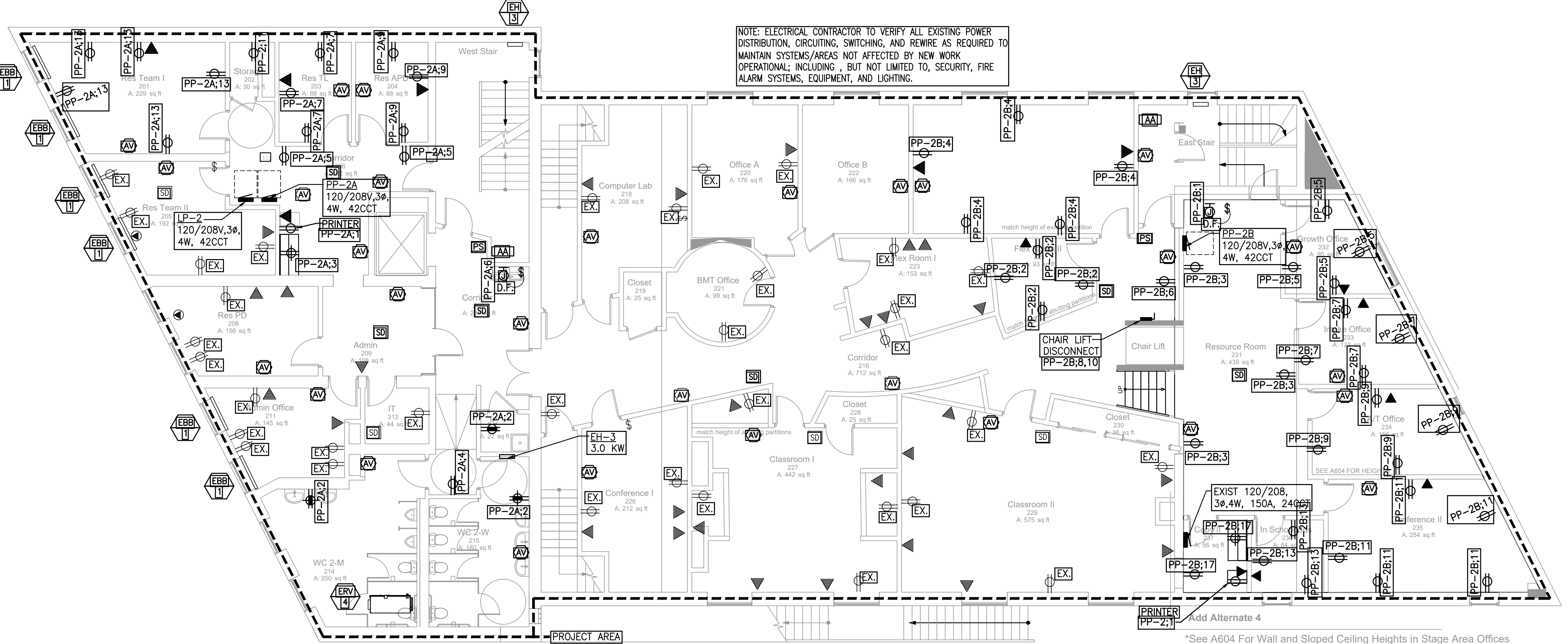
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E2.1

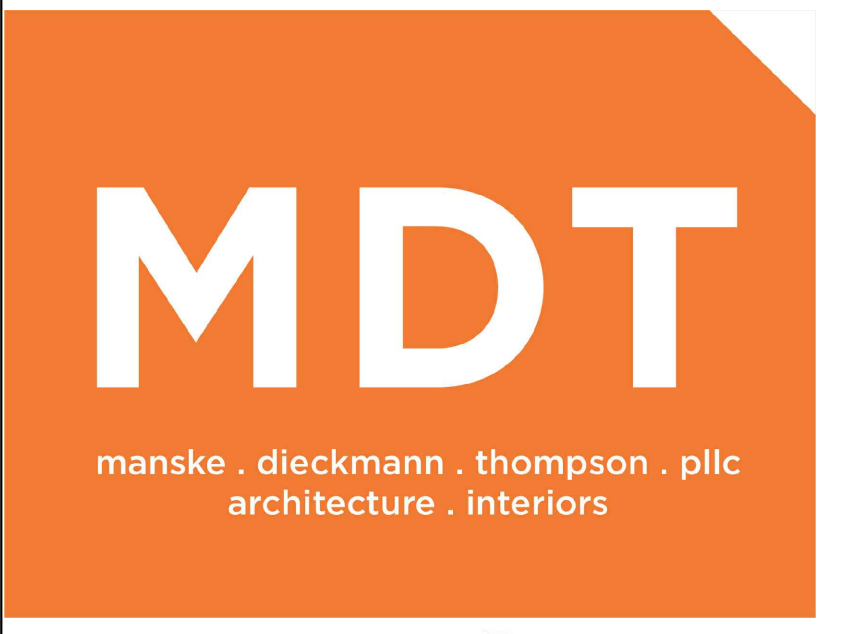
- POWER NOTE:**
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2 THIRD FLOOR POWER PLAN -
SCALE: 1/8" = 1'-0"



1 SECOND FLOOR POWER PLAN -
SCALE: 1/8" = 1'-0"

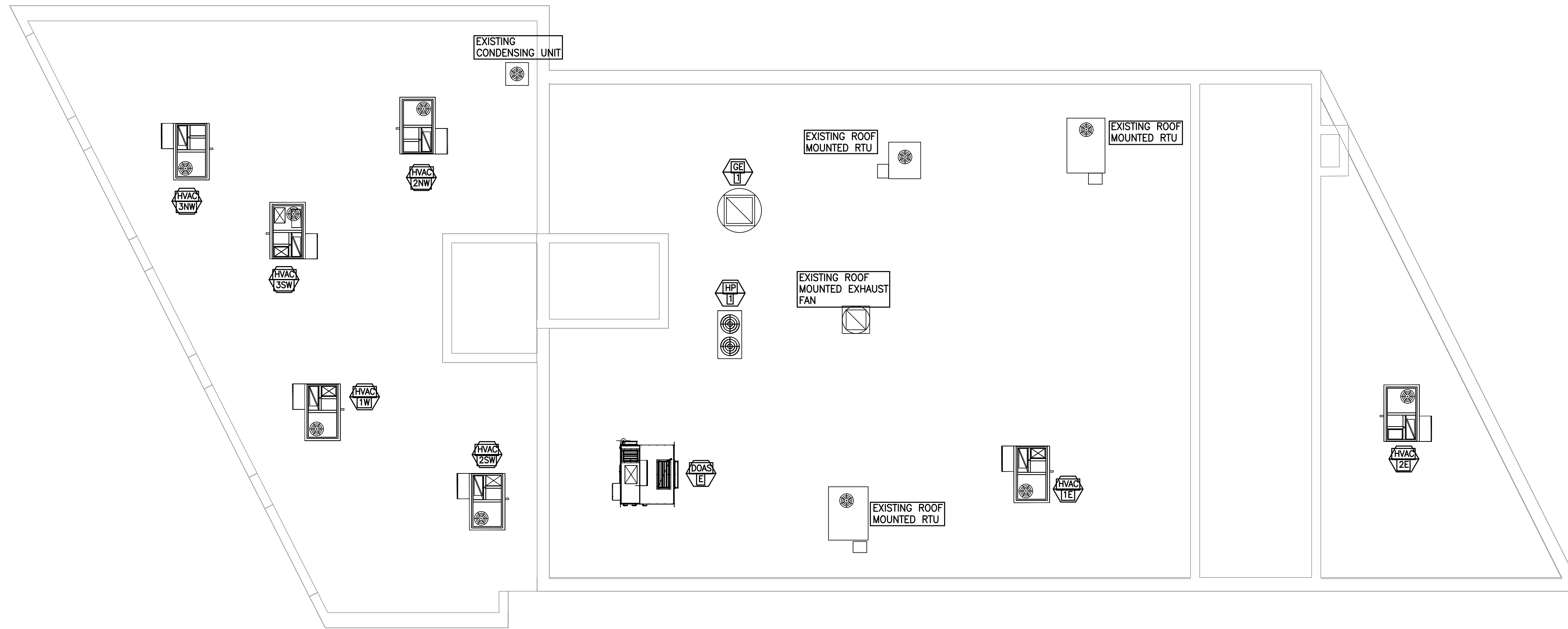


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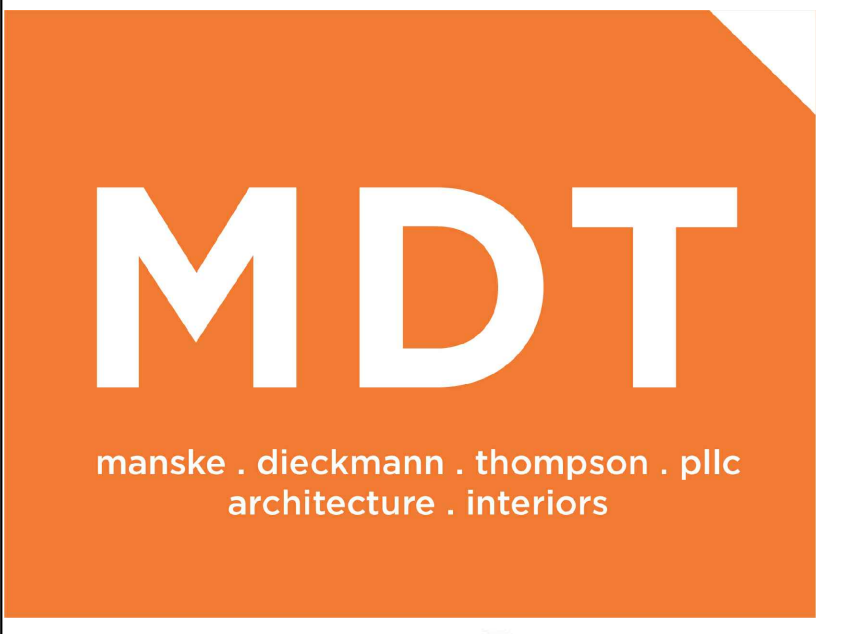
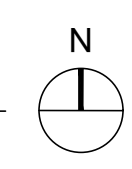
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SECOND AND THIRD FLOOR POWER PLANS -

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1 ROOF POWER PLAN -
SCALE: 1/8" = 1'-0"



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ROOF POWER PLAN -

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E2.3

3Ø PHASE FEEDER SCHEDULE

GENERAL NOTES:

- 1) WIRE OF #8 AWG SIZE AND LARGER SHALL BE STRANDED. WIRE #10AWG AND SMALLER SHALL BE SOLID
- 2) ALL CONDUCTORS SHALL BE RATED 90DEG. C FOR DRY/WET LOCATIONS.
- 3) INSULATION TYPES SHALL BE AS FOLLOWS:
- A) CONDUCTORS UP TO #2 AWG. SHALL BE DUAL LISTED THHN/THWN-2
- B) CONDUCTORS UP #3 AWG AND LARGER SHALL BE LISTED XHHW-2
- C) SERVICE ENTRANCE CONDUCTORS SHALL BE LISTED RHW-2.

