

# **BID ADDENDUM #3**

**April 18, 2022**

To:  
**Prospective Bidders/Planholders**

**CHILD DEVELOPMENT CENTER  
PROJECT NUMBER ST-01828  
California State University Stanislaus  
One University Circle, Turlock, CA 95382**

This Addendum forms a part of the contract documents and modifies the original bidding documents. Addendum shall be noted as received and acknowledged on the Bid Proposal Form when submitted as outlined in the Bid Package referenced above.

The following corrections, additions, deletions, and/or modifications to the above package, by this reference, shall be incorporated therein:

## **Addition:**

1. Please confirm the list of approved Prequalified General Contractors will be provided prior to the bid date.  
No, this will not be provided before bid date.
2. Please confirm there are no prequalification requirements for subcontractors.  
Correct, the University does not have a prequalification requirement for subcontractors.
3. Please confirm there is an OCIP.  
Confirmed
4. Please confirm the Builders Risk Policy is by Owner.  
Confirmed
5. Please advise the anticipated date for NTP.  
May 31<sup>st</sup>, reference spec section 011000 1.15.A
6. Please provide the overall construction duration.  
488 days, reference spec section 011000 1.15.A
7. Please advise if the (7) Alternates noted per plan sheet G0.01 are applicable to this bid since they are not noted within Alternate Spec Section 012300 or shown on the Bid Form.  
Cost for alternates to be included and separated by each item. The University will publish a revised bid form to be used in lieu of the sample published in the bid book.
8. Please provide Special / Supplementary Conditions if applicable.  
No Special/Supplementary Conditions
9. Please confirm the 3% DVBE Participation is a mandatory requirement to deem a bid responsive.  
Confirmed

10. Please confirm City & State is sufficient for the company address section on the “List of Proposed Subcontractors”.  
Full address is required as listed on form
  11. Please confirm bid amounts for listed subcontractors that are not SBE or DVBE are not required to be stated on the “List of Proposed Subcontractors”.  
Bid amounts required for all subcontractors
  12. Please confirm the “List of Subcontractors – Additional Information” Form can be submitted within 24 hours after the bid deadline.  
Yes, they can.
  13. Please confirm the entire Exhibit D “DVBE Participation Forms” can be submitted within 24 hours after the bid deadline.  
Yes, per sample form DVBE-T as published in the bid book.
  14. Please advise the deadline to submit RFI’s.  
??? April 22<sup>nd</sup>. Responses will be published by end of day on April 25<sup>th</sup>.
  15. Please advise the \$/day for liquidated damages.  
\$5000, reference spec section 011000 1.15.A
- The alternative bid form has been attached as a sample, if you have already pre-qualified and obtained a bid package, it will be sent directly to you.
  - Two additional attachments are included.
    - Addendum #1 to Contract General Conditions, dated April 1, 2022
    - Addendum #2 to Contract General Conditions, dated April 13, 2022

End of Addenda No. 3

**BID PROPOSAL FORM**

**CHILD DEVELOPMENT CENTER, PROJECT NUMBER ST-01828  
CALIFORNIA STATE UNIVERSITY, STANISLAUS  
One University Circle  
Turlock, CA 95382**

To the Trustees of the California State University, on behalf of the State of California (hereinafter called the Trustees):

The undersigned bidder hereby offers, in the amount stated below, to furnish all labor, materials, tools, equipment, apparatus, facilities, transportation and permits for the construction of the Child Development Center at California State University, Stanislaus, if this offer is accepted by the Trustees.

**TOTAL AMOUNT OF BASE BID:** \$ \_\_\_\_\_ **LUMP SUM**  
(use figures only)

**Bidder shall include Allowances and Lump Sum Amount in Base Bid Lump Sum Price.**

The Base Bid amount is to be stated in figures only and is the total amount bid for the entire contract work including all applicable taxes. Any alteration, erasure, or change must be clearly indicated and initialed by the bidder. The bidder agrees that if there are any discrepancies or questions of the figures, the Trustees will use the lower figure despite the bidder's intent. The Trustees' Construction Budget is \$15,243,000.

SPECIFY THE NUMBER OF EACH ADDENDUM YOU HAVE RECEIVED ON THE LINE BELOW.

**ALLOWANCES:**

1. Describe \$ \_\_\_\_\_ Lump Sum
2. Describe \$ \_\_\_\_\_ Lump Sum

**Bidder has included all of the above allowances in the above Base Bid Lump Sum Price.**

**ALTERNATIVES – BASIS OF AWARD**

The lowest bid shall be the lowest total of the bid prices on the base contract (Base Bid) and those additive or deductive alternatives that, when taken in order and added to, or subtracted from the Base Bid, are less than or equal to the Trustees' Construction Budget stated above. If Trustees award a contract, it will go to the responsible bidder who submitted the lowest bid as determined by this basis of award. The Trustees are not precluded from adding to or deducting from the contract any of the additive or deductive alternatives after they have determined the lowest responsible bidder.

**ADDITIVE ALTERNATIVES**

The following additive alternatives are an integral part of this proposal, and to be responsive, the bidder shall quote for the Base Bid, and also for the following listed additive alternatives.

**Additive Alternative No. 1:**

Describe: \$ \_\_\_\_\_ Lump Sum  
(use figures only)

**Additive Alternative No. 2:**

Describe \$ \_\_\_\_\_ Lump Sum  
(use figures only)

**DEDUCTIVE ALTERNATIVES**

The following deductive alternatives are an integral part of this proposal, and to be responsive, the bidder shall quote for the Base Bid, and also for the following listed deductive alternatives.

**Deductive Alternative No. 1:**

Describe \$ \_\_\_\_\_ Lump Sum  
(use figures only)

**Deductive Alternate No. 2**

Describe \$ \_\_\_\_\_ Lump Sum  
(use figures only)

Bidder shall state the above amounts in figures only, and these are the total amounts bid for all of the alternatives including all applicable taxes. Any alterations, erasures or changes must be clearly indicated and initialed by the bidder. The bidder agrees that if there are any discrepancies or questions in the figures, the Trustees will use the lower figure despite the bidder's intent.

The Bidder shall hold the lump sum prices for all alternatives for 60 calendar days after the start date of the Notice to Proceed. The Trustees reserve their right, within 60 calendar days after the start date of the Notice to Proceed, to add into or deduct from the awarded contract amount by change order, any or all alternatives that were not previously awarded at the listed lump sum amounts, without any delay or impact to the project and with no mark-up or mark-down.

*(NOTE: The following is an example of work to be separately priced, and included in the Base Bid. Then unit prices for the work are requested in case quantities are changed during construction.)*

**DRILLED CAISSON FOUNDATION**

This lump sum amount is subject to revision by the unit price values submitted below if the required depths of the caissons are more than the depths indicated in the plans and specifications.

Total value of completed drilled caisson foundations system with depths as indicated in the plans and specifications:

\$ \_\_\_\_\_ Lump Sum  
(use figures only)

**Bidder shall include the above value in Base Bid Lump Sum Price specified on Page 1.**

**UNIT PRICES OF DRILLED CAISSONS**

Unit prices per linear foot for furnishing drilled caissons, including materials and labor as required, as shown on drawings in accordance with Specification Section \_\_\_\_\_.

A. 3 Foot Diameter Caisson, Add or Deduct for boring, reinforcement and concrete: \$ \_\_\_\_\_ per Linear Foot  
(use figures only)

B. 4 Foot Diameter Caisson, Add or Deduct for boring, reinforcement and concrete: \$ \_\_\_\_\_ per Linear Foot

(use figures only)

The Trustees reserve the right to adjust by change order the actual quantity of each unit item utilizing the quoted add/deduct unit prices.

The bid is subject to the provisions contained in the Contract General Conditions (note especially Article 2.00 *et seq.*) regarding instructions to bidders, and the bidder agrees that failure to comply with the conditions thereof may be the basis for rejection of this bid.

The Trustees require the successful bidder to achieve three percent (3%) DVBE participation in contracting construction projects as established in the bidding documents, and this must occur prior to the bid opening. The basis of award for this contract includes alternatives, and bidder shall ensure that three percent DVBE participation is met whether or not the Trustees add or deduct alternatives from the Base Bid. The University is offering a 1% DVBE bid incentive. Bidders shall contact the Trustees' DVBE Program Advocate at 209-667-3323 or [dsawyer1@csustan.edu](mailto:dsawyer1@csustan.edu).

The bid must be submitted on this Bid Proposal Form, completely filled out and in a sealed envelope and delivered to the Mary Stuart Rogers Building, room 270 on the California State University, Stanislaus campus, before **2:00 p.m. on May 5, 2022** or it will be disregarded. The Trustees will only accept bids from prequalified contractors with current California State License Board issued A or B license and current California Department of Industrial Relations Public Works Registration number.

Bidders shall enclose with this Bid Proposal Form, bid security in the amount equal to at least ten (10) percent of the amount of the bid (see Article 2.06 of the Contract General Conditions). If the bidder is awarded the contract and then fails to execute the contract, the bidder's security shall be forfeited to the Trustees.

The time period for completion of the bid of the project shall be **488 calendar days** from the construction start date as stated on the Notice to Proceed. Liquidated damages shall be **\$5,000.00** for each calendar day completion beyond the time prescribed for the project.

**Addendum no. 1**  
**to the**  
**Contract Documents**  
**April 01, 2022**

**General**

1. Bidders are cautioned to examine the Addendum in detail, allowing for all changes, additions or deletions as set forth below. All other conditions remain the same.
2. Acknowledge receipt of this Addendum on the Bid Form.
3. The Bid Date remains.

**Project Manual**

The following pages of the Project Manual are revised by this Addendum and are enclosed herewith as revised for immediate insertion to replace pages originally issued. Revised text, which may consist of additions to, deletions of, or other modifications of the text originally issued, is marked with an asterisk and superscript [“A1” (\*A1)] as is the corresponding Addendum designation (number and date) at the bottom of the reissued page. Previously issued addendum or revision designations remain as does the modified text.

Document Title

Page Number(s)

**Bidding Requirements**

The following pages of the Contract Conditions are revised by this Addendum and are enclosed herewith as revised for immediate insertion to replace pages originally issued. Revised text, which may consist of additions to, deletions of, or other modifications of the text originally issued, is marked with an asterisk and superscript [“A1” (\*A1)] as is the corresponding Addendum designation (number and date) at the bottom of the reissued page. Previously issued addendum or revision designations remain as does the modified text.

Document Title

Page Number(s)

## **Bidding Requirements**

The following pages of the Contract Conditions are issued by this Addendum and are enclosed herewith for immediate insertion into the Bidding Documents

Document Title	Page Number(s)
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## **Specifications**

The following Specification sections are revised by this Addendum and are enclosed herewith as revised for immediate insertion to replace pages originally issued. Revised text, which may consist of additions to, deletions of, or other modifications of the text originally issued, is marked with an asterisk and superscript [“A1” (\*A1)] as is the corresponding Addendum designation (number and date) at the bottom of the reissued page. Previously issued addendum or revision designations remain as does the modified text.

<b>Specification Section</b>	<b>Revision Description</b>
07 21 00	1.03 E, Added installer requirement. 2.02 A, Deleted mineral fiber insulation board.
08 71 00	Set 2.0, Deleted panic hardware to match door schedule. Set 6.0, Removed gates from set. Set 6.1, Added gates to set. Set 6.2, Added new set. Set 9.0, Added doors to set. Set 10.0, Added door to set. Set 10.1, Added new set. Set 11.0, Revised set. Set 12.0, Revised set. Set 13.0, Deleted set. Set 14.0, Removed doors from set.

The following Specifications sections were omitted from the originally issued set and are enclosed herewith as issued new by this Addendum.

<b>Specification Section</b>	<b>Section Title</b>
XXX	XXX

## **Drawings**

The following Contract Drawings are revised by this Addendum and are transmitted herewith as revised to replace immediately the respective original drawings.

<b>Sheet</b>	<b>Revision Description</b>
A0.31	Deleted duplicate door 107. Added card readers access to multiple doors & gates. Added abbreviation definition.
A2.11	Added equipment pads.
A2.21	Revised finished schedule.
2/A8.11	Replaced mineral fiber board with rigid foam board for exterior continuous insulation.
10/A8.21	Replaced mineral fiber board with rigid foam board for exterior continuous insulation.
A9.41	Revised floor finish pattern.
S2.0	Added equipment pads.
S4.1	Added detail 14.
M0.01	HHWP-1, HHWP-2, CHWP-1, CHWP-2 updated for minor equipment manufacturer model number and performance changes
M3.02	HHWP-1, HHWP-2 graphic updated to match model number changes on sheet M0.01.
E3.2	Various changes to access control throughout project.
E6.1	Clarification to bid alternate scope of work related to the photovoltaics.
E7.1	Clarification to bid alternate scope of work related to the photovoltaics.

The following Contract Drawings are added by this Addendum and are transmitted herewith as new to be inserted immediately in the drawing set.

<b>Sheet</b>	<b>Reference Title</b>
XXX	XXX

**+ + End of Addendum No. 1 + +**



SECTION 07 21 00

THERMAL INSULATION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 DESCRIPTION

- A. This Section describes the requirements for furnishing and installing thermal batt/blanket and rigid board insulation.
- B. Related Sections:
  - 1. Sustainable design requirements are specified in Section 01 81 13.
  - 2. Roof board insulation is specified in Section 07 22 16.
  - 3. Firestopping insulation is specified in Section 07 84 00.
  - 4. Acoustic insulation is specified in Section 09 81 00.

