

ADDENDUM NO. 1

Cape May County Technical School District

ADMINISTRATION BUILDING

ADDENDUM NO. 1

This addendum amends Drawings and/or Specifications and/or Addenda for the above titled project, as indicated below, and is hereby incorporated into the Contract Documents as part thereof.

Bidders are required to acknowledge receipt of this Addendum in the space provided on the Proposal/Bid form.

SPECIFICATIONS:

1. The attached specification section **080671 Door Hardware Schedule** and **087100 Door Hardware** shall be included in the scope of work.
2. As a reminder, all bidders are to have the Certificate of Site Visit form signed by a representative of the school district. For those of you who have already visited the site and can be confirmed by the district, the forms can be filled out post site visit.

ARCHITECTURAL DRAWINGS:

D1.0
A1.0
A4.0

1. The existing casework in the Lounge shall be removed completely. All existing appliances shall be removed and reinstalled in the new Lounge configuration. Provide new casework, counter, plumbing fixtures, and all associated construction as defined in the revised drawings.

MECHANICAL/ELECTRICAL/PLUMBING DRAWINGS:

M0.1
M1.0
E3.0
P1.0
P2.0

1. The Refer to sheet E1.0: Existing ceiling mounted camera in Lobby to be removed and stored by contractor. Contractor is responsible for protecting existing circuit throughout construction. Remove camera in such a manner that the circuit and camera may be reinstalled in new ceiling. See Sheet E3.0 for new location.
2. Refer to sheet E1.0: In IT Closet remove existing patch panel and associated data wiring complete. Remove existing 66 block and all associated voice cabling complete. This is part of ALTERNATE #2.

3. Refer to sheet E1.0: All existing data outlets and data cabling to be removed complete. Provide new outlets and conduit for all new devices shown in Sheet E3.0.
4. Refer to sheet E0.1: Communication legend description for work related to ALTERNATE #2 for data outlets and wireless access point shall read. "Provide CAT6e Cable...." in lieu of shown.

SUBMITTED QUESTIONS:

1. Please clarify if we are to be re-using the existing FACP. If so, please provide the current FA vendor.
 - a. **Response:** There is no existing fire alarm or fire alarm control panel.
2. Specification section 010300 1.4A states to provide a deduct for a fire alarm system as indicated on the electrical drawings. Is the existing system (and associated devices) in service to be protected and reused under the base? Is the alternate to remove in its entirety and replace with new per plans and specifications?
 - a. **Response:** There is no existing fire alarm.
3. E.01 card reader symbol reflects empty raceways only. E3.0, keynote #7 indicates we are to provide wiring. Please specify quantity and type of wiring if the contractor is to provide.
 - a. **Response:** See updated drawing E3.0
4. Please confirm all fire alarm must be in conduit per general note R on drawing E0.1.
 - a. **Response:** Yes, all fire alarm must be in conduit.
5. Please advise of cutoff date for questions.
 - a. **Response:** All questions must be received by Tuesday, October 27th.
6. Structural Steel is not listed as a Prime Subcontractor. Please confirm they are not to be included in the list of Prime Subcontractors.
 - a. **Response:** There is minimal structural steel work therefore a prime subcontractor need not be listed.
7. Bidding Requirements #41 Prevailing Wages. A link to the DOL site is provided in the specification however it expressly states, "The current Prevailing Wage Rates are provided for Informational Purposes Only". Official Prevailing Wage Determinations are issued by the New Jersey Department of Labor and Workforce Development, Division of Wage and Hour Compliance, Public Contracts Section, for specific projects by request of the contracting Public Entity. TO ACQUIRE OFFICAL PREVAILING WAGE RATES FOR A SPECIFIC PROJECT, YOU MUSE CONTACT THE CONTRACTING PUBLIC ENTITY. Please provide the official Prevailing Wage Rates for this project.
 - a. **Response:** Bidders can view the rates for Cape May County by clicking the following link: <https://nj.gov/labor/wagehour/wagerate/CurrentWageRates.html>
8. Will the building be occupied during construction?
 - a. **Response:** No, the district plans to relocate all staff during construction.
9. Attic insulation will need to be removed during work in the attic space. Will this insulation be reinstalled, or shall new insulation be included?

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- a. **Response:** Insulation shall be reinstalled to the extent a proper thermal envelope can be achieved. Damaged insulation shall be replaced with new to match existing.
- 10. Who is removing or relocating the district's office furniture, property, and office partitions?
 - a. **Response:** G.C. is responsible for removal and disposal of all casework, furniture systems, power poles, and miscellaneous furniture remaining in the space after the owner has vacated. Refer to the construction documents for fixtures and equipment scheduled to be removed and relocated in the newly configured space.
- 11. Can work be done during normal business hours?
 - a. **Response:** Yes. Work shall be done during normal business hours.

END OF ADDENDUM NO. 1

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section references specification sections relating to commercial door hardware for the following:
 - 1. Swinging doors.
 - 2. Sliding Doors.
 - 3. Other doors to the extent indicated.
- B. Commercial door hardware includes, but is not necessarily limited to, the following:
 - 1. Mechanical door hardware.
 - 2. Electromechanical and access control door hardware.
 - 3. Electromechanical and access control door hardware power supplies, back-ups and surge protection.
 - 4. Automatic operators.
 - 5. Cylinders specified for doors in other sections.
- C. Related Sections:
 - 1. Division 08 Section "Door Hardware".
- D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
 - 1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
 - 2. ICC/IBC - International Building Code.
 - 3. NFPA 70 - National Electrical Code.
 - 4. NFPA 80 - Fire Doors and Windows.
 - 5. NFPA 101 - Life Safety Code.
 - 6. NFPA 105 - Installation of Smoke Door Assemblies.
 - 7. State Building Codes, Local Amendments.
- E. Standards: Reference Related Sections for requirements regarding compliance with applicable industry standards.

1.3 SUBMITTALS

- A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.
- B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door

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Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.

1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
 2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
 3. Content: Include the following information:
 - a. Type, style, function, size, label, hand, and finish of each door hardware item.
 - b. Manufacturer of each item.
 - c. Fastenings and other pertinent information.
 - d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
 - e. Explanation of abbreviations, symbols, and codes contained in schedule.
 - f. Mounting locations for door hardware.
 - g. Door and frame sizes and materials.
 4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.
- C. Keying Schedule: Prepared under the supervision of the Owner, separate schedule detailing final keying instructions for locksets and cylinders in writing. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner to approve submitted keying schedule prior to the ordering of permanent cylinders.
- D. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.
- E. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Submittals. The manual to include the name, address, and contact information of the manufacturers providing the hardware and their nearest service representatives. The final copies delivered after completion of the installation test to include "as built" modifications made during installation, checkout, and acceptance.
- F. Warranties and Maintenance: Special warranties and maintenance agreements specified in the Related Sections.
- 1.4 DELIVERY, STORAGE, AND HANDLING
- A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.

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- B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.
- C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.5 WARRANTY

- A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

1.6 MAINTENANCE SERVICE

- A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

- A. Refer to "PART 3 – EXECUTION" for required specification sections.

PART 3 - EXECUTION

3.1 DOOR HARDWARE SETS

- A. The door hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.
 - 1. Quantities listed are for each pair of doors, or for each single door.
 - 2. The supplier is responsible for handing and sizing all products.
 - 3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.
 - 4. At existing openings with new hardware the supplier shall field inspect existing conditions prior to the submittal stage to verify the specified hardware will work as required. Provide alternate solutions and proposals as needed.
- B. Products listed in the hardware sets shall be supplied by and in accordance with the requirements described in the specification section as noted for each item.

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1. Section 08 71 00 – Door Hardware.
2. Section 28 15 00 – Access Control Hardware Devices.

C. Manufacturer's Abbreviations:

1. MK - McKinney
2. PE - Pemko
3. RO - Rockwood
4. SA - SARGENT
5. RF - Rixson
6. OT - Other
7. SU - Securitron

Hardware Sets

Set: A1.0

Doors: 1, 10

2 Hinge, Full Mortise	TA2714	US26D MK
1 Hinge, Full Mortise	TA2714 x QC12	US26D MK ⚡
1 Fail Secure Lock	RX 83 8271 LNB	US26D SA ⚡
1 Surface Closer	351 P10	EN SA
1 Kick Plate	K1050 10" high CSK BEV	US32D RO
1 Wall Stop	400	US26D RO
3 Silencer	608 / 609	RO
1 ElectroLynx Harness	QC-C1500P (power transfer or electric strike to junction box above)	MK ⚡
1 ElectroLynx Harness	QC-C (power transfer to lock or electric strike location)	MK ⚡
1 Card Reader	- Provided by Security Contractor	OT ⚡
1 Position Switch	DPS-M-BK	SU ⚡
1 Power Supply	AQLx-E1 (Amp capacity as required)	SU ⚡

Notes:

Door normally closed and locked.

Presentation of valid credential at card reader momentarily unlocks electric lock allowing entrance.

Key override retracts latchbolt allowing entrance.

Inside lever of electric lock equipped with REX switch to shunt alarm at egress.

Free egress at all times.

Fail-secure.

Set: 2.0

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Doors: 9

3 Hinge, Full Mortise	TA2714	US26D MK
1 Storeroom/Closet Lock	83 8204 LNB	US26D SA
1 Kick Plate	K1050 10" high CSK BEV	US32D RO
1 Wall Stop	400	US26D RO
3 Silencer	608 / 609	RO

Set: 3.0

Doors: 12, 13, 17, 2, 22, 26, 3, 4, 5

3 Hinge, Full Mortise	TA2714	US26D MK
1 Office/Entry Lock	83 8205 LNB	US26D SA
1 Wall Stop	400	US26D RO
3 Silencer	608 / 609	RO

Set: 4.0

Doors: 21, 28, 7

3 Hinge, Full Mortise	TA2714	US26D MK
1 Passage Latch	8215 LNB	US26D SA
1 Wall Stop	400	US26D RO
3 Silencer	608 / 609	RO

Set: 5.0

Doors: 14, 15, 24, 27

3 Hinge, Full Mortise	TA2714	US26D MK
1 Passage Latch	8215 LNB	US26D SA
1 Surf Overhead Stop	10-X36	652 RF
3 Silencer	608 / 609	RO

Set: 6.0

Doors: 11

6 Hinge, Full Mortise	TA2714	US26D MK
2 Flush Bolt	555 / 557	US26D RO
1 Dust Proof Strike	570	US26D RO
1 Classroom Lock	83 8237 LNB	US26D SA
1 Surface Closer	351 P10	EN SA
2 Wall Stop	400	US26D RO
2 Silencer	608 / 609	RO

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Set: 7.0

Doors: 19, 8

3 Hinge, Full Mortise	TA2714	US26D MK
1 Classroom Lock	83 8237 LNB	US26D SA
1 Wall Stop	400	US26D RO
3 Silencer	608 / 609	RO

Set: 8.0

Doors: 20

3 Hinge, Full Mortise	TA2714	US26D MK
1 Classroom Lock	83 8237 LNB	US26D SA
1 Conc Overhead Stop	2-X36	652 RF
3 Silencer	608 / 609	RO

Set: 9.0

Doors: 18, 25

3 Hinge, Full Mortise	TA2714	US26D MK
1 Privacy Lock	LB V21 8265 LNB	US26D SA
1 Kick Plate	K1050 10" high CSK BEV	US32D RO
1 Wall Stop	400	US26D RO
3 Silencer	608 / 609	RO

Set: 10.0

Doors: 23

1 Sliding Door Hdwe	PF28200A x Length Required	PE
1 Pocket Door Latch	891	US26D RO

Set: 11.0

Doors: EX ADJ SUPER OFFICE

1 Motor Assembly Kit	55 M56AxE	SA ⚡
1 ElectroLynx Harness	QC-C1500P (power transfer or electric strike to junction box above)	MK ⚡
1 ElectroLynx Harness	QC-C (power transfer to exit device rail)	MK ⚡
1 Card Reader	- Provided by Security Contractor	OT ⚡
1 Position Switch	DPS-M-BK	SU ⚡

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1 Power Supply	AQLx-E1 (Amp capacity as required)	SU ⚡
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Notes:

Verify manufacture date of exit device to ensure retrofit latch retraction kit is compatible.

Set: 12.0

Doors: MISC

1 Repair Kit	QC-R001	MK ⚡
1 Crimp Tool	QC-R003	MK ⚡
1 Test Unit	WT2	SA ⚡

END OF SECTION 080671

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes commercial door hardware for the following:
 - 1. Swinging doors.
 - 2. Sliding doors.
 - 3. Other doors to the extent indicated.
- B. Door hardware includes, but is not necessarily limited to, the following:
 - 1. Mechanical door hardware.
 - 2. Electromechanical door hardware.
 - 3. Cylinders specified for doors in other sections.
- C. Related Sections:
 - 1. Division 08 Section "Standard Steel Frames".
 - 2. Division 08 Section "Wood Doors".
- D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
 - 1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
 - 2. ICC/IBC - International Building Code.
 - 3. NFPA 70 - National Electrical Code.
 - 4. NFPA 80 - Fire Doors and Windows.
 - 5. NFPA 101 - Life Safety Code.
 - 6. NFPA 105 - Installation of Smoke Door Assemblies.
 - 7. State Building Codes, Local Amendments.
- E. Standards: All hardware specified herein shall comply with the following industry standards as applicable. Any undated reference to a standard shall be interpreted as referring to the latest edition of that standard:
 - 1. ANSI/BHMA Certified Product Standards - A156 Series.
 - 2. UL10C – Positive Pressure Fire Tests of Door Assemblies.
 - 3. ANSI/UL 294 – Access Control System Units.
 - 4. ULC-S319 - Electronic Access Control Systems.
 - 5. ULC-60839-11-1, Alarm and Electronic Security Systems - Part 11-1: Electronic Access Control Systems - System and Components Requirements.
 - 6. UL 305 – Panic Hardware.
 - 7. ULC-S132, Emergency Exit and Emergency Fire Exit Hardware.
 - 8. ULC-S533 – Egress Door Securing and Releasing Devices.

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9. ANSI/UL 437- Key Locks.
10. ULC-S328, - Burglary Resistant Key Locks.

1.3 SUBMITTALS

- A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.
- B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
 1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
 2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
 3. Content: Include the following information:
 - a. Type, style, function, size, label, hand, and finish of each door hardware item.
 - b. Manufacturer of each item.
 - c. Fastenings and other pertinent information.
 - d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
 - e. Explanation of abbreviations, symbols, and codes contained in schedule.
 - f. Mounting locations for door hardware.
 - g. Door and frame sizes and materials.
 - h. Warranty information for each product.
 4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.
- C. Shop Drawings: Details of electrified access control hardware indicating the following:
 1. Wiring Diagrams: Upon receipt of approved schedules, submit detailed system wiring diagrams for power, signaling, monitoring, communication, and control of the access control system electrified hardware. Differentiate between manufacturer-installed and field-installed wiring. Include the following:
 - a. Elevation diagram of each unique access controlled opening showing location and interconnection of major system components with respect to their placement in the respective door openings.
 - b. Complete (risers, point-to-point) access control system block wiring diagrams.
 - c. Wiring instructions for each electronic component scheduled herein.

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2. Electrical Coordination: Coordinate with related sections the voltages and wiring details required at electrically controlled and operated hardware openings.
- D. Keying Schedule: After a keying meeting with the owner has taken place prepare a separate keying schedule detailing final instructions. Submit the keying schedule in electronic format. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.
- E. Informational Submittals:
 1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.
- F. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Procedures.

1.4 QUALITY ASSURANCE

- A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.
- B. Certified Products: Where specified, products must maintain a current listing in the Builders Hardware Manufacturers Association (BHMA) Certified Products Directory (CPD).
- C. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- D. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.
- E. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.
 1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.
 2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.
- F. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.

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- G. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:
 - 1. Function of building, purpose of each area and degree of security required.
 - 2. Plans for existing and future key system expansion.
 - 3. Requirements for key control storage and software.
 - 4. Installation of permanent keys, cylinder cores and software.
 - 5. Address and requirements for delivery of keys.
- H. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.
 - 1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
 - 2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
 - 3. Review sequence of operation narratives for each unique access controlled opening.
 - 4. Review and finalize construction schedule and verify availability of materials.
 - 5. Review the required inspecting, testing, commissioning, and demonstration procedures
- I. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.
- B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.
- C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.6 COORDINATION

- A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.
- B. Door Hardware and Electrical Connections: Coordinate the layout and installation of scheduled electrified door hardware and related access control equipment with required connections to

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source power junction boxes, low voltage power supplies, detection and monitoring hardware, and fire and detection alarm systems.

- C. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.7 WARRANTY

- A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.
- B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:
 - 1. Structural failures including excessive deflection, cracking, or breakage.
 - 2. Faulty operation of the hardware.
 - 3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - 4. Electrical component defects and failures within the systems operation.
- C. Standard Warranty Period: One year from date of Substantial Completion, unless otherwise indicated.
- D. Special Warranty Periods:
 - 1. Ten years for mortise locks and latches.
 - 2. Twenty five years for manual overhead door closer bodies.
 - 3. Two years for electromechanical door hardware.

1.8 MAINTENANCE SERVICE

- A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

- A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.
- B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:

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1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.
- C. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

2.2 HANGING DEVICES

- A. Hinges: ANSI/BHMA A156.1 certified butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.
 1. Quantity: Provide the following hinge quantity:
 - a. Two Hinges: For doors with heights up to 60 inches.
 - b. Three Hinges: For doors with heights 61 to 90 inches.
 - c. Four Hinges: For doors with heights 91 to 120 inches.
 - d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.
 2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:
 - a. Widths up to 3'0": 4-1/2" standard or heavy weight as specified.
 - b. Sizes from 3'1" to 4'0": 5" standard or heavy weight as specified.
 3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:
 - a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
 - b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.
 4. Hinge Options: Comply with the following:
 - a. Non-removable Pins: Provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for the all out-swinging lockable doors.
 5. Manufacturers:
 - a. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK).
- B. Sliding and Folding Door Hardware: Hardware is to be of type and design as specified and should comply with ANSI/BHMA A156.14.
 1. Pocket Sliding Door Hardware: Rated for doors weighing up to 200 lb.
 2. Manufacturers:

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- a. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).

2.3 POWER TRANSFER DEVICES

- A. Electrified Quick Connect Transfer Hinges: Provide electrified transfer hinges with Molex™ standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.

1. Manufacturers:

- a. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - QC (# wires) Option.

- B. Electric Door Wire Harnesses: Provide electric/data transfer wiring harnesses with standardized plug connectors to accommodate up to twelve (12) wires. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Provide sufficient number and type of concealed wires to accommodate electric function of specified hardware. Provide a connector for through-door electronic locking devices and from hinge to junction box above the opening. Wire nut connections are not acceptable. Determine the length required for each electrified hardware component for the door type, size and construction, minimum of two per electrified opening.

1. Provide one each of the following tools as part of the base bid contract:

- a. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - Electrical Connecting Kit: QC-R001.
- b. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - Connector Hand Tool: QC-R003.

2. Manufacturers:

- a. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) – QC-C Series.

2.4 DOOR OPERATING TRIM

- A. Flush Bolts and Surface Bolts: ANSI/BHMA A156.3 and A156.16, Grade 1, certified.

1. Flush bolts to be furnished with top rod of sufficient length to allow bolt retraction device location approximately six feet from the floor.
2. Furnish dust proof strikes for bottom bolts.
3. Surface bolts to be minimum 8" in length and U.L. listed for labeled fire doors and U.L. listed for windstorm components where applicable.
4. Provide related accessories (mounting brackets, strikes, coordinators, etc.) as required for appropriate installation and operation.

5. Manufacturers:

- a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).

SECTION 087100 – DOOR HARDWARE

- B. Door Push Plates and Pulls: ANSI/BHMA A156.6 certified door pushes and pulls of type and design specified in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.
1. Push/Pull Plates: Minimum .050 inch thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
 2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
 3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
 4. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets.
 5. Manufacturers:
 - a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).

2.5 CYLINDERS AND KEYING

- A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.
- B. Source Limitations: Obtain each type of keyed cylinder and keys from the same source manufacturer as locksets and exit devices, unless otherwise indicated.
- C. Cylinders: Original manufacturer cylinders complying with the following:
1. Mortise Type: Threaded cylinders with rings and cams to suit hardware application.
 2. Rim Type: Cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
 3. Bored-Lock Type: Cylinders with tailpieces to suit locks.
 4. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
 5. Keyway: Match Facility Standard.
- D. Security Cylinders: ANSI/BHMA A156.5, Grade 1, patterned security cylinders and keys able to be used together under the same facility master or grandmaster key system.
1. New security key systems shall not be established with products that have an expired patent. Expired systems shall only be specified and supplied to support existing systems.
 2. Manufacturers:
 - a. Sargent (SA) – KESO.
- E. Keying System: Each type of lock and cylinders to be factory keyed.
1. Supplier shall conduct a "Keying Conference" to define and document keying system instructions and requirements.
 2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
 3. Existing System: Field verify and key cylinders to match Owner's existing system.

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F. Key Quantity: Provide the following minimum number of keys:

1. Change Keys per Cylinder: Two (2)
2. Master Keys (per Master Key Level/Group): Five (5).

G. Key Registration List (Bitting List):

1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
2. Provide transcript list in writing or electronic file as directed by the Owner.

2.6 MECHANICAL LOCKS AND LATCHING DEVICES

A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 Certified Products Directory (CPD) listed. Locksets are to be manufactured with a corrosion resistant steel case and be field-reversible for handing without disassembly of the lock body.

1. Manufacturers:
 - a. Sargent Manufacturing (SA) – 8200 Series.
 - b. No Substitution.

2.7 ELECTROMECHANICAL LOCKING DEVICES

A. Electromechanical Mortise Locksets, Grade 1 (Heavy Duty): Subject to same compliance standards and requirements as mechanical mortise locksets, electrified locksets to be of type and design as specified below.