AMPACITY	CONDUCTOR SIZE 3 WIRE		AMPACITY	CONDUCTOR SIZE 4 WIRE	
	PH-GND-C			PH&N-GND-C	
20	3#12, 1#12G - 3/4"		20	4#12, 1#12G - 3/4"	
25	3#10, 1#10G - 3/4"		25	4#10, 1#10G - 3/4"	
30	3#10, 1#10G - 3/4"		30	4#10, 1#10G - 3/4"	
35	3#8, 1#10G - 3/4"		35	4#8, 1#10G - 3/4"	
40	3#8, 1#10G - 3/4"		40	4#8, 1#10G - 3/4"	
45	3#8, 1#10G - 3/4"		45	4#8, 1#10G - 3/4"	
50	3#8, 1#10G - 3/4"		50	4#8, 1#10G - 3/4"	
60	3#6, 1#10G - 1"		60	4#6, 1#10G - 1 1/4"	
70	3#4, 1#8G - 1"		70	4#4, 1#8G - 1 1/4"	
80	3#4, 1#8G - 1"		80	4#4, 1#8G - 1 1/4"	
90	3#3, 1#8G - 1 1/4"		90	4#3, 1#8G - 1 1/4"	
100	3#3, 1#8G - 1 1/4"		100	4#3, 1#8G - 1 1/4"	
110	3#2, 1#6G - 1 1/4"		110	4#2, 1#6G - 1 1/4"	
125	3#1, 1#6G - 1 1/4"		125	4#1, 1#6G - 1 1/2"	
150	3#1/0, 1#6G - 1 1/2"		150	4#1/0, 1#6G - 1 1/2"	
175	3#2/0, 1#6G - 2"		175	4#2/0, 1#6G - 2"	
200	3#3/0, 1#6G - 2"		200	4#3/0, 1#6G - 2"	
225	3#4/0, 1#4G - 2"		225	4#4/0, 1#4G - 2 1/2"	
250	3#250, 1#4G - 2 1/2"		250	4#250, 1#4G - 2 1/2"	
300	3#350, 1#4G - 2 1/2"		300	4#350, 1#4G - 3"	
350	3#400, 1#3G - 3"		350	4#400, 1#3G - 3"	
400	3#500, 1#3G - 3"		400	4#500, 1#3G - 4"	
450	2 SETS OF 3#4/0, 1#2G - 2"		450	2 SETS OF 4#4/0, 1#2G - 2 1/2"	
500	2 SETS OF 3#250 kCMIL, 1#2G - 2 1/2"		500	2 SETS OF 4#250 kCMIL, 1#2G - 2 1/2"	
600	2 SETS OF 3#350 kCMIL, 1#1G - 2 1/2"		600	2 SETS OF 4#350 kCMIL, 1#1G - 3"	
700	2 SETS OF 3#500 kCMIL, 1#1/0G - 3"		700	2 SETS OF 4#500 kCMIL, 1#1/0G - 3 1/2"	
800	2 SETS OF 3#500 kCMIL, 1#1/0G - 3"		800	2 SETS OF 4#500 kCMIL, 1#1/0G - 4"	
900	3 SETS OF 3#350 kCMIL, 1#2/0G - 2 1/2"		900	3 SETS OF 4#350 kCMIL, 1#2/0G - 3"	
1000	3 SETS OF 3#400 kCMIL, 1#2/0G - 3"		1000	3 SETS OF 4#400 kCMIL, 1#2/0G - 3"	
1200	4 SETS OF 3#350 kCMIL, 1#3/0G - 2 1/2"		1200	4 SETS OF 4#350 kCMIL, 1#3/0G - 3"	
1400	4 SETS OF 3#500 kCMIL, 1#4/0G - 3"		1400	4 SETS OF 4#500 kCMIL, 1#4/0G - 4"	
1600	5 SETS OF 3#400 kCMIL, 1#4/0G - 3"		1600	5 SETS OF 4#400 kCMIL, 1#4/0G - 3"	

APPLICABLE CODES

CONTRACTOR SHALL COMPLY WITH APPLICABLE CODES AND LOCAL AMENDMENTS INCLUDING:

ELECTRICAL CODE:	CHICAGO ELECTRICAL CODE 2018
FIRE CODE:	CHICAGO BUILDING CODE 2019
LIFE SAFETY CODE:	CHICAGO BUILDING CODE 2019
MODEL ENERGY CODE:	CHICAGO ENERGY TRANSFORMATION CODE 2022

ELECTRICAL LOAD CENTER NOTES

THE PANEL SCHEDULES ARE TO COMPLETED BY THE CONTRACTOR AND PLACED IN THE PANEL DOOR

REFER TO MECHANICAL PLANS FOR SIZES OF OCC'S FOR MECHANICAL EQUIPMENT.

ALL CIRCUITS MINIMUM 2#12 AWG, #12 AWG GND, CU
 30A CIRCUITS MINIMUM 2#10 AWG, #12 AWG GND, CU
 40A CIRCUITS MINIMUM 2#8 AWG, #10 AWG, GND, CU
 60A CIRCUITS MINIMUM 2#6 AWG, #10 AWG, GND, CU

INCREASE BRANCH CIRCUIT CONDUCTORS BY ONE SIZE ALL BRANCH CIRCUITS OVER 100 FEET IN LENGTH
 INCREASE FEEDER CONDUCTORS BY ONE SIZE FOR ALL FEEDERS OVER 100 FEET IN LENGTH

LISTED AIC RATINGS FOR EQUIPMENT CAN BE REDUCED BASED ON AVAILABLE SHORT CIRCUIT CURRENT WHEN THAT VALUE IS DETERMINED BY COMMONWEALTH EDISON.

PROVIDE METER SOCKETS THAT ARE CECHA APPROVED.

BRANCH AND FEEDERS DO NOT EXCEED 3% VOLTAGE DROP

MAXIMUM CONDUCTOR AMPACITY FOR CIRCUITS RATED FOR 100 AMPS OR LESS SHALL BE DETERMINED BASED ON THE 60°C AMPACITY OF THE CONDUCTOR USED.

PROVIDE MINIMUM 75°C RATED FEEDER, AND BRANCH CIRCUIT CONDUCTORS. COORDINATE WITH EQUIPMENT TERMINATION RATING AND CEC 110.14.C REQUIREMENTS

PROVIDE DEDICATED NEUTRAL FOR EACH 120V, 1 PHASE CIRCUIT.

* ALL SYMBOLS AND ABBREVIATIONS LISTED MAY NOT BE APPLICABLE TO THIS PROJECT

ELECTRICAL SYMBOL LIST *

ELECTRICAL EQUIPMENT

- MOTOR-SEE MOTOR /EQUIPMENT SCHEDULE FOR HP RATING
- FUSED DISCONNECT SWITCH
- NON-FUSED DISCONNECT SWITCH
- FLUSH MOUNTED BRANCH CIRCUIT PANELBOARD
- SURFACE MOUNTED BRANCH CIRCUIT PANELBOARD
- FLUSH MOUNTED LIGHTING BRANCH CIRCUIT PANELBOARD
- SURFACE MOUNTED LIGHTING BRANCH CIRCUIT PANELBOARD
- DISTRIBUTION PANELBOARD
- SWITCHGEAR, SWITCHBOARD OR MOTOR CONTROL CENTER, DASHED LINES INDICATE FUTURE SECTIONS, ARROW INDICATES FRONT
- DASHED LINES IN FRONT OF EQUIPMENT INDICATES FLOOR AREA. PROVIDE NEC 110.28 CLEARANCES FOR ALL PANELBOARDS AND ELECTRICAL EQUIPMENT. PROVIDE PERMANENT FLOOR MARKINGS & BOLLARDS AS NECESSARY
- MOTOR/EQUIPMENT TAG
- AUTOMATIC TRANSFER SWITCH
- GROUND
- CURRENT TRANSFORMER
- TRANSFORMER
- CUSTOMER OWNED DIGITAL METER
- ELECTRIC UTILITY (COMED) METER
- MAGNETIC MOTOR STARTER
- COMBINATION STARTER/DISCONNECT SWITCH

ACCESS CONTROL SYSTEM SYMBOLS

- CARD READER TERMINAL IN WALL 48" ADD OR AS NOTED PROVIDE RACO 232 BACKBOX AND SINGLE GANG PLASTER RING PROVIDE 3/4" CONDUIT TO CEILING SPACE
- ELECTRIC STRIKE CONNECTION POINT. PROVIDE CONNECTION TO DOOR MOUNTED ELECTRIC STRIKE EQUIPMENT PROVIDE 1/2" CONDUIT TO CEILING SPACE
- MAGNETIC DOOR HOLDER
- DOOR CONTACT
- ADA PUSH PLATE FOR DOOR OPERATOR, WALL/FRAME MOUNTED
- CLOSED CIRCUIT VIDEO CAMERA PROVIDE 1900 JUNCTION BOX AND 3/4" CONDUIT BACK TO IT CLOSET OR/IT JUNCTION BOX. SEE NOTES FOR ADDITIONAL DETAILS. DEVICE AND CABLE BY SECURITY CONSULTANT

SUBSCRIPT INDICATES THE FOLLOWING FOR WALL MOUNTED OUTLETS, (U.N.O.):

- "PTZ" PAN TILT ZOOM CAMERA
- "FIX" FIXED CAMERA
- "V" WANDEL DOME FOR INSIDE CAMERA
- "VE" WANDEL DOME FOR OUTSIDE CAMERA
- OUTLET FOR FUTURE CCTV MONITORS

- ACCESS CONTROL - MASTER STATION
- MOTION SENSOR
- INTERCOM SYSTEM WITH CALL BUTTON AND/OR DOOR RELEASE.
- APARTMENT DOOR ENTRY/INTERCOM SYSTEM WITH PUSH BUTTON/PAD CONTROL

SUBSCRIPT INDICATES THE FOLLOWING FOR PUSH BUTTON/PAD CONTROL, (U.N.O.):

- "AP" ACCESS CONTROL - DOOR STATION
- "DB" DOOR BELL
- "PP" PUSH PLATE FOR ADA DOOR OPERATOR
- "EMER" EMERGENCY DOOR BELL
- "WP" VANDAL RESISTANT WEATHER PROOF PUSH-BUTTON FOR INTERCOM

COMMUNICATION SYSTEM SYMBOLS

- VOICE/DATA TERMINAL OUTLET IN WALL 18"A.F.F. OR AS NOTED. PROVIDE RACO 259 BACKBOX, SINGLE GANG PLASTER RING PROVIDE WITH (2) CAT 6 RISER RATED CABLE FROM OUTLET PORT TERMINATION BACK TO IT CLOSET. PROVIDE SINGLE PORT STAINLESS STEEL COVER PLATE WITH CENTER TAG. VERIFY NAMING CONVENTION WITH OWNER. VERIFY FINAL LOCATION AND NUMBER OF PORTS WITH OWNER
- PHONE TERMINAL OUTLET IN WALL 18"A.F.F. OR AS NOTED. PROVIDE RACO 259 BACKBOX, SINGLE GANG PLASTER RING PROVIDE WITH PHONE CABLE FROM OUTLET PORT TERMINATION BACK TO PHONE SERVICE CONNECTION. PROVIDE SINGLE PORT STAINLESS STEEL COVER PLATE WITH CENTER TAG. VERIFY NAMING CONVENTION WITH OWNER. VERIFY FINAL LOCATION AND NUMBER OF PORTS WITH OWNER
- WIRELESS ACCESS POINT, PROVIDE WITH (1) 3/4" CONDUIT WITH PULL STRING, FROM OUTLET TO MAIN JUNCTION BOX ON EACH FLOOR.
- CABLE TELEVISION ANTENNA SYSTEM OUTLET, PROVIDE CONDUIT AS INDICATED TO CATV TERMINAL CABINET. ALL HOMERUNS NO LOOPING. PROVIDE CABLE OUTLET AND TERMINATION. VERIFY FINAL LOCATION WITH OWNER
- CABLE ANTENNA TELEVISION BUILDING SERVICE TERMINATION POINT. CABLE, EQUIPMENT, AND TERMINATION BY CONTRACTOR.