1.03 SUBMITTALS

- A. General: Comply with the requirements specified in Division 01.
- B. Product Data: Manufacturer's specifications for each type of insulation required.
- C. LEED Submittals:
  - 1. All thermal insulation products/suppliers require an Environmental Product Declaration (EPD), as stated in the applicable specification section. The EPD must conform to the disclosure type listed in below:
    - a. Industry-wide (generic) EPD (i.e., conforms to ISO 14025, 14040, 14044, and EN 15804 or ISO 21930 and has at least a cradle to gate scope).
  - 2. EPDs are required to be submitted at time of bid.

1.03 QUALITY ASSURANCE

- A. Thermal Conductivity: Where insulation is indicated or specified by "R" value, provide thickness required to achieve indicated value. Use aged and settled values for thermal resistance factors (R-values), tested in accordance with ASTM C518 at 75-deg. F. and 50-percent relative humidity for at least 6-months.
- B. Fire Ratings: Comply with fire-resistance and flammability ratings specified.
- C. Fiberglass insulation shall be certified by the manufacturer to comply with California standards for insulating materials and shall be Green Guard Children & Schools Certified.
- D. LEED Requirements:
  - 1. Thermal Wall Insulation
    - a. All thermal wall insulation products must have a published Declare label or Health Product Declaration (HPD) disclosed down to 1000 ppm demonstrating absence of the following restricted chemicals OR must have any of the equivalent product health certifications:

- 1) Restricted Chemical Subgroup:
  - a) Flame Retardants.
- 2) Product Certification:
  - a) LBC v3.1 Red List Free
  - b) C2C Certification (v2 Basic level or v3 Bronze Level +)
  - c) C2C Material Health Certificate (Bronze Level +)
2. Blanket (batts & rolls), rigid foam, and loose-fill, and spray foam insulation products used within the building envelope shall meet the testing requirements and emissions thresholds of the CDPH v1.2 Standard Method. This may include but is not limited to at least one of the following programs:
  - a. Greenguard Gold from Greenguard Environmental Institute.
  - b. Indoor Advantage Gold from Scientific Certification Systems, Inc.
  - c. Intertek ETL Environmental VOC+.

**A1 A<sup>1</sup> E. Installer Qualifications for Rigid Foam Board Insulation: Minimum 2 year experience installing similar products. A<sup>1</sup>**

1.05 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. General: Comply with the requirements specified in Division 01.
- B. Protect insulation from physical damage and from becoming wet or soiled. Comply with manufacturer's recommendations for handling, storage and protection during installation.

1.06 TESTING AND INSPECTIONS

- A. Inspect insulation for proper installation. Correct defects such as voids, gaps or insulation compressed behind pipes before accepting work.

1.07 INDOOR AIR QUALITY

- A. Protect ducts and HVAC system from loose insulation particulates.
- B. Provide temporary ventilation of building areas where building insulation is being installed.

PART 2 - PRODUCTS

2.01 BATT AND BLANKET INSULATION

- A. Batt Insulation:
  1. Approved Manufacturer: Rockwool North America "ComfortBatt", Knauf Insulation"Rock Mineral Wool", Owens Corning "Thermafiber " or approved equal.
  2. Material: Stone wool-based insulation made from natural stone and up to 93-percent recycled content.
  3. Surface Burning Characteristics: Flame spread 0; smoke developed 0, when tested in accordance with ASTM E84.

4. Material shall be non-combustible when tested in accordance with ASTM E136.
5. Density: 2-pcf when tested in accordance with ASTM C612.
6. Thickness: As required for indicated R-values or to fill stud cavity depth. Size batts to fill framing cavity.

2.02 RIGID BOARD INSULATION

A1

~~A<sup>1</sup> A. Continuous Exterior Insulation:~~

- ~~1. Approved Manufacturer: Rockwool North America "Cavityrock", Owens Corning "RainBarrier HD or approved equal.~~
- ~~2. Material: Rigid, high density, non-combustible, stone wool insulation board.~~
- ~~3. Thermal Resistance, ASTM C518: R value of 4.0/inch at 75 deg. F.~~
- ~~4. Compressive Strength, ASTM C165: 1,220 psf @ 10 percent; 1,880 psf @ 25 percent.~~
- ~~5. Moisture Resistance:~~
  - ~~a. Moisture Sorption, ASTM C1104: 0.28 percent.~~
  - ~~b. Water Vapor Transmission, Desiccant Method, ASTM E96: 35 perms.~~
  - ~~c. Water Absorption, ASTM C209: 1.2 percent.~~
- ~~6. Fire Resistance:~~
  - ~~a. Non-combustible, able to withstand temperatures up to 2,150 deg. F.; does not produce smoke or propagate flames.~~
  - ~~b. Flame Spread 0 / Smoke Developed 0, ASTM E84 (UL 723).~~
- ~~7. Corrosive Resistance, ASTM C665: Non-corrosive to steel or aluminum.~~
- ~~8. Fungi Resistance, ASTM C1338: Passed.~~
- ~~9. Thickness: As indicated. <sup>A1</sup>~~

B. Rigid Foam Board Insulation: Extruded polystyrene board insulation complying with ASTM C578, Type V.

1. Approved Manufacturers: Dow "Styrofoam Brand Square Edge", Owens Corning "Foamular" or approved equal.
2. Compressive Strength, ASTM D1621: 25-psi.
3. Flexural Strength, ASTM C203: 50-psi.
4. Water Absorption, ASTM C272: 0.1-percent by volume.
5. Water Vapor Permeance, ASTM E96: 1.5-perms.
6. Thickness: As indicated or required for indicated R-values.

7. Surface Burning Characteristics: Class A, with flame-spread and smoke development values of 25 and 450 when tested in accordance with ASTM E84.

### PART 3 - EXECUTION

#### 3.01 INSTALLATION

##### A. General:

1. Comply with manufacturer's instructions for installation conditions.
2. Do not install insulation until building is sufficiently enclosed or protected against absorption of moisture by the insulation, and do not install insulation unless supporting framing and construction is in a thoroughly dry condition.
3. Install snugly between framing members with ends snugly fitted between units and against adjacent construction.
4. Carefully cut and fit insulation around pipes, conduit, and other obstructions and penetrations.
5. Where door, window and skylight frames occur in framing, cut additional strips of insulation and hand-pack as required to fill voids in and around such frames.
6. Use insulation free of ripped backs and edges.

##### B. Thermal Batt/Blanket Insulation: Install to completely fill typical and odd spaces in framing where required.

#### 3.02 PROTECTION

##### A. Protect installed insulation from harmful exposures and from physical damage.

#### 3.03 CONSTRUCTION WASTE MANAGEMENT

- A. General: Comply with the requirements of Division 01 for removal and disposal of construction debris and waste.
- B. Separate and recycle waste materials to the maximum extent possible.

END OF SECTION

SECTION 087100 - DOOR HARDWARE

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. Automatic operators.
  - 4. Cylinders specified for doors in other sections.
- C. Related Sections:
  - 1. Division 08 Section "Hollow Metal Doors and Frames".
  - 2. Division 08 Section "Flush Wood Doors".
  - 3. Division 08 Section "Aluminum-Framed Entrances and Storefronts".
- 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. UL/ULC and CSA C22.2 - Standards for Automatic Door Operators Used on Fire and Smoke Barrier Doors and Systems of Doors.
  - 8. State Building Codes, Local Amendments.
  - 9. nts.

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. UL 305 - Panic Hardware.
5. ANSI/UL 437- 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.
  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.
  
- 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 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. Five years for exit hardware.

3. Five years for motorized electric latch retraction exit devices.
4. 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:
  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. Hager Companies (HA).
  - b. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK).
- B. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 certified continuous geared hinge. with minimum 0.120-inch thick extruded 6060 T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.
1. Manufacturers:
- a. Hager Companies (HA).
  - b. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).

### 2.3 POWER TRANSFER DEVICES

- A. Concealed Quick Connect Electric Power Transfers: Provide concealed wiring pathway housing mortised into the door and frame for low voltage electrified door hardware. Furnish 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. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE) - EL-CEPT Series.
  - b. Securitron (SU) - EL-CEPT Series.
- 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. Hager Companies (HA) - Quick Connect.
  - b. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK) - QC-C Series.

#### 2.4 DOOR OPERATING TRIM

- A. 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).
    - b. Trimco (TC).

#### 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.

1. Manufacturers:
  - a. Corbin Russwin Hardware (RU).
- C. Cylinder Types: Original manufacturer cylinders able to supply the following cylinder formats and types:
  1. Threaded mortise cylinders with rings and cams to suit hardware application.
  2. Rim cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
  3. Bored or cylindrical lock cylinders with tailpieces as required to suit locks.
  4. Tubular deadlocks and other auxiliary locks.
  5. 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.
  6. Keyway: Match Facility Standard.
- D. Removable Cores: Provide removable cores as specified, core insert, removable by use of a special key, and for use with only the core manufacturer's cylinder and door hardware.
- 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.
- F. Key Quantity: Per requirements of Owner, verify the following minimum number of keys:
  1. Change Keys per Cylinder: Two (2)
  2. Master Keys (per Master Key Level/Group): Five (5).
  3. Permanent Control Keys (where required): Two (2).
- 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. Where specified, provide status indicators with highly reflective color and wording for "locked/unlocked" or "vacant/occupied" with custom wording options if required. Indicator to be located above the cylinder with the inside thumb-turn not blocking the

visibility of the indicator status. Indicator window size to be a minimum of 2.1" x 0.6" with a curved design allowing a 180 degree viewing angle with protective covering to prevent tampering.

2. Manufacturers:
  - a. Corbin Russwin Hardware (RU) - ML2000 Series.
  - b. No Substitution.

## 2.7 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.

## 2.8 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 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. 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.
  6. 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.
  7. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2" wide stiles.
  8. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.
  9. Rail Sizing: Provide exit device rails factory sized for proper door width application.
  10. 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. Von Duprin (VD) - 99 Series.
    - b. Corbin Russwin Hardware (RU) - ED5000 Series.

## 2.9 ELECTROMECHANICAL EXIT DEVICES

- A. Electromechanical Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 Certified Products Directory (CPD) listed panic and fire exit hardware devices subject to same compliance standards and requirements as mechanical exit devices. Electrified exit devices to be of type and design as specified below and in the hardware sets.
1. Where conventional power supplies are not sufficient, include any specific controllers required to provide the proper inrush current.
  2. 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.

3. Manufacturers:

- a. Von Duprin (VD) - 99 Series.
- b. Corbin Russwin Hardware (RU) - ED5000 Series.

2.10 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 (Large Body Cast Iron): 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 body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control.

1. Manufacturers:

- a. LCN Closers (LC) - 4040XP Series.
- b. Corbin Russwin Hardware (RU) - DC8000 Series.

2.11 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.
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).
  - b. Trimco (TC).

## 2.12 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).
    - b. Trimco (TC).
- 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).

2.13 ARCHITECTURAL SEALS

- A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.
- B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.
  - 1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.
- C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.
  - 1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.
- D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.
- E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.
- F. Manufacturers:
  - 1. National Guard Products (NG).
  - 2. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).

2.14 ELECTRONIC ACCESSORIES

- A. Linear Power Supplies: Provide Nationally Recognized Testing Laboratory Listed 12VDC or 24VDC (field selectable) filtered and regulated power supplies. Include battery backup option with integral battery charging capability in addition to operating the DC load in event of line voltage failure. Provide the least number of units, at the appropriate amperage level, sufficient to exceed the required total draw plus 50% for the specified electrified hardware and access control equipment.
  - 1. Manufacturers:
    - a. Corbin Russwin Hardware (RU) - BPS Series.
    - b. Securitron (SU) - BPS 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.
- 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.
  - 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.

### 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.
- B. Manufacturer's Abbreviations:

- 1. MK - McKinney
- 2. PE - Pemko
- 3. RO - Rockwood
- 4. DE - Detex Corporation
- 5. RU - Corbin Russwin
- 6. YA - Yale
- 7. RF - Rixson
- 8. LC - LCN Closers
- 9. SU - Securitron

**Hardware Sets**

**Set: 1.0**

Doors: 113, 140

1 Continuous Hinge	CFM SLF-HD1 PT EL-CEPTx32D		PE	⚡
1 Exit Device	ED5200 125957 M92 MELR	630	RU	⚡
1 Rim Cylinder	3080-178- CT6B	626	RU	
1 Interchangeable Core	8000- GMK	626	RU	
1 Conc Overhead Stop	1-X36	630	RF	
1 Door Closer	4040XP Rw/PA	AL	LC	
1 Threshold	per details.		PE	
1 Gasketing	by door mfg.			
1 Rain Guard	346C (as required)		PE	
1 Frame Harness	QC-C1500P (as required)		MK	⚡
1 Door Harness	QC-C__P (as required)		MK	⚡
1 Power Supply	BPS Series (as required)		SU	⚡
1 Card Reader	provided by access control.			

Notes: Door closer requires special template for use with OH stops/holders.