1. Electrified Lock Options: Where indicated in the Hardware Sets, provide electrified options including: outside door lock/unlock trim control, latchbolt and lock/unlock status monitoring, deadbolt monitoring, and request-to-exit signaling. Support end-of-line resistors contained within the lock case. Unless otherwise indicated, provide electrified locksets standard as fail secure.
2. Energy Efficient Design: Provide lock bodies which have a holding current draw of 15mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.
3. Manufacturers:
 - a. Sargent Manufacturing (SA) - 8200 Series.
 - b. No Substitution.

2.8 INTEGRATED WIEGAND OUTPUT LOCKING DEVICES – MULTI-CLASS READER

A. Integrated Wiegand Output Multi-Class Mortise Locks: Wiegand output ANSI A156.13, Grade 1, mortise lockset with integrated card reader, request-to-exit signaling, door position status switch, and latchbolt monitoring in one complete unit. Hard wired, solenoid driven locking/unlocking control of the lever handle trim, 3/4" deadlocking anti-friction latch, and 1" case-hardened steel deadbolt. Lock is U.L listed and labeled for use on up to 3 hour fire rated openings. Available with or without keyed high security cylinder override.

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1. Open architecture, hard wired platform supports centralized control of locking units with new or existing Wiegand compatible access control systems. Latchbolt monitoring and door position switch act in conjunction to report door-in-frame (DPS) and door latched (door closed and latched) conditions.
2. Integrated reader supports the following credentials:
 - a. 125kHz proximity credentials: HID, AWID, Indala, and EM4102.
 - b. 13.56 MHz proximity credentials: HID iClass, HID iClass SE, SE for MIFARE Classic, DESFire EV1.
3. 12VDC external power supply required for reader and lock, with optional 24VDC lock solenoid. Fail safe or fail secure options.
4. Energy Efficient Design: Provide lock bodies which have a holding current draw of 15mA maximum, and can operate on either 12 or 24 volts. Locks are to be field configurable for fail safe or fail secure operation.
5. Support end-of-line resistors contained within the lock case.
6. Installation requires only one cable run from the lock to the access control panel without requirements for additional proprietary lock panel interface boards or modules.
7. Installation to include manufacturer's access control panel interface board or module where required for Wiegand output protocol.
8. Manufacturers:
 - a. Sargent Manufacturing (SA) – M1 8200 Series.

2.9 LOCK AND LATCH STRIKES

- A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:
 1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
 2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
 3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.
 4. Double-lipped strikes: For locks at double acting doors. Furnish with retractable stop for rescue hardware applications.
- B. Standards: Comply with the following:
 1. Strikes for Mortise Locks and Latches: BHMA A156.13.
 2. Strikes for Bored Locks and Latches: BHMA A156.2.
 3. Strikes for Auxiliary Deadlocks: BHMA A156.36.
 4. Dustproof Strikes: BHMA A156.16.

2.10 CONVENTIONAL EXIT DEVICES

- A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:
 1. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as

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required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.

2. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer's catalog and template book for specific requirements.
 3. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.
 4. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is required in any case where the door light extends behind the device as in a full glass configuration.
 5. Electromechanical Options: Subject to same compliance standards and requirements as mechanical exit devices, electrified devices to be of type and design as specified in hardware sets. Include any specific controllers when conventional power supplies are not sufficient to provide the proper inrush current.
 6. Motorized Electric Latch Retraction: Devices with an electric latch retraction feature must use motors which have a maximum current draw of 600mA. Solenoid driven latch retraction is not acceptable.
 7. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy duty escutcheon trim with threaded studs for thru-bolts.
 - a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets.
 - b. Where function of exit device requires a cylinder, provide a cylinder (Rim or Mortise) as specified in Hardware Sets.
 8. Vertical Rod Exit Devices: Where surface or concealed vertical rod exit devices are used at interior openings, provide as less bottom rod (LBR) unless otherwise indicated. Provide dust proof strikes where thermal pins are required to project into the floor.
 9. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2" wide stiles.
 10. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.
 11. Rail Sizing: Provide exit device rails factory sized for proper door width application.
 12. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.
- B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed panic and fire exit hardware devices furnished in the functions specified in the Hardware Sets. Exit device latch to be stainless steel, pullman type, with deadlock feature.
1. Manufacturers:
 - a. Sargent Manufacturing (SA) - 80 Series.
 - b. No Substitution.

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2.11 DOOR CLOSERS

A. All door closers specified herein shall meet or exceed the following criteria:

1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers.
2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.
3. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the Americans with Disabilities Act, provide units complying with ANSI ICC/A117.1.
4. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
5. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.
6. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.

B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 Certified Products Directory (CPD) listed surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard.

1. Manufacturers:
 - a. Sargent Manufacturing (SA) – 351 Series.
 - b. No Substitution.

2.12 ARCHITECTURAL TRIM

A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1" LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.
3. Where plates are applied to fire rated doors with the top of the plate more than 16" above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer's catalog and template book for specific requirements for size and applications.

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4. Protection Plates: ANSI/BHMA A156.6 certified protection plates (kick, armor, or mop), fabricated from the following:
 - a. Stainless Steel: 300 grade, 050-inch thick.
5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
6. Manufacturers:
 - a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).

2.13 DOOR STOPS AND HOLDERS

- A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.
- B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 certified door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.
 1. Manufacturers:
 - a. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
- C. Overhead Door Stops and Holders: ANSI/BHMA A156.8, Grade 1 Certified Products Directory (CPD) listed overhead stops and holders to be surface or concealed types as indicated in Hardware Sets. Track, slide, arm and jamb bracket to be constructed of extruded bronze and shock absorber spring of heavy tempered steel. Provide non-handed design with mounting brackets as required for proper operation and function.
 1. Manufacturers:
 - a. Rixson Door Controls (RF).
 - b. Sargent Manufacturing (SA).

2.14 ELECTRONIC ACCESSORIES

- A. Door Position Switches: Door position magnetic reed contact switches specifically designed for use in commercial door applications. On recessed models the contact and magnetic housing snap-lock into a 1" diameter hole. Surface mounted models include wide gap distance design complete with armored flex cabling. Provide SPDT, N/O switches with optional Rare Earth Magnet installation on steel doors with flush top channels.
 1. Manufacturers:
 - a. Securitron (SU) - DPS Series.
- B. Wiegand Test Unit: Test unit verifies proper Wiegand output integrated card reader lock installation in the field by testing for proper wiring, card reader data integrity, and lock functionality

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including lock/unlock, door position, and request-to-exit status. 12 or 24VDC voltage adjustable operating as Fail Safe or Fail Secure.

1. Manufacturers:

- a. Sargent Manufacturing (SA) – WT2 Wiegand Test Unit.

- C. Intelligent Switching Power Supplies: Provide power supplies with single, dual or multi-voltage configurations at 12 and/or 24VDC. Power Supply shall have battery backup function with an integrated battery charging circuit. The power supply shall have a standard, integrated Fire Alarm Interface (FAI). The power supply shall provide capability for secondary voltage, power distribution, direct lock control and network monitoring through add on modules. The power supply shall be expandable up to 16 individually protected outputs. Output modules shall provide individually protected, continuous outputs and/or individually protected, relay controlled outputs. Network modules shall provide remote monitoring functions such as status reporting, fault reporting and information logging.

1. Manufacturers:

- a. Securitron (SU) - AQL Series.

2.15 FABRICATION

- A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.16 FINISHES

- A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.
- B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware
- C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.

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- B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

- A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.
- B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

- A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.
 - 1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.
- B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:
 - 1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
 - 2. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
 - 3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
 - 4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.
- C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
- D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."
- E. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 FIELD QUALITY CONTROL

- A. Field Inspection (Punch Report): Reference Division 01 Sections "Closeout Procedures" and "Cash Allowances". Produce project punch report for each installed door opening indicating compliance with approved submittals and verification hardware is properly installed, operating and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.

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1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.
2. Submit documentation of incomplete items in the following formats:
 - a. PDF electronic file.
 - b. Electronic formatted file integrated with the Openings Studio™ door opening management software platform.

3.5 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.6 CLEANING AND PROTECTION

- A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.
- B. Clean adjacent surfaces soiled by door hardware installation.
- C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

3.7 DEMONSTRATION

- A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

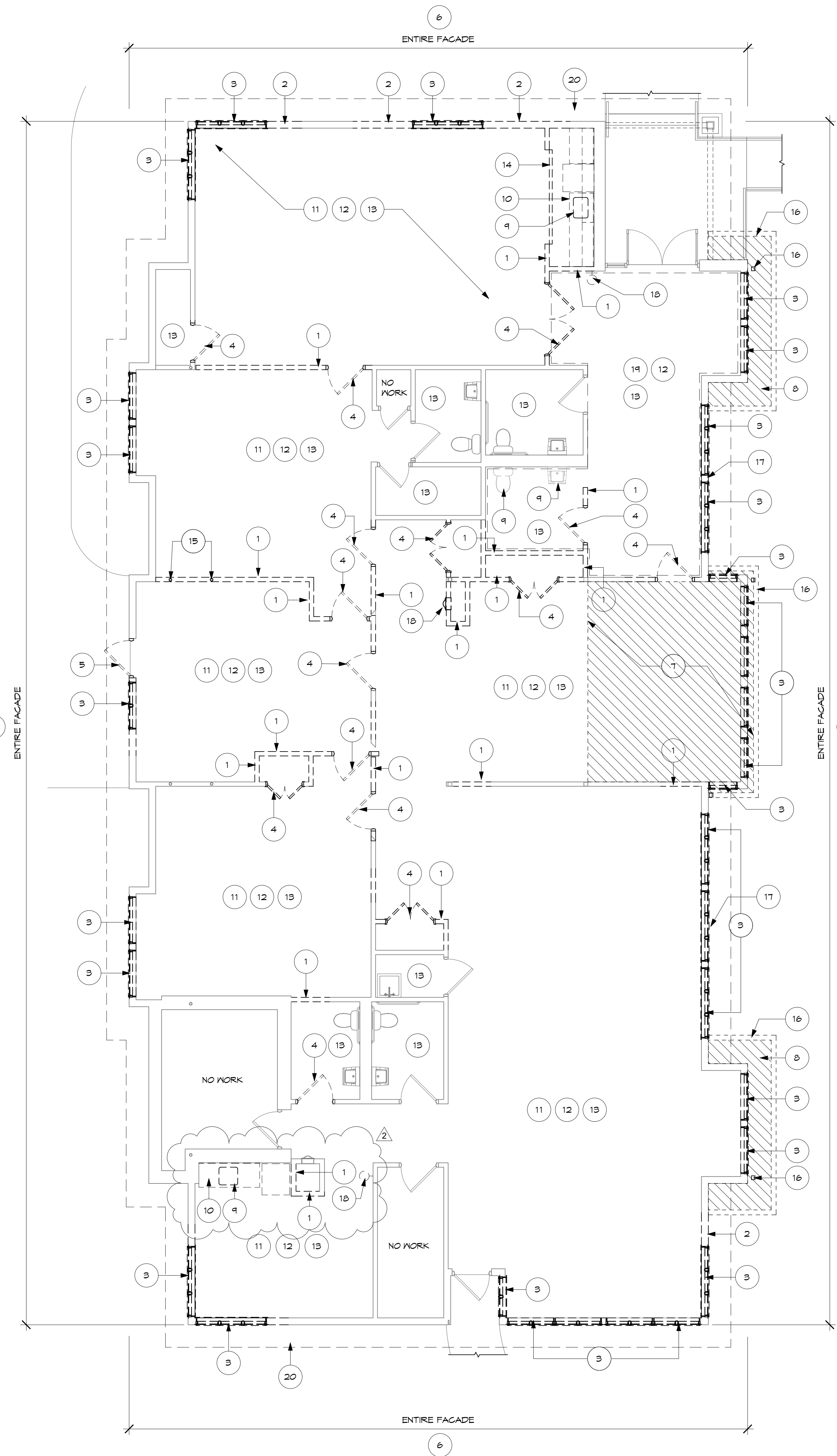
3.8 DOOR HARDWARE SETS

- A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.
 1. Quantities listed are for each pair of doors, or for each single door.
 2. The supplier is responsible for handing and sizing all products.
 3. Where multiple options for a piece of hardware are given in a single line item, the supplier shall provide the appropriate application for the opening.

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4. At existing openings with new hardware the supplier shall field inspect existing conditions prior to the submittal stage to verify the specified hardware will work as required. Provide alternate solutions and proposals as needed.
- B. Refer to Section 080671, Door Hardware Sets, for hardware sets.

END OF SECTION 087100



1 DEMOLITION PLAN
3/16" = 1'-0"

DEMOLITION NOTES

- THE INTENT OF THE DEMOLITION PLAN IS TO SHOW THE GENERAL NATURE OF THE DEMOLITION SCOPE. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR VISITING THE JOB SITE AND VERIFYING THE EXISTING CONDITIONS. THE GENERAL CONTRACTOR SHOULD NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES.
- DEMOLITION WORK SHALL INCLUDE REMOVAL OF ALL INTERIOR FINISHES, INCLUDING BUT NOT LIMITED TO ALL FURRING, HANGERS, UNISED ATTACHMENTS, CEILING TILE AND GRID, FLOOR FINISHES, ETC. WHERE DEMOLITION ACTIVITIES INVOLVE STRUCTURAL ELEMENTS, DEMOLITION WORK SHALL BE CLOSELY COORDINATED WITH NEW CONSTRUCTION WORK. NO WORK SHALL COMMENCE WITHOUT ADEQUATE BRACING OR SHORING AS REQUIRED TO PREVENT MOVEMENT OR SETTLING IN THE EXISTING STRUCTURE. REMOVALS OF A STRUCTURAL NATURE, BEARING WALLS, ROOFS, FOOTINGS, ETC., SHALL BE MADE ONLY UNDER THE DIRECT SUPERVISION OF QUALIFIED PERSONNEL AND SHALL BE SECURED OR OTHERWISE BRACED WHERE EVER FEASIBLE, BY INCORPORATION INTO PROPOSED NEW WORK. AS MUCH AS POSSIBLE NEW CONSTRUCTION IN KEEPING WITH THE PROPOSED CONDITIONS SHALL BE INSTALLED IN LIEU OF TEMPORARY BRACING.
- PRIOR TO COMMENCEMENT OF ANY DEMOLITION WORK, THE CONTRACTOR SHALL MEET WITH THE OWNER TO DETERMINE WHICH ITEMS, IF ANY, ARE OF SALVAGEABLE VALUE TO THE OWNER. THE CONTRACTOR IS ENCOURAGED TO DOCUMENT ANY EXISTING DAMAGE OR DEFICIENCIES, IN BOTH WRITTEN AND PHOTOGRAPHIC FORMS AS REQUIRED, WHICH ARE EVIDENT IN THE EXISTING BUILDING.
- ALL ITEMS DESIGNATED TO BE OF SALVAGEABLE VALUE TO THE OWNER SHALL BE REMOVED AS DIRECTED BY THE OWNER. ALL ITEMS DESIGNATED FOR DEMOLITION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED COMPLETELY FROM THE SITE AND DISPOSED OF AS NECESSARY, IN ACCORDANCE WITH ALL REGULATIONS IN EFFECT.
- CONFORM TO APPLICABLE CODES FOR DEMOLITION WORK, SAFETY OF STRUCTURE AND DUST CONTROL. NOTIFY AFFECTED UTILITY COMPANIES BEFORE STARTING WORK AND COMPLY WITH THEIR REQUIREMENTS. DO NOT CLOSE OR OBSTRUCT EGRESS TO EXITS. DO NOT DISRUPT BUILDING, FIRE, OR LIFE SAFETY SYSTEMS WITHOUT (3) DAYS PRIOR WRITTEN NOTICE TO THE OWNER.
- MAINTAIN TEMPORARY PARTITIONS TO PREVENT THE SPREAD OF DUST, ODORS, AND NOISE, AND TO PERMIT CONTINUED OWNER OCCUPANCY. PROTECT EXISTING MATERIALS WHICH ARE NOT TO BE DEMOLISHED. ALL DEBRIS SHALL BE REMOVED FROM THE CONSTRUCTION SITE DAILY.
- IN AREAS OF DEMOLITION, PATCH, LEVEL, AND INFILL ALL WALL AND FLOOR SURFACES AS REQUIRED FOR INSTALLATION OF NEW FINISHES. THIS INCLUDES LEVELING OF ALL FLOORS AND INFILLING OF ANY TRENCHED AREAS.
- REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR SPECIFIC DEMOLITION NOTES REGARDING THESE DISCIPLINES. ALL HVAC, ELECTRICAL, AND PLUMBING ITEMS REMOVED SHALL BE CAPPED AND IDENTIFIED.

DEMOLITION KEY NOTES

- DEMOLISH INTERIOR PARTITION OR PORTION OF INTERIOR PARTITION. PATCH & REPAIR REMAINING ADJACENT CONSTRUCTION TO LIKE NEW CONDITION.
- DEMOLISH PORTION OF EXTERIOR WALL FOR NEW WINDOW ASSEMBLY. PATCH AND REPAIR REMAINING ADJACENT CONSTRUCTION TO LIKE NEW CONDITION.
- REMOVE WINDOW, INTERIOR & EXTERIOR TRIM AND ALL ASSOCIATED HARDWARE. PREPARE OPENING FOR NEW WINDOW OR INFILL OPENING TO MATCH EXISTING CONSTRUCTION AS PER NEW WORK PLANS.
- REMOVE INTERIOR DOOR, FRAME AND ALL ASSOCIATED HARDWARE.
- REMOVE EXTERIOR DOOR, FRAME AND ALL ASSOCIATED HARDWARE. INFILL OPENING TO MATCH EXISTING CONSTRUCTION.
- REMOVE ALL EXTERIOR LAP SIDING, PANEL SIDING AND TRIM DOWN TO EXISTING EXTERIOR SHEATHING. REMOVE WEATHER BARRIER AND PREPARE SHEATHING FOR NEW EXTERIOR FINISH PER NEW WORK PLANS.
- REMOVE LOW SLOPE ROOF OVER NEW CONFERENCE ROOM INCLUDING SKYLIGHTS AND GALLERY WINDOWS ABOVE. EXISTING BEAMS SHALL REMAIN TO SUPPORT HIGH ROOF.
- REMOVE ROOF OVERHANGS ON THREE SIDES OF EXISTING POP-OUT AREA. CUT BACK EXISTING TRUSSES AS REQUIRED FOR INSTALLATION OF NEW GABLE ROOF AND EXTERIOR WALL ASSEMBLY.
- REMOVE PLUMBING FIXTURE AND ALL ASSOCIATED HARDWARE. CUT & CAP EXISTING UTILITIES @ SLAB ON GRADE. SEE PLUMBING DWGS. FOR ADDITIONAL REMOVAL SCOPE.
- REMOVE ALL CASEWORK, COUNTERS AND SHELVING. ALL APPLIANCES SHALL BE SALVAGED AND RETURNED TO OWNER FOR REUSE.
- REMOVE FLOOR FINISH DOWN TO EXISTING SUBSTRATE.
- REMOVE WALL BASE AND ANY MILLWORK ON WALLS (CHAIR RAIL, ETC.) THROUGHOUT AREA OF WORK.
- REMOVE ACOUSTICAL CEILING TILE AND GRID AND ANY GNB CEILING AND FRAMING. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR LIGHTING AND DEVICE REMOVAL.
- REMOVE ROLL-UP DOOR @ KITCHENETTE AND RETURN TO OWNER AS DIRECTED.
- REMOVE EXISTING STEEL COLUMNS, BRACE BEAM ABOVE UNTIL NEW STRUCTURE IS IN PLACE.
- REMOVE GUTTERS AND DOWNSPOUTS AND ALL ATTACHMENTS AND ASSOCIATED HARDWARE.
- REMOVE WALL MOUNTED EXTERIOR LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS FOR ADDITIONAL REMOVAL SCOPE.
- REMOVE FIRE EXTINGUISHER CABINET AND STORE FOR REINSTALLATION IN NEW PARTITION.
- REMOVE QUARRY TILE AND BASE IN THEIR ENTIRETY. LEVEL OUT RECESSED CONCRETE FLOOR AS REQUIRED FOR NEW PORCELAIN TILE IN MUD BED. SEE SPECIFICATIONS FOR TILE FLOORING.
- REMOVE VINYL SOFFIT TYP. THROUGHOUT. (NOTE: EXISTING SOFFIT AT ENTRY TO REMAIN.)