* ALL SYMBOLS AND ABBREVIATIONS LISTED MAY NOT BE APPLICABLE TO THIS PROJECT

ELECTRICAL SYMBOL LIST *

WIRING DEVICES

- JUNCTION OR OUTLET BOX IN CEILING OR FLOOR AS NOTED
- JUNCTION OR OUTLET BOX IN WALL
- SIMPLEX RECEPTACLE, 125V, 2 POLE 20A RATING (NEMA 5-20R) UNLESS NOTED OTHERWISE IN WALL, 18" A.F.F. OR AS NOTED.
- DUPLEX RECEPTACLE, 125V, 2 POLE 20A RATING (NEMA 5-20R) UNLESS NOTED OTHERWISE IN WALL, 18" A.F.F. OR AS NOTED.
- DUPLEX RECEPTACLE, 125V, 2 POLE 20A RATING (NEMA 5-20R) WITH (2) USB CHARGER UNLESS NOTED OTHERWISE IN WALL, 18" A.F.F. OR AS NOTED.
- GFCI DUPLEX RECEPTACLE, 125V, 2 POLE 20A RATING (NEMA 5-20R) UNLESS NOTED OTHERWISE IN WALL, 24" A.F.F. OR AS NOTED.
- DOUBLE DUPLEX RECEPTACLE, 125V, 2 POLE 20A RATING (NEMA 5-20R) UNLESS NOTED OTHERWISE IN WALL, 18" A.F.F. OR AS NOTED.
- DOUBLE DUPLEX RECEPTACLE, 125V, 2 POLE 20A RATING (NEMA 5-20R) WITH USB CHARGER. UNLESS NOTED OTHERWISE IN WALL, 18" A.F.F. OR AS NOTED.
- DUPLEX RECEPTACLE, 125V, 2 POLE 20A RATING (NEMA 5-20R) UNLESS NOTED OTHERWISE IN WALL, 48" A.F.F. OR AS NOTED.
- GFCI DUPLEX RECEPTACLE, 125V, 2 POLE 20A RATING (NEMA 5-20R) UNLESS NOTED OTHERWISE IN WALL, 48" A.F.F. OR AS NOTED.
- ISOLATED GROUND DUPLEX RECEPTACLE, 125V, 2 POLE 20A RATING (NEMA 5-20R) UNLESS NOTED OTHERWISE RECESSED IN WALL, 18" A.F.F. OR AS NOTED.
- DUPLEX RECEPTACLE, 125V, 2 POLE 20A RATING (NEMA 5-20R) UNLESS NOTED OTHERWISE MOUNTED ON FLOOR OR AS NOTED.
- DOUBLE DUPLEX RECEPTACLE, 125V, 2 POLE 20A RATING (NEMA 5-20R) UNLESS NOTED OTHERWISE MOUNTED ON FLOOR OR AS NOTED.
- RECEPTACLE, 125/250V, 1 OR 3Ø, 2 OR 3 POLE, 3 OR 4 WIRE, 20A, 30A, 50A, OR 60A RATING (NEMA *-**R) AS NOTED IN WALL 18" AFF OR AS NOTED
- SURFACE MOUNTED, MULTIOUTLET STEEL ASSEMBLY WITH NEMA 15A-RATED, RECEPTACLES. RECEPTACLES MOUNTED AT REGULAR INTERVALS AS INDICATED.
- CABLE TELEVISION ANTENNA SYSTEM OUTLET, PROVIDE CONDUIT AS INDICATED TO CATV TERMINAL CABINET. ALL HOMERUNS NO LOOPING. PROVIDE CABLE OUTLET AND TERMINATION.
- SPEAKER

WIRING DEVICES SYMBOL NOTATION

- ADJACENT LETTERS IN THE SYMBOLS ABOVE INDICATE THE FOLLOWING:
- "TR" INDICATES TAMPER RESISTANT (SAFETY TYPE)
- "CS" INDICATES CHARGING STATION
- "E" INDICATES RECEPTACLE FED BY EMERGENCY CIRCUIT
- "EP" INDICATES RECEPTACLE IS EXPLOSION PROOF
- "EWC" INDICATES RECEPTACLE SERVES ELECTRIC WATER COOLER
- "GFI" INDICATES RECEPTACLE HAS GROUND FAULT CIRCUIT INTERRUPTER
- "IC" INDICATES RECEPTACLE HAS ISOLATED GROUND-COMPUTER
- "TVS" INDICATES RECEPTACLE HAS TRANSIENT VOLTAGE SURGE SUPPRESSION
- "WP" INDICATES RECEPTACLE HAS WATERPROOF COVER
- "XX" INDICATES RECEPTACLE CIRCUIT NUMBER

LIGHTING/LIGHTING CONTROL EQUIPMENT SYMBOLS

- LIGHTING FIXTURE FOR DESCRIPTION SEE LIGHTING FIXTURE SCHEDULE
- LIGHTING FIXTURE AS INDICATED WITH EMERGENCY BATTERY BACK-UP INSTALLED OR WIRE TO EM POWER SOURCE. FOR DESCRIPTION SEE LIGHTING FIXTURE SCHEDULE
- EMERGENCY LIGHTING FIXTURE WITH BATTERY BACK-UP.
- REMOTE EMERGENCY LIGHTING FIXTURE WITH BATTERY BACK-UP.
- WALL SWITCH, LIGHT SWITCH CONTROL AND FEATURES AS NOTED
- LIGHT SWITCH ABBREVIATIONS:**
 - "G" LIGHTS CONTROLLED
 - "D" DIMMER SWITCH
 - "EP" EXPLOSION PROOF
 - "K" KEY OPERATED
 - "P" PILOT LIGHT
 - "XX" CIRCUIT NUMBER
 - "OC" OCCUPANCY SENSOR
 - "WP" WEATHERPROOF
 - "2P" TWO POLE
 - "3P" THREE-POLE
 - "3W" THREE-WAY
 - "4W" FOUR-WAY
 - "T" TIME SWITCH
- DAYLIGHT SENSOR
- INDIVIDUAL ROOM PASSIVE OCCUPANCY SENSOR
- DUEL TECHNOLOGY ULTRASONIC MOTION DETECTOR/OCCUPANCY SENSOR
- OPEN AREA OCCUPANCY SENSOR
- CORRIDOR OCCUPANCY SENSOR
- TIME CLOCK
- PHOTOCELL
- MOMENTARY CONTACT SWITCH
- LOW VOLTAGE SWITCH STATION

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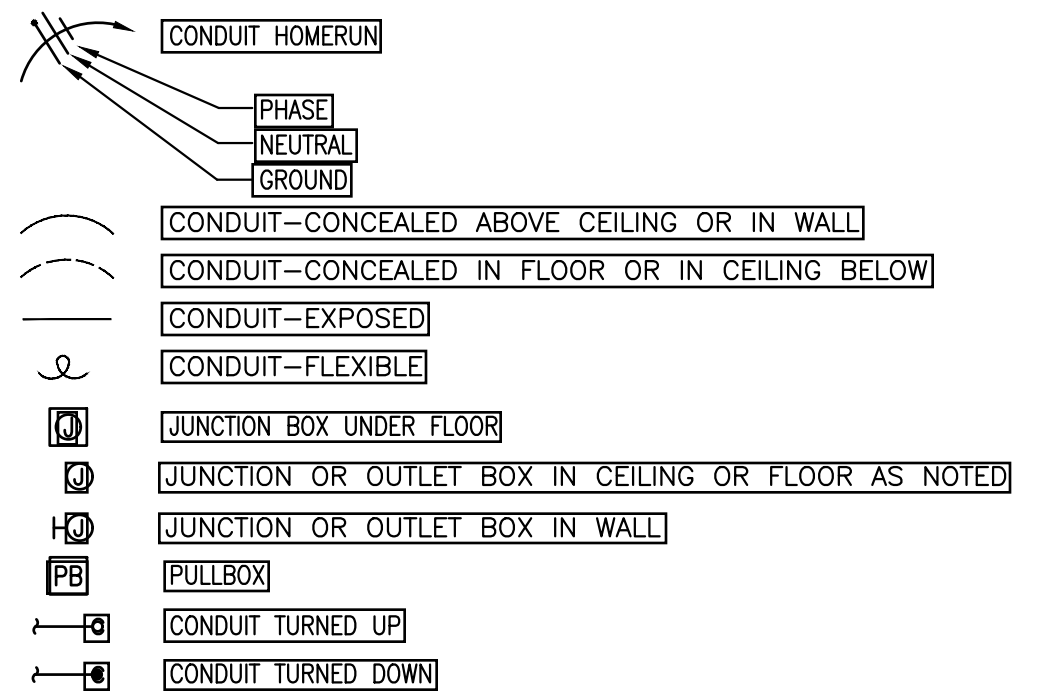
Revisions	Transmittal Set Name	Date
	ISSUE FOR BIDDING	6/11/24