**Set: 2.0**

Doors: 107, 111, 115, 119, 135, 139

A1

1 Continuous Hinge	CFM SLF-HD1 PT EL-CEPTx32D		PE	⚡
<sup>A1</sup> 1 Electric Lock	<u>ML20606 x NAC 125T CT6B</u>	626	RU	⚡
<del>1 Exit Device</del>	<del>ED5200 125957 M92 MELR</del>	<del>630</del>	<del>RU</del>	<del>⚡</del>
<del>1 Rim Cylinder</del>	<del>3080-178- CT6B</del>	<del>626</del>	<del>RU</del>	<del><sup>A1</sup></del>
1 Interchangeable Core	8000- GMK	626	RU	
1 Conc Overhead Hold Open	1-X26	630	RF	
1 Door Closer	4040XP Rw/PA	AL	LC	
1 Threshold	per details.		PE	
1 Gasketing	by door mfg.			
1 Rain Guard	346C (as required)		PE	
1 Frame Harness	QC-C1500P (as required)		MK	⚡
1 Door Harness	QC-C__P (as required)		MK	⚡
1 Power Supply	BPS Series (as required)		SU	⚡
1 Card Reader	provided by access control.			

Notes: Door closer requires special template for use with OH stops/holders.

**Set: 3.0**

Doors: 100, 121

1 Continuous Hinge	CFM SLF-HD1 PT EL-CEPTx32D		PE	⚡
1 Exit Device	ED5200 P957ET M92 MELR	630	RU	⚡

1 Rim Cylinder	3080-178- CT6B	626	RU	
1 Interchangeable Core	8000- GMK	626	RU	
1 Conc Overhead Stop	1-X36	630	RF	
1 Single Door Operator	Horton HD-Swing LE	689		⚡
1 Threshold	per details.		PE	
1 Gasketing	by door mfg.			
1 Rain Guard	346C (as required)		PE	
1 Frame Harness	QC-C1500P (as required)		MK	⚡
1 Door Harness	QC-C__P (as required)		MK	⚡
2 Actuator	Wikk Ingress'r S-16-3 (by others)			
1 Power Supply	BPS Series (as required)		SU	⚡
1 Card Reader	provided by access control.			

Notes: Coordination required for door operator and card access use. Coordinate actuator requirements with operator supplier.

**Set: 4.0**

Doors: 130

6 Hinge	T4A3386 x NRP	US32D	MK	
1 Mullion	90KR		DE	
1 Exit Device	ED5200 EO	630	RU	
1 Exit Device	ED5200 125957	630	RU	
1 Rim Cylinder	3080-178- CT6B	626	RU	
1 Cylinder (mullion)	3080-178- GMK (or as required)	626	RU	
1 Interchangeable Core	8000- GMK	626	RU	
2 Conc Overhead Stop	1-X36	630	RF	
2 Door Closer	4040XP Rw/PA	AL	LC	
1 Threshold	per details.		PE	
1 Gasketing	294AV		PE	
1 Gasketing	5110BL (mullion)		PE	
2 Sweep	57AV		PE	
1 Power Supply	provided by access control.		SU	⚡
1 Card Reader	provided by access control.			

Notes: Door closer requires special template for use with OH stops/holders.

**Set: 5.0**

Doors: G004, G006

1 Exit Device	2100 EO	630	YA	
1 Exit Device	2100 PB627F	630	YA	
1 Rim Cylinder	3080-178- CT6B	626	RU	
1 Interchangeable Core	8000- GMK	626	RU	
1 Balance of Hardware	by door mfg.			

Notes: Verification of specified hardware required. Center mullion provided by gate mfg.

**Set: 5.1**

Doors: G005.A

1 Exit Device	2100 EO	630	YA
1 Exit Device	2100 PB627F	630	YA
1 Rim Cylinder	3080-178- CT6B	626	RU
1 Interchangeable Core	8000- GMK	626	RU
1 Balance of Hardware	by door mfg.		
1 Power Supply	provided by access control.		SU ⚡
1 Card Reader	provided by access control.		

Notes: Verification of specified hardware required. Center mullion provided by gate mfg.

**Set: 6.0**

A1 Doors: G001.A, G001.B, <sup>A1</sup> ~~G003, G005.B, G007, G008~~ <sup>A1</sup>

1 Exit Device	2100 PB627F	630	YA
1 Rim Cylinder	3080-178- CT6B	626	RU
1 Interchangeable Core	8000- GMK	626	RU
1 Balance of Hardware	by door mfg.		

Notes: Verification of specified hardware required.

**Set: 6.1**

A1 Doors: G002, <sup>A1</sup> **G005.B, G007, G008**, <sup>A1</sup> G009

1 Exit Device	2100 PB627F	630	YA
1 Rim Cylinder	3080-178- CT6B	626	RU
1 Interchangeable Core	8000- GMK	626	RU
1 Balance of Hardware	by door mfg.		
1 Power Supply	provided by access control.		SU ⚡
1 Card Reader	provided by access control.		

Notes: Verification of specified hardware required.

<sup>A1</sup> **Set: 6.2**

**Doors: G003**

<b>1 Institution Lock</b>	<b><u>CL3332 NZD CT6B</u></b>	<b>626</b>	<b>RU</b>
<b>2 Interchangeable Core</b>	<b><u>8000- GMK</u></b>	<b>626</b>	<b>RU</b>
<b>1 Electric Strike</b>	<b><u>1006</u></b>	<b>630</b>	<b>HS</b>
<b>1 Power Supply</b>	<b>provided by access control.</b>		
<b>1 Card Reader</b>	<b>provided by access control.</b>		
<b>1 Balance of Hardware</b>	<b>by gate mfg.</b>		

**Notes: Verification of specified hardware required.** <sup>A1</sup>



**Set: 7.0**

Doors: 112, 114, 131, 132, 133A, 133B

2 Hinge	T4A3386 x NRP	US32D	MK
1 Electric Hinge	T4A3386 QC	US32D	MK ⚡
1 Electric Lock	ML20606 x NAC 125T CT6B	626	RU ⚡
1 Interchangeable Core	8000- GMK	626	RU
1 Conc Overhead Stop	1-X36	630	RF
1 Door Closer	4040XP Rw/PA	AL	LC
1 Threshold	per details.		PE
1 Gasketing	294AV		PE
1 Sweep	57AV		PE
1 Frame Harness	QC-C1500P (as required)		MK ⚡
1 Door Harness	QC-C__P (as required)		MK ⚡
1 Power Supply	provided by access control.		
1 Card Reader	provided by access control.		

Notes: Door closer requires special template for use with OH stops/holders.

**Set: 8.0**

Doors: G100

3 Hinge (spring)	1552	US32D	MK
1 Exit Device	ED5200 125910	630	RU
1 Stop	400/403/441H (as required)	US26D	RO
3 Silencer	608		RO

**Set: 9.0**

A1 Doors: 101, 102, 104, 105, 106, <sup>A1</sup> 108A, 108B, 116A, 116B, 120A, 136A, 136B <sup>A1</sup>

2 Hinge	T4A3786	US26D	MK
1 Electric Hinge	T4A3786-QC	US26D	MK ⚡
1 Electric Lock	ML20606 x NAC 125T CT6B	626	RU ⚡
1 Interchangeable Core	8000- GMK	626	RU
1 Stop	400/403/441H (as required)	US26D	RO
1 Frame Harness	QC-C1500P (as required)		MK ⚡
1 Door Harness	QC-C__P (as required)		MK ⚡
1 Power Supply	provided by access control.		
1 Card Reader	provided by access control.		

**Set: 10.0**

A1 Doors: 107A, 110, 111A, 115A, 118, 119A, 120, <sup>A1</sup> 120B, <sup>A1</sup> 122, 126, 127, 128, 134, 135A, 138, 139A

2 Hinge	T4A3786	US26D	MK
1 Electric Hinge	T4A3786-QC	US26D	MK ⚡
1 Electric Lock	ML20606 x NAC 125T CT6B	626	RU ⚡
1 Interchangeable Core	8000- GMK	626	RU

1 Door Closer	4040XP Rw/PA	AL	LC
1 Kick Plate	K1050 10"	US32D	RO
1 Stop	400/403/441H (as required)	US26D	RO
3 Silencer	608		RO
1 Frame Harness	QC-C1500P (as required)		MK ⚡
1 Door Harness	QC-C__P (as required)		MK ⚡
1 Power Supply	provided by access control.		
1 Card Reader	provided by access control.		

A1 **Set: 10.1**  
**Door: 124**

<b>3 Hinge</b>	<b><u>TA2714</u></b>	<b>US26D</b>	<b>MK</b>
<b>1 Keyed Privacy Lock</b>	<b><u>ML2049 125T V21 CT6B</u></b>	<b>626</b>	<b>RU</b>
<b>1 Interchangeable Core</b>	<b><u>8000- GMK</u></b>	<b>626</b>	<b>RU</b>
<b>1 Electric Strike</b>	<b><u>1600-CDB-DLM</u></b>	<b>630</b>	<b>HS ⚡</b>
<b>1 ElectroLynx Adaptor</b>	<b><u>2004M</u></b>		<b>HS ⚡</b>
<b>1 Door Closer</b>	<b><u>4040XP Rw/PA</u></b>	<b>AL</b>	<b>LC</b>
<b>1 Kick Plate</b>	<b><u>K1050 10"</u></b>	<b>US32D</b>	<b>RO</b>
<b>1 Stop</b>	<b><u>400/403/441H (as required)</u></b>	<b>US26D</b>	<b>RO</b>
<b>1 Gasketing</b>	<b><u>S44BL</u></b>		<b>PE</b>
<b>1 Frame Harness</b>	<b><u>QC-C1500P (as required)</u></b>		<b>MK ⚡</b>
<b>1 Power Supply</b>	<b><u>BPS-xx-1 (as needed)</u></b>		<b>SU ⚡</b>
<b>1 Card Reader</b>	<b>provided by access control.</b>		

**Notes: Presenting card on outside of door releases electric strike only when inside deadbolt is retracted. When deadbolt is thrown the card reader is disengaged. Key override if necessary.** <sup>A1</sup>

**Set: 11.0**  
**Doors: 125**

A1 <b><sup>A1</sup> 3-2 Hinge</b>	<b><u>TA2714 T4A3786</u></b> <sup>A1</sup>	<b>US26D</b>	<b>MK</b>
1 Electric Hinge	T4A3786-QC	<b>US26D</b>	<b>MK ⚡</b>
1 Electric Lock	ML20606 x NAC 125T CT6B	<b>626</b>	<b>RU ⚡</b>
1 Interchangeable Core	8000- GMK	<b>626</b>	<b>RU</b>
1 Conc Overhead Stop	1-X36	<b>630</b>	<b>RF</b>
1 Kick Plate	K1050 10"	<b>US32D</b>	<b>RO</b>
1 Gasketing	S44BL		<b>PE</b>
A1 <b><sup>A1</sup> 1 Frame Harness</b>	<b><u>QC-C1500P (as required)</u></b>		<b>MK ⚡</b>
<b>1 Door Harness</b>	<b><u>QC-C__P (as required)</u></b>		<b>MK ⚡</b> <sup>A1</sup>
1 Power Supply	provided by access control.		
1 Card Reader	provided by access control.		

**Set: 12.0**

Doors: 129

	3 Hinge	T4A3786	US26D	MK
	1 Electric Hinge	T4A3786-QC	US26D	MK ⚡
	1 Electric Lock	ML20606 x NAC 125T CT6B	626	RU ⚡
	1 Interchangeable Core	8000- GMK	626	RU
	1 Door Closer	4040XP Rw/PA	AL	LC
	1 Kick Plate	K1050 10"	US32D	RO
	1 Stop	400/403/441H (as required)	US26D	RO
	3 Silencer	608		RO
A1	<sup>A1</sup> 1 Frame Harness	<b>QC-C1500P (as required)</b>		<b>MK</b> ⚡
	1 Door Harness	<b>QC-C__P (as required)</b>		<b>MK</b> ⚡ <sup>A1</sup>
	1 Power Supply	provided by access control.		
	1 Card Reader	provided by access control.		

<sup>A1</sup> **Set: 13.0 (NOT USED)**

Doors: ~~108A, 108B, 116A, 116B, 120A, 136A, 136B~~

-				
<del>3 Hinge</del>	<del>TA2714</del>	<del>US26D</del>	<del>MK</del>	
<del>1 Classroom Lock</del>	<del>ML2055 125T CT6B</del>	<del>626</del>	<del>RU</del>	
<del>1 Interchangeable Core</del>	<del>8000 GMK</del>	<del>626</del>	<del>RU</del>	
<del>1 Stop</del>	<del>400/403/441H (as required)</del>	<del>US26D</del>	<del>RO</del>	
<del>3 Silencer</del>	<del>608</del>	<del>RO</del>		<del><sup>A1</sup></del>

**Set: 14.0**

A1 Doors: 123A, <sup>A1</sup> 124 <sup>A1</sup>

	3 Hinge	TA2714	US26D	MK
	1 Privacy Lock	ML2030 125T M34 V21	626	RU
	1 Door Closer	4040XP Rw/PA	AL	LC
	1 Kick Plate	K1050 10"	US32D	RO
	1 Stop	400/403/441H (as required)	US26D	RO
	1 Gasketing	S44BL		PE

**Set: 15.0 – NOT USED**

**Set: 16.0**

Doors: 123B

	3 Hinge	T4A3786	US26D	MK
	1 Push Plate	70F	US32D	RO
	1 Pull Plate	BF 111x70C	US32D	RO
	1 Single Door Operator	Horton HD-Swing LE	689	⚡
	1 Kick Plate	K1050 10"	US32D	RO

1 Stop	400/403/441H (as required)	US26D	RO
3 Silencer	608		RO
2 Actuator	Wikk Ingress'r S-16-3 (by others)		

**Set: 17.0**

Doors: G107, G109A, G109B, G109C, G111, G115, G117A, G117B, G117C, G119, G120B, G135A, G135B, G135C, G137A, G137B, G139A, G139B, G139C

2 Hinge (spring)	1552	US32D	MK
1 Self Latching Gate Latch	Grainger 1XMP1		
1 Stop	400/403/441H (as required)	US26D	RO
1 Balance of Hardware	by door mfg.		