RELEASE / REVISION

No.	Date	Description
1	10/09/20	ISSUED FOR BIDDING
2	10/22/20	ADDENDUM #1 - OWNER REVISIONS

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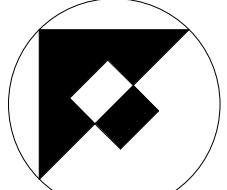
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Project
ALTERATIONS & RENOVATIONS TO:
**CAPE MAY COUNTY
TECHNICAL SCHOOL
ADMINISTRATION BUILDING**
188 CREST HAVEN ROAD CAPE MAY COURT
HOUSE, NJ 08210

Drawing
DEMOLITION PLAN AND
NOTES



Scale As Indicated	Job 20,048	Sheet D1.0
Drawn CR / KP	Date 10/06/20	

GENERAL NOTES

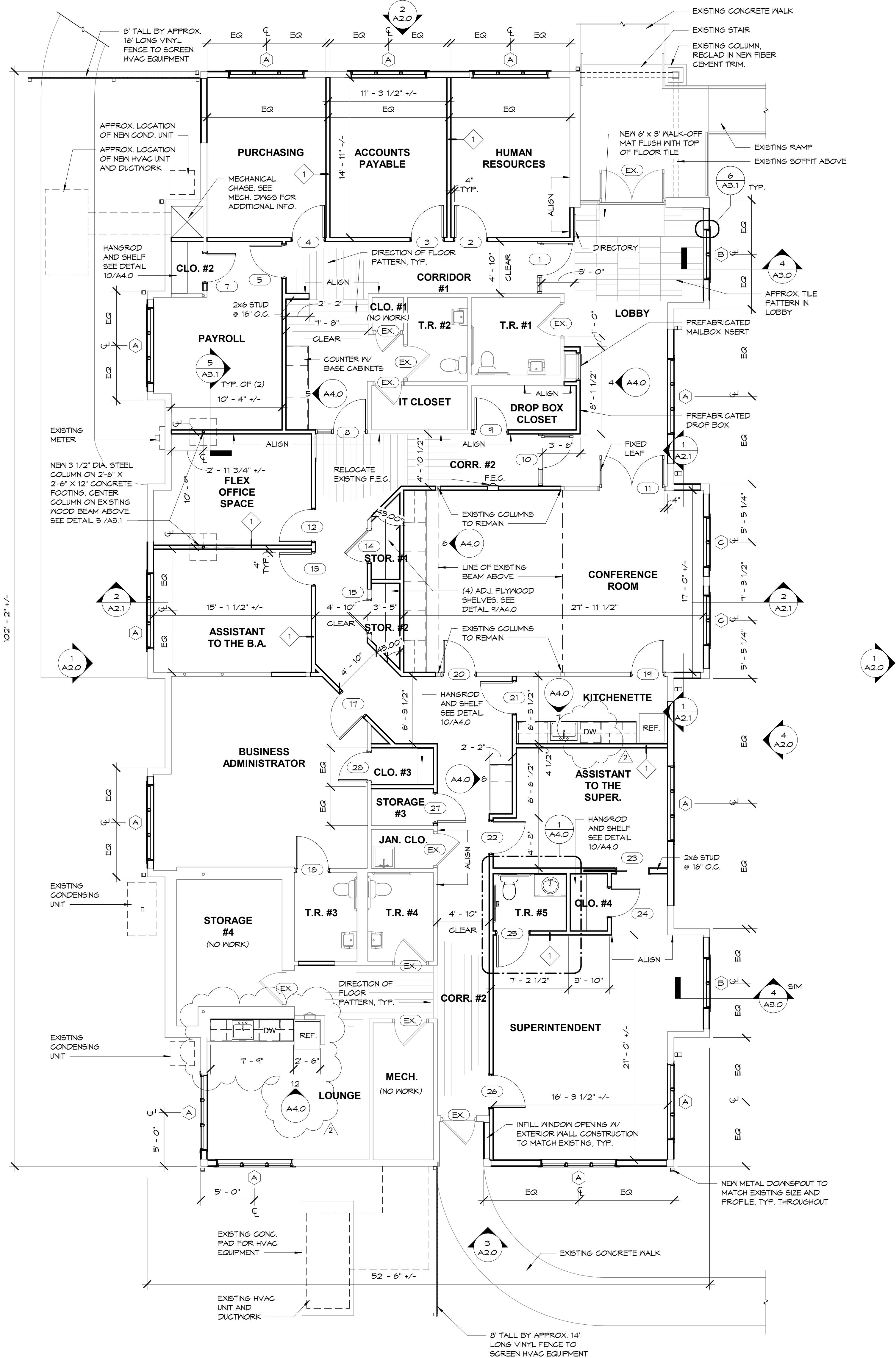
1) ALL INTERIOR PARTITIONS ARE TYPE 1 UNLESS OTHERWISE NOTED.

2) DIMENSIONS ARE FROM FACE OF FRAMING MEMBER TO FACE OF FRAMING MEMBER UNLESS OTHERWISE NOTED.

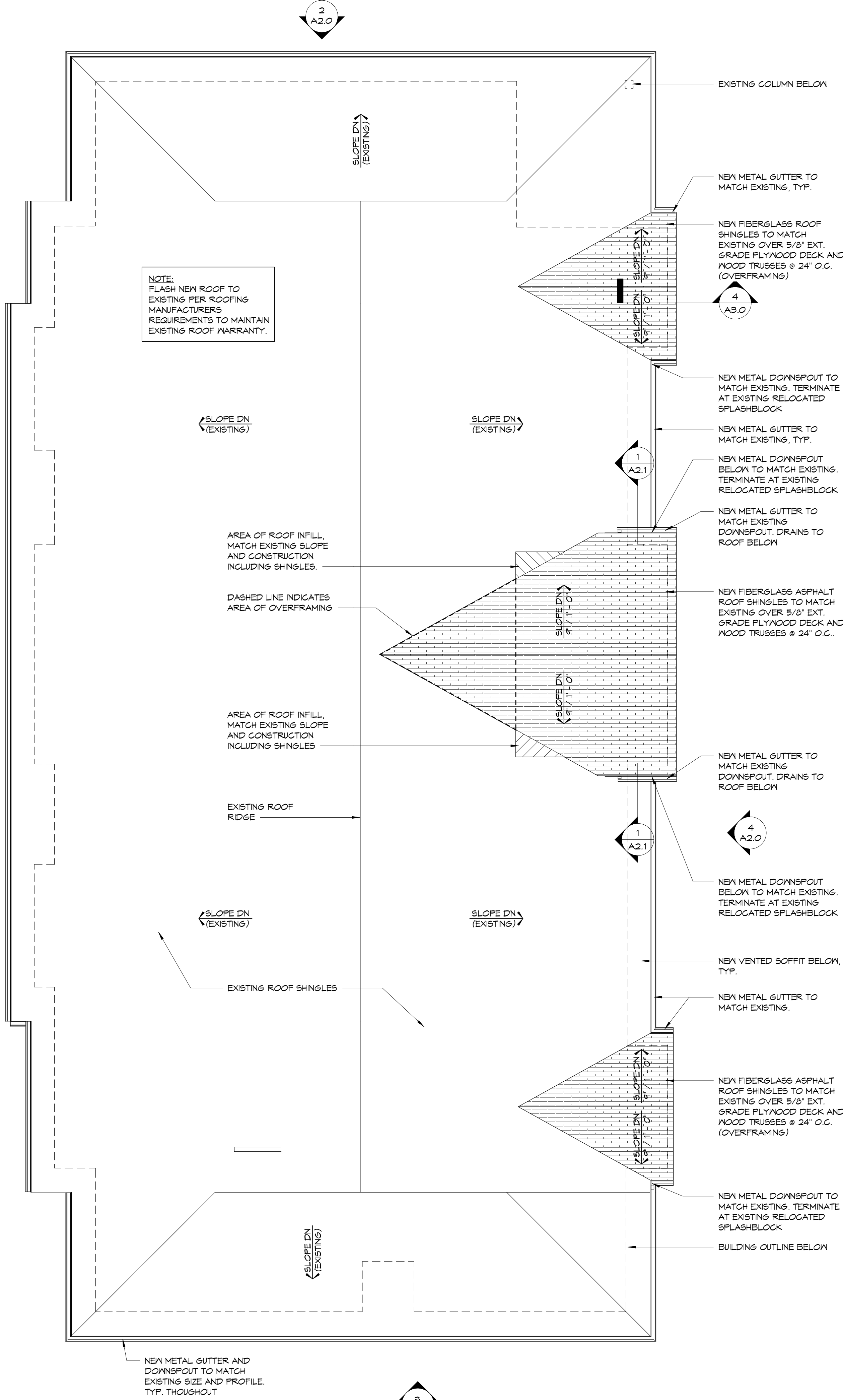
3) INFILL OF EXISTING WALLS BOTH EXTERIOR AND INTERIOR SHALL MATCH EXISTING CONSTRUCTION.

SYMBOLS LEGEND	
	DOOR TAG
	WINDOW TAG
	WALL TAG WITH PARTITION TYPE
	DETAIL TAG/ENLARGED PLAN DETAIL NO. ABOVE SHEET NO.
	ELEVATION TAG ELEV. NO. ABOVE SHEET NO.
	SECTION TAG SECTION NO. ABOVE SHEET NO.

RELEASE / REVISION		
No.	Date	Description
1	10/09/20	ISSUED FOR BIDDING
2	10/22/20	ADDENDUM #1 - OWNER REVISIONS



1 FLOOR PLAN
3/16" = 1'-0"



2 ROOF PLAN
3/16" = 1'-0"

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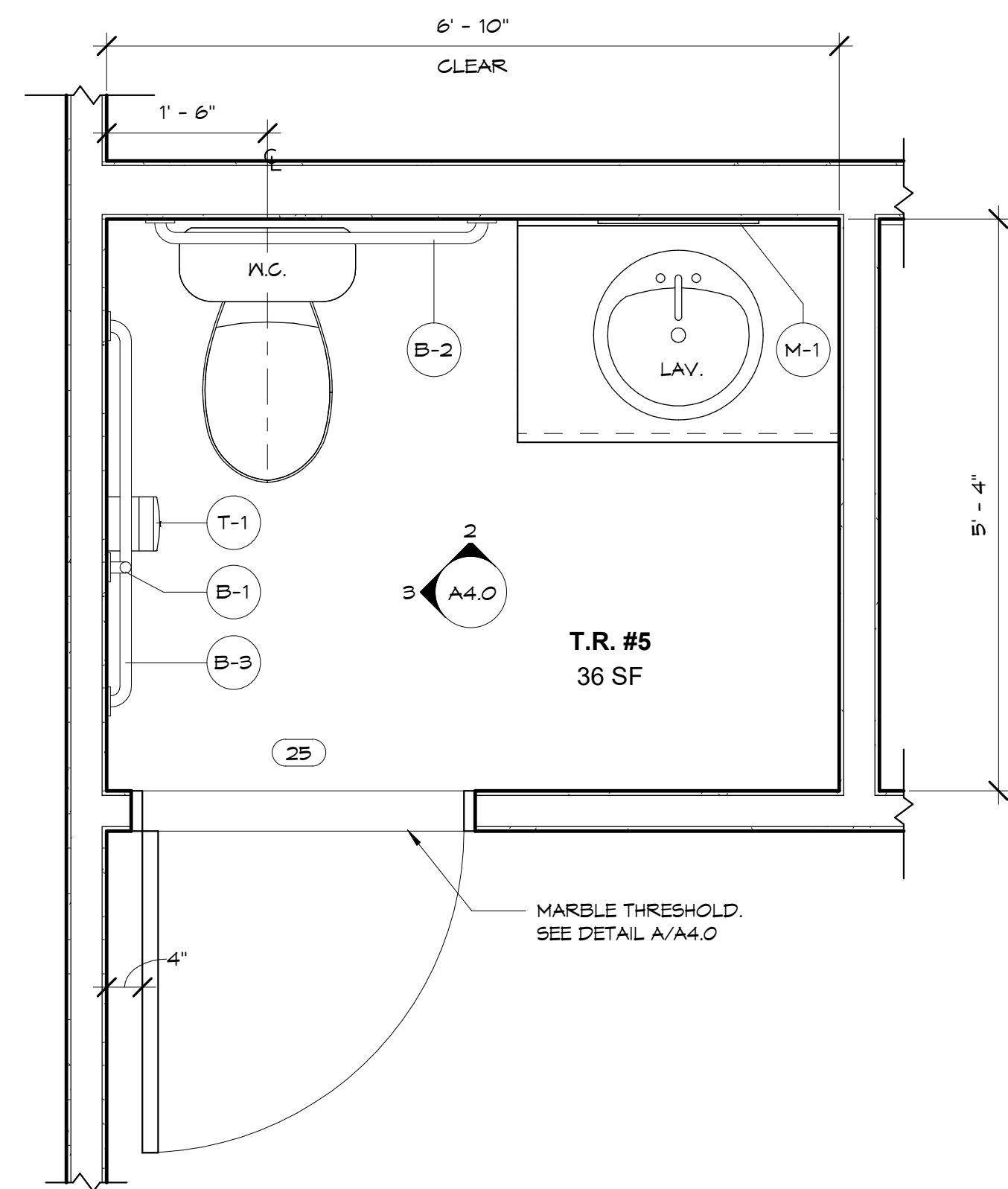
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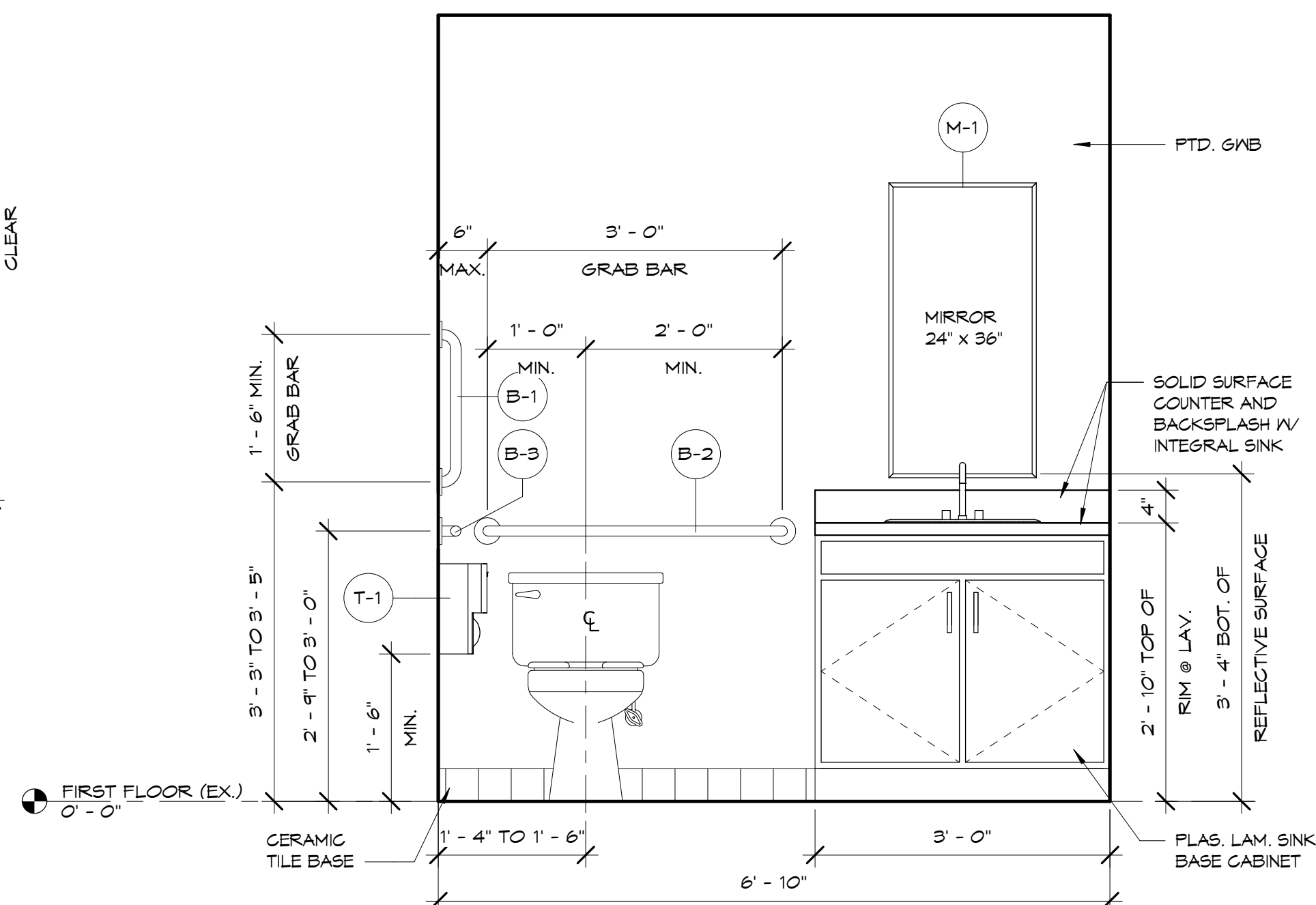
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ADMINISTRATION BUILDING**
188 CREST HAVEN ROAD CAPE MAY COURT
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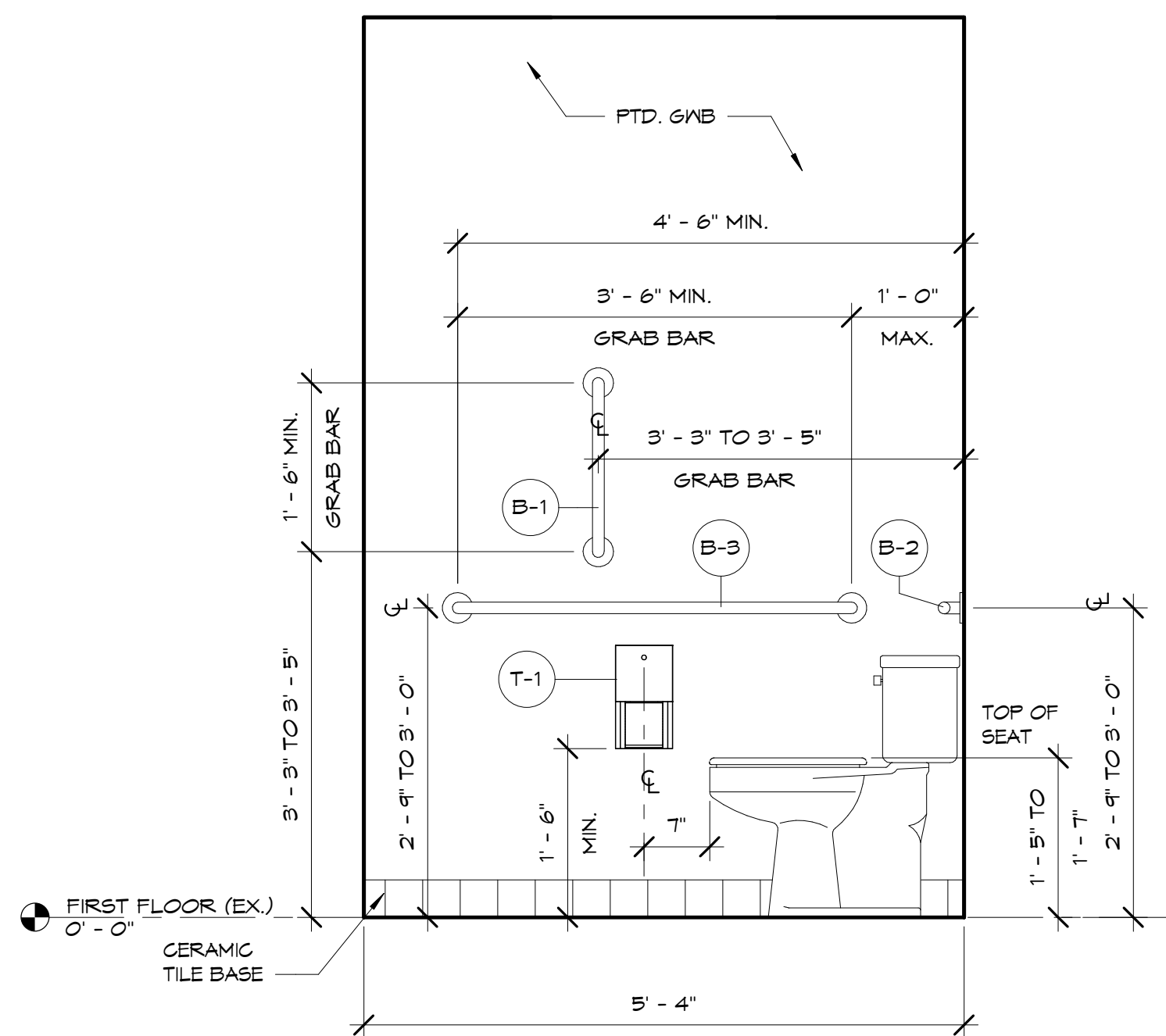
Drawing		
FIRST FLOOR PLAN, ROOF PLAN & NOTES		
Scale As Indicated	Job 20,048	Sheet A1.0
Drawn CR / KP	Date 10/06/20	



1 ENLARGED TOILET ROOM #5 PLAN
3/4" = 1'-0"



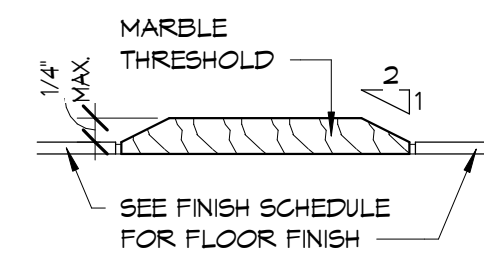
2 TOILET ROOM #5 ELEVATION
3/4" = 1'-0"



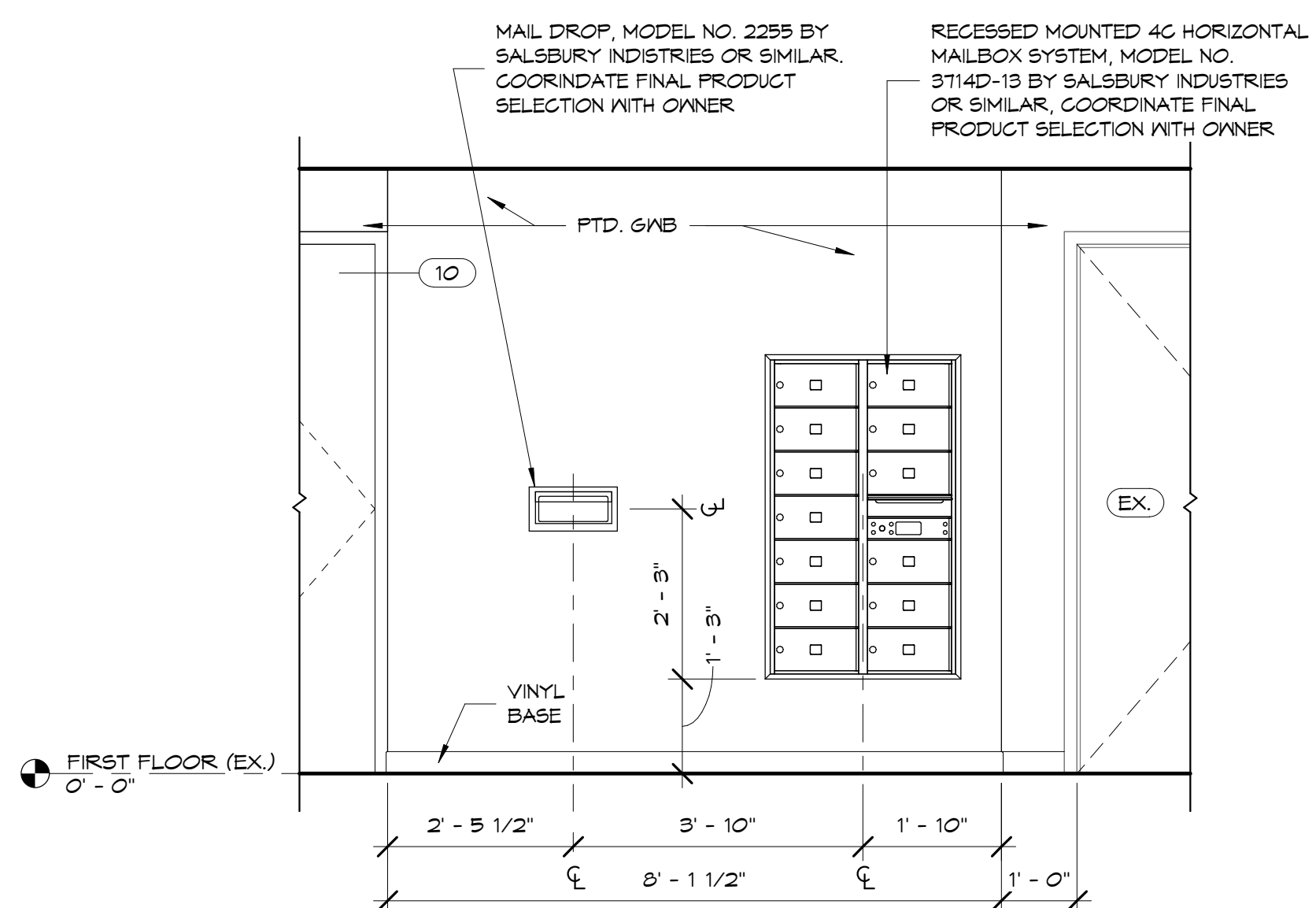
3 TOILET ROOM #5 ELEVATION
3/4" = 1'-0"