ELECTRICAL SYMBOLS/NOTES

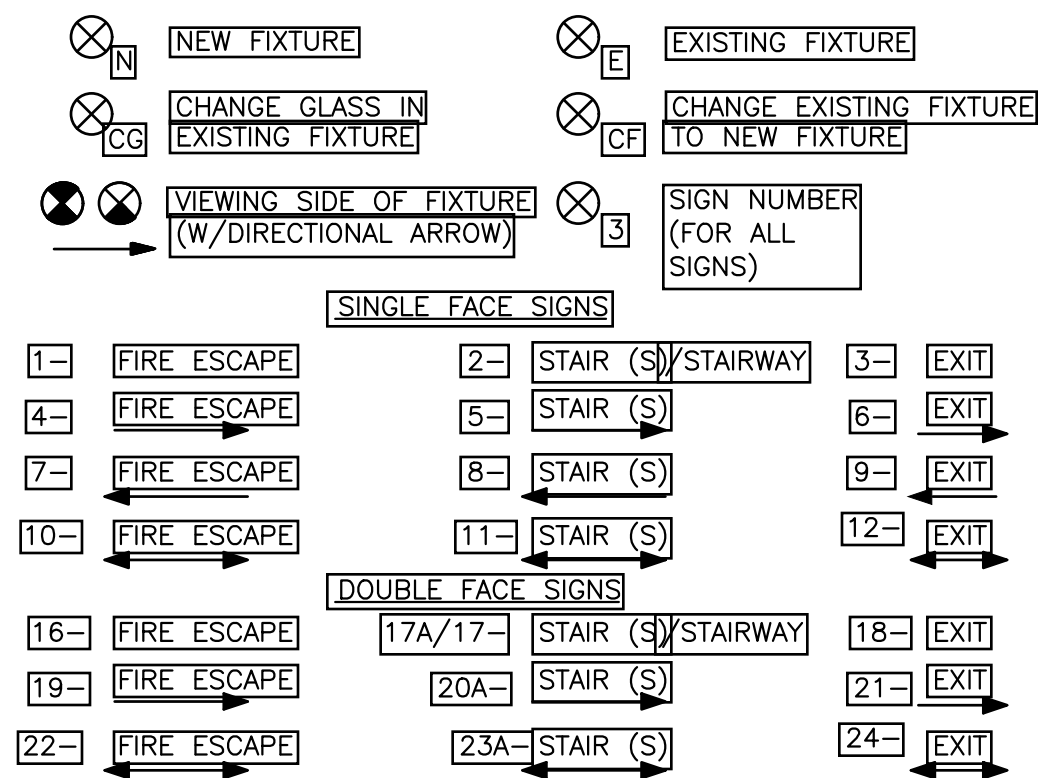
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ELECTRICAL SYMBOL LIST *

RACEWAYS & WIRING



EXIT SIGN SYMBOL



FIRE ALARM SYMBOLES

- List of fire alarm symbols including City Fire Alarm Box, Fire Alarm Audio/Visual Notification Appliance, Fire Alarm Audio Notification Appliance (Voice), Fire Alarm Visual Visual Notification Appliance (Strobe), Water Flow Switch, Sprinkler Valve Supervisory (Tamper) Switch, Fire Alarm Addressable Monitor Module, Sprinkler Supervisory Control Panel, Fire Alarm Control Panel, Fire Alarm Annunciator Panel, Fire Alarm Command Center, Area of Rescue Assistance Master Station, Area of Rescue Assistance Call Station, Pull Station, Duct Smoke Detector, Knox Box, Self-contained Standalone Smoke Alarm, Unit Addressable Smoke Detector, Addressable Smoke Detector, Smoke Detector Abbreviations, Carbon Monoxide Detector, and Heat Detector.

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ELECTRICAL SYMBOL LIST *

ABBREVIATIONS

- Table of electrical abbreviations including Amps, Access Door, Above Finished Floor, Air Conditioning, Air Handling Unit, Automatic Transfer Switch, Above Window, Blank Off, Basement, Bolted Pressure Switch, Conduit, Circuit, Circuit Breaker, Carbon Monoxide Detector, Control Panel, Copper, Current Transformer, Diameter, Disconnect Switch, Division, Down, Drawing, Each, Electrical Contractor, Equipment, Electric, Electrical, Emergency, Existing, Furnished by Others, Fan Coil Unit, Fuse, Feeder, Full Load Amps, Floor, Fire Pump Controller, Fixture, Full Voltage, Non Reversing (Magnetic Starter), Gauge, General Contractor, Ground Fault Interrupter, Ground, Horsepower, Hand-Off-Auto, Isolated Ground, Junction Box, Lighting, Jockey Pump Controller, Motor, Mechanical Contractor, Main Circuit Breaker, Motor Control Center, Maximum Circuit Protection, Main Lugs Only, Mechanical, Main Overcurrent Protection, Neutral, Not Applicable, Normally Closed, Not in Contract, Normally Open, Not to Scale, Overhead, Overload, Pushbutton, Plumbing Contractor, Panel, Primary, Potential Transformer, Switch, Relocated, Remove, Refrigerator, Secondary, Switchboard, Switchgear, Telephone Terminal Cabinet, Transformer, Typical, Uninterruptible Power Supply, Volts, Variable Frequency Drive, Verify in Field, Video Monitor Wall Box, Weatherproof, and Watts.

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ELECTRICAL NOTES

- List of electrical notes starting with '1 ALL WORK SHALL BE DONE AS PER LOCAL ELECTRICAL CODE REQUIREMENTS' through '35 THE MECHANICAL AND PLUMBING DRAWINGS FOR EACH INDIVIDUAL CONTROL EQUIPMENT.' covering topics like permit requirements, safety, equipment, and installation standards.

PRELIMINARY PROJECT ELECTRICAL LOAD CALCULATION

Table showing preliminary project electrical load calculation with columns for Occupancy Types, General Lighting, Receptacle Loads, Fixed Equipment Load, Non-coincidental Equipment, and Total Non-coincidental Load. Includes calculations for VA, Demand Factor, and Amps.

FIRE ALARM PERMIT REQUIREMENTS

Table with 2 columns: Scope Item and Description. Details permit application requirements, drawing requirements, and fire alarm system design/build scope.

DESIGN BUILD FIRE ALARM NOTES

Table with 2 columns: Scope Item and Description. Provides design/build fire alarm notes regarding system design, coordination, and material requirements.

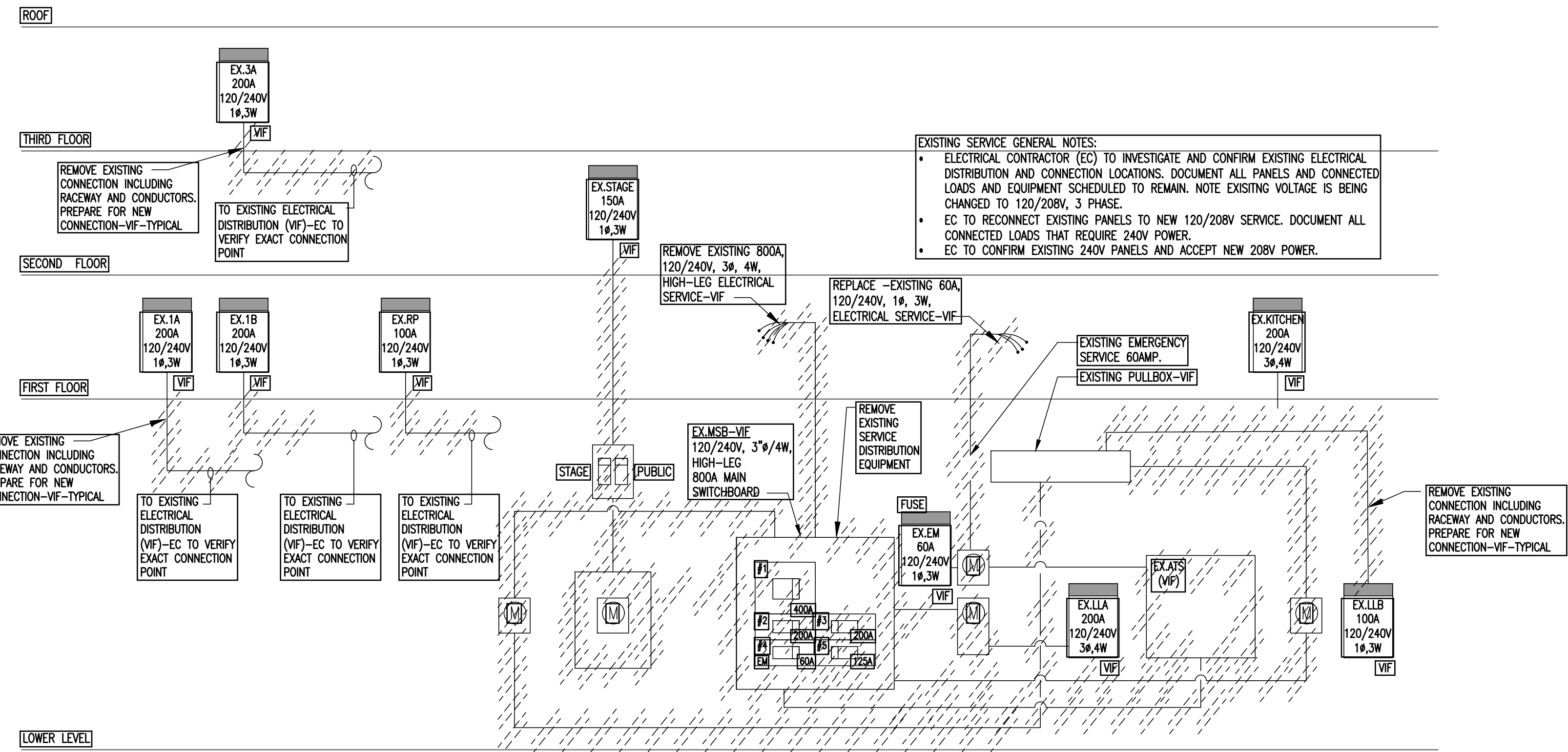


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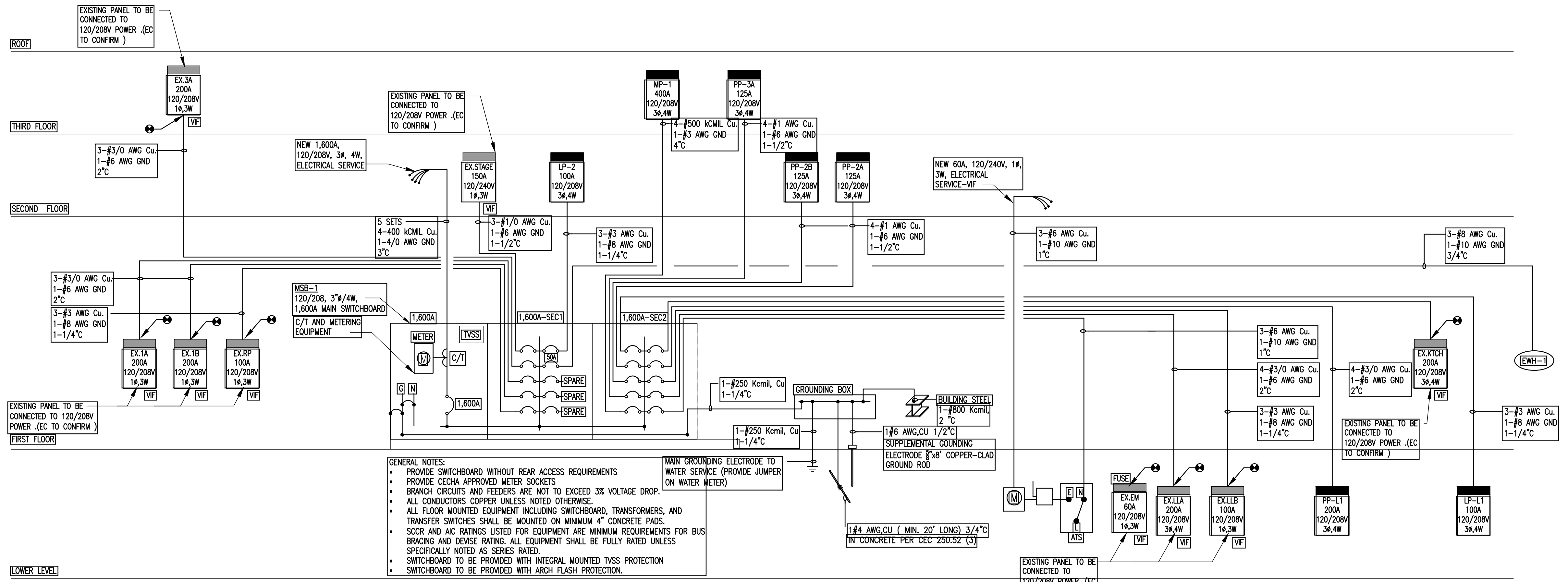
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ELECTRICAL DETAILS

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1 EXISTING 3Ø ELECTRICAL SERVICE (120/240V-HIGH LEG)
SCALE: 1/8" = 1'-0"



1 NEW 3Ø ELECTRICAL SERVICE (120/208V)
SCALE: 1/8" = 1'-0"

MDT

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ELECTRICALRISERS

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E3.3

NEC / CBC SECTION 110.26 SPACES ABOUT ELECTRICAL EQUIPMENT COMPLIANCE.
THE CONTRACTORS SHALL CONFIRM WITH FIELD MEASUREMENTS THAT EXISTING AND INSTALLED EQUIPMENT ARE IN COMPLIANCE WITH ALL NEC 110.26 CONDITIONS. BELOW ARE SOME OF THE REQUIREMENTS.