**Set: 18.0**

Doors: G010

1 Balance of Hardware	by door mfg.		
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END OF SECTION 087100

DOOR SCHEDULE

Table with columns: DOOR NUMBER, FUNCTION, DOOR SIZE (WIDTH, HEIGHT, TYPE), DOOR TYPE, FINISH, FRAME DETAILS (HEAD, JAMB, THRESHOLD), HARDWARE SET, COMMENTS, ACCESS CONTROL. Includes door types like 100, 101, 102, etc., and frame types like G001.A, G001.B, etc.

Grand total: 82

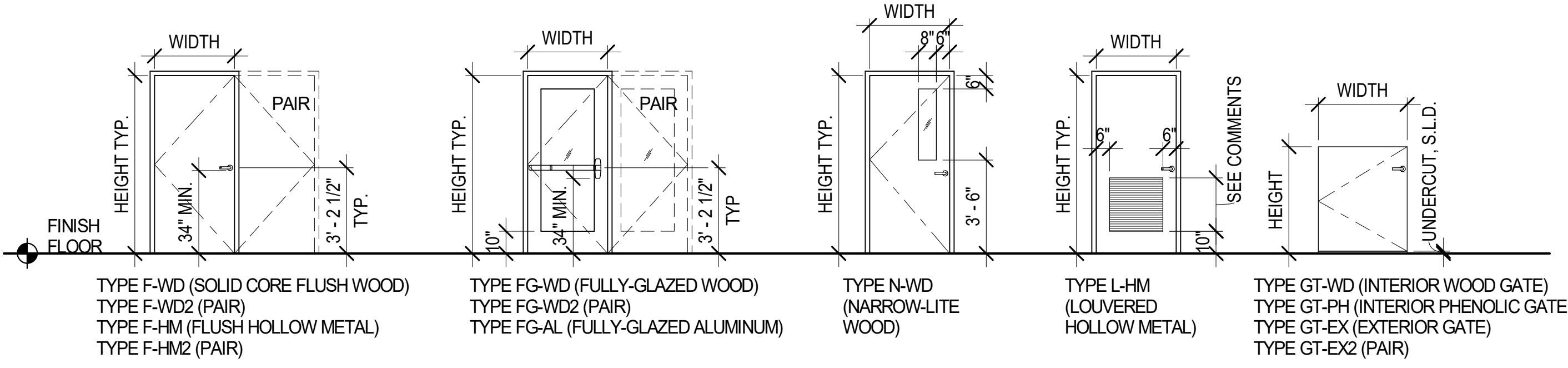
GENERAL DOOR NOTES

- 1. LATCHING AND LOCKING DOORS THAT ARE HAND ACTIVATED AND WHICH ARE IN A PATH OF PANIC-BARS, PUSH-PULL ACTIVATING BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE...
2. HAND-ACTIVATED DOOR OPENING HARDWARE SHALL BE 37" AFF.
3. MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 POUNDS...
14. DOORS AND GATES WITH DELAYED EGRESS SHALL BE SET FOR 5 SECONDS, TYP., AND SHALL HAVE DELAYED EGRESS SIGN PER 15.00.11.

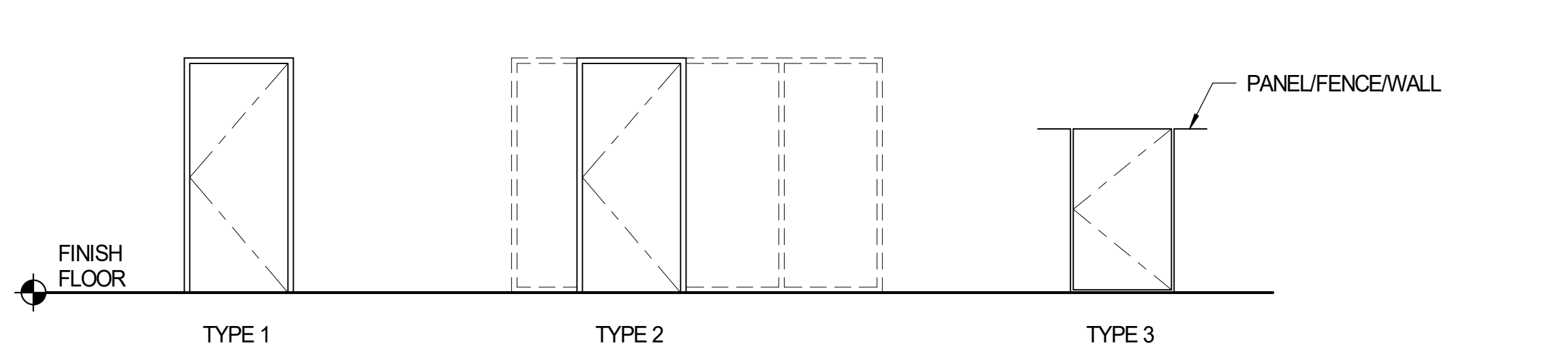
DOOR SCHEDULE ABBREVIATIONS

Table mapping abbreviations to materials and finishes: AL ALUMINUM (PAINTED, U.O.N.), CLR CLEAR FINISH, FIN FINISH, GL GLAZING, HM HOLLOW METAL (PAINTED, U.O.N.), MAT MATERIAL, PH PHENOLIC, PT PAINTED, REOD REQUIRED, SS STAINLESS STEEL, WD WOOD (CLEAR FINISH, U.O.N.), WIN WINDOW SHADE, PT-# PAINT COLOR (SEE SPEC SECTION 09 00 00 FOR DETAILS).

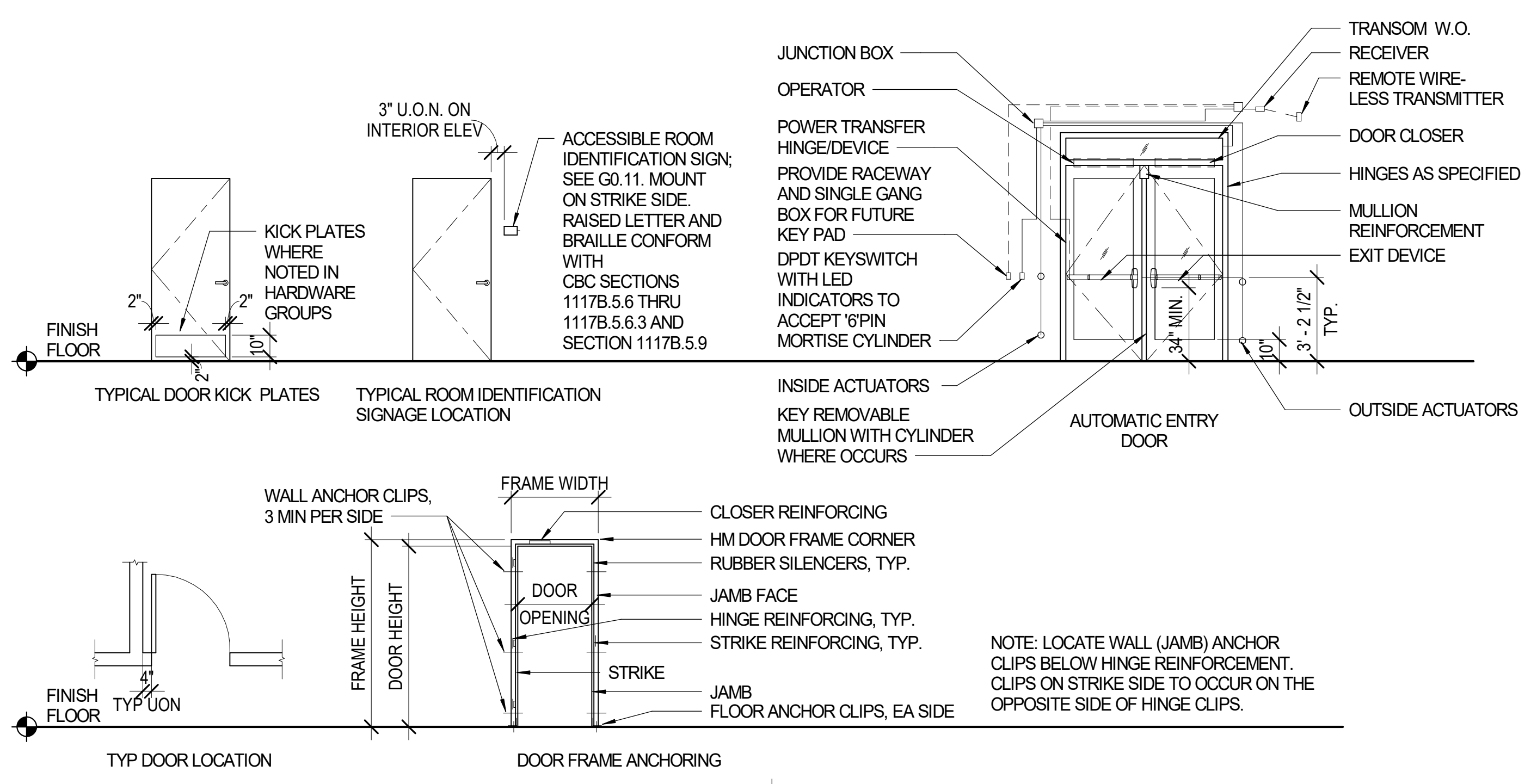
DOOR TYPES



FRAME TYPES SEE ENLARGED FLOOR PLANS + ELEVATIONS FOR SIZE & DIMENSIONS



DOOR DETAILS



CSUS CHILD DEVELOPMENT CENTER CALIFORNIA STATE UNIVERSITY, STANISLAUS ONE UNIVERSITY CIRCLE TURLOCK, CA 95382



PIER 1, BAY 2 THE EMBARCADERO SAN FRANCISCO, CA 94111 INFO@EHDD.COM +1 415-285-9193

Consultant

Stamp

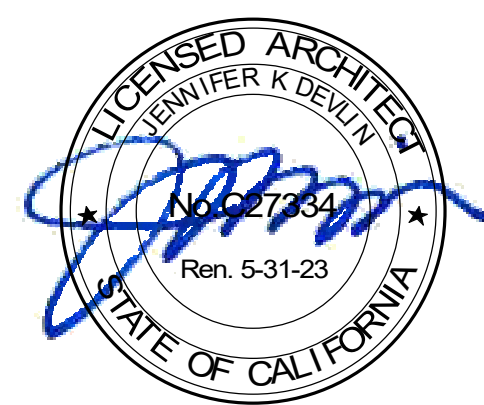


Table with columns: Printing, Date. Includes permit set dates: 06.25.2021, 08.16.2021, 12.15.2021, 12.21.2021.

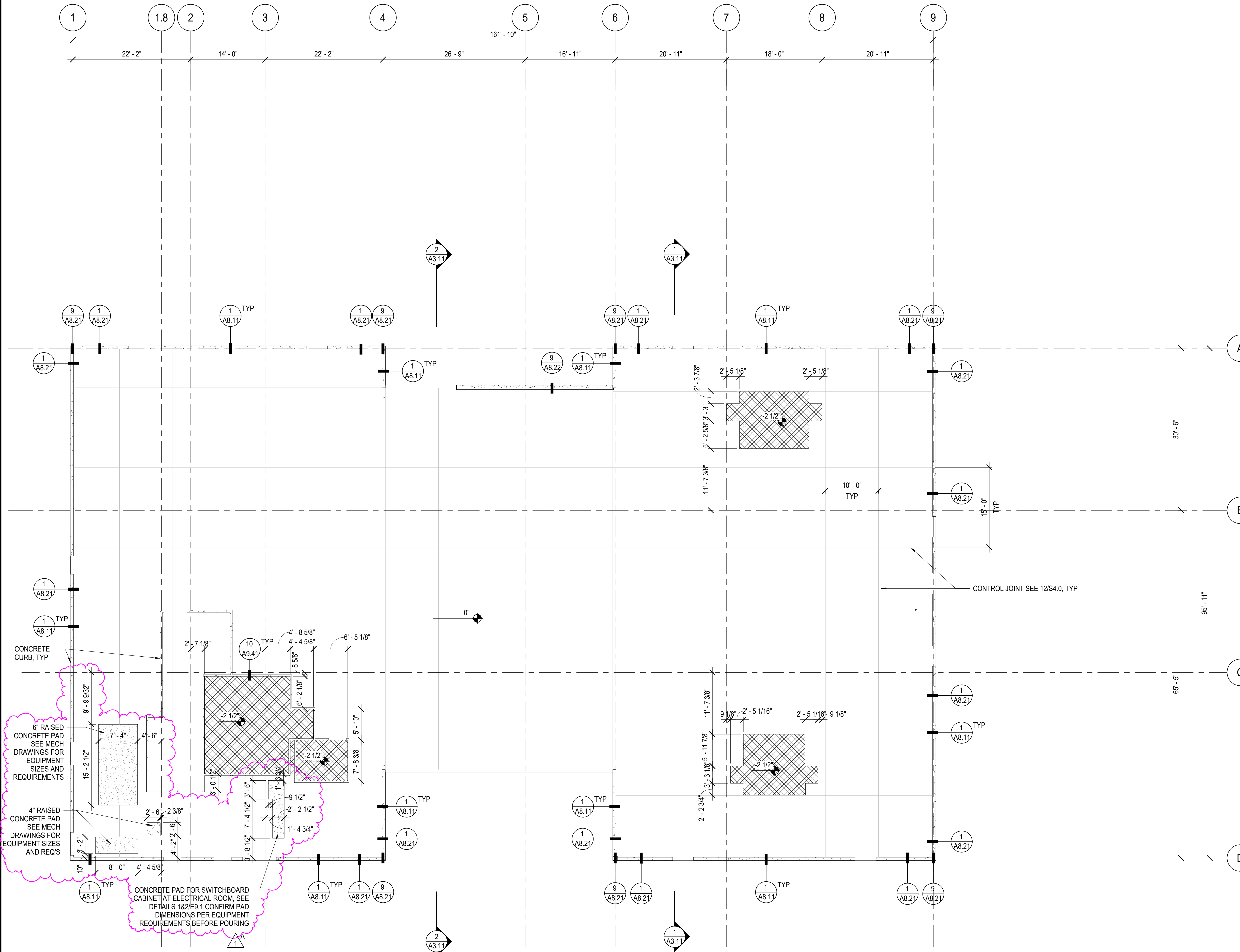
Revisions and Description

Table with columns: Revision number, Description, Date. Shows revision 1: Addendum 1, 04.01.2022.