TOILET ROOM ACCESSORY SCHEDULE				
ROOM NAME	(B-1)	(B-2)	(B-3)	(M-1)
TOILET ROOM #5	1	1	1	1

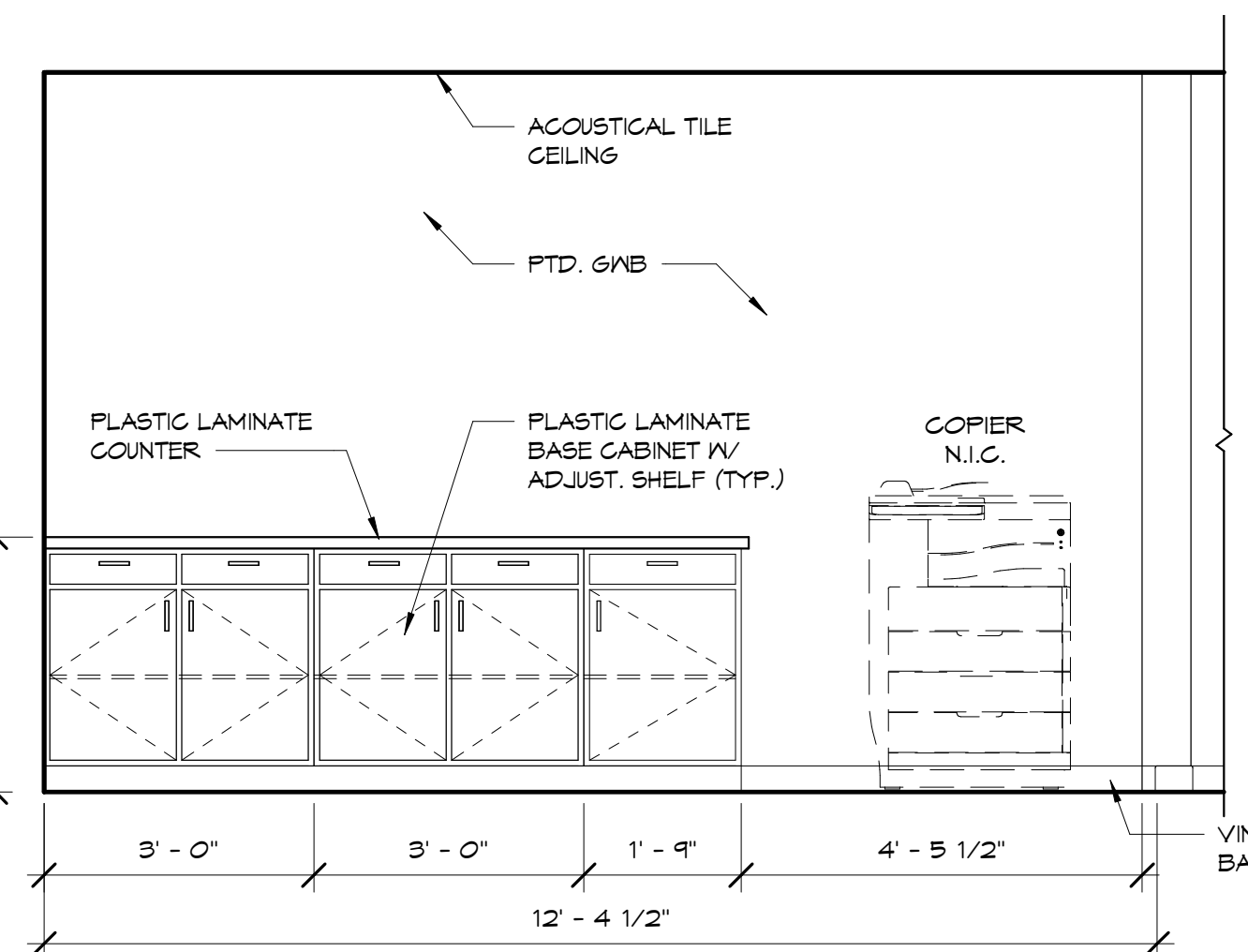
NOTES:
1. ALL ACCESSORIES N.I.C.
2. LISTED ACCESSORIES MODEL NO.'S ARE BY 'AJAY' STAINLESS STEEL
3. CONTRACTOR TO PROVIDE SOLID WOOD BLOCKING WITHIN WALLS
AS REQUIRED TO MOUNT ALL ACCESSORIES AS PER THE
MANUFACTURES SPECIFICATIONS.



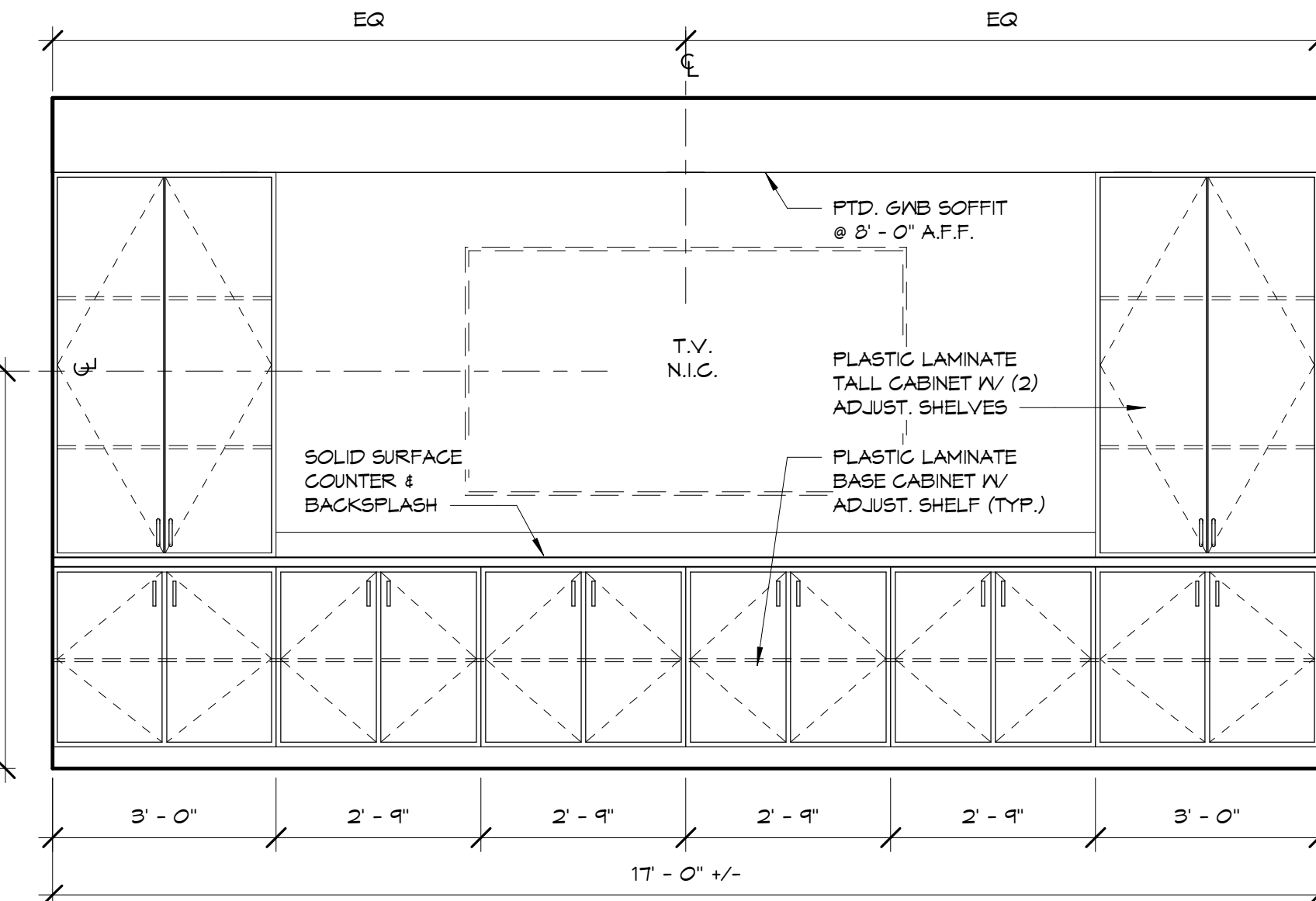
A MARBLE THRESHOLD
6" x 1'-0"



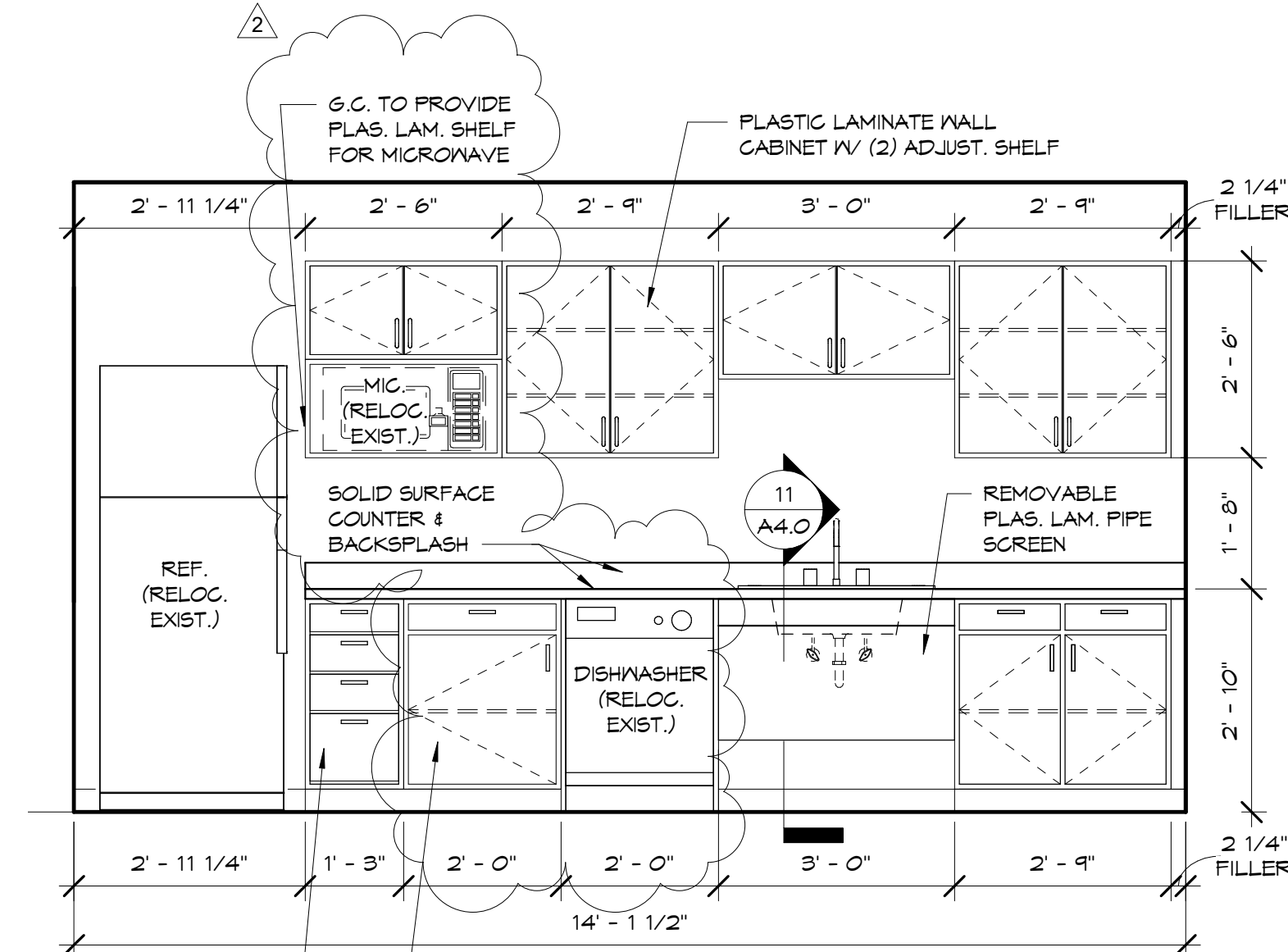
4 INTERIOR ELEVATION - MAILBOXES
1/2" = 1'-0"



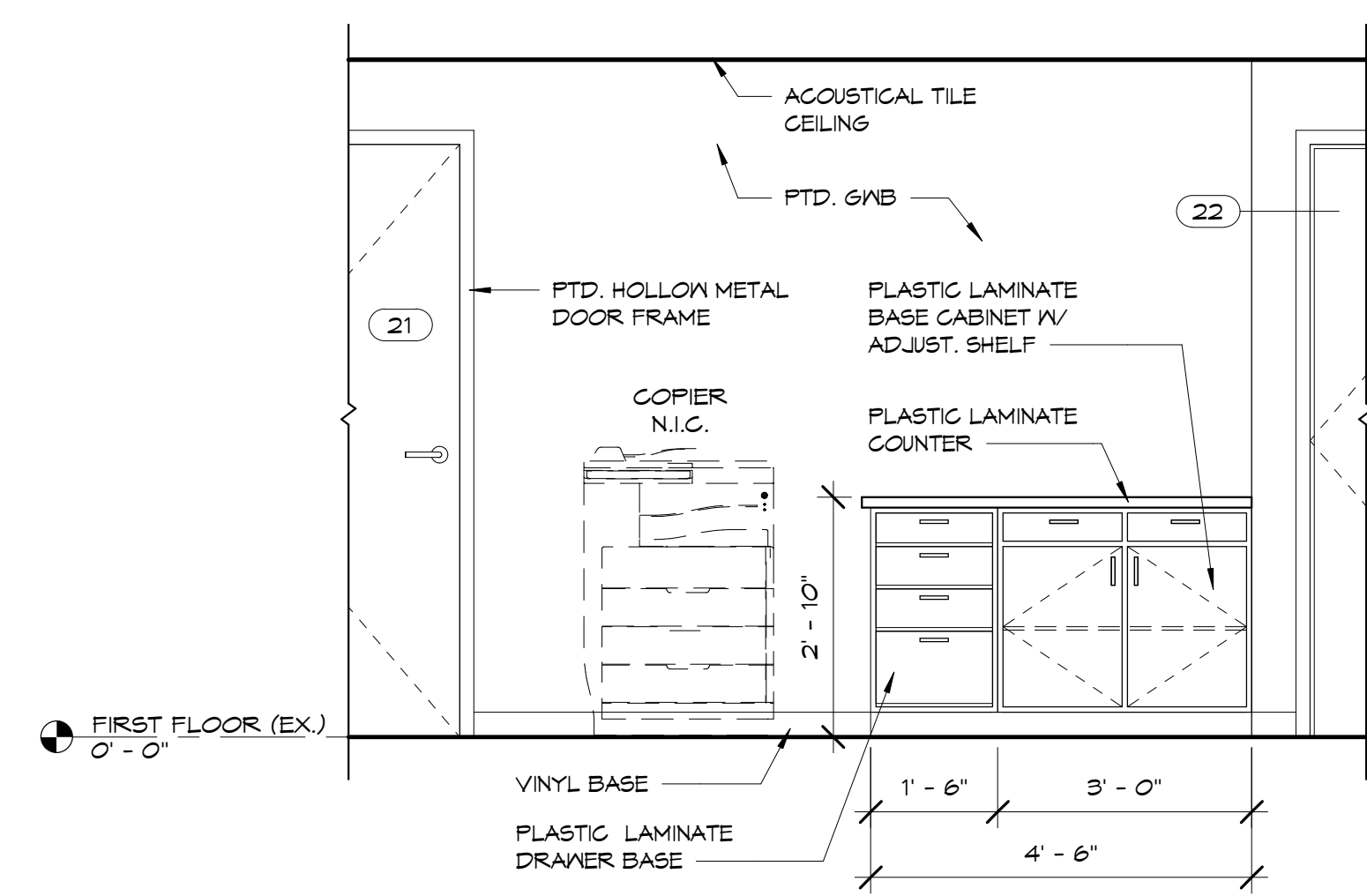
5 INTERIOR ELEVATION - CASEWORK
1/2" = 1'-0"



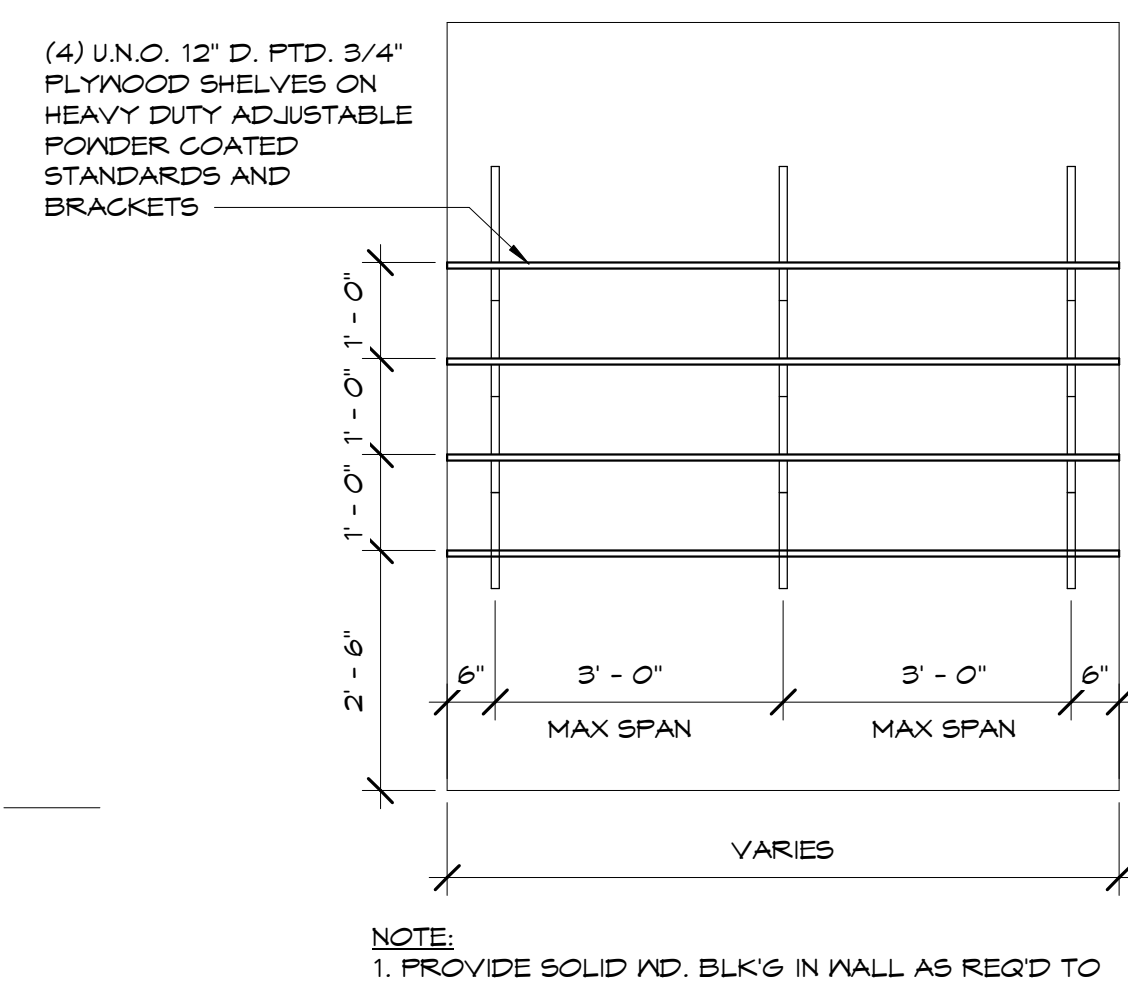
6 INTERIOR ELEVATION - CONFERENCE ROOM
1/2" = 1'-0"