(A) WORKING SPACE.

(1) DEPTH OF WORKING SPACE.
 FOR (LESS THAN 600 VOLTS AND GREATER THAN 150 VOLTS) 480 VOLT, 277 VOLT, 240 VOLT AND 208 VOLT EQUIPMENT, PROVIDE THE MINIMUM CLEARANCE DISTANCE OF 3.5 FEET OR GREATER.

(2) WIDTH OF WORKING SPACE.
 THE WORKING SPACE WIDTH SHALL BE THE WIDTH OF THE EQUIPMENT OR 30 INCHES, WHICHEVER IS GREATER.

(3) HEIGHT OF WORKING SPACE.
 THE WORKING SPACE HEIGHT SHALL BE THE HEIGHT OF THE EQUIPMENT OR 6.5 FEET, WHICHEVER IS GREATER.

(B) CLEAR SPACES.
 THE ELECTRICAL ROOM SHALL NOT BE USED FOR STORAGE OR ANY OTHER USES.

(C) ENTRANCE TO AND EGRESS FROM WORKING SPACE.

(1) MINIMUM REQUIRED.
 AT LEAST ONE ENTRANCE FOR ACCESS TO AND EGRESS FROM WORKING SPACE ABOUT THE ELECTRICAL EQUIPMENT. MINIMUM OF ONE PERSONNEL DOOR (36 INCH X 84 INCH) SHALL BE PROVIDED. OPENING IN THE DIRECTION OF EGRESS AND WITH PANIC HARDWARE.

(2) LARGE EQUIPMENT.
 FOR EQUIPMENT LESS THAN 1200 AMPERAGE, A MINIMUM OF ONE PERSONNEL DOOR (36 INCH X 84 INCH) SHALL BE PROVIDED. OPENING IN THE DIRECTION OF EGRESS AND WITH PANIC HARDWARE.
 FOR EQUIPMENT 1200 AMPERAGE OR MORE, A MINIMUM OF TWO PERSONNEL DOORS (36 INCH X 84 INCH) SHALL BE PROVIDED. OPENING IN THE DIRECTION OF EGRESS AND WITH PANIC HARDWARE.

(a) UNOBSTRUCTED EGRESS, SINGLE DOOR ONLY PER CODE DETAILS AND AHJ.

(b) EXTRA WORKING SPACE, SINGLE DOOR ONLY PER CODE DETAILS AND AHJ.

(3) PERSONNEL DOORS.
 FOR EQUIPMENT 800 AMPERAGE OR GREATER, PROVIDE TWO PERSONNEL DOORS (36 INCH X 84 INCH) AT EACH END OF (25 FOOT OR GREATER) ROOM.

(D) ILLUMINATION.
 MANUALLY CONTROLLED LIGHTING SHALL BE PROVIDED TO ILLUMINATE ALL WORKING SPACES.

(E) DEDICATED EQUIPMENT SPACES.

ALL SWITCHBOARDS, SWITCHGEARS, PANELBOARDS AND MOTOR CONTROL CENTERS SHALL BE LOCATED IN DEDICATED SPACES AND PROTECTED FROM DAMAGE.

(1) INDOOR.

(a) DEDICATED EQUIPMENT SPACES SHALL BE AT LEAST 6 FEET HIGH WITH NO PIPING, DUCTS, ETC.

(b) FOREIGN SYSTEMS SHALL NOT BE INSTALLED AND SHALL BE REMOVED FROM DEDICATED ELECTRICAL EQUIPMENT SPACES.

(c) SPRINKLER PROTECTION PROVIDE AS REQUIRED PER AHJ.

(d) SUSPENDED CEILINGS, FOREIGN SYSTEMS ARE NOT ALLOWED ABOVE DROPPED AND/OR NON-STRUCTURAL CEILINGS.

(2) OUTDOOR-----VERIFY STANDARDS WHEN APPLICABLE.

(F) LOCKED ELECTRICAL EQUIPMENT ROOMS OR ENCLOSURES
 ALL SUCH ROOMS OR ENCLOSURES HOUSING ELECTRICAL APPARATUS SHALL BE CONTROLLED BY LOCKS AND SHALL ONLY BE ACCESSIBLE BY QUALIFIED PERSONS.

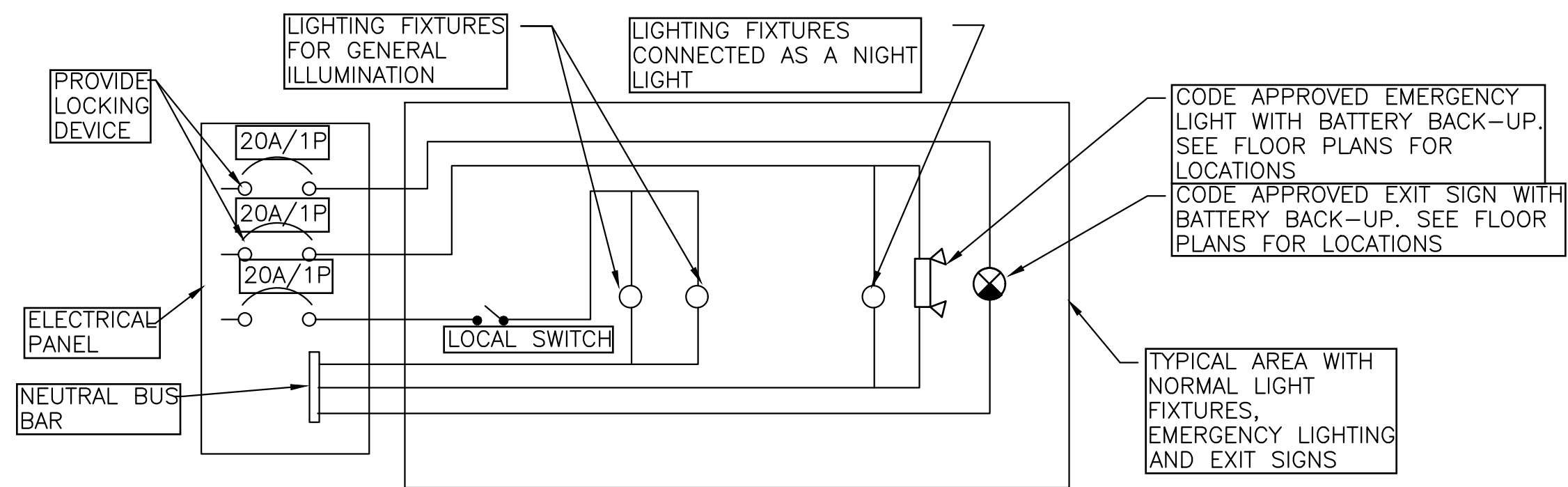
LIGHT FIXTURE SCHEDULE SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL FIXTURES. VERIFY FINAL FIXTURE SELECTION WITH ARCHITECT

MARK	QTY	MANUFACTURER	CATALOGUE NUMBER	LAMP	MOUNT	REMARKS
⊗		Lithonia	LXC Series (white)	20-Gauge Steel Housing LED Lamp, Dual Voltage, Sealed Nickel Cadmium Battery Back-up with minimum 90 minutes capacity-Chicago approved		Exit Sign - Chicago Approved See drawings
◻		EBU	ELTC Series (white)	20-Gauge Steel Housing, Dual Voltage, par36 style lamps, 90 minutes capacity lamps-Chicago approved		EM Light - Chicago Approved See drawings

- GENERAL NOTES**
- All fixtures shall be provided and installed by the Contractor unless noted otherwise. Submit specification sheets to the Architect for review and approval.
 - Confirm compatibility of all fixtures, power supplies, installation hardware, and required quantities with manufacturer.
 - Install manufacturer recommended compatible dimmers for each lamp type (Decora or similar)
 - Coordinate switch, outlet and cover plate color with Interior Design scheme.
 - Refer to Architectural Reflected Ceiling Plans and Interior Elevations for dimensioned layout and to confirm fixture quantities.
 - Refer to Architectural drawings for additional fixture information, including EM lighting.

LOW VOLTAGE

- Owner shall contract directly with Low Voltage Vendor(s).
- Coordinate with Owner's Vendor all Low Voltage requirements for POS, A/V, Telephone, Data/WIFI, Security and LV Rack location.
- Provide power outlets as required for LV locations in addition to those found on the electrical drawings.
- All cabling shall be concealed within wall & ceiling assemblies. Install per local code.



TYPICAL WIRING DIAGRAM FOR EMERGENCY LIGHTING

NOTES

UNIT BATTERY LIGHTING EQUIPMENT SHALL BE WIRED TO SAME BRANCH CIRCUIT SERVING EMERGENCY LIGHTING IN AREA. MAINTENANCE AND TESTS SHALL BE PERFORMED PER MANUFACTURER'S REQUIREMENTS.

A. THE MANUFACTURER SHALL SUPPLY WITH EACH UNIT BATTERY A COMPLETE SET OF INSTRUCTIONS FOR THE OPERATION AND MAINTENANCE OF THE CONTAINER.

B. THE DATE OF ORIGINAL INSTALLATION AND OF SUBSEQUENT REPLACEMENTS SHALL BE POSTED CONSPICUOUSLY ON THE BATTERY CONTAINER.

C. EACH UNIT SHALL BE TESTED ANNUALLY.

D. THERE SHALL BE A WATER LEVEL INDICATOR WHERE APPLICABLE AND THE WATER SHALL BE CHECKED MONTHLY.

E. A READILY AVAILABLE LOG OF THESE INSPECTIONS SHALL BE MAINTAINED ON A CARD ATTACHED TO THE UNIT BATTERY. THE CARD SHALL CONTAIN THE NAME AND ADDRESS OF THE RESPONSIBLE MAINTENANCE PERSONNEL THAT PERFORMED THE TESTING REQUIRED IN (C) AND (D) OF THIS SUBSECTION.

EMERGENCY LIGHTING ON CONTINUOUSLY WITH LOCKING ON DEVICES ON THE CIRCUIT BREAKER.