Scale 1/4" = 1'-0" Drawn by Author EHDD Job Number 20020

Sheet Title DOOR TYPES AND SCHEDULES

Sheet Number A0.31



SLAB PLAN GENERAL NOTES:

1. COORDINATE ALL DIMENSIONS WITH DETAILS.
2. SPOT ELEVATIONS SHOWN ARE RELATIVE TO FINISH FLOOR LEVEL 0.0.
3. SMD FOR ADDITIONAL MECH EQPT CURBS NOT SHOWN HERE.
4. SEE ELEVATIONS FOR EXTERIOR CURB EXTENTS @ FENESTRATION.
5. SEE A8.01 & SSD FOR TYPICAL FOUNDATION AND SLAB DETAILS.

SLAB PLAN LEGEND

- STRUCTURAL SLAB, SEE STRUCT. DWGS.
- RECESSED SLAB AREA, SEE STRUCTURAL DWGS.
- CONCRETE CURB
- SLAB DEPRESSION
- SLAB CONTROL JOINT, SEE 12/S4.0. TYPICAL DIMENSIONS SHOW MAX SPACING. SEE ALIGNMENTS WITH WALL AND CURBS FOR NON-TYPICAL SPACING

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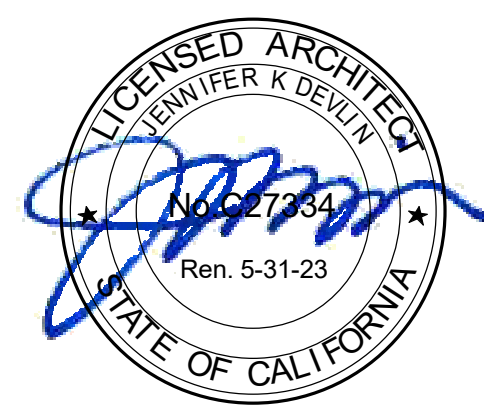


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Printing	Date
95% CONSTRUCTION DOCUMENTS	06.25.2021
PERMIT SET	08.16.2021
PERMIT SET - DSA V2	12.15.2021
PERMIT SET - SFM	12.21.2021

Revisions and Description	Date
1 A Addendum 1	04.01.2022

Scale  
As indicated

Drawn by  
Author

EHDD Job Number  
20020

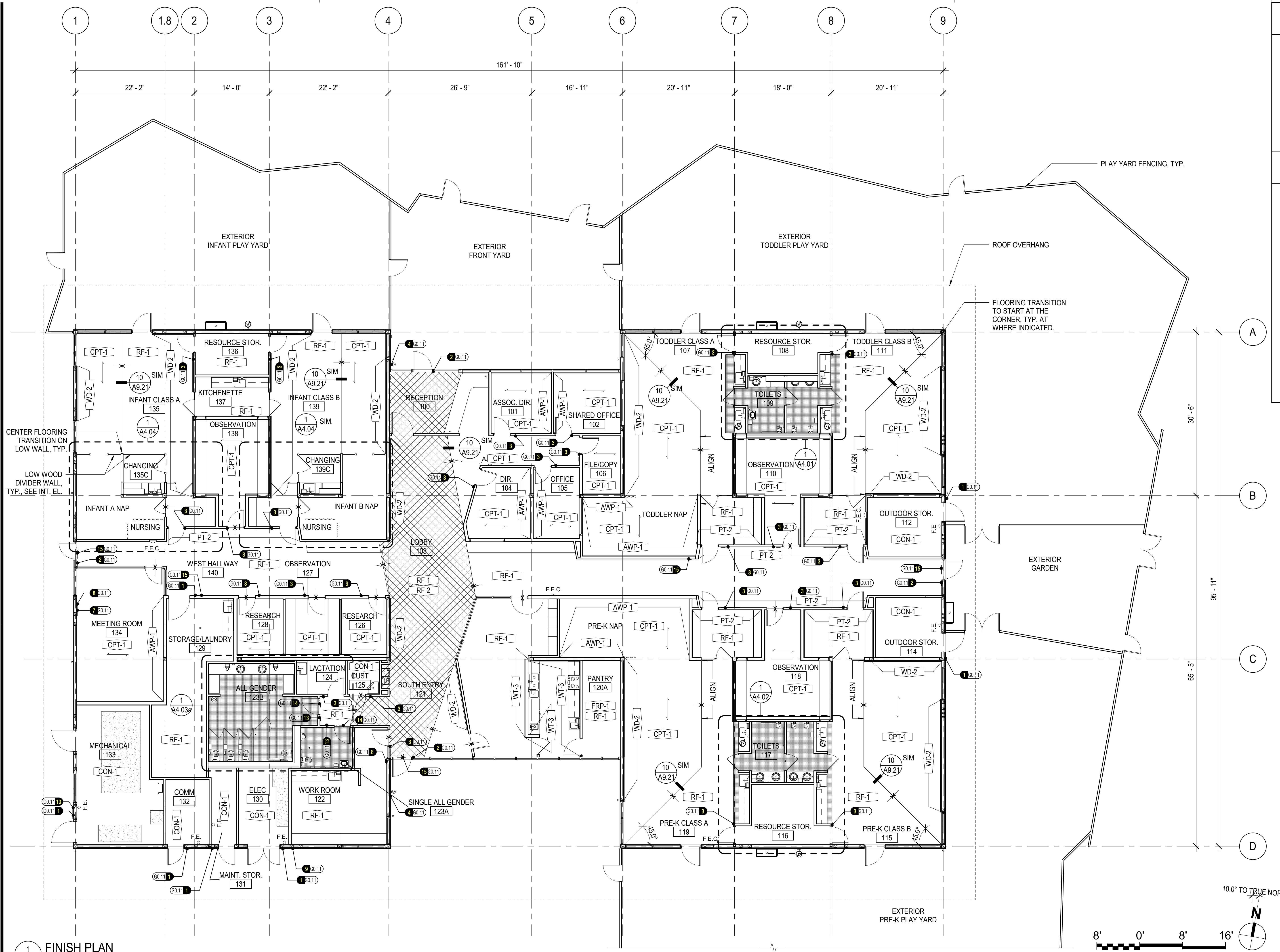
SLAB PLAN

Sheet Number

A2.11

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





### FINISH PLAN SHEET NOTES

- USE PAINT PT-1 ON ALL GYPSUM SURFACES THROUGHOUT, TYP UON.
- CONTINUE SPECIFIED FLOORING MATERIALS BENEATH CASEWORK, TYP UON.
- PROVIDE WALL BASE RB-1 AT ALL GYPSUM BOARD WALLS, TYP UON.
- SEE A5 SERIES INTERIOR ELEVATIONS FOR ADDITIONAL FINISH INFORMATION.
- SEE DOOR SCHEDULE FOR THRESHOLDS AND FLOOR TRANSITIONS AT DOORS.

### FINISH PLAN LEGEND

- FINISH TYPE
- FINISH TAG
- FINISH NUMBER
- SHEET NUMBER
- SIGNAGE TAG
- DETAIL NUMBER
- CARPET DIRECTION
- CHANGE IN FLOOR FINISH
- CUSTOM FLOOR PATTERN SEE DETAIL (17) A9.41
- FLOOR TILE

Division of the State Architect  
Office of the State Fire Marshal

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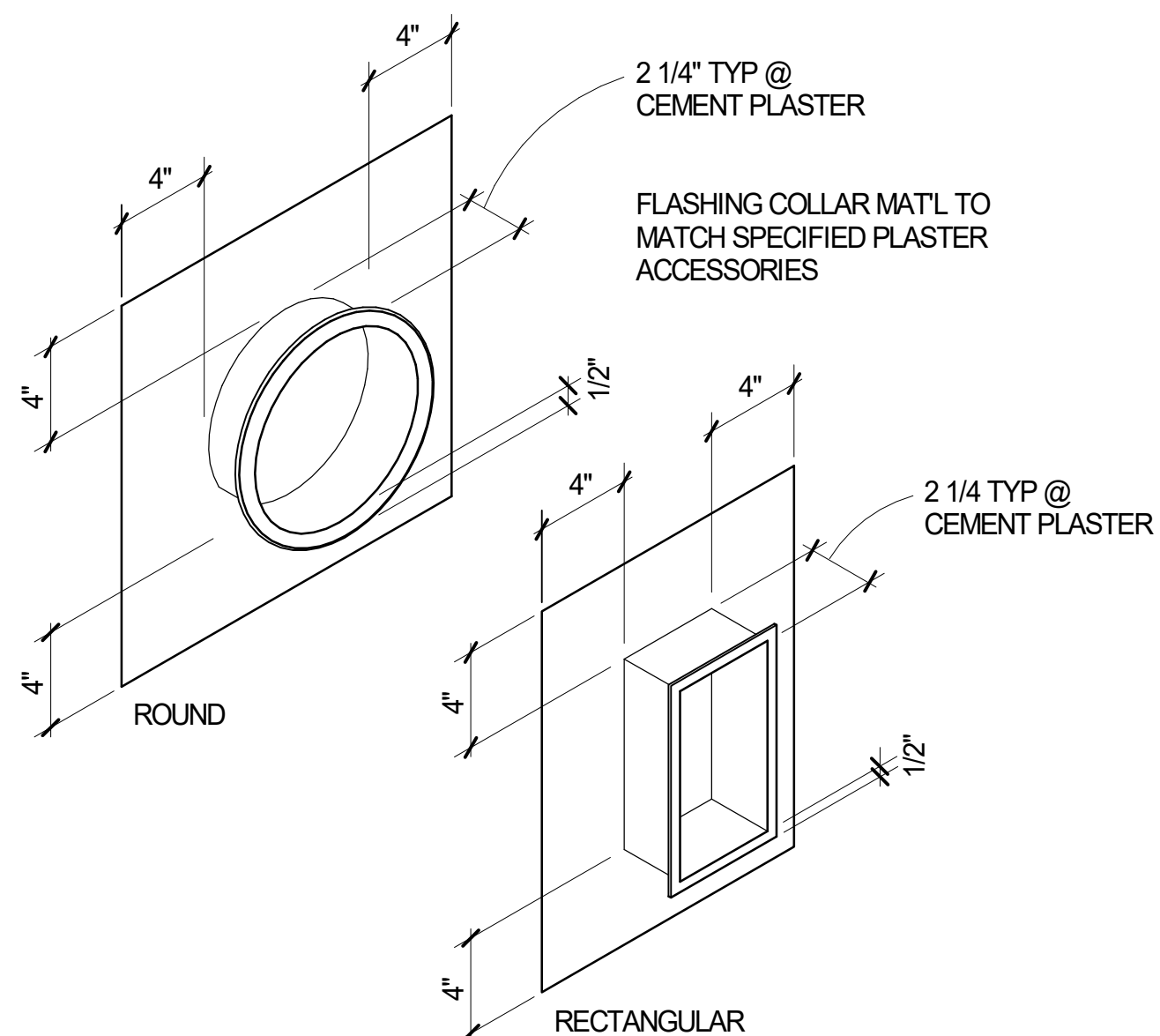
Printing Date  
95% CONSTRUCTION DOCUMENTS 06.25.2021  
PERMIT SET 08.16.2021  
PERMIT SET - DSA V2 12.15.2021  
PERMIT SET - SFM 12.21.2021