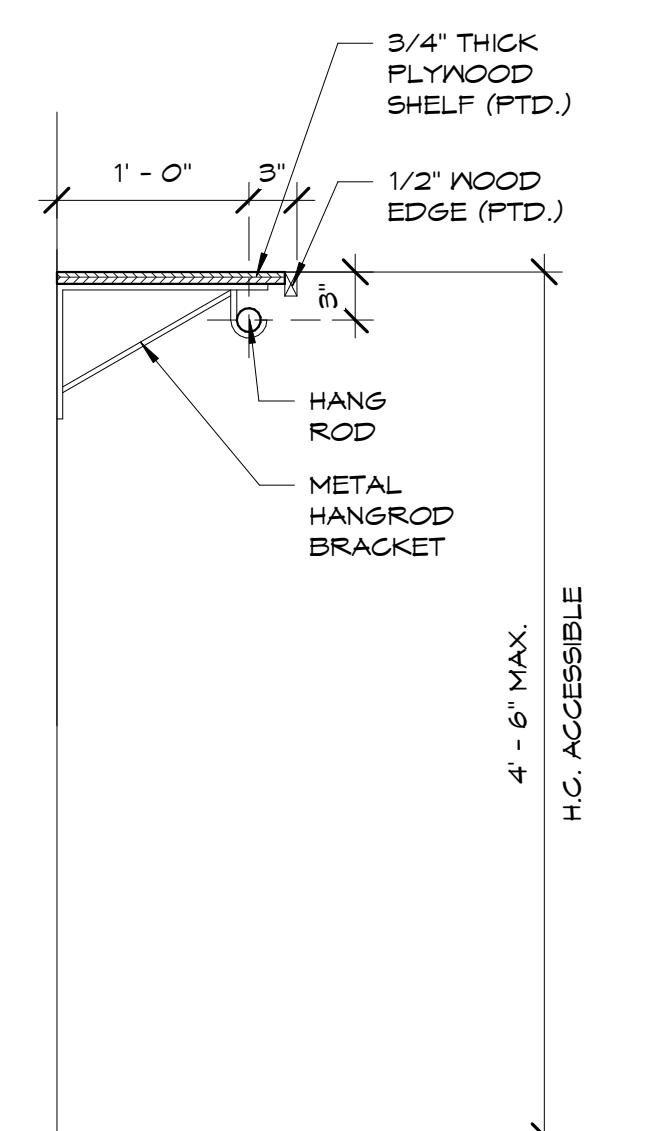
7 INTERIOR ELEVATION - KITCHENETTE
1/2" = 1'-0"



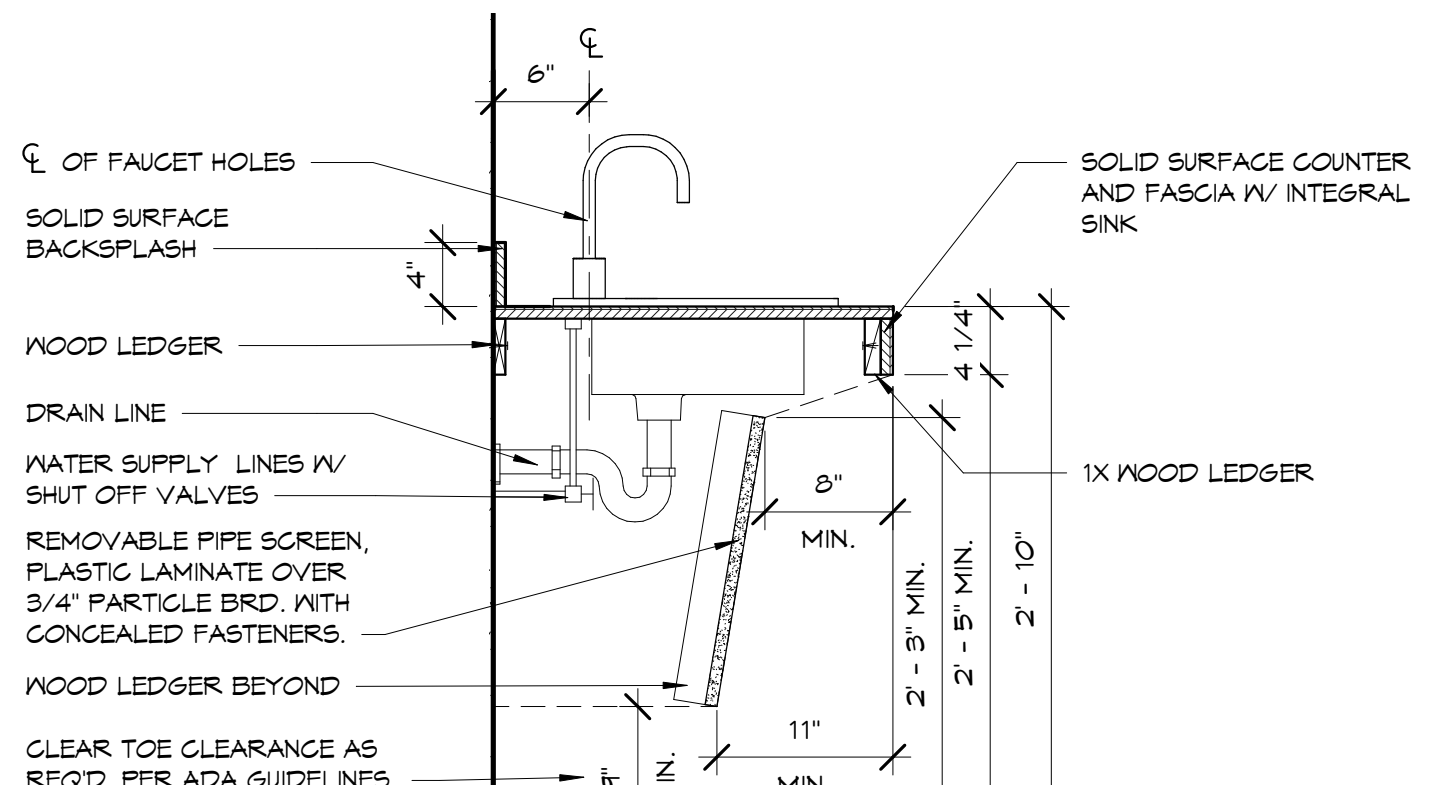
8 INTERIOR ELEVATION - CASEWORK
1/2" = 1'-0"



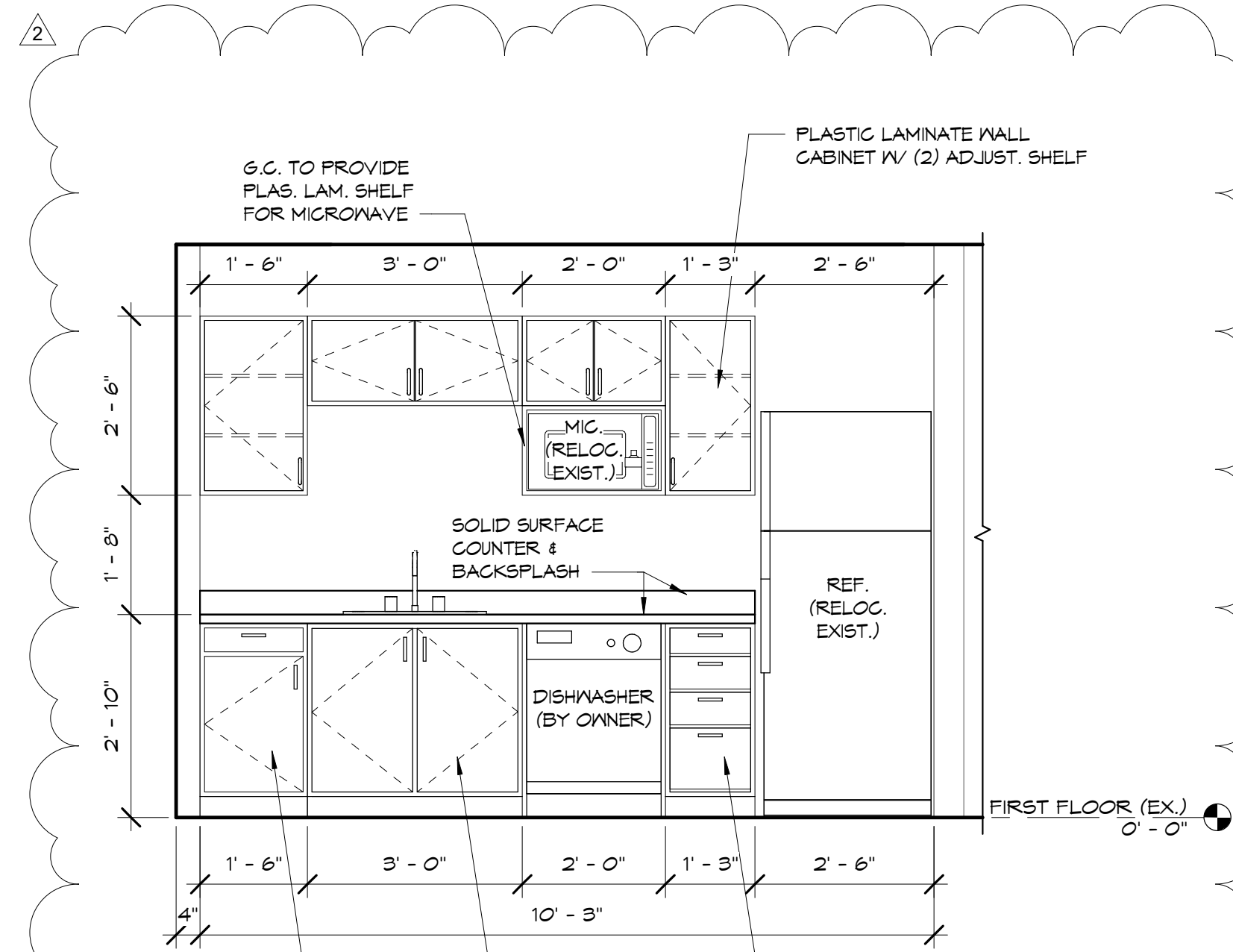
9 STORAGE SHELVES (TYP.)
1/2" = 1'-0"



10 HANGROD & SHELF
1" = 1'-0"



11 KITCHEN SINK SECTION
1" = 1'-0"



12 INTERIOR ELEVATION - LOUNGE
1/2" = 1'-0"

RELEASE / REVISION	
No.	Date
1	10/09/20
2	10/22/20

Description	
1	ISSUED FOR BIDDING
2	ADDENDUM #1 - OWNER REVISIONS

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Project
ALTERATIONS & RENOVATIONS TO:
**CAPE MAY COUNTY
TECHNICAL SCHOOL
ADMINISTRATION BUILDING**
188 CREST HAVEN ROAD CAPE MAY COURT
HOUSE, NJ 08210

Drawing
INTERIOR ELEVATIONS
& DETAILS

Scale	Job	Sheet
As Indicated	20.048	A4.0
Drawn	Date	
CR / KP	10/06/20	

S.A.	OUTSIDE AIR
S.A.	SUPPLY AIR
R.A.	RETURN AIR
CAP.	CAPACITY
PRESS.	PRESSURE
TEMP.	TEMPERATURE
MIN.	MINIMUM
MAX.	MAXIMUM
SIM.	SIMILAR
AUTO.	AUTOMATIC
EXST.	EXISTING
CONC.	CONCRETE
AHU	AIR HANDLING UNIT
GPM	GALLONS PER MINUTE
SF	SUPPLY FAN
RF	RETURN FAN
BTUH	BTUH
A F.F.	ABOVE FINISHED FLOOR
EF	EXHAUST FAN
TYP.	TYPICAL
CONN.	CONNECTION
AS	AIR SEPARATOR
ET	EXPANSION TANK
FD	FIRE DAMPER
F.D.	FLOOR DRAIN
FSD	FIRE SMOKE DAMPER

- A. CONTRACTOR SHALL PROVIDE MANUFACTURER'S RECOMMENDED ACCESS TO ALL EQUIPMENT. ACCESS SHALL BE REMOVABLE CEILING TILES OR CEILING ACCESS PANELS. COORDINATE WITH MECHANICAL EQUIPMENT WITH OTHER TRADES TO AVOID CONFLICT.
- B. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR LOCATION OF GRILLES AND DIFFUSERS.
- C. FOR ALL WALLS THAT ARE EXTENDED TO STRUCTURE PROVIDE SLEEVES FOR PIPING AND DUCTWORK PENETRATING WALLS (REFERENCE SPECIFICATIONS).
- D. DRAWINGS ARE DIAGRAMMATIC. PROVIDE ADDITIONAL OFFSETS, TRANSITIONS, ETC. AS REQUIRED TO AVOID INTERFERENCE ENCOUNTERED. FULL COORDINATION OF WORK REQUIRED.
- E. IF THE CONTRACTOR DOES NOT CLEARLY UNDERSTAND THESE PLANS OR IS NOT SURE OF THEIR MEANING, THEY SHOULD OBTAIN THE ARCHITECTS WRITTEN EXPLANATION AND INTERPRETATION PRIOR TO SUBMITTING THEIR BID. SINCE THE CONTRACTOR WILL BE HELD RESPONSIBLE TO THE INTERPRETATION OF THE ARCHITECT.
- F. CUT, PATCH, REPAIR AND RESTORE TO ORIGINAL CONDITION ALL OPENINGS IN WALLS, FLOORS, CEILINGS, ETC. WHERE REQUIRED. PATCHING SHALL MATCH EXISTING CONSTRUCTION & FINISHES. COORDINATE ALL PATCHING AND FINISHES WITH ARCHITECT.
- G. PROVIDE BALANCING DAMPERS FOR ALL S.A., R.A. AND E.A. DUCT BRANCH TAKEOFFS AND RUNOUTS TO GRILLES, DIFFUSERS, ETC.
- H. USE RADIIUS ELBOWS, IF SPACE IS/AT AVAILABLE, MITERED ELBOWS ARE ACCEPTABLE. PROVIDE TURNING VANE ALL RECTANGULAR MITERED ELBOWS, SUPPLY AND RETURN DUCTWORK.
- I. CONTRACTOR SHALL BE RESPONSIBLE FOR PRE-BALANCING THE SYSTEMS TO DETERMINE EXISTING AIRFLOWS, FOLLOW PROCEDURES IN TEST AND BALANCE SPECIFICATION.
- J. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING DUCTS AND COLLS OF ALL FOREIGN MATERIAL. REFER TO INCLUDED SPECIFICATION SECTION 230130 FOR DETAILED PROCEDURE.



SYMBOL	MANUFACTURER	MODEL	PANEL SIZE	CORE TYPE	INLET DIMENSION	NOMINAL CFM	THROW @100 FPM	PRESSURE DROP(IN.)	SOUND N.C.	MOUNTING	REMARKS
S-1	TITUS	OMNI	24X24	PLAQUE	6"ø	98	2	0.017	<10	SURFACE	ALL
S-2	TITUS	OMNI	24X24	PLAQUE	8"ø	244	5	0.055	12	LAY-IN	ALL
R-1	TITUS	PAR	24X24	PERFORATED	22X22	1008	-	0.03	13	LAY-IN	ALL
NOTES:											
1. COLOR SHALL BE AS DIRECTED BY ARCHITECT.											
2. CONTRACTOR SHALL VERIFY CEILING TYPE PRIOR TO ORDERING.											

MARKS	MANUFACTURER	MODEL No.	HP	FRPM	CFM	STATIC PRESSURE	VOLTAGE	PHASE	FAN MOUNTING	NOTES
EF-1	GREENHECK	SP-80-VG	1/10	935	75	0.30 in-wg	115	1	CEILING	ALL
EF-2	GREENHECK	SP-80-VG	1/10	935	75	0.30 in-wg	115	1	CEILING	ALL
EF-3	GREENHECK	SP-80-VG	1/10	935	75	0.30 in-wg	115	1	CEILING	ALL
EF-4	GREENHECK	SP-80-VG	1/10	935	75	0.30 in-wg	115	1	CEILING	ALL

NOTES:

1. PROVIDE UNIT WITH MERV 8 FILTERS.
2. PROVIDE WITH DISCONNECT SWITCH. COORDINATE WITH OTHER TRADES.
3. PROVIDE WITH CONDENSATE DRAIN PAN. CONNECT TO EXISTING CONDENSATE DRAIN PIPE.
4. SHOP DRAWINGS MUST INCLUDE PERFORMANCE DATA OR THEY WILL BE REJECTED.

MARK	MANUFACTURER	MODEL NO.	CFM	O.A. CFM	E.S.P.	VOLTAGE	PHASE	MCA/MOP (AMPS)	NOTES
AHU-1	TRANE	TEMA40C4254	1300	500	0.75 in-wg	208	1	5	ALL

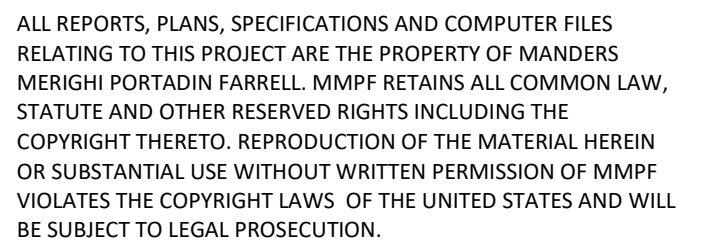
NOTES:

1. PROVIDE WITH DISCONNECT SWITCH
2. SLOPE SUCTION LINE TOWARD EVAPORATOR.
3. REFRIGERANT LINES SHALL BE SIZED PER MANUFACTURER'S RECOMMENDATIONS WITH LONG LINE KITS AND OTHER ACCESSORIES AS REQUIRED.
4. SHOP DRAWINGS MUST INCLUDE PERFORMANCE DATA OR THEY WILL BE REJECTED.

MARK	MANUFACTURER	MODEL No.	COOLING CAPACITY	MIN SEER	VOLTAGE	PHASE	MCA/MOP (AMPS)	NOTES
CU-1	TRANE	4TTR4042L1	40700.0 Btu/h	15	208	1	22	ALL

NOTES:												
1. PROVIDE WITH DISCONNECT SWITCH.												
2. PROVIDE WITH AIR FLOW PROVING SWITCH.												
3. MAINTAIN FACTORY RECOMMEND COMBUSTIBLE CLEARANCES.												
4. PROVIDE WITH NEW DRAIN PAIN.												
MARK	MANUFACTURER	MODEL No.	NOMINAL CFM	NET GAS CAPACITY	HEATING CAPACITY	ENTERING AIR TEMP	LEAVING AIR TEMP	E.S.P.	VOLTAGE	PHASE	MCA	NOTES
DH-1	MODINE	DFG	1250	100000.0 Btu/h	81000.0 Btu/h	55 °F	115 °F	3.00 in-wg	115	1	0.35	ALL
DH-2	MODINE	DFG	1250	100000.0 Btu/h	81000.0 Btu/h	55 °F	115 °F	3.00 in-wg	115	1	0.35	ALL
DH-3	MODINE	DFG	1250	100000.0 Btu/h	81000.0 Btu/h	55 °F	115 °F	3.00 in-wg	115	1	0.35	ALL

NOTES: 1. PROVIDE UNIT WITH VFD SUPPLY AND EXHAUST FAN AND 100% ECONOMIZER WITH REFERENCE ENTHALPY CONTROLS. 2. PROVIDE UNIT WITH MERV-8 PREFILTERS AND MERV-13 FINAL FILTERS. 3. PROVIDE UNIT WITH FACTORY MOUNTED CONVENIENCE RECEPTACLE. 4. PROVIDE UNIT WITH MODULATING HOT GAS REHEAT. 5. PROVIDE UNIT WITH NON-FUSED DISCONNECT SWITCH. 6. COOLING LEAVING AIR TEMPERATURE IN UNIT IN LIEU OF COIL. 7. PROVIDE UNIT WITH MANUFACTURER INSTALLED LOCAL CONTROL SYSTEM. INSTALL REMOTE DISPLAY IN STORAGE ROOM 122. 8. SHOP DRAWINGS MUST INCLUDE PERFORMANCE DATA OR THEY WILL BE REJECTED.																				
MARK	MANUFACTURER	MODEL NO.	SENSIBLE COOLING CAPACITY (MBH)	NET COOLING CAPACITY (MBM)	NET GAS CAPACITY (CFH)	NET HEATING CAPACITY (MBM)	CFM	CLG. DB E.A.T.	CLG. WB E.A.T.	CLG. DB L.A.T.	CLG. WB L.A.T.	HTG. E.A.T.	HTG. L.A.T.	SUPPLY MOTOR H.P.	FRPM	E.S.P. (IN H2O)	VOLTAGE	PHASE	MCA	NOTES
DOAS-1	TRANE	Horizon D010	67.0	132.0	150.0	120.0	1500	90 °F	76 °F	51 °F	51 °F	16 °F	55 °F	1.5	1703	1.50 in wg	208	3	50.7	ALL

[illegible]

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ALTERATIONS & RENOVATIONS TO:

CAPE MAY COUNTY
TECHNICAL SCHOOL
ADMINISTRATION BUILDING
ADDENDUM #4 - OWNED DEVIATIONS
188 CREST HAVEN ROAD CAPE MAY COURT
HOUSE, NJ 08210