BATTERY UNIT SHALL BE FED FROM THE EMERGENCY LIGHTING CIRCUIT THAT ILLUMINATES THE AREA OF BATTERY UNIT.



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E3.4

EQUIPMENT CONNECTION SCHEDULE

NOTES:

(1) VERIFY FINAL LOCATION OF ALL EQUIPMENT WITH EQUIPMENT INSTALLER BEFORE INSTALLING FEEDERS.	(6) VERIFY FINAL VOLTAGE AND PHASE REQUIREMENTS OF ALL EQUIPMENT WITH INSTALLER BEFORE INSTALLING FEEDERS.
(2) SEE ARCHITECTURAL, MECHANICAL, PLUMBING AND FIRE PROTECTION DRAWINGS FOR MORE INFORMATION.	(7) COORDINATE SHORT CIRCUIT OCD RATING WITH FINAL EQUIPMENT REQUIREMENTS.
(3) SIZE STARTER/FEEDER DISCONNECT PER FINAL EQUIPMENT REQUIREMENTS.	(8) PROVIDE LOCAL DISCONNECT WITHIN 5' OF EQUIPMENT.
(4) PROVIDE FEEDER AS INDICATED, VERIFY WITH EQUIPMENT REQUIREMENTS.	(9) NON-STANDARD ITEMS, TIMERS, METERS, INTERLOCKS, ETC.
(5) PROVIDE OVERLOAD PROTECTION (FUSES OR MOTOR CIRCUIT PROTECTORS) PER SPECIFICATIONS, ACTUAL FIELD-MEASURED FULL-LOAD CURRENT, AND EQUIPMENT MANUFACTURER'S REQUIREMENTS.	

1 PROVIDE POWER CONNECTIONS TO ALL ARCHITECTURAL, MECHANICAL, PLUMBING, FIRE PROTECTION, AND OWNER FURNISHED EQUIPMENT. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS FOR LOCATIONS AND POWER REQUIREMENTS. VERIFY ALL TECHNICAL DATA WITH FINAL SHOP DRAWINGS.

2 FUSE SIZES LISTED ARE FROM MANUFACTURER'S AND STANDARD MOTOR DATA. FURNISH FUSES BASED ON FUSE MANUFACTURER'S STANDARDS ACTUAL FIELD MEASURED FULL LOAD CURRENT, AND EQUIPMENT MANUFACTURER'S REQUIREMENTS.

3 FLEXIBLE CONNECTIONS TO MOTORS SHALL BE IN FLEXIBLE CONDUIT. PROVIDE Cu EQUIPMENT GROUND FROM DISCONNECT TO MOTOR CONNECTION.

4 SEE MOTOR CONTROL CENTER SCHEDULES FOR EQUIPMENT CONNECTED TO MOTOR CONTROL CENTERS.

TAG	EQUIPMENT DESCRIPTION	HP/KW/AMPS	WIRE / CONDUIT	STARTER/DISCONNECT/OCD	VOLTAGE	FED FROM	LOCAL DISCONNECT	REMARKS
HVAC 1.1	ROOF MOUNTED HVAC	33A	3 #8 AWG #10 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 3Ø	MP-1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 60 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
HVAC 1.2	ROOF MOUNTED HVAC	33A	3 #8 AWG #10 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 3Ø	MP-1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 60 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
HVAC 2.NW	ROOF MOUNTED HVAC	29A	3 #8 AWG #10 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 3Ø	MP-1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 60 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
HVAC 2.SW	ROOF MOUNTED HVAC	29A	3 #8 AWG #10 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 3Ø	MP-1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 60 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
HVAC 2.E	ROOF MOUNTED HVAC	33A	3 #8 AWG #10 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 3Ø	MP-1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 60 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
HVAC 3.NW	ROOF MOUNTED HVAC	33A	3 #8 AWG #10 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 3Ø	MP-1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 60 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
HVAC 3.SW	ROOF MOUNTED HVAC	33A	3 #8 AWG #10 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 3Ø	MP-1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 60 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
TE 1	TOILET EXHAUST FAN	4.1A	2#12 AWG #12 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	120V, 1Ø	PP-L1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 20 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
TE 2	TOILET EXHAUST FAN	4.1A	2#12 AWG #12 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	120V, 1Ø	PP-L1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 20 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
TE 3	TOILET EXHAUST FAN	4.1A	2#12 AWG #12 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	120V, 1Ø	PP-L1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 20 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
TE 4	TOILET EXHAUST FAN	4.1A	2#12 AWG #12 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	120V, 1Ø	PP-3A	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 20 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
TE 5	TOILET EXHAUST FAN	4.1A	2#12 AWG #12 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	120V, 1Ø	PP-3A	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 20 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
TE 6	TOILET EXHAUST FAN	4.1A	2#12 AWG #12 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	120V, 1Ø	PP-3A	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 20 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
GE 1	GENERAL EXHAUST FAN	1HP / 4.6A	3#12 AWG #12 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 3Ø	MP-1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 20 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
EBB 1	ELECTRIC BASEBOARD (TYP. OF 27)	1KW/ 8.3A	2#12 AWG #12 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	120V, 1Ø	VARIES	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 20 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
EH 1	ELECTRIC HEATER (TYP. OF 2)	3KW/ 14.4A	2#12 AWG #12 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 1Ø	PP-2A, PP-2B	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 20 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
B 1	BOILER	6.3A	2#12 AWG #12 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	120V, 1Ø	PP-L1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 20 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
B 2	BOILER	6.3A	2#12 AWG #12 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	120V, 1Ø	PP-L1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 20 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
MAU 1	MAKE-UP AIR	4.8A	3#12 AWG #12 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 3Ø	PP-L1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 20 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
HP 1	HEAT PUMP	52.3A	3 #6 AWG #10 AWG- EQ. GRD. 5" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 3Ø	MP-1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 100 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
DOAS 1	DEDICATED OUTDOOR AIR UNIT	36.8A	3 #8 AWG #10 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 3Ø	MP-1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 60 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
ERV 1	ENERGY RECOVERY UNIT	9.9A	2#12 AWG #12 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 1Ø	PP-L1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 30 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
ERV 2	ENERGY RECOVERY UNIT	10.8A	2#12 AWG #12 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 1Ø	PP-L1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 30 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
ERV 3	ENERGY RECOVERY UNIT	10.8A	2#12 AWG #12 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 1Ø	PP-L1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 30 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
ERV 4	ENERGY RECOVERY UNIT	9.9A	2#12 AWG #12 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 1Ø	PP-2A	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 30 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
FCU 1.1	FAN COIL UNIT	.25A	2#12 AWG #12 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 1Ø	PP-L1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 20 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
FCU 1.2	FAN COIL UNIT	.42A	2#12 AWG #12 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 1Ø	PP-L1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 20 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
FCU 1.3	FAN COIL UNIT	.6A	2#12 AWG #12 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 1Ø	PP-L1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 20 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	

EQUIPMENT CONNECTION SCHEDULE CONTINUED

TAG	EQUIPMENT DESCRIPTION	HP/KW/AMPS	WIRE / CONDUIT	STARTER/DISCONNECT/OCD	VOLTAGE	FED FROM	LOCAL DISCONNECT	REMARKS
FCU 1.4	FAN COIL UNIT	.42A	2#12 AWG #12 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 1Ø	PP-L1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 20 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
FCU 1.5	FAN COIL UNIT	.21A	2#12 AWG #12 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 1Ø	PP-L1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 20 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
FCU 1.6	FAN COIL UNIT	.21A	2#12 AWG #12 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 1Ø	PP-L1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 20 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
AHU 1	AIR HANDLING UNIT	5HP / 16.7A	3#10 AWG #10 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 3Ø	PP-L1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 30 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
DWP 1	DOMESTIC WATER PUMP	15A	3#12 AWG #12 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 3Ø	MP-1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 30 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	
EWH 1	ELECTRIC WATER HEATER	12KW	3#8 AWG #10 AWG- EQ. GRD. 5/4" C	<input checked="" type="checkbox"/> INTEGRAL TO EQUIPMENT <input type="checkbox"/> IN MCC NEMA SIZE TYPE	208V, 3Ø	MP-1	<input type="checkbox"/> FUSED <input checked="" type="checkbox"/> NON-FUSED 60 A SWITCH <input type="checkbox"/> THERMAL SWITCH, 120V, 1Ø, 1P	



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Revisions	Transmittal Set Name	Date
	ISSUE FOR BIDDING	6/11/24

ELECTRICAL CONNECTION SCHEDULE

Loren Juhl School
Remodeling
4219 N Lincoln Ave. Chicago, IL

E3.5

PANEL:	MSB-1 (SECTION 1)		MAIN SWITCH BOARD 120/208															
PROJECT:	THRESHOLDS	ELECTRICAL ROOM										1,600						
LOCATION:	ELECTRICAL ROOM				MAIN:		CU		PHASE: 3		WIRES: 4							
VOLTAGE:	120	208	1,600A															
DESCRIPTION	E P Q T P G C V	L R C T V	VOLT-AMPS			SWITCH/FUSE		PHASES				SWITCH/FUSE		VOLT-AMPS			E P Q T P G C V	DESCRIPTION
			BUS A	BUS B	BUS C	AMP	POLE	#	A	B	C	#	AMP	POLE	BUS A	BUS B		
EX. STAGE	X		12480	1280		150	2	1	-	-	-	2						LP-2
EX.3A	X		16640		16640	200	2	5	-	-	-	6						
EX.1A	X		16640		16640	200	2	9	-	-	-	10						BWH-1
EX.1B	X		16640		16640	200	2	11	-	-	-	12						
EX.RP	X		8320		8320	100	2	13	-	-	-	14						DWP-1
SPACE	X							15	-	-	-	16						
SPACE	X							17	-	-	-	18						
SPACE	X							19	-	-	-	20						
TOTALS (VOLT-AMPS)			54080	34560	41600			21	-	-	-	22						TOTALS (VOLT-AMPS)
								23	-	-	-	24						
								25	-	-	-	26						
								27	-	-	-	28						
								29	-	-	-	30						

PANEL:	MSB-1 (SECTION 2)		MAIN SWITCH BOARD 120/208															
PROJECT:	THRESHOLDS	ELECTRICAL ROOM										1,600						
LOCATION:	ELECTRICAL ROOM				MAIN:		CU		PHASE: 3		WIRES: 4							
VOLTAGE:	120	208																
DESCRIPTION	E P Q T P G C V	L R C T V	VOLT-AMPS			SWITCH/FUSE		PHASES				SWITCH/FUSE		VOLT-AMPS			E P Q T P G C V	DESCRIPTION
			BUS A	BUS B	BUS C	AMP	POLE	#	A	B	C	#	AMP	POLE	BUS A	BUS B		
LP-L1	X		2095	1336		100	3	1	-	-	-	2						EX. KTCH
PP-2A	X		6209		5429	125	3	3	-	-	-	4						
PP-2B	X		9272		8352	125	3	5	-	-	-	6						
PP-3A	X		9520		7404	125	3	7	-	-	-	8						
MP-1	X		37980		37980	400	3	9	-	-	-	10						PP-L1
EX. LLB	X				3660	125	3	11	-	-	-	12						
EX. LLA	X				7192	125	3	13	-	-	-	14						
EX. EM	X							15	-	-	-	16						
SPACE	X							17	-	-	-	18						
SPACE	X							19	-	-	-	20						
SPACE	X							21	-	-	-	22						
SPACE	X							23	-	-	-	24						
SPACE	X							25	-	-	-	26						
SPACE	X							27	-	-	-	28						
SPACE	X							29	-	-	-	30						
TOTALS (VOLT-AMPS)			65076	60501	54684			31	-	-	-	32						TOTALS (VOLT-AMPS)