Revisions and Description	Date
1 A Addendum 1	04.01.2022

**1 FINISH PLAN**  
A2.21 SCALE: 1/8" = 1'-0"

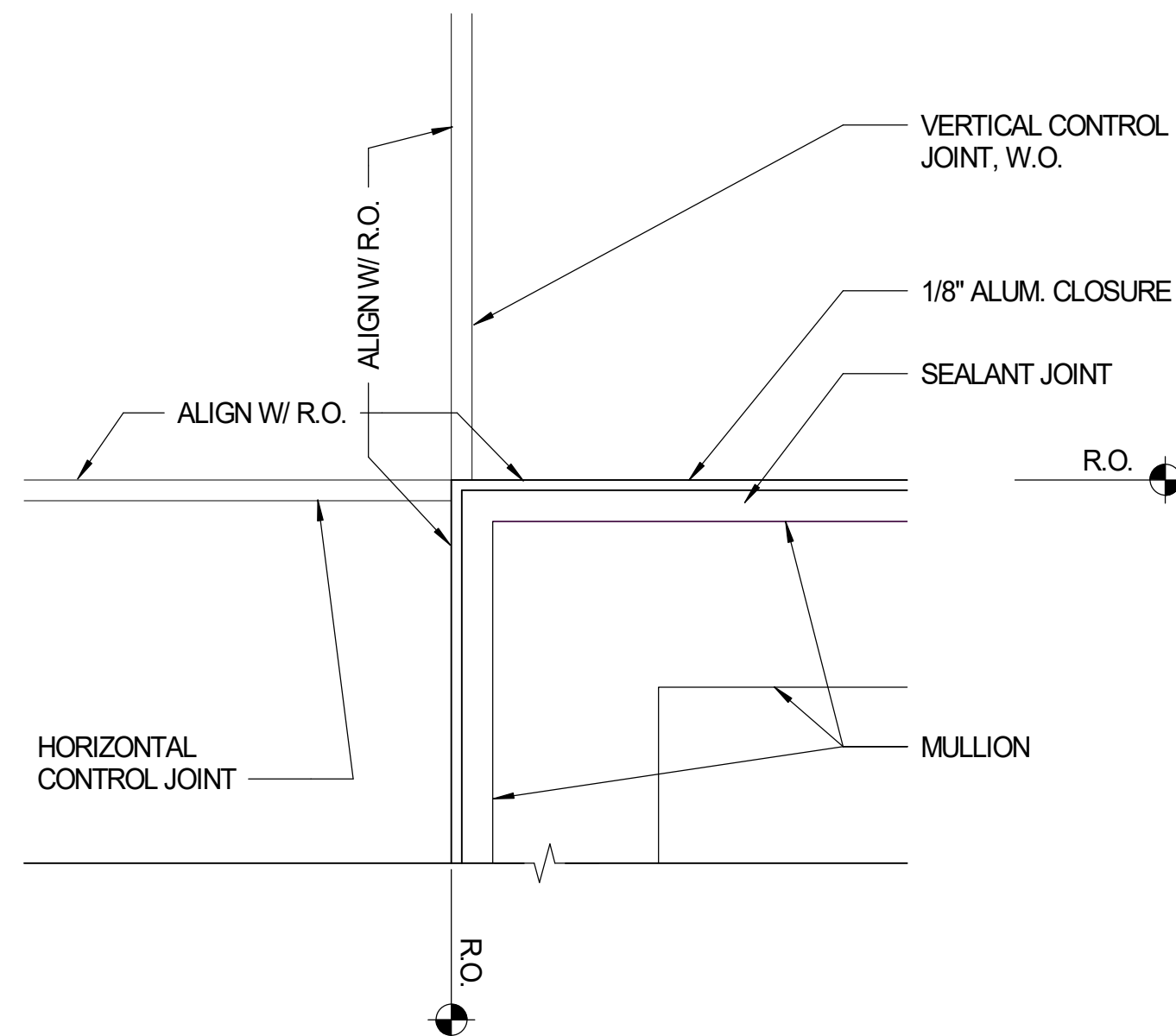
FINISH TAG	DESCRIPTION	MANUFACTURER	PRODUCT	COLOR	SIZE	INSTALLATION NOTES	LOCATION
AWP-1	ACOUSTIC WALL PANEL	FSORB	1/2" ACOUSTIC PANEL	GREY FS-160	48" X 96" X 1/2"	FULL WALL WHERE IT OCCURS.	
CON-1	SEALED CONCRETE	TBD					
CPT-1	CARPET TILE	SHAW CONTRACT	SHELTER TILE ST240	MINT 38327	9' X 96"	INSTALL ASHLAR. EDGES AND CORNERS TO BE INSTALLED USING MFR STANDARD VINYL TRIM.	
FRP-1	FIBER REINFORCED PLASTIC	MARLITE	STANDARD FRP, SMOOTH	S 100G WHITE	FULL PANEL		CUST. 125
FT-1	FLOOR TILE	DALTILE	KEYSTONES	DESERT GRAY SPECKLE D200	2" X 2"	INSTALL WITH COORDINATING COVE BASE AND TRIM PIECES AS REQD. GROUT COLOR #335 WINTER GRAY	AT SINGLE ALL GENDER 123A & ALL GENDER 123B
FT-2	FLOOR TILE	DALTILE	KEYSTONES RANDOM PATTERN	50% DESERT GRAY D014, 25% SPA D148, 25% MINT ICE D152	1" X 1" (12" X 12" SHEET)	GROUT COLOR #335 WINTER GRAY	TOILETS 109 & 117
PC-1	PRIVACY CURTAIN	MAHARAM	PROSE 511503	SCENIC 002	72" WIDTH	SURFACE MOUNTED CEILING TRACK.	
PL-1	PLASTIC LAMINATE	FORMICA		FOSSIL 5349-58			
PT-1	GENERAL WHITE PAINT	BENJAMIN MOORE		SOFT CHAMOIS OC-13		SEMI-GLOSS FINISH THROUGHOUT. UON.	TYPICAL WHITE PAINT THROUGHOUT.
PT-2	ACCENT PAINT	BENJAMIN MOORE		CASTLE WALLS 1573		SEMI-GLOSS FINISH THROUGHOUT. UON.	ACCENT PAINT WHERE SPECIFIED.
PT-4	METAL PAINT COLOR	AS SPECIFIED		MATCH KAWNEER PERMAFLUOR "CHARCOAL"			ON METAL MATERIALS WHERE SPECIFIED.
PT-5	ACRYLIC FINISH ON CEMENT PLASTER	AS SPECIFIED		MATCH BENJAMIN MOORE 1598 SILVER LAKE			
PT-6	ACRYLIC FINISH ON CEMENT PLASTER	AS SPECIFIED		MATCH BENJAMIN MOORE 1616 STORMY SKY			
RB-1	RESILIENT BASE	MANNINGTON	TYPE TS	603 ASH	4" BASE	TYPICAL BASE THROUGHOUT. UON. ROLLED GOODS. STRAIGHT BASE AT CARPET. COVE BASE AT RESILIENT FLOOR.	
RF-1	RESILIENT FLOORING	NORA FLOORING	NORAMENT SATURA	5114 CIRCINUS	40" X 40" X 3.5 MM	BRICK INSTALL. UON. / 1	
RF-2	RESILIENT FLOORING	NORA FLOORING	NORAMENT SATURA	511 CASTOR	40" X 40" X 3.5 MM	SEE CUSTOM PATTERN LAYOUT / 1	
SS-1	SOLID SURFACE	FORMICA	SIGNATURES	WHITE RENEW	1/2" THK		
SS-2	SOLID SURFACE	FORMICA	EVERFORM	SEA GLASS 505	1/2" THK		
WD-1	WOOD	N/A. MATCH ARCHITECTS SAMPLE	EUROPLY CORE / PREMIUM VENEER CORE	SLIP MATCHED. PLAIN SLICED MAPLE, TRANSPARENT FINISH	3/4" THK		
WD-2	PERFORATED PLYWOOD PANELS	N/A. MATCH ARCHITECTS SAMPLE	EUROPLY CORE / PREMIUM VENEER CORE	SLIP MATCHED. PLAIN SLICED MAPLE, TRANSPARENT FINISH	3/4" THK		
WT-1	WALL TILE	DALTILE	COLOR WHEEL CLASSICS LINEAR	ARCTIC WHITE 0790 - MATTE	2" X 8"	PANEL SIZES PER ELEVATIONS	
WT-2	WALL TILE	DALTILE	KEYSTONES RANDOM PATTERN	50% DESERT GRAY D014, 25% SPA D148, 25% MINT ICE D152	1" X 1" (12" X 12" SHEET)	GROUT COLOR #335 WINTER GRAY	AT SINGLE ALL GENDER 123A & ALL GENDER 123B
WT-3	WALL TILE	DALTILE	COLOR WHEEL CLASSICS MOSAIC	ARCTIC WHITE 0790 - MATTE	1" X 3" LATTICE (12" X 12" SHEET)	GROUT COLOR #335 WINTER GRAY	TOILETS 109 & 117 AT STAFF KITCHEN 120

Scale  
1/8" = 1'-0"  
Drawn by  
Author  
EHDD Job Number  
20020  
Sheet Title  
**SIGNAGE PLAN & FINISH PLAN AND SCHEDULE**  
Sheet Number  
**A2.21**