HVAC LEGEND AND SCHEDULES

Scale

$$1/8" = 1'-0"$$

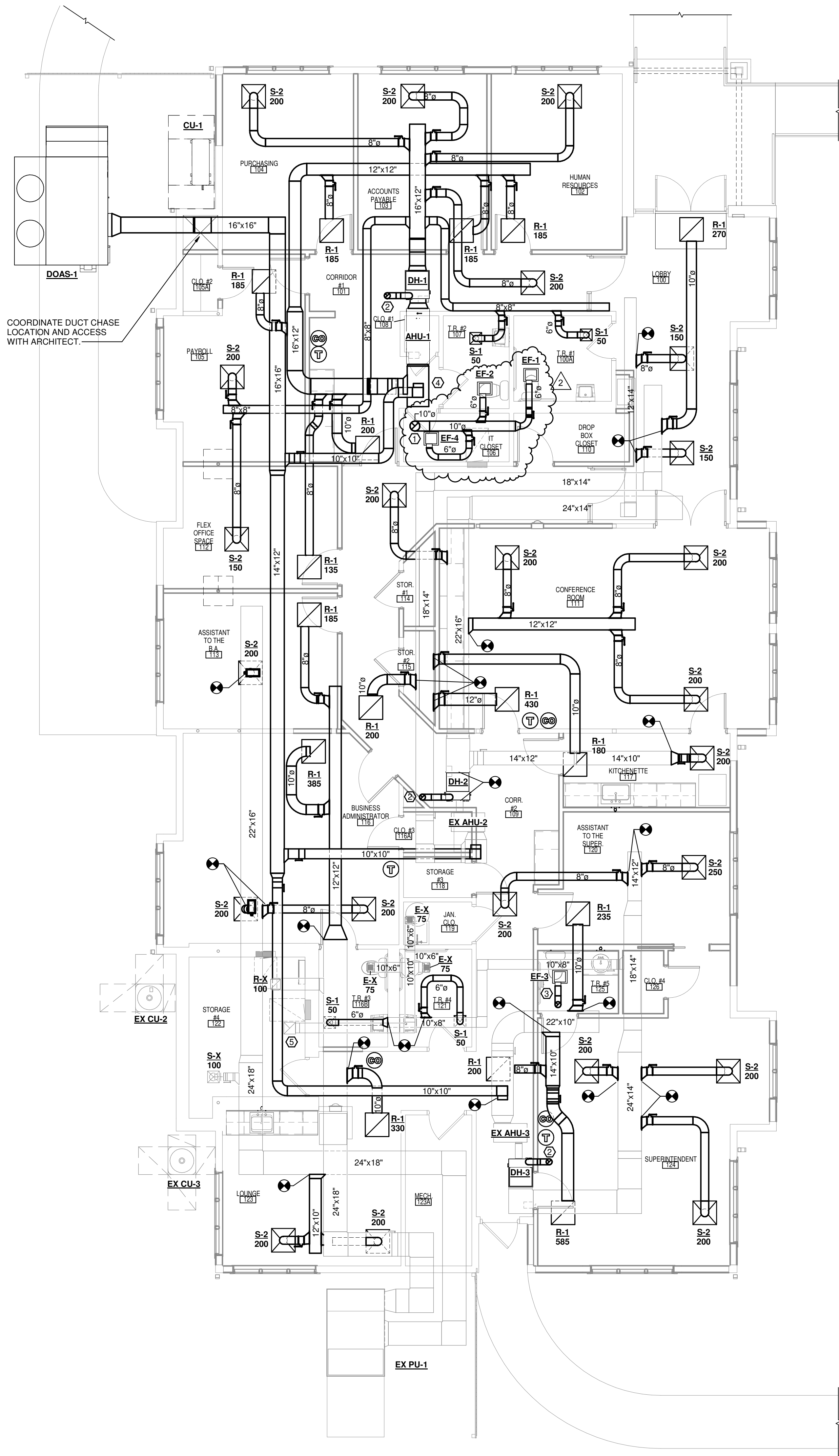
PTB

Job	Rate	Time	Cost
1	10	10	100
2	20	20	400
3	30	30	900
4	40	40	1600
5	50	50	2500
6	60	60	3600
7	70	70	4900
8	80	80	6400
9	90	90	8100
10	100	100	10000

20.048

Sheet

M0.1



1 FIRST FLOOR HVAC PLAN
SCALE: 3/16" = 1'-0"

KEY NOTES

- ROUTE 10" EXHAUST DUCT THROUGH EXISTING CURB AND TERMINATE WITH GOOSENECK. SEAL REMAINING OPENING AS NECESSARY.
- ROUTE 6" VENT FROM DUCT FURNACE TO EXISTING PENETRATION. SEAL OPEN GAPS TIGHT.
- ROUTE 6" DUCT FROM EXHAUST FAN UP THROUGH ROOF TERMINATE WITH GOOSENECK. SEAL WEATHER TIGHT.
- REINSTALL EXISTING SMOKE DETECTOR IN NEW AHU-1 RETURN PLENUM.
- UP TO EXISTING EXHAUST FAN. BALANCE EXHAUST REGISTERS AS SHOWN ON PLANS.

GENERAL MECHANICAL NOTES

- EX-AHU-2 AND EX-AHU-3 SHALL BE REBALANCED AFTER INSTALLATION OF NEW DUCT WORK. REFER TO TESTING AND BALANCING SPECIFICATION.

RELEASE / REVISION

No.	Date	Description
1	10/04/20	ISSUED FOR BIDDING
2	10/22/20	APPENDUM #1 - OWNER REVISIONS



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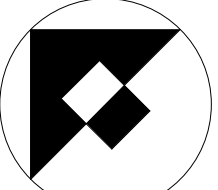
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Project

ALTERATIONS & RENOVATIONS TO:
**CAPE MAY COUNTY
TECHNICAL SCHOOL
ADMINISTRATION BUILDING**
188 CREST HAVEN ROAD CAPE MAY COURT
HOUSE, NJ 08210

Drawing

FIRST FLOOR HVAC PLAN



Scale

3/16" = 1'-0"

Job

20.048

Sheet

M1.0

Drawn

PTB

Date

10/06/20

RELEASE / REVISION		
No.	Date	Description
1	10/04/20	ISSUED FOR BIDDING
2	10/22/20	APPENDUM #1 - OWNER REVISIONS

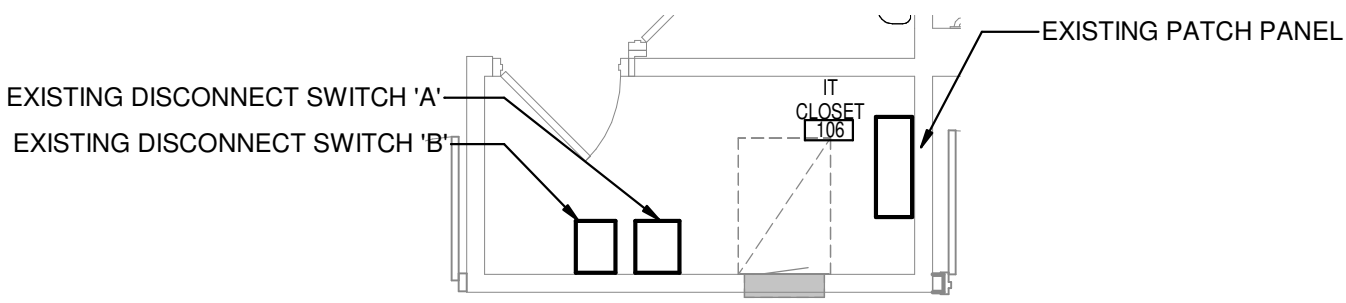
GENERAL NOTES

A. REFER TO GENERAL NOTES ON SHEET E.01 FOR ADDITIONAL INFORMATION AND DETAILS.

KEYNOTES

1. EXTEND NEW RECEPTACLE CIRCUIT TO EXISTING RECEPTACLES AS INDICATED. PROVIDE ALL NECESSARY WIRING AND CONDUIT.
2. EXISTING RECEPTACLES CIRCUITS IN THIS AREA TO REMAIN. MODIFY/EXTEND CIRCUITS AS REQUIRED. SEE PANEL SCHEDULE.
3. RECONNECT EXISTING CIRCUIT TO NEW EQUIPMENT. MODIFY/EXTEND CIRCUITS USING SAME GAUGE /TYPE WIRE AND CONDUIT AS EXISTING. SEE DEMO PLANS FOR DETAILS.
4. EXISTING RECEPTACLE AND RECEPTACLE CIRCUITS TO REMAIN.
5. PROVIDE STAND ALONE DUCT SMOKE DETECTOR. ACTIVATION OF DUCT DETECTOR SHALL SHUT DOWN THE MECHANICAL UNIT. PROVIDE ALL WIRING, HARDWARE AND CONDUIT.
6. COORDINATE LOCATION AND MOUNTING HEIGHT WITH ARCHITECT PRIOR TO ROUGH-IN.
7. CARD READER TO BE PROVIDED BY OTHERS. SEE ELECTRICAL LEGEND FOR MORE DETAILS.
8. CONTRACTOR TO ADD NEW PATCH PANEL AS NEEDED FOR NEW CAT6® CABLE. PROVIDE ALL NECESSARY CONNECTIONS TO EXISTING NETWORK SWITCH. CONTRACTOR IS RESPONSIBLE FOR ALL TERMINATION TO DEVICES AND PATCH PANEL.
9. NEW DUCT SMOKE DETECTOR SHALL BE CONNECTED TO FIRE ALARM CONTROL PANEL. ACTIVATION OF DUCT DETECTOR SHALL SHUT DOWN THE MECHANICAL UNIT. ACTIVATION OF DUCT DETECTOR ON AHU-1, AHU-2, AHU-3 OR AHU-4 SHALL ALSO SHUT DOWN THE DOAS-1 UNIT.
10. POWER FOR DOOR HARDWARE.

1. REINSTALL CAMERA WITH EXISTING CONDUIT AND WIRING. 2.



IT CLOSET - Callout 1
SCALE: NONE

2. PATCH PANEL AND 86 BLOCK TO BE REMOVED. REFER TO E1.0 FOR DETAILS.

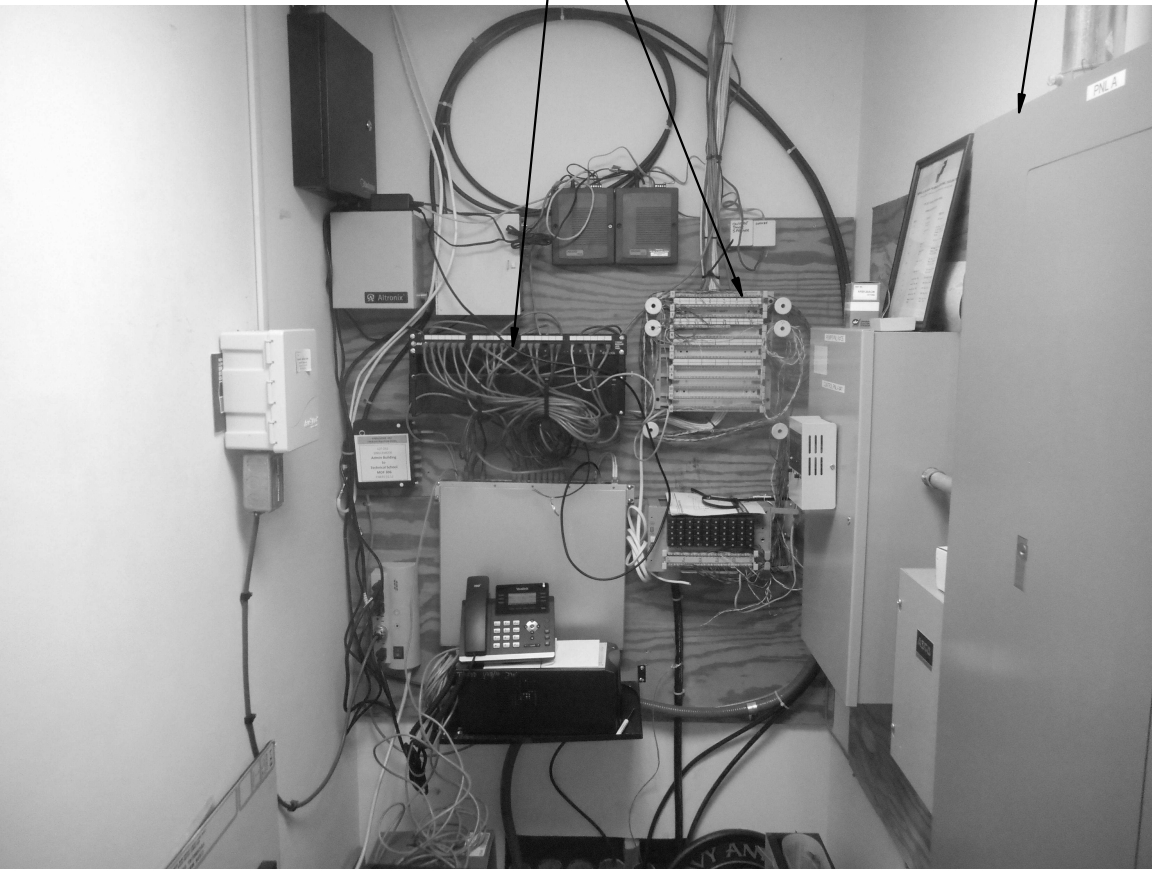


PHOTO 1



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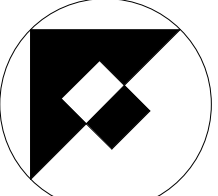
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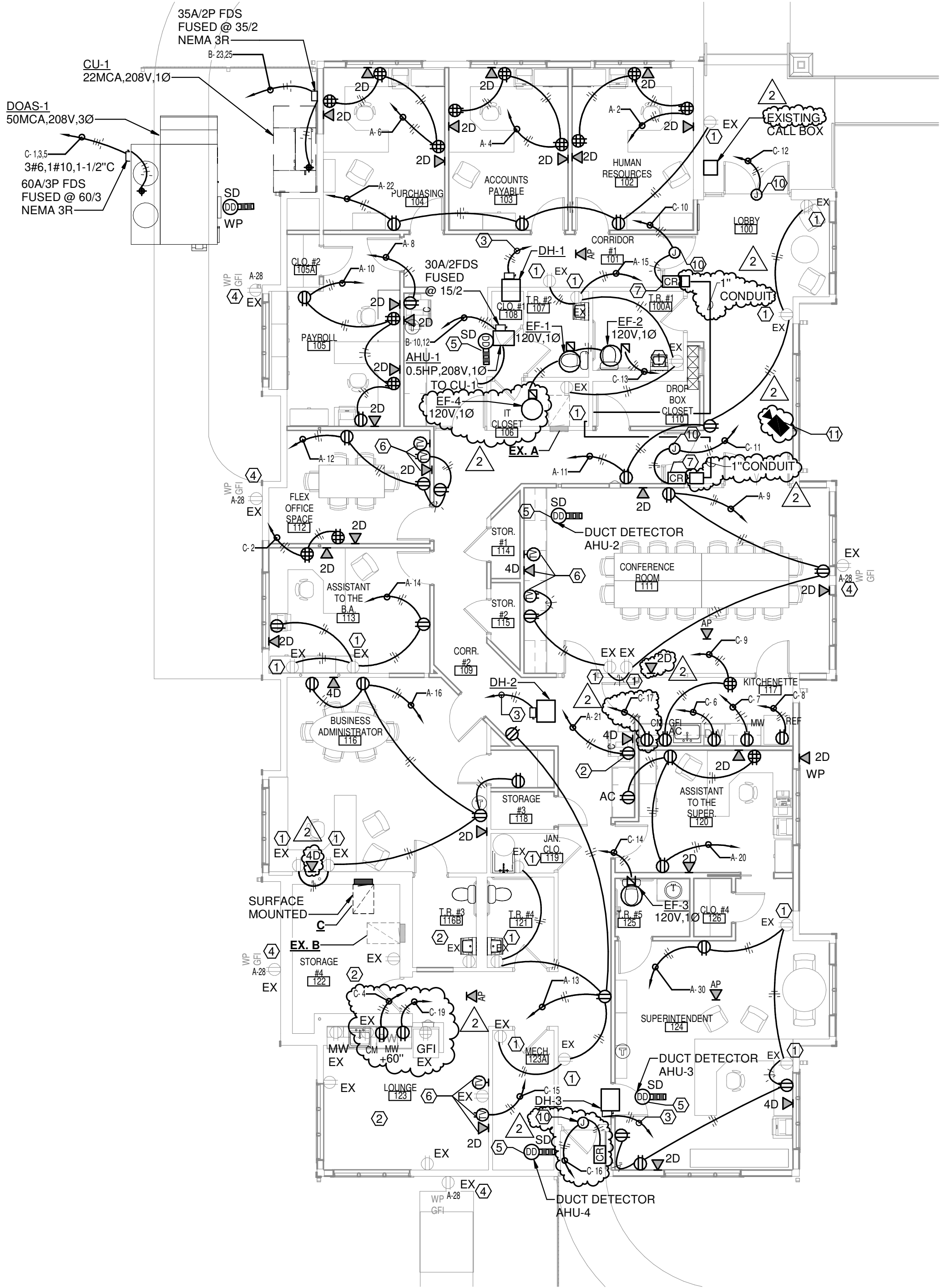
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188 CREST HAVEN ROAD CAPE MAY COURT
HOUSE, NJ 08210

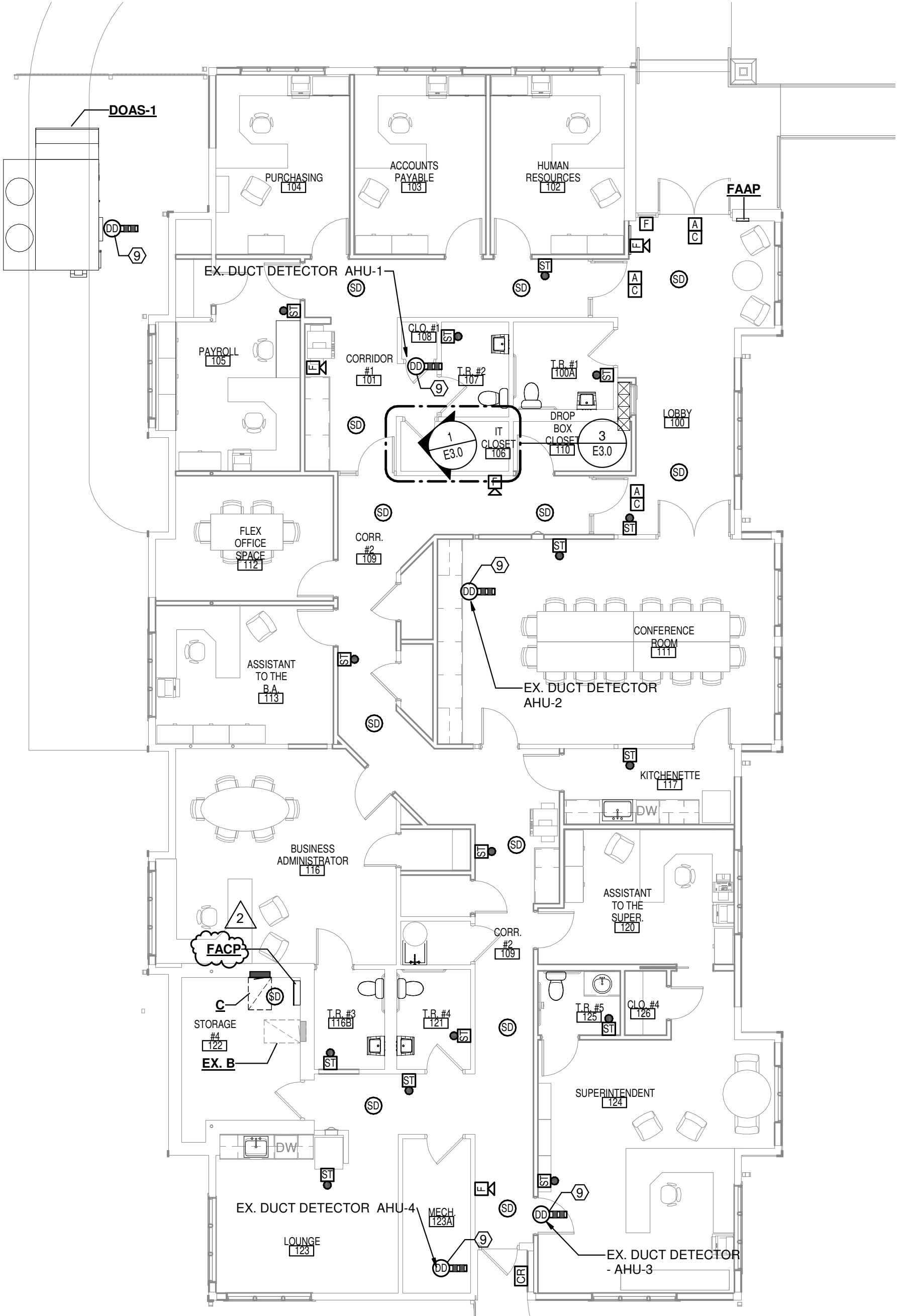
Drawing
ELECTRICAL POWER AND
SYSTEMS PLAN



Scale	Job	Sheet
As indicated	20.048	E3.0
Drawn	Date	
AK	10/06/20	



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



2. FIRST FLOOR FIRE ALARM PLAN - ALTERNATE 1
SCALE: 1/8" = 1'-0"

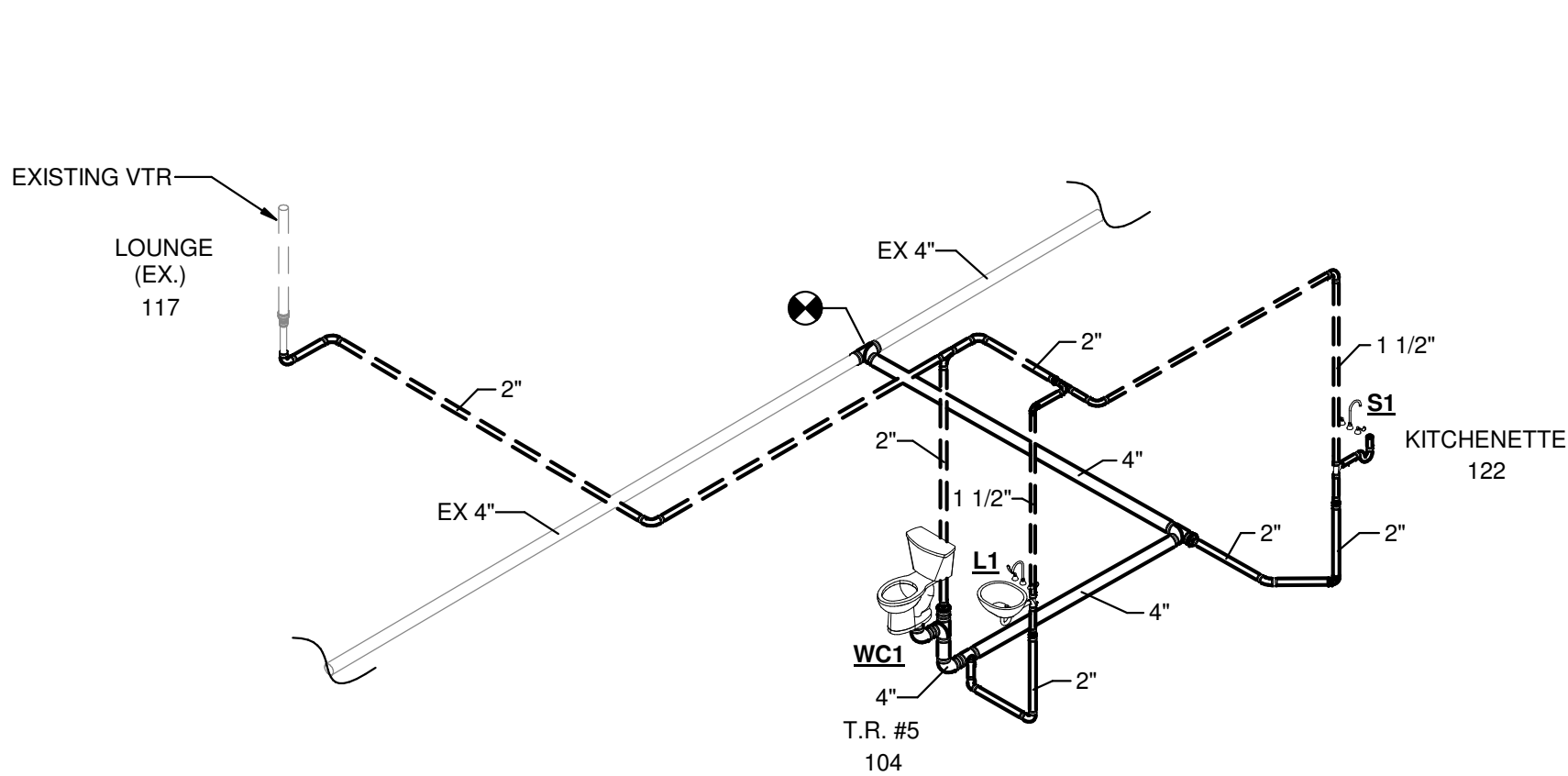
RELEASE / REVISION		
No.	Date	Description
1	10/04/20	ISSUED FOR BIDDING
2	10/22/20	APPENDUM #1 - OWNER REVISIONS