PANEL:	EX.LLA (EXISTING -VIF)	THRESHOLDS	200 AMP		MAIN BREAKER:														
PROJECT:			CU SURFACE		200		PHASE: 3		WIRES: 4										
LOCATION:					BUS:		CU		SURFACE										
VOLTAGE:	120	208	200 AMP																
DESCRIPTION	E P Q T P G C V	L R C T V	VOLT-AMPS			BREAKER		PHASES				BREAKER		VOLT-AMPS			E P Q T P G C V	DESCRIPTION	
			BUS A	BUS B	BUS C	AMP	POLE	CT	#	A	B	C	CT	#	AMP	POLE			BUS A
EXISTING LOAD -VIF						60	3	1	-	-	-	2							EXISTING LOAD-VIF
SPACE-VIF								3	-	-	-	4							
EXISTING LOAD -VIF						20	2	5	-	-	-	6							
SPACE-VIF								7	-	-	-	8							
EXISTING LOAD-VIF						20	1	9	-	-	-	10							BOILER RECEIPT-VIF
EXISTING LOAD-VIF						20	1	11	-	-	-	12							
KITCHEN PANEL-VIF						100	3	13	-	-	-	14							
EXISTING LOAD-VIF								15	-	-	-	16							
								17	-	-	-	18							
								19	-	-	-	20							
								21	-	-	-	22							
								23	-	-	-	24							
								25	-	-	-	26							
								27	-	-	-	28							
								29	-	-	-	30							
								31	-	-	-	32							
TOTALS (VOLT-AMPS)			0	0	0														TOTALS (VOLT-AMPS)

ELECTRICAL CONTRACTOR MUST VERIFY EXISTING CIRCUITS & CONNECTED LOADS ON ALL PANELBOARDS; REFER TO EXISTING PANEL SCHEDULES, AS-BUILT DRAWINGS AND FIELD CONDITIONS. DOCUMENT EXISTING, MODIFIED, ABANDONED AND NEW CIRCUITS ON PANELBOARD SCHEDULES.

PANEL:	EX. EM (EXISTING-VIF)		THRESHOLDS	60 CU		MAIN CIRCUIT CREAKER:													
PROJECT:			ELECTRICAL CLOSET		60		PHASE: 1		RECESSE WIRES: 3										
LOCATION:					BUS:		CU		PHASE:		1								
VOLTAGE:	120 /	208	60A																
DESCRIPTION	E P Q T P G C V	L R C T V	VOLT-AMPS			BREAKER		PHASES				BREAKER		VOLT-AMPS			E P Q T P G C V	DESCRIPTION	
			BUS A	BUS B	BUS C	AMP	POLE	CT	#	A	B	C	CT	#	AMP	POLE			BUS A
EM LIGHTS BSMT-VIF						20	1	1	-	-	-	2							EM LIGHTS 2-3RD-VIF
EXIT 1ST-BSMT-VIF						15	1	3	-	-	-	4							EXIT -3RD FLR-VIF
CONTACTOR -VIF						15	1	5	-	-	-	6							EXIT -2ND FLR-VIF
TOTALS (VOLT-AMPS)			0	0	0														TOTALS (VOLT-AMPS)

PANEL:	EX. LLB (EXISTING-VIF)		THRESHOLDS	100 CU		MAIN CIRCUIT CREAKER:													
PROJECT:			ELECTRICAL CLOSET		100		PHASE: 1		RECESSE WIRES: 3										
LOCATION:					BUS:		CU		PHASE:		1								
VOLTAGE:	120 /	208	100A																
DESCRIPTION	E P Q T P G C V	L R C T V	VOLT-AMPS			BREAKER		PHASES				BREAKER		VOLT-AMPS			E P Q T P G C V	DESCRIPTION	
			BUS A	BUS B	BUS C	AMP	POLE	CT	#	A	B	C	CT	#	AMP	POLE			BUS A
SPACE-VIF						20	1	1	-	-	-	2							EX.OFFICE LGHTS-VIF
EX. HALL LGHTS-VIF						20	1	3	-	-	-	4							EX.ELEC-CLOSET-VIF
EX.A/C RM L18-VIF						20	1	5	-	-	-	6							EX.A/C RM L23-VIF
EX.A/C RM RM L20-VIF						20	1	7	-	-	-	8							EX.LGHTS RM L23-VIF
EX.A/C RM L15-VIF						20	1	9	-	-	-	10							EX.A/C RM L21-VIF
EX.A/C RM L17-VIF						20	1	11	-	-	-	12							EX.EX LOAD -VIF
RECEPT RM -L20-21-VIF						20	1	13	-	-	-	14							EX.EX LOAD -VIF
RECEPT L16, L17,L15						20	1	15	-	-	-	16							SPACE-VIF
TOTALS (VOLT-AMPS)			0	0	0														TOTALS (VOLT-AMPS)

PANEL:	EX. 1A (EXISTING-VIF)		THRESHOLDS	200 CU		MAIN CIRCUIT CREAKER:													
PROJECT:			ELECTRICAL CLOSET		200		PHASE: 1		RECESSE WIRES: 3										
LOCATION:					BUS:		CU		PHASE:		1								
VOLTAGE:	120 /	208	200A																
DESCRIPTION	E P Q T P G C V	L R C T V	VOLT-AMPS			BREAKER		PHASES				BREAKER		VOLT-AMPS			E P Q T P G C V	DESCRIPTION	
			BUS A	BUS B	BUS C	AMP	POLE	CT	#	A	B	C	CT	#	AMP	POLE			BUS A
EX. FCDD FOR PANEL CARP-VIF						100	2	1	-	-	-	2							EX. RECEPT L12-VIF
EX. GYM RECEIPT -VIF						20	1	3	-	-	-	4							EX. LL WATER FUTN-VIF
EX. GYM RECEIPT -VIF						20	1	5	-	-	-	6							EX. LOUNG-VIF
EX. GYM RECEIPT -VIF						20	1	7	-	-	-	8							EX. RECEPT 104-VIF
EX. LGHTS 203,204,205-VIF																			

PANEL: EX. RP (EXISTING-VIF)												MAIN CIRCUIT CREAKER : 100											
PROJECT:				THRESHOLDS				BUS: CU				PHASE: 1											
LOCATION:				ELECTRICAL CLOSET				MTG:				RECESSE WIRES: 3											
VOLTAGE:				120 / 208 100A																			
DESCRIPTION	E Q P	L T G	R E C V	VOLT-AMPS			BREAKER		CKT #	PHASES			CKT #	BREAKER		VOLT-AMPS			E Q P	L T G	R E C V	DESCRIPTION	
				BUS A	BUS B	BUS C	AMP	POLE		A	B	C		AMP	POLE	BUS A	BUS B	BUS C					
EX. HALL LGHTS-VIF							20	1	1	•	-	-	2	20	1								EX. RM 106 LGHTS-VIF
EX.EM LIGHTS-EXIT -VIF							20	1	3	-	-	-	4	20	1								EX. RM 106 LGHTS-VIF
EX TOILET LIGHTS -VIF							20	1	5	•	-	-	6	20	1								EX. RM 107-8 LGHTS-VIF
EX. RM 103 LGHT-VIF							20	1	7	•	-	-	8	20	1								EX. RM 108 RECEPT-VIF
EX. RM 103 RECEPT-VIF							20	1	9	•	-	-	10	20	1								EX. RM 108 RECEPT-VIF
EX. RM 103 RECEPT -VIF							20	1	11	-	-	-	12	20	1								EX. RM 107 RECEPT -VIF
EX. RM 103RECEPT -VIF							20	1	13	-	-	-	14	20	1								EX. RM 107 RECEPT -VIF
EX. RM 103 REF-VIF							20	1	15	-	-	-	16	20	1								EX. RM 107 RECEPT -VIF
EX. WAITING RECEPT-VIF							20	1	17	-	-	-	18	20	1								EX. RM 106 RECEPT-VIF
EX. RECEPT -RECEPT -VIF							20	1	19	•	-	-	20	20	1								EX. RM 106 RECEPT -VIF
EX. A/C							30	2	21	-	-	-	22	20	1								EX. RM 106 RECEPT -VIF
SPACE							20	1	23	-	-	-	24	20	1								EX. RM 105 RECEPT -VIF
SPACE							20	1	25	-	-	-	26	20	1								SPACE
SPACE							20	1	27	-	-	-	28	20	1								SPACE
SPACE							20	1	29	•	-	-	30	20	1								SPACE
TOTALS (VOLT-AMPS)							0		0				0		0								TOTALS (VOLT-AMPS)

PANEL: EX. STAGE(EXISTING-VIF)												MAIN CIRCUIT CREAKER : 150											
PROJECT:				THRESHOLDS				BUS: CU				PHASE: 1											
LOCATION:				ELECTRICAL CLOSET				MTG:				RECESSE WIRES: 3											
VOLTAGE:				120 / 208 150A																			
DESCRIPTION	E Q P	L T G	R E C V	VOLT-AMPS			BREAKER		CKT #	PHASES			CKT #	BREAKER		VOLT-AMPS			E Q P	L T G	R E C V	DESCRIPTION	
				BUS A	BUS B	BUS C	AMP	POLE		A	B	C		AMP	POLE	BUS A	BUS B	BUS C					
EX. HALL LGHTS-VIF							20	1	1	-	-	-	2	20	1								EX. HALL-VIF
EX. RM 222 QUAD -VIF							20	1	3	-	-	-	4	20	1								EX. LOAD-VIF
EX. LOAD -VIF							20	1	5	•	-	-	6	20	1								EX. BACK STAGE-VIF
EX. KITCHEN -VIF							20	1	7	-	-	-	8	20	1								EX. LOAD -VIF
EX. STAGE LGHTS-VIF							20	1	9	•	-	-	10	20	1								EX. BACK STAGE-VIF
EX. LOAD-VIF							20	1	11	-	-	-	12	20	1								EX. LOAD -VIF
EX. CLASS 2 CUNTR-VIF							20	1	13	•	-	-	14	20	1								EX. LOAD-VIF
EX. STAGE-VIF							20	1	15	-	-	-	16	20	1								EX. LOAD-VIF
EX. LOAD -VIF							20	1	17	-	-	-	18	20	1								EX. LOAD-VIF
EX. CLASS 1 -VIF							20	1	19	-	-	-	20	20	1								EX. LOAD -VIF
EX. LOAD -VIF							20	1	21	-	-	-	22	20	1								EX. LOAD -VIF
EX. LOAD -VIF							15	1	23	•	-	-	24	20	1								SPACE-VIF
TOTALS (VOLT-AMPS)							0		0				0		0								TOTALS (VOLT-AMPS)