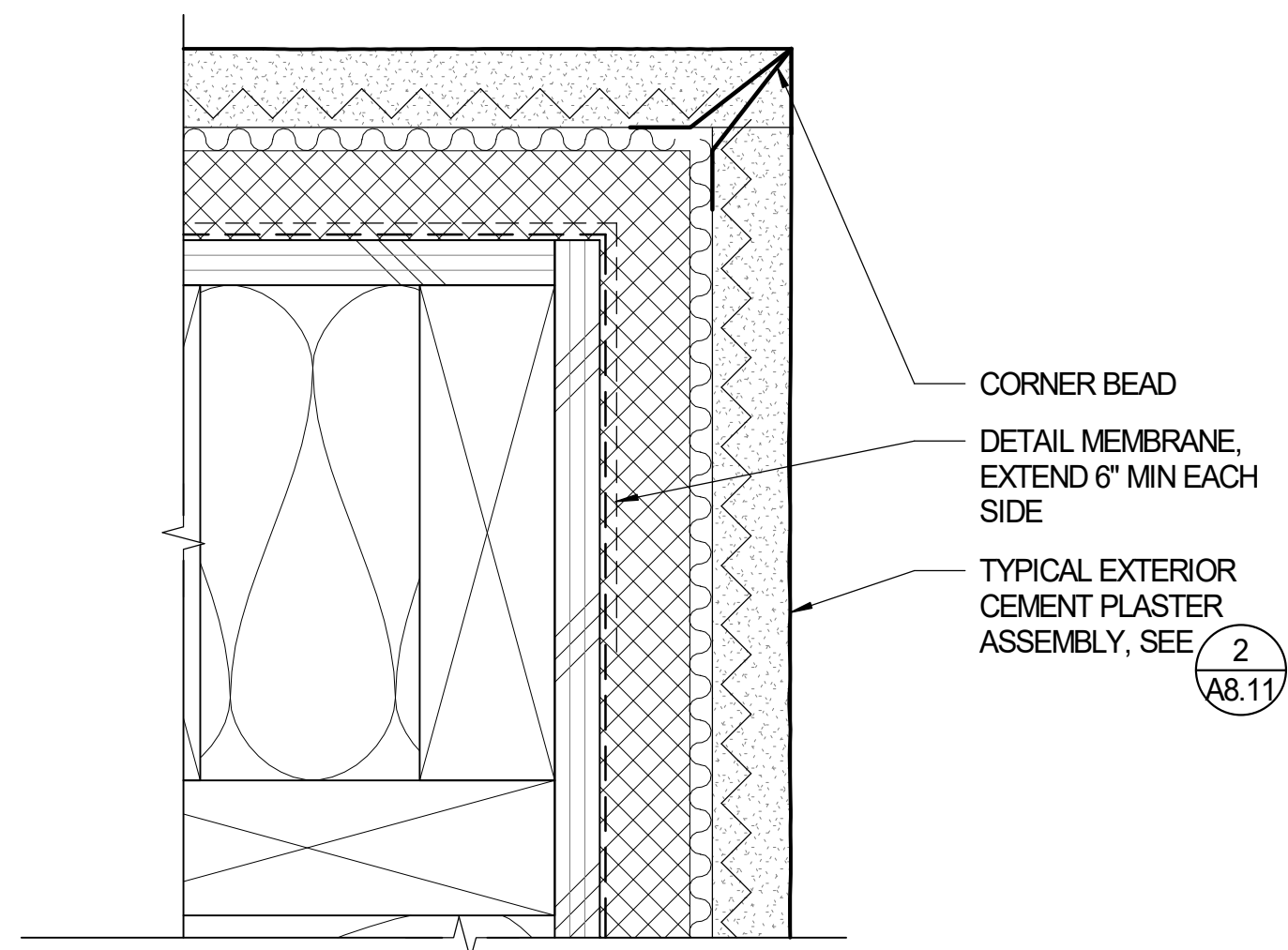
TYPICAL FLASHING COLLARS AT PENETRATION - ISOMETRIC

20 A8.11 SCALE: 3" = 1'-0"



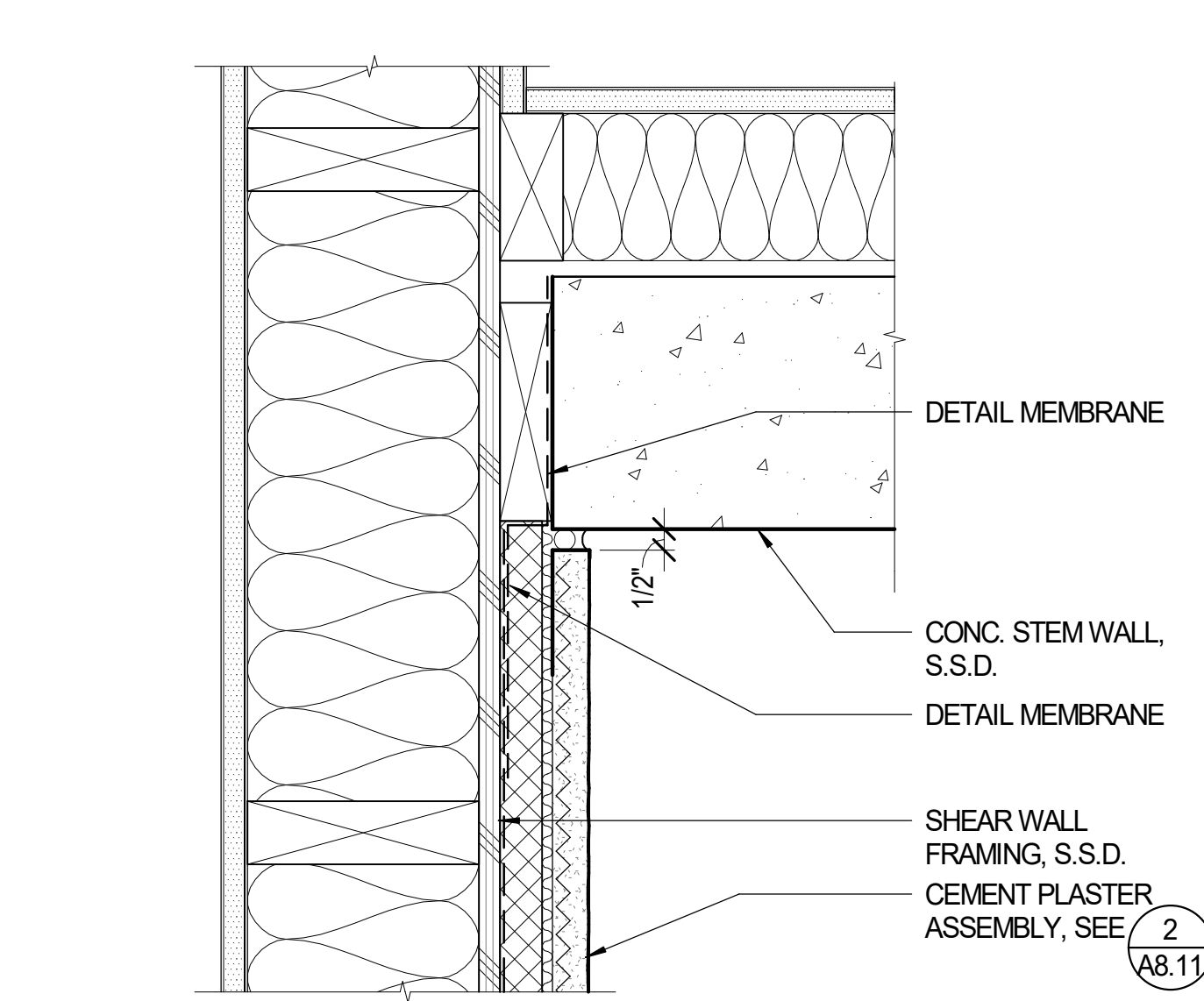
15 TYPICAL CEMENT PLASTER CONTROL JOINT

15 A8.11 SCALE: 6" = 1'-0"



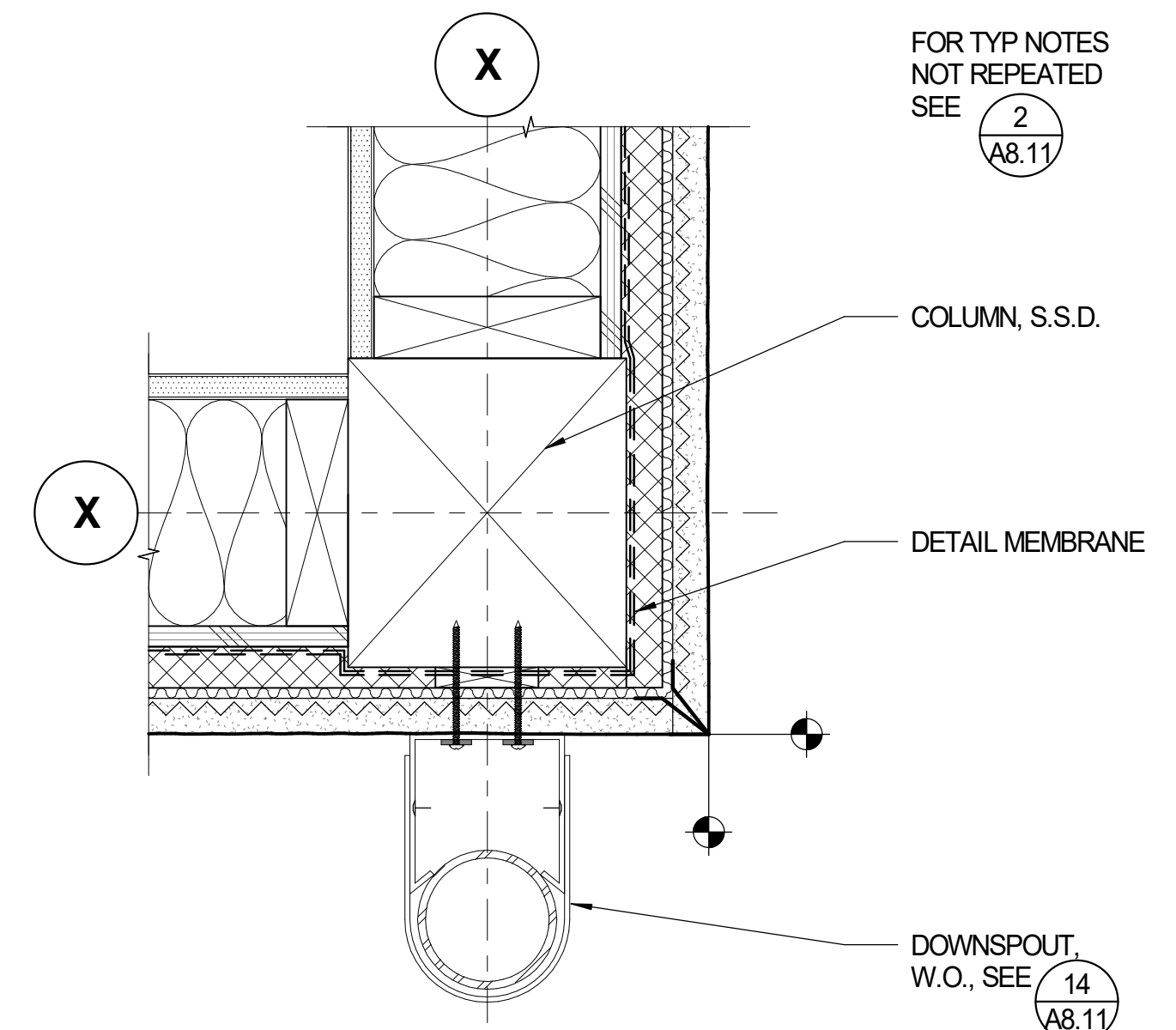
11 TYPICAL CEMENT PLASTER OUTSIDE CORNER - PLAN