KEYED NOTES:

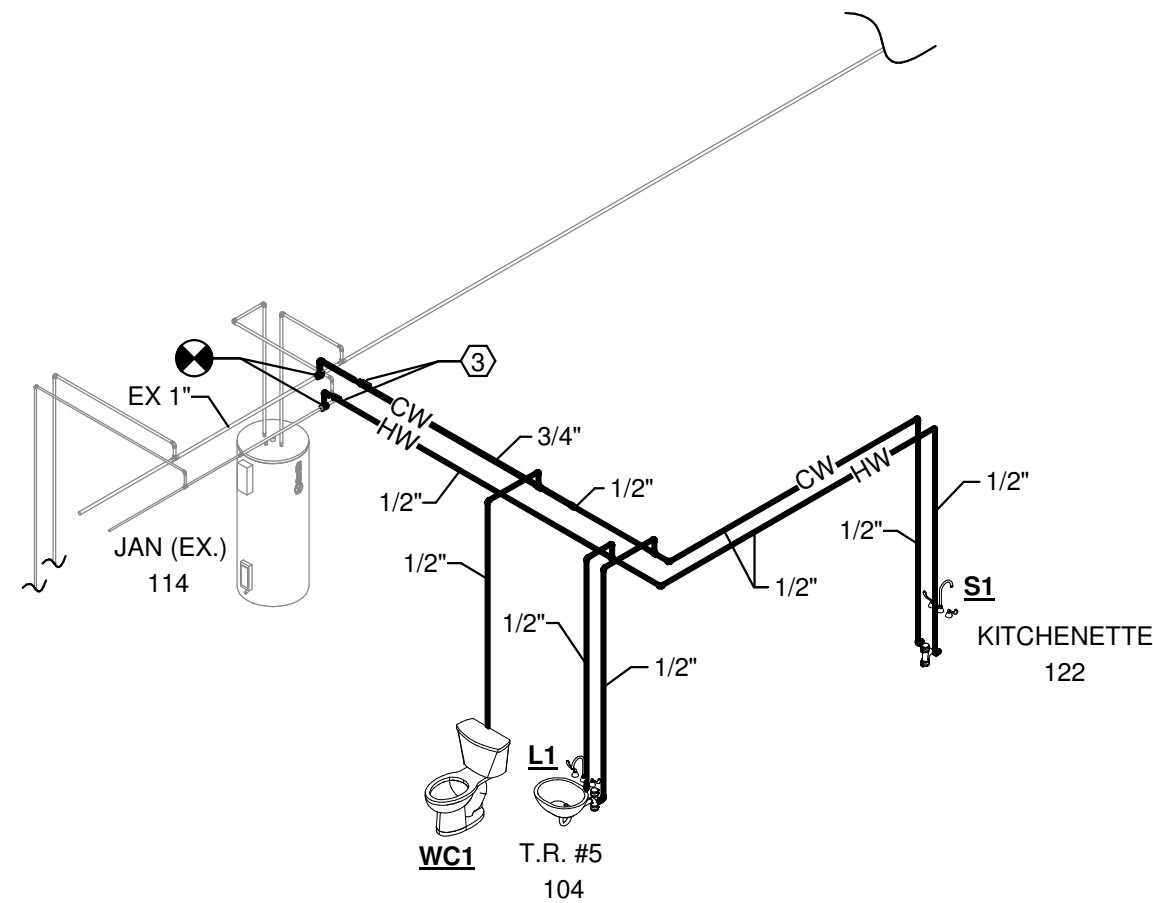
- 1½" VENT, ½" HOT AND COLD WATER DOWN TO FIXTURE.
- 2" VENT, ½" COLD WATER DOWN TO FIXTURE.
- ISOLATION VALVES.
- DISCONNECT GAS PIPING FROM EXISTING DUCT HEATER. RECONNECT GAS PIPING ONCE NEW DUCT HEATER IS INSTALLED.
- NEW GAS METER, REGULATORS, VENTING AND VALVING PER LOCAL GAS COMPANY. METER CAPACITY SHALL BE 630 CFH AT 10" WC, NEW 2" MAIN INTO BUILDING.
- 1¼" GAS LINE RUN ABOVE CEILING.
- PROVIDE GAS VALVE, UNION AND DIRT LEG FOR CONNECTION TO DOAS UNIT.
- REMOVE FIXTURE COMPLETE. REMOVE PIPING BACK TO MAINS AND CAP.
- 1¼" GAS DOWN IN CHASE TO 18" A.F.F. EXTENT THROUGH OUTSIDE WALL.
- 1¼" GAS LINE RUN ABOVE GRADE. PROVIDE PIPE SUPPORTS AND COORDINATE WITH NEW DUCT.
- REMOVE FIXTURE AND PREPARE PIPING FOR NEW CONNECTIONS.
- INSTALL NEW SINK. CONNECT TO EXISTING PIPING, MODIFY EXISTING PIPING TO ACCOMMODATE NEW SINK. PROVIDE DISHWASHER WYE FITTING AND AIR GAP. EXTEND ½" HW TO DISHWASHER.
- PROVIDE DISHWASHER WYE FITTING AND AIR GAP. EXTEND ½" HW TO DISHWASHER.

GENERAL NOTES:

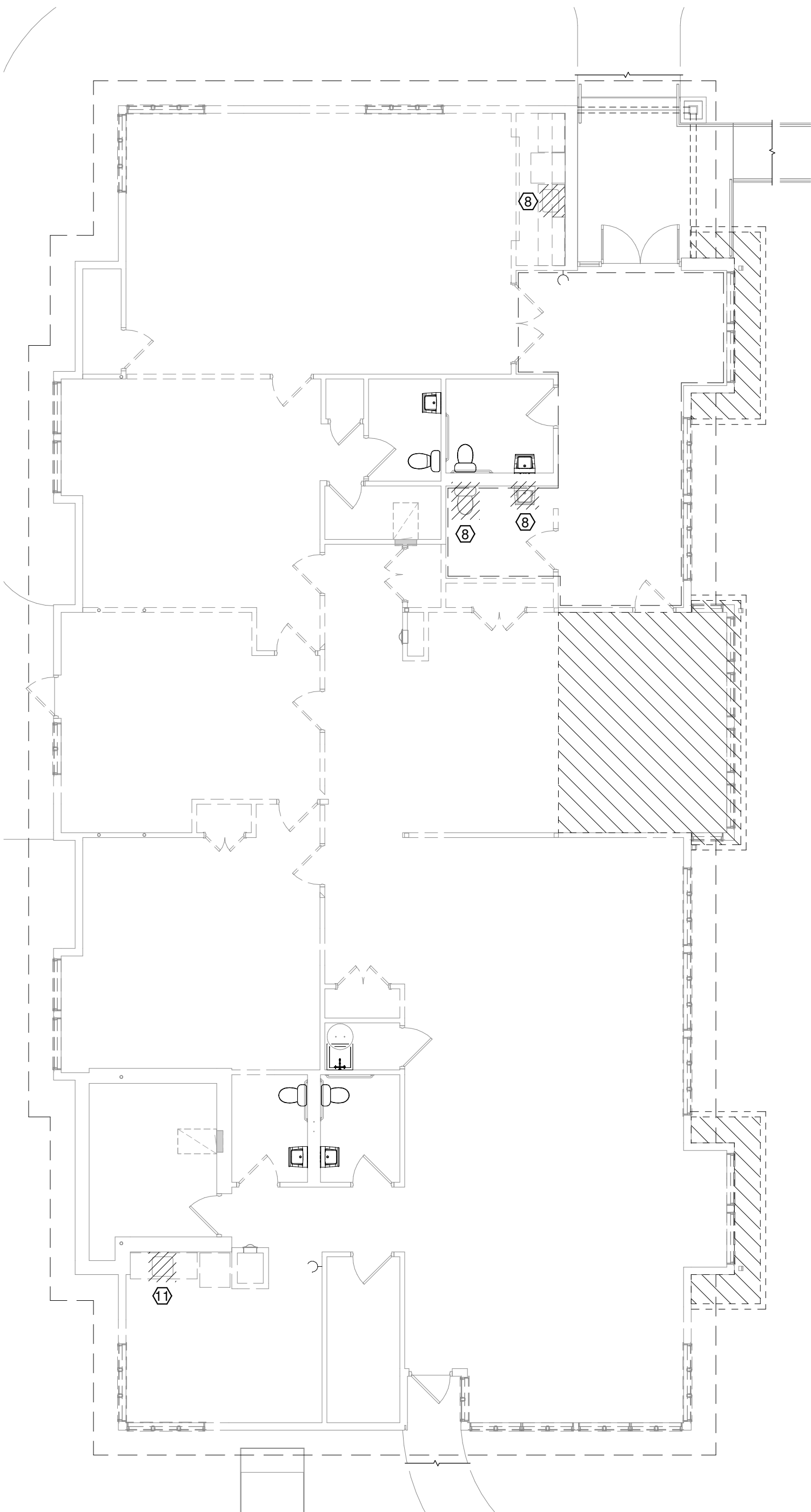
- EXISTING PIPING LOCATIONS HAVE BEEN TAKEN FROM ASBUILT DRAWINGS. FIELD VERIFY EXACT LOCATION.
- WATER PIPING TO BE RUN ABOVE CEILING BUT BELOW INSULATION.



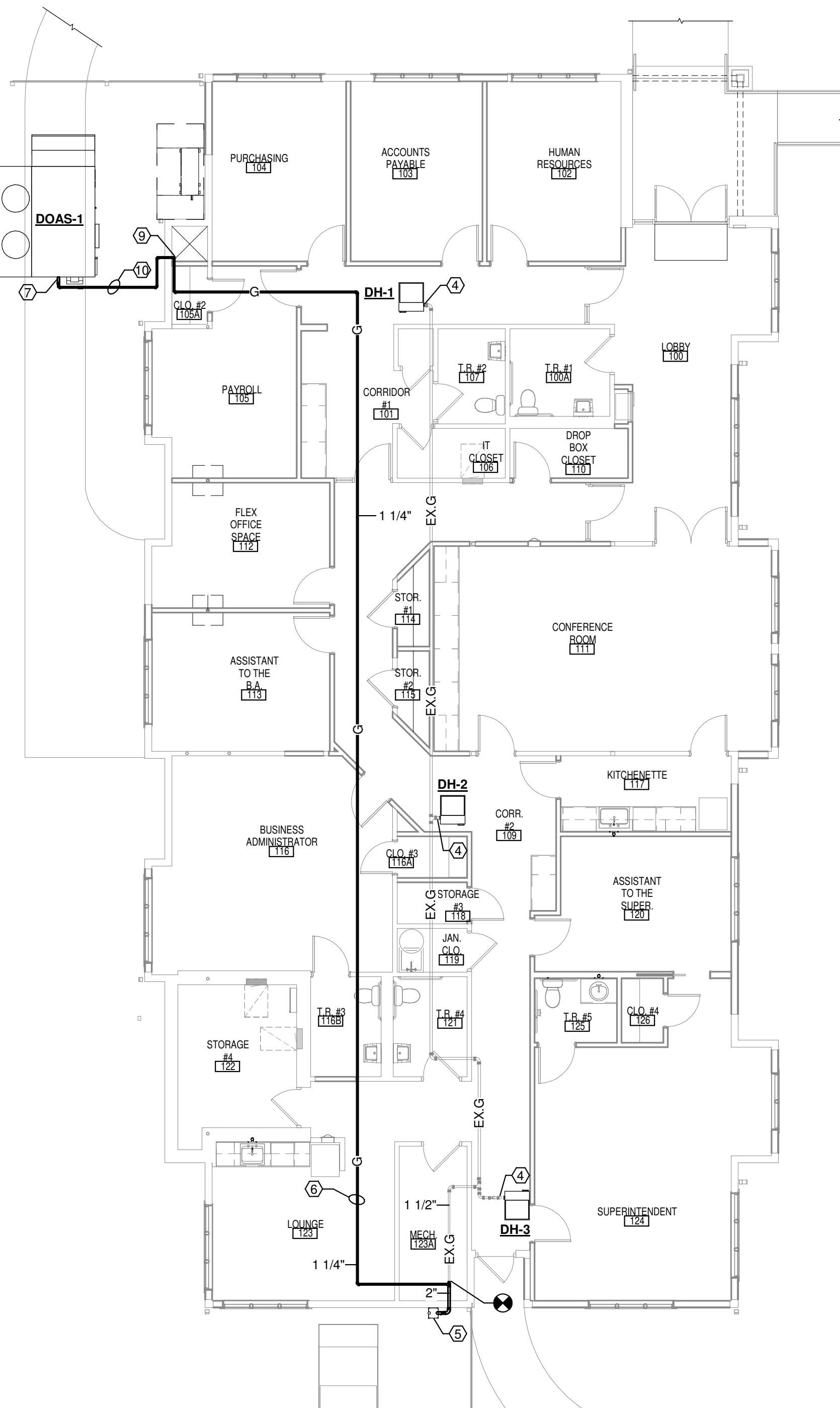
4 WASTE AND VENT PLUMBING RISER PLAN
SCALE:



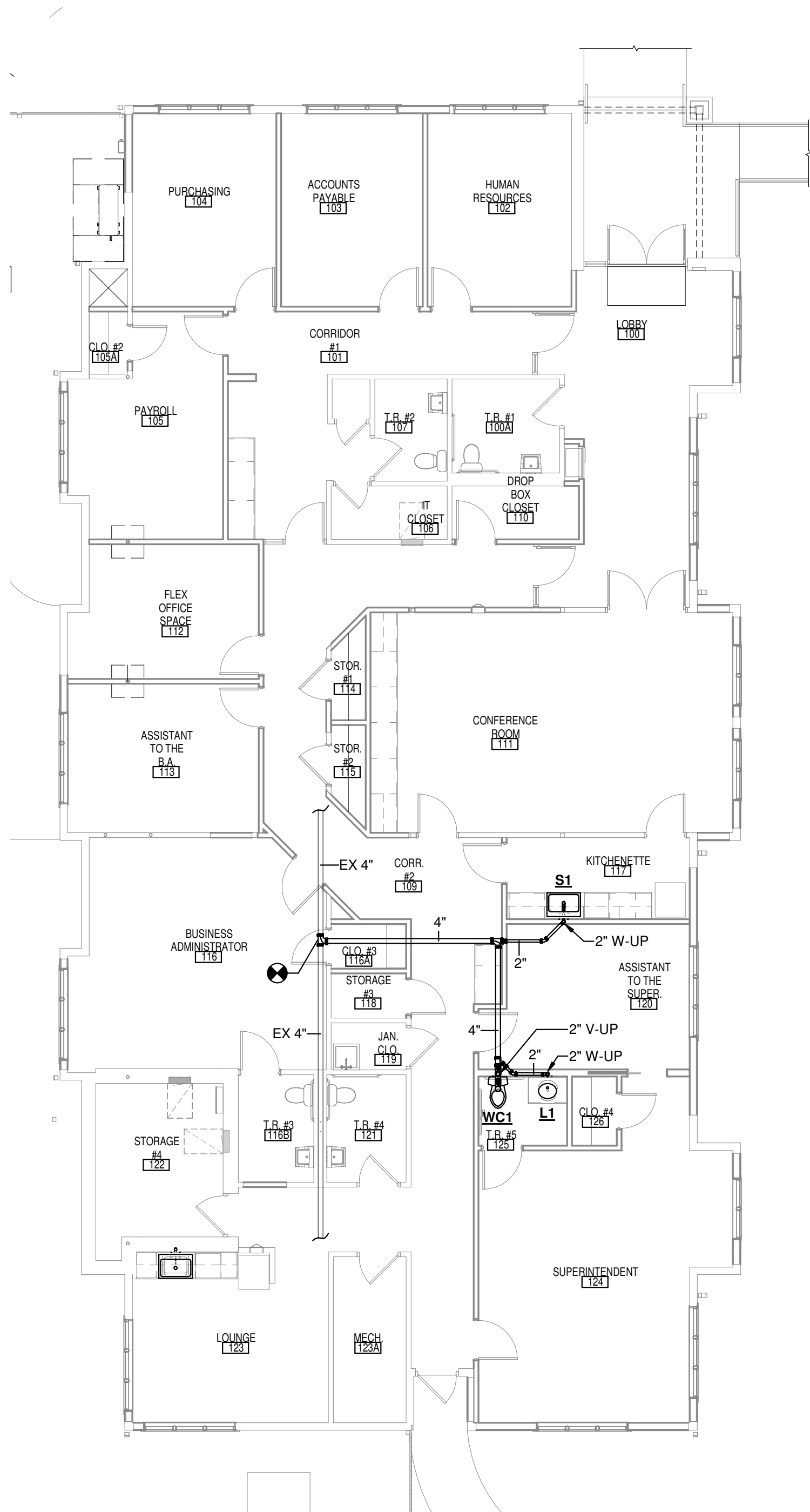
5 DOMESTIC WATER RISER DIAGRAM
SCALE:



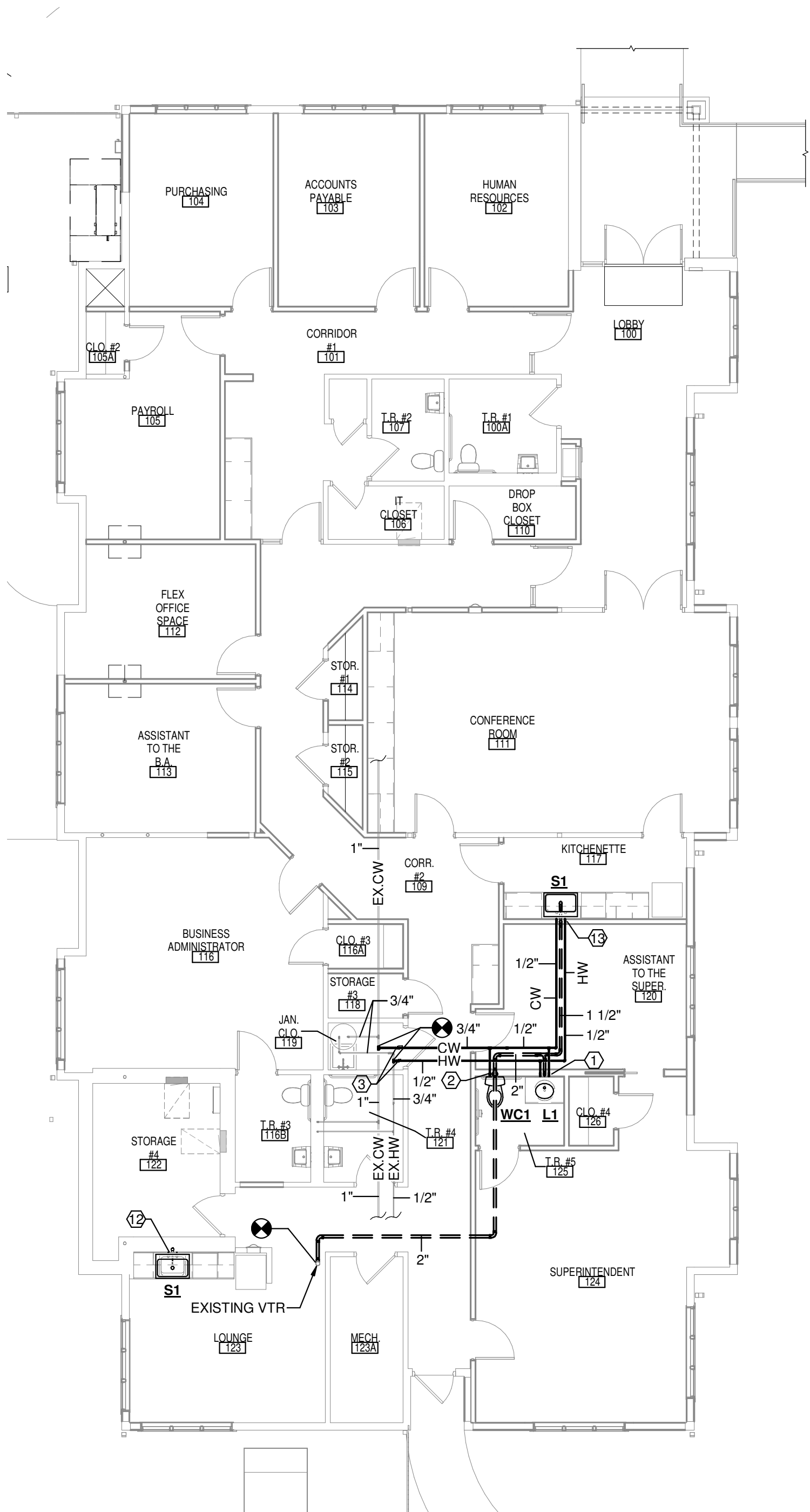
1 PLUMBING REMOVAL PLAN
SCALE: 1/8" = 1'-0"