PANEL: MP-1												MAIN: 400											
PROJECT:				THRESHOLDS				BUS: CU				PHASE: 3											
LOCATION:				CORRIDOR 314				MTG:				N/A											
VOLTAGE:				120 208 400AMP																			
DESCRIPTION	E Q P	L T G	R E C V	VOLT-AMPS			SWITCH/FUSE		PHASES			SWITCH/FUSE		VOLT-AMPS			E Q P	L T G	R E C V	DESCRIPTION			
				BUS A	BUS B	BUS C	AMP	POLE	#	A	B	C	#	AMP	POLE	BUS A					BUS B	BUS C	
HVAC-1W	X			3960			45	3	1	•	-	-	2			3960						HVAC-2E	
	X				3960			3	-	-	-	4		45	3		3960						
	X					3960		5	-	-	-	6							3960				
HVAC-1E	X			3960				7	•	-	-	8				3960							HVAC-3NW
	X				3960			9	-	-	-	10		45	3		3960						
	X					3960		11	-	-	-	12						3960					
HVAC-2NW	X			3480				13	•	-	-	14				3960							HVAC-3SW
	X				3480			15	-	-	-	16		45	3		3960						
	X					3480		17	-	-	-	18						3960					
HVAC-2SW	X			3480				19	•	-	-	20				6276							HP-1
	X				3480			21	-	-	-	22		60	3		6276						
	X					3480		23	-	-	-	24						6276					
GE-1				552				25	•	-	-	26				4392							DOAS -1
					552		20	3	27	-	-	-	28		50	3		4392					
						552		29	-	-	-	30						4392					
								31	•	-	-	32											
								33	-	-	-	34											
								35	-	-	-	36											
								37	•	-	-	38											
								39	-	-	-	40											
								41	-	-	-	42											
TOTALS (VOLT-AMPS)				15432	15432	15432										22548	22548	22548					TOTALS (VOLT-AMPS)

PANEL: PP-L1												MAIN: 200											
PROJECT:				THRESHOLDS				BUS: CU				PHASE: 3											
LOCATION:				ELECTRICAL ROOM				MTG:				N/A											
VOLTAGE:				120 208 200AMP																			
DESCRIPTION	E Q P	L T G	R E C V	VOLT-AMPS			SWITCH/FUSE		PHASES			SWITCH/FUSE		VOLT-AMPS			E Q P	L T G	R E C V	DESCRIPTION			
				BUS A	BUS B	BUS C	AMP	POLE	#	A	B	C	#	AMP	POLE	BUS A					BUS B	BUS C	
(4) RECEPT	X			720			20	1	1	•	-	-	2		20	1		540				(3) RECEPT	
(2) RECEPT	X				360			20	1	3	-	-	4		20	1		900				(5) RECEPT	
(3) RECEPT	X					540		20	1	5	-	-	6		20	1				540		(3) RECEPT	
DRINKING FOUNTAIN -GFCI	X			800			20	1	7	•	-	-	8		20	1		180				(1) RECEPT	
(2) RECEPT -GFCI	X				360			20	1	9	-	-	10		20	1		360				(2) RECEPT	
(2) RECEPT GFCI	X					1200		20	1	11	-	-	12		20	2				1029		ERV-1	
(1) RECEPT	X			180			20	1	13	•	-	-	14					1029					
DRINKING FOUNTAIN -GFCI	X			800			20	1	15	-	-	-	16		20	2				1123		ERV-2	
TE-1, TE-2	X					984		20	1	17	-	-	-	18						1123			
TE-3	X			492			20	1	19	•	-	-	20		20	2				1123		ERV-3	
EBB-1	X				1000			20	1	21	-	-	-	22						1123			
EBB-1	X					1000		20	1	23	-	-	-	24		20	1			1000		EBB-1	
MAU-1	X			576			20	3	25	•	-	-	26		20	1		1000				EBB-1	
	X				576			27	-	-	-	28		20	1		1000					EBB-1	
FCU-1.1, FCU-1.2, FCU-1.3	X			219			20	2	29	-	-	-	30		20	1		1000				EBB-1	
FCU-1.4, FCU-1.5,FCU-1.6	X				219			31	-	-	-	32		20	1		1000					EBB-1	
	X					2004		35	-	-	-	36		20	1		1000					EBB-1	
AHU-1	X			2004			30	3	37	•	-	-	38		20	1		1000				EBB-1	
	X				2004			39	-	-	-	40		20	1		1000					EBB-1	
B-2						756	20	1	41	-	-	-	42		20	1				756		B-1	
TOTALS (VOLT-AMPS)				4991	5319	7060												5872	6506	6448			TOTALS (VOLT-AMPS)

PANEL: PP-2A												MAIN: 125											
PROJECT:				THRESHOLDS				BUS: CU				PHASE: 3											
LOCATION:				CORRIDOR 206				MTG:				N/A											
VOLTAGE:				120 208 125AMP																			
DESCRIPTION	E Q P	L T G	R E C V	VOLT-AMPS			SWITCH/FUSE		PHASES			SWITCH/FUSE		VOLT-AMPS			E Q P	L T G	R E C V	DESCRIPTION			
				BUS A	BUS B	BUS C	AMP	POLE	#	A	B	C	#	AMP	POLE	BUS A					BUS B	BUS C	
(1) COPIER	X			1200																			

PANEL:		LP-L1																					
PROJECT:	THRESHOLDS																						
LOCATION:	ELECTRICAL CLOSET									MAIN:	100												
VOLTAGE:	120	208	100AMP							BUS:	CU			PHASE:	3								
										MTG:	N/A			WIRES:	4								
DESCRIPTION	E P Q T G C	L T R E C V	C T V	VOLT-AMPS			SWITCH/FUSE			PHASES			SWITCH/FUSE			VOLT-AMPS			E P Q T G C	L T R E C V	DESCRIPTION		
				BUS A	BUS B	BUS C	AMP	POLE	#	A	B	C	#	AMP	POLE	BUS A	BUS B	BUS C					
LIGHTING 0016/017	X			406			20	1	1	-	.	-	-	-	-	2	20	1	407			X	LIGHTING 117/118/119/120
LIGHTING 014/0013/012/011	X				241		20	1	3	-	-	.	-	-	-	4	20	1	271			X	LIGHTING 112/113/114/115
LIGHTING CORRIDOR II	X					152	20	1	5	-	-	-	.	-	-	6	20	1		66		X	LIGHTING 107/108
LIGHTING 010	X			337			20	1	7	-	.	-	-	-	-	8	20	1	345			X	LIGHTING CORRIDORS
LIGHTING CORRIDOR I	X				152		20	1	9	-	-	.	-	-	-	10	20	1	672			X	LIGHTING GYM
LIGHTING 002	X					290	20	1	11	-	-	-	.	-	-	12	20	1		504		X	LIGHTING GYM
SPARE							20	1	13	-	.	-	-	-	-	14	20	1	600			X	LIGHTING 124-ELECTRM
SPARE							20	1	15	-	-	.	-	-	-	16	20	1					SPARE
SPARE							20	1	17	-	-	-	.	-	-	18	20	1					SPARE
SPARE							20	1	19	-	.	-	-	-	-	20	20	1					SPARE
SPARE							20	1	21	-	-	.	-	-	-	22	20	1					SPARE
SPARE							20	1	23	-	-	-	.	-	-	24	20	1					SPARE
SPARE							20	1	25	-	.	-	-	-	-	26	20	1					SPARE
SPARE							20	1	27	-	-	.	-	-	-	28	20	1					SPARE
SPARE							20	1	29	-	-	-	.	-	-	30	20	1					SPARE
SPARE							20	1	31	-	.	-	-	-	-	32	20	1					SPARE
SPARE							20	1	33	-	-	.	-	-	-	34	20	1					SPARE
SPARE							20	1	35	-	-	-	.	-	-	36	20	1					SPARE
SPARE							20	1	37	-	.	-	-	-	-	38	20	1					SPARE
SPARE							20	1	39	-	-	.	-	-	-	40	20	1					SPARE
SPARE							20	1	41	-	-	-	.	-	-	42	20	1					SPARE
TOTALS (VOLT-AMPS)				743	393	442										1352	943	570					TOTALS (VOLT-AMPS)

PANEL:		LP-2																					
PROJECT:	THRESHOLDS																						
LOCATION:	CORRIDOR 206									MAIN:	100												
VOLTAGE:	120	208	100AMP							BUS:	CU			PHASE:	3								
										MTG:	N/A			WIRES:	4								
DESCRIPTION	E P Q T G C	L T R E C V	C T V	VOLT-AMPS			SWITCH/FUSE			PHASES			SWITCH/FUSE			VOLT-AMPS			E P Q T G C	L T R E C V	DESCRIPTION		
				BUS A	BUS B	BUS C	AMP	POLE	#	A	B	C	#	AMP	POLE	BUS A	BUS B	BUS C					
LIGHTING 214.215	X			356			20	1	1	-	.	-	-	-	2	20	1	132					LIGHTING 308,311,313,310
LIGHTING 201-212	X				636		20	1	3	-	-	.	-	-	4	20	1	753					LIGHTING 304-312
LIGHTING CORRIDOR	X					334	20	1	5	-	-	-	.	-	-	6	20	1		113			LIGHTING 314
LIGHTING 226-229	X			561			20	1	7	-	.	-	-	-	8	20	1						SPARE
LIGHTING 218-224	X				629		20	1	9	-	-	.	-	-	10	20	1						SPARE
LIGHTING 231-237	X					648	20	1	11	-	-	-	.	-	-	12	20	1					SPARE
SPARE	X						20	1	13	-	.	-	-	-	14	20	1						SPARE
SPARE							20	1	15	-	-	.	-	-	16	20	1						SPARE
SPARE							20	1	17	-	-	-	.	-	-	18	20	1					SPARE
SPARE							20	1	19	-	.	-	-	-	20	20	1						SPARE
SPARE							20	1	21	-	-	.	-	-	22	20	1						SPARE
SPARE							20	1	23	-	-	-	.	-	-	24	20	1					SPARE
SPARE							20	1	25	-	.	-	-	-	26	20	1						SPARE
SPARE							20	1	27	-	-	.	-	-	28	20	1						SPARE
SPARE							20	1	29	-	-	-	.	-	-	30	20	1					SPARE
SPARE							20	1	31	-	.	-	-	-	32	20	1						SPARE
SPARE							20	1	33	-	-	.	-	-	34	20	1						SPARE
SPARE							20	1	35	-	-	-	.	-	-	36	20	1					SPARE
SPARE							20	1	37	-	.	-	-	-	38	20	1						SPARE
SPARE							20	1	39	-	-	.	-	-	40	20	1						SPARE
SPARE							20	1	41	-	-	-	.	-	-	42	20	1					SPARE
TOTALS (VOLT-AMPS)				917	1265	982										132	753	113					TOTALS (VOLT-AMPS)



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Revisions	Transmittal Set Name	Date
	ISSUE FOR BIDDING	6/11/24

ELECTRICAL PANEL SCHEDULES

Loren Juhl School
 Remodeling
 4219 N Lincoln Ave. Chicago, IL

E4.3