6 PLUMBING GAS PIPING PLAN
SCALE: 1/8" = 1'-0"



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



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



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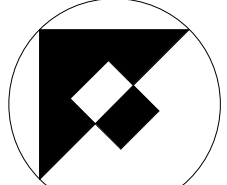
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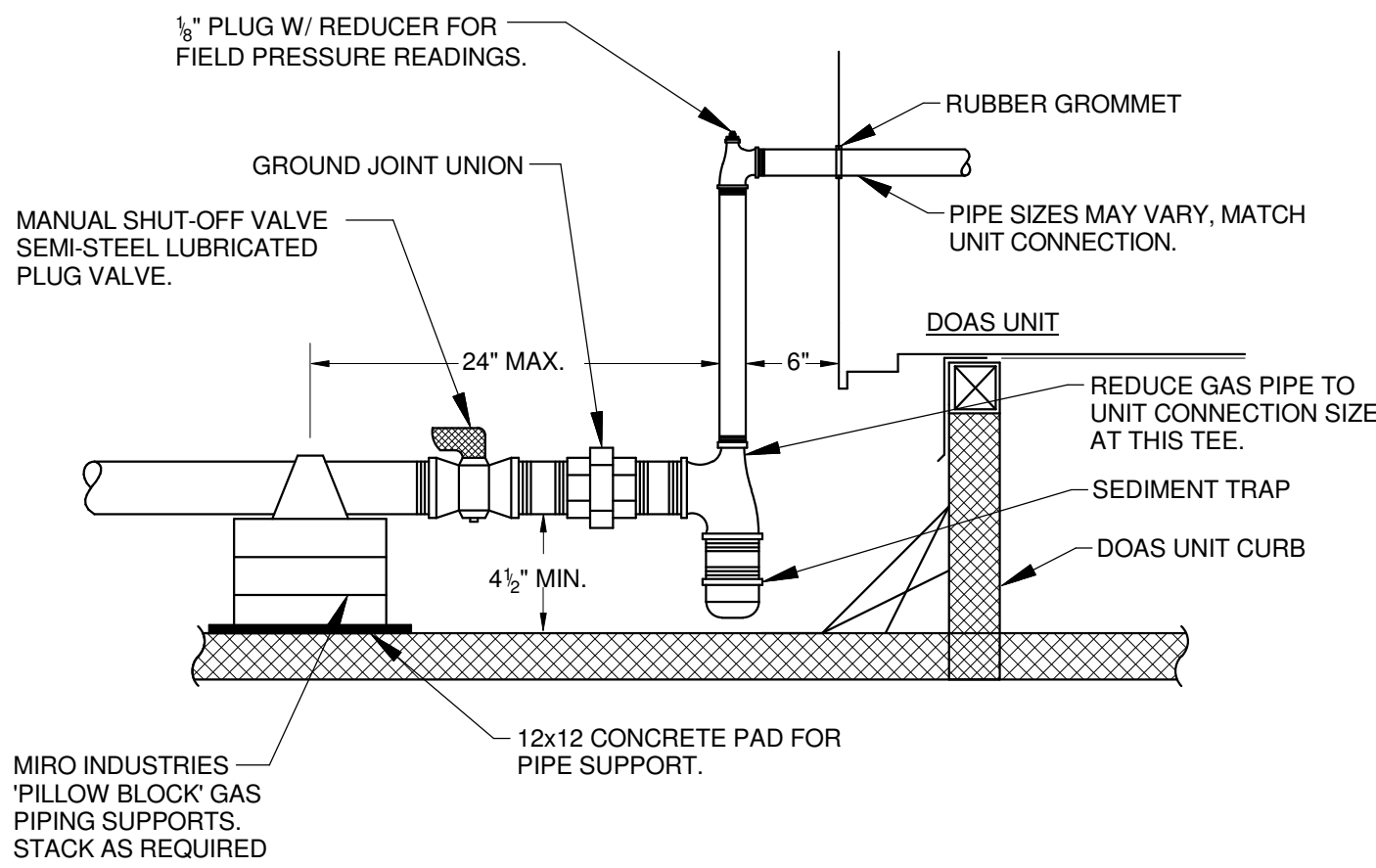
Project
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Drawing
PLUMBING PLANS

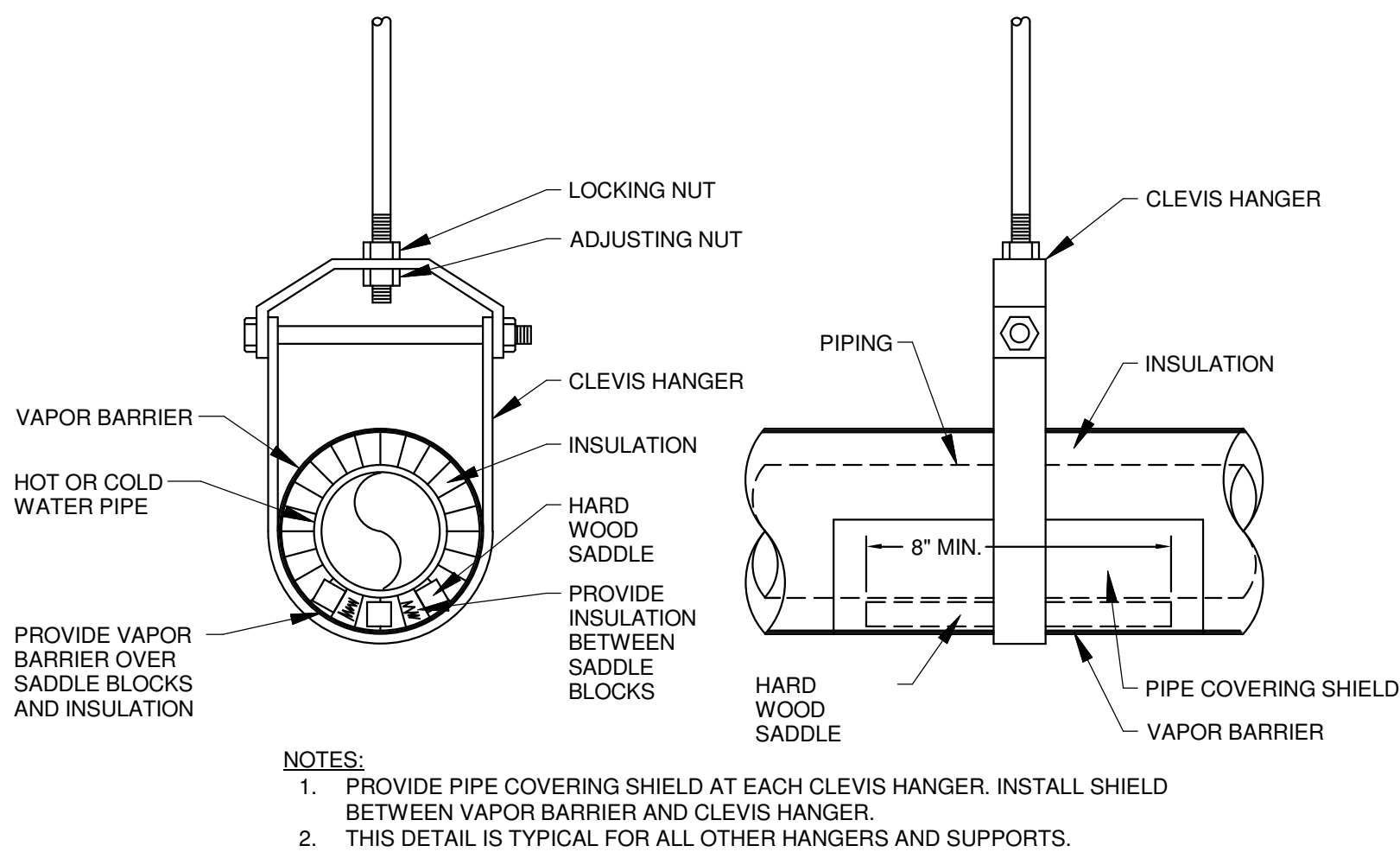


Scale	Job	Sheet
1/8" = 1'-0"	20.048	P1.0
Drawn	Date	
PTB	10/06/20	

SCHEDULE OF PLUMBING FIXTURES AND CONNECTIONS																						
MARK	FIXTURE	MANUFACTURER	MODEL NO.	TYPE	MATERIAL	STYLE	FAUCET / VALVE				SUPPLY STOPS MANUFACTURER AND MODEL	DRAIN				DOMESTIC CW	DOMESTIC HW	DOMESTIC TW	SANITARY WASTE	SANITARY VENT	REMARKS	MARK
							MANUFACTURER & MODEL	SPOUT	HANDLES	CENTERS		TYPE	SIZE	P-TRAP	TAILPIECE							
WC1 (ADA)	WATER CLOSET	ZURN	Z5551-K	FLOOR MOUNT FLUSH TANK	VITREOUS CHINA	A.D.A. ELONGATED SIPHON-JET	---	---	LEVER	---	ZURN Z8804-XL -LK-Q-PC	---	---	---	---	1/2"	---	---	4"	2"	1.6 GALLON FLUSH. ZURN Z5955SS-EL-AM-STS SEAT. TOILET FLANGE BOLTS SHALL BE DOUBLE NUTTED.	WC1 (ADA)
L1	LAVATORY	---	---	INTEGRAL BOWL	---	---	ZURN MODEL Z81000-XL-17M	INTEGRAL WITH FAUCET	LEVER	4"	ZURN Z8804-XL -LK-Q-PC	---	1 1/4"	17 GAUGE 1 1/2" X 1 1/2"	OFFSET	1/2"	1/2"	---	1 1/2"	1 1/2"	ARCHITECTURAL DRAWINGS SHOW DETAILS ON INTEGRAL BOWL SINK. P-TRAP SHALL BE ADJUSTABLE CAST BRASS WITH CLEANOUT. PROVIDE ZURN Z8946-3-NT PROTECTIVE COVERINGS FOR ALL TAILPIECES, TRAP, SUPPLIES.	L1
S1 (ADA)	SINK	ELKAY	LRAD312265PD	SINGLE BOWL DROP IN	STAINLESS STEEL	SELF-RIMMING OFF-CENTERED DRAIN	ZURN MODEL Z831C3-XL-HGT	INTEGRAL WITH FAUCET	4" WRIST BLADES	8"	ZURN Z8804-XL -LK-Q-PC	ZURN Z8739 -17-PC	1 1/2"	17 GAUGE 1 1/2" X 1 1/2"	OFFSET	1/2"	1/2"	---	1 1/2"	1 1/2"	P-TRAP SHALL BE ADJUSTABLE CAST BRASS WITH CLEANOUT.	S1 (ADA)



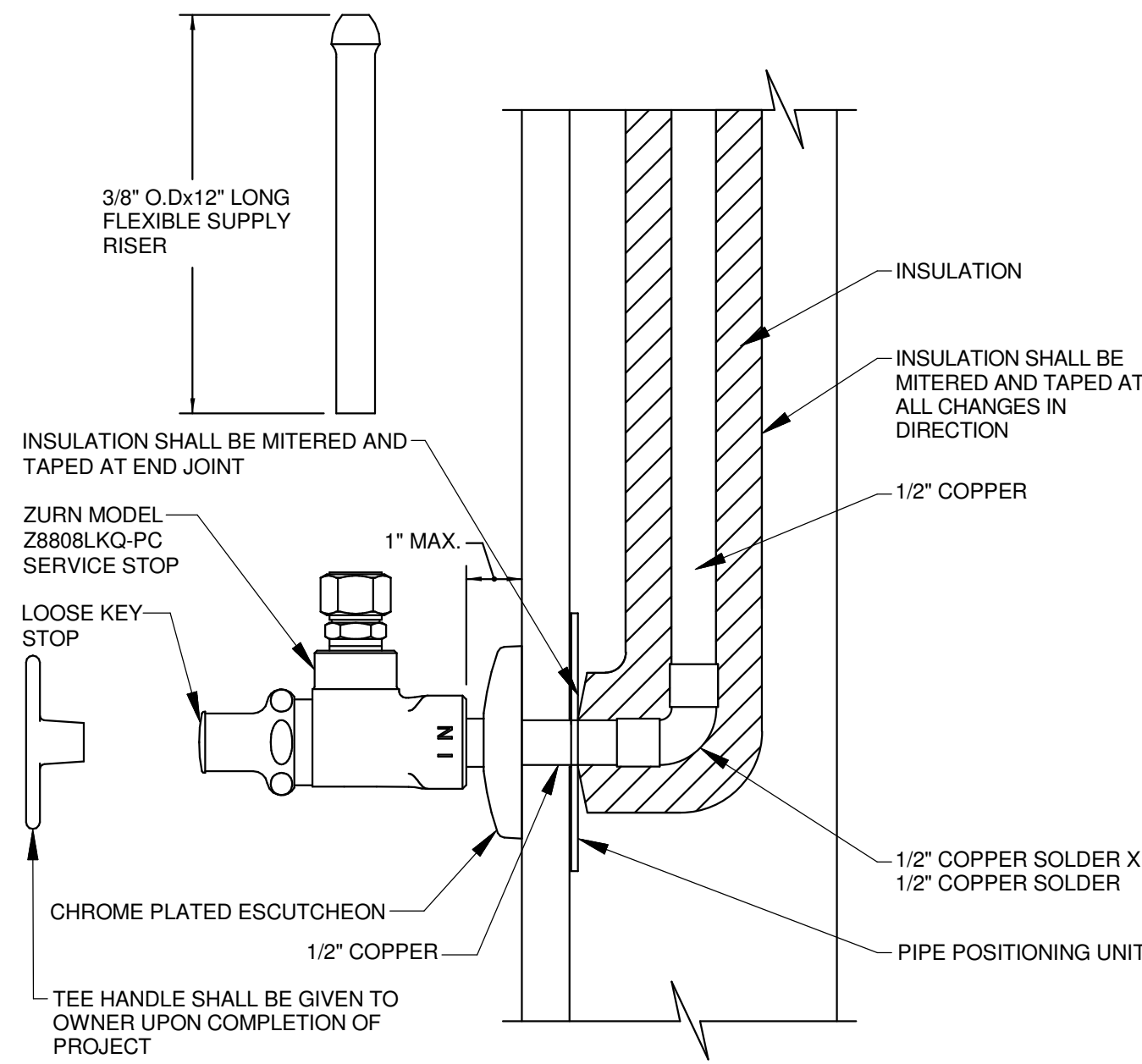
TYPICAL GAS PIPING CONNECTION DETAIL
SCALE: NONE



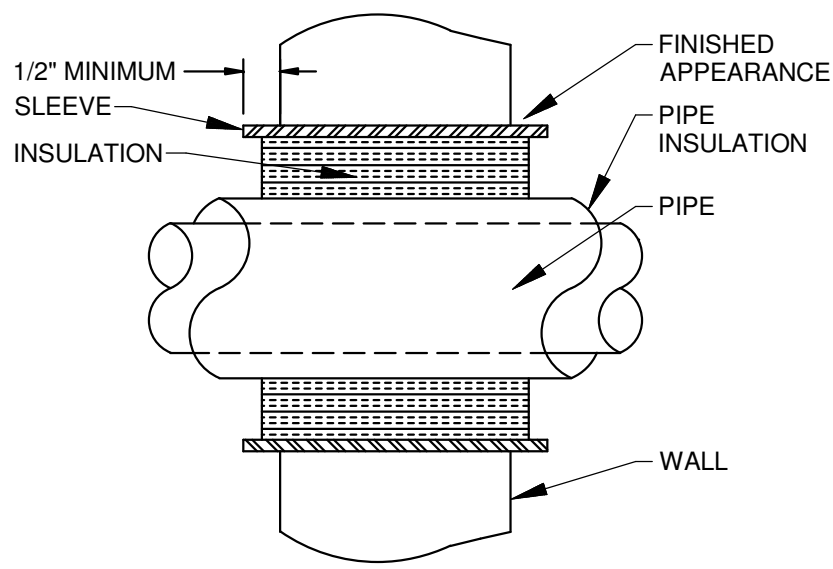
TYPICAL INSULATED PIPE HANGER DETAIL
SCALE: NONE

PLUMBING LEGEND

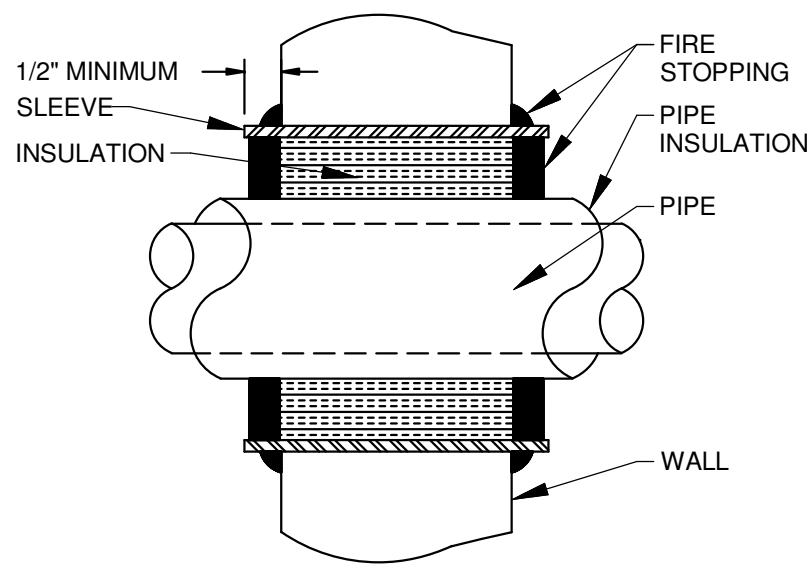
WC	WATER CLOSET - FLOOR SET FLUSH TANK	—	SANITARY WASTE	P	PRESSURE GAUGE
L	LAVATORY - WALL HUNG	- - - -	SANITARY VENT	T	TEMPERATURE GAUGE
S	SINK - DROP-IN	— CW	DOMESTIC COLD WATER		THERMOMETER
		— HW	DOMESTIC HOT WATER		RECIRCULATING PUMP
		— HWR	DOMESTIC HOT WATER RETURN		END CAP
		— G	NATURAL GAS		CONNECTION POINT- NEW TO EXISTING
		—	BALL VALVE		LIMIT OF REMOVAL
		—	SHUT-OFF VALVE	////	INDICATES REMOVAL
		—	CHECK VALVE	A	WALL HYDRANT
		—	PRESSURE REDUCING VALVE		WATER HAMMER ARRESTER
		—	BALANCING STATION SEE DETAIL		ZURN Z-1700 SIZE A-(100), B-(200), C-(300), D-(400)
		—	STRAINER		
		—	REDUCED PRESSURE BACKFLOW PREVENTER		
		—	FLOW-IN DIRECTION OF ARROW		
		—	RISER OR DROP		
		—	BRANCH CONNECTION OFF TOP		
		—	RISER DOWN		
		—	RISER UP		



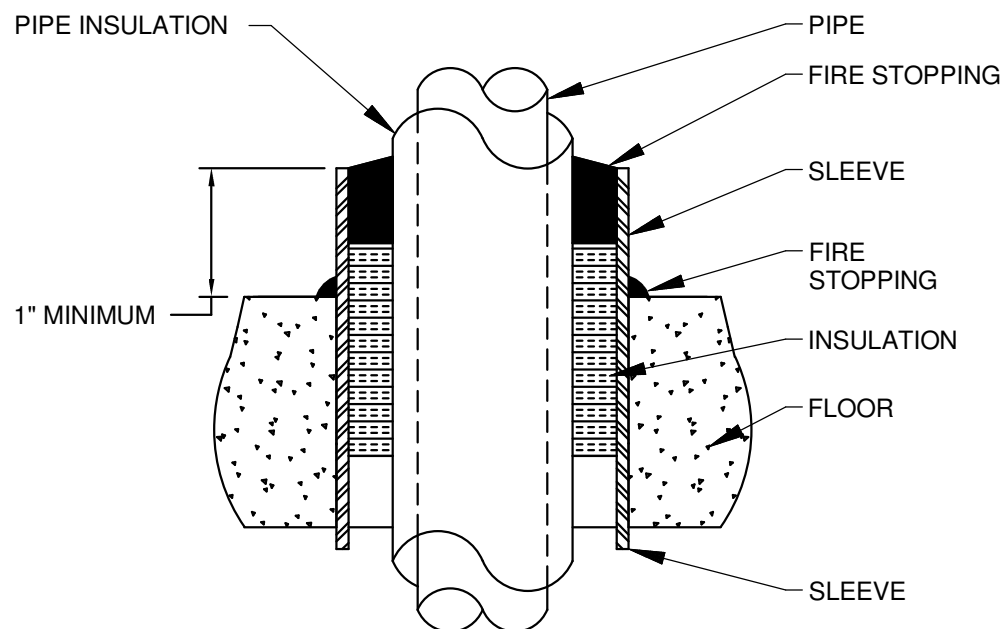
TYPICAL SERVICE STOP INSTALLATION DETAIL
SCALE: NONE



INTERIOR NON-RATED WALL PIPE SLEEVE DETAIL
SCALE: NONE



INTERIOR RATED WALL PIPE SLEEVE DETAIL
SCALE: NONE



FLOOR PIPE SLEEVE DETAIL
SCALE: NONE

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Drawing
PLUMBING SCHEDULE,
DETAILS AND LEGEND

Scale	Job	Sheet
	20.048	P2.0
Drawn	Date	
PTB	10/06/20	