11 A8.11 SCALE: 6" = 1'-0"



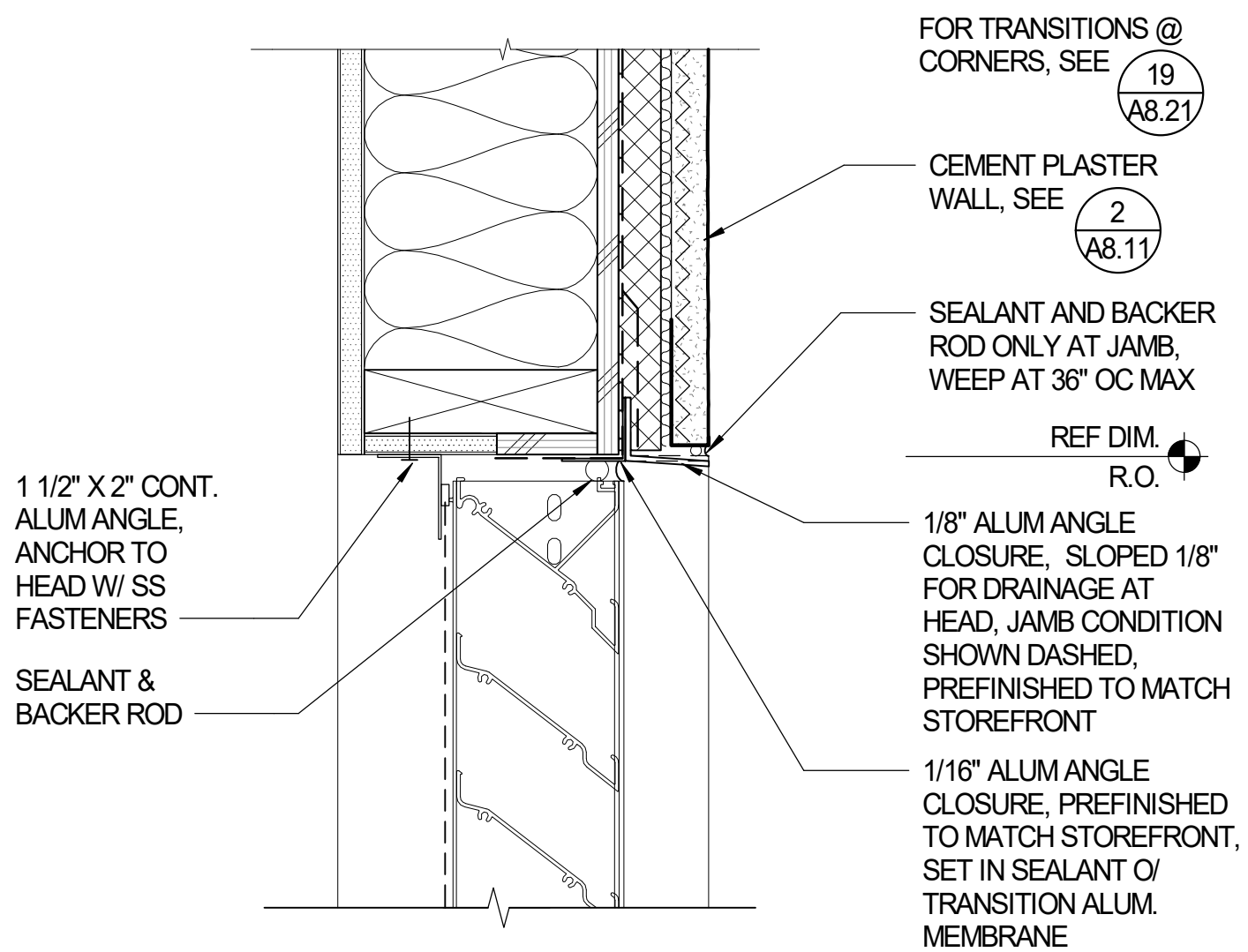
4 JAMB DETAIL - WW @ CEMENT PLASTER

4 A8.11 SCALE: 3" = 1'-0"



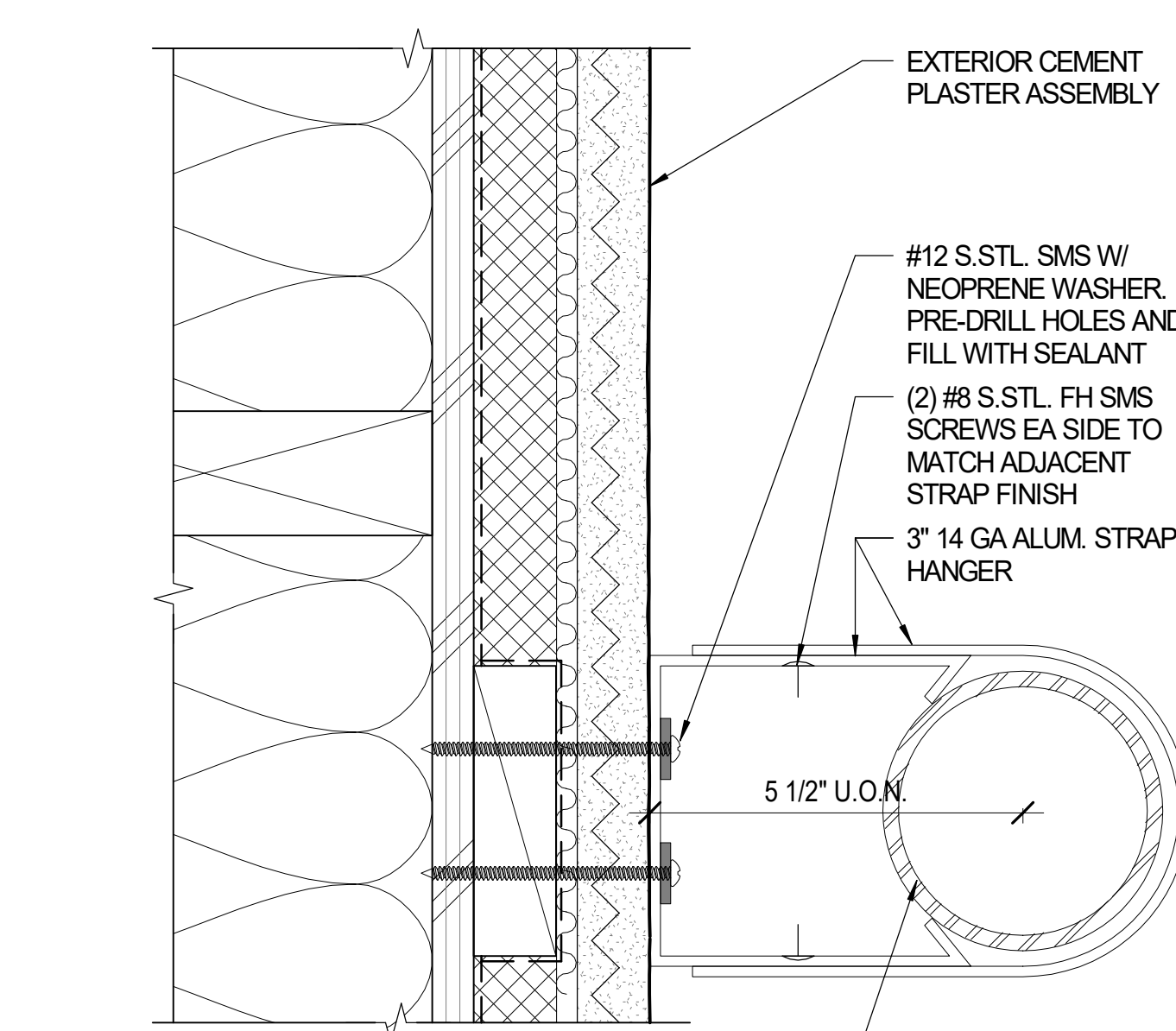
3 PLAN DETAIL - CW CORNER

3 A8.11 SCALE: 3" = 1'-0"



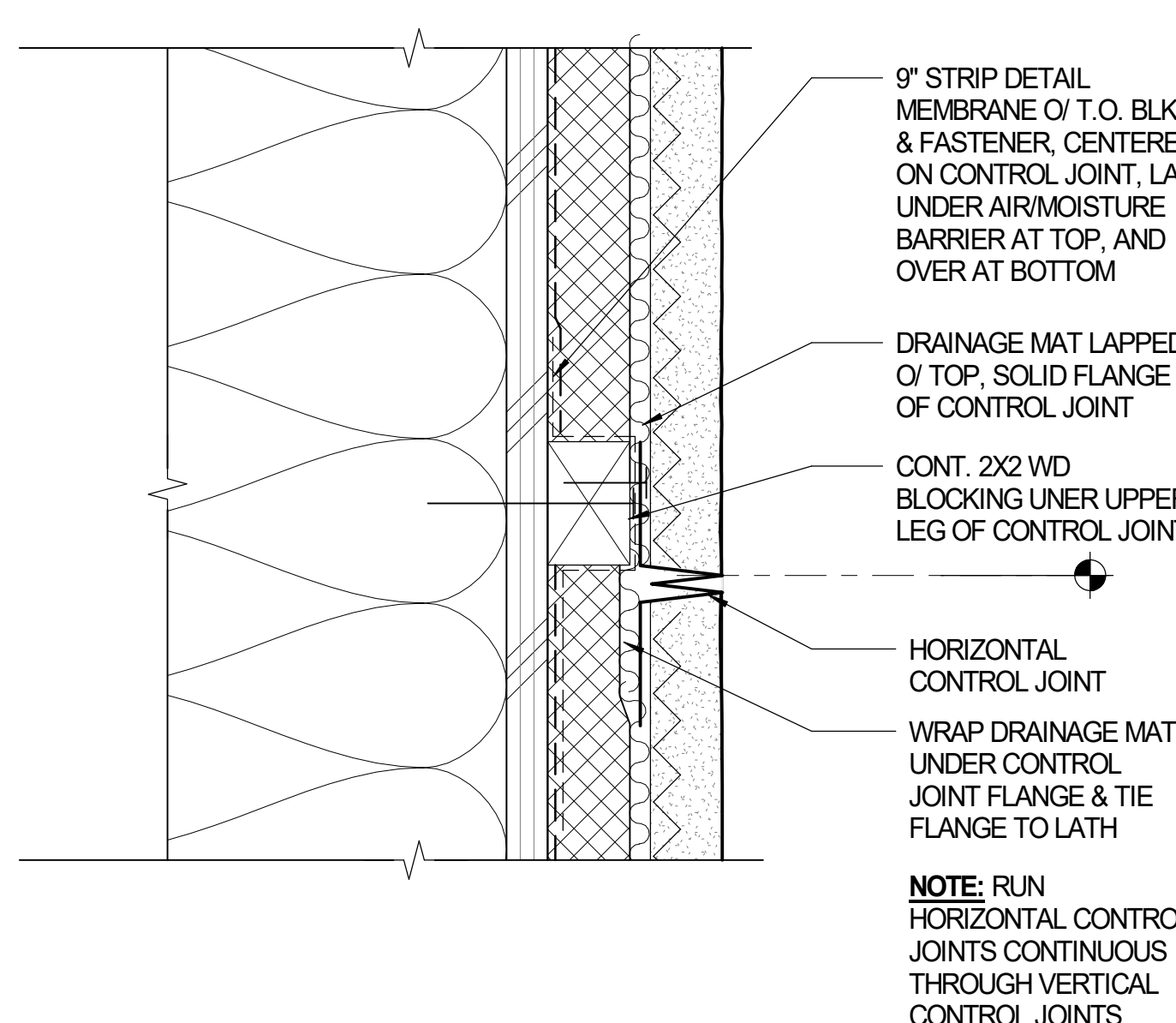
18 LOUVER HEAD (JAMB SIM.)

18 A8.11 SCALE: 3" = 1'-0"



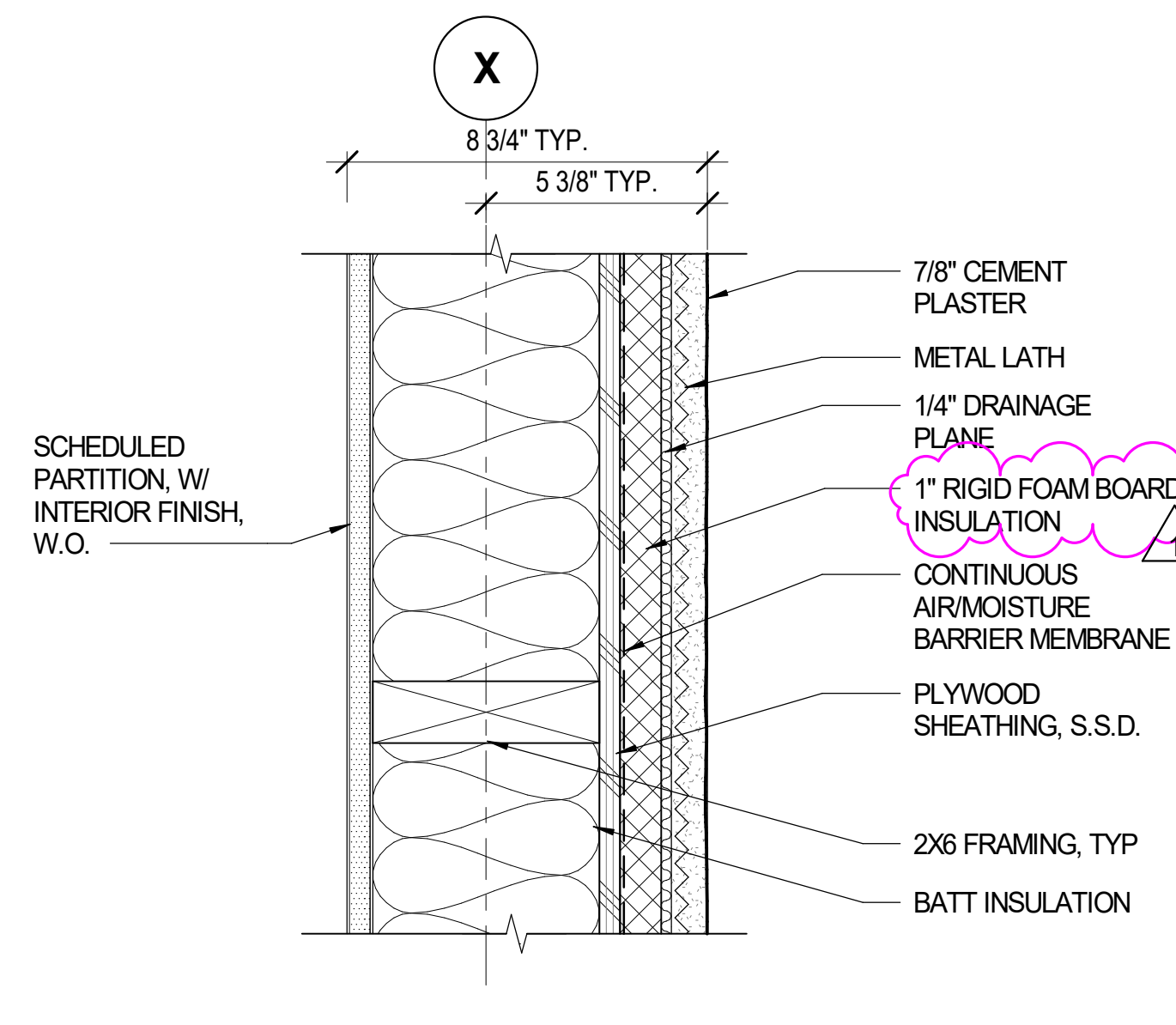
14 DOWNSPOUT HANGER AT CEMENT PLASTER - PLAN

14 A8.11 SCALE: 6" = 1'-0"



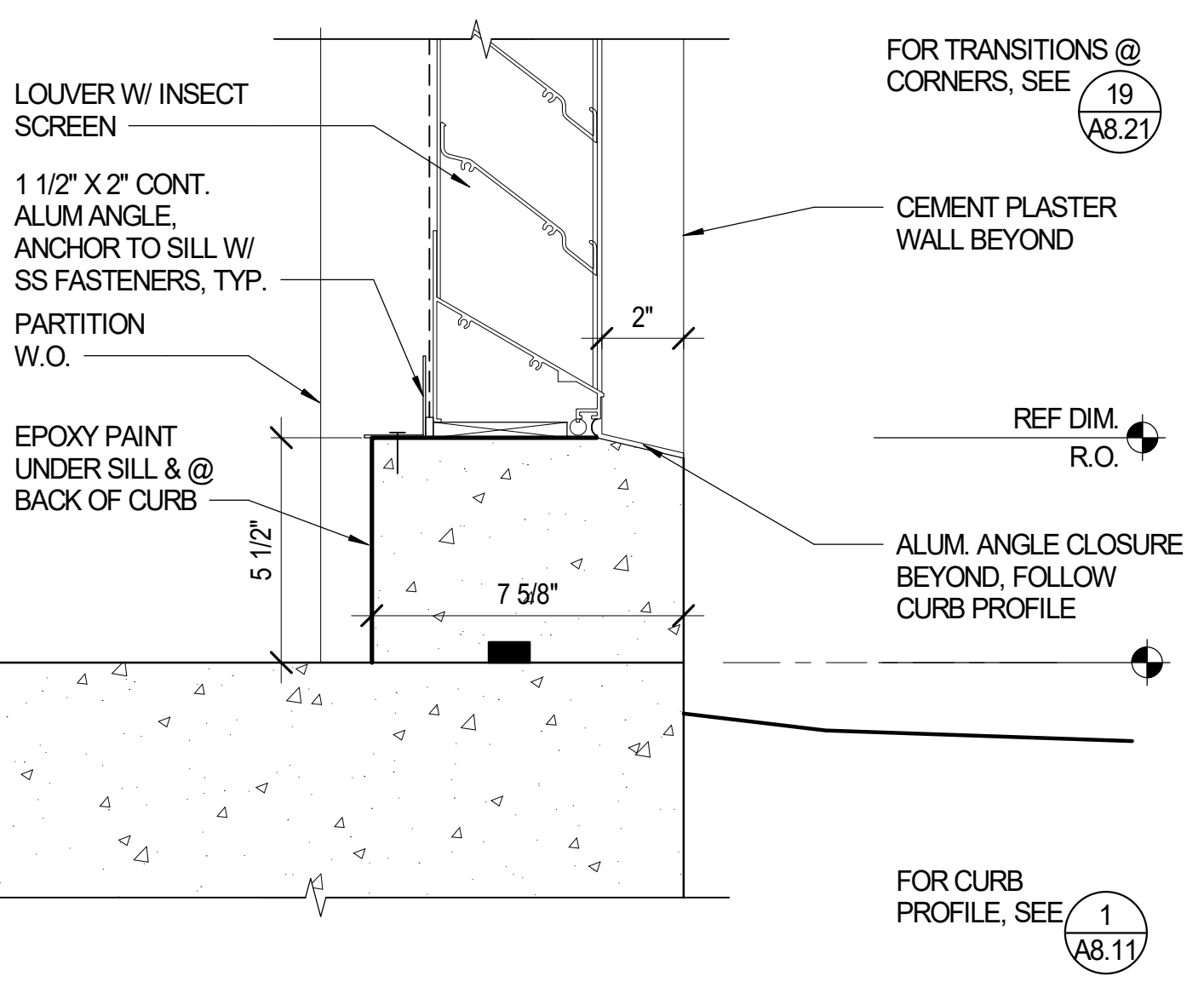
10 HORIZONTAL CEMENT PLASTER CONTROL JOINT

10 A8.11 SCALE: 6" = 1'-0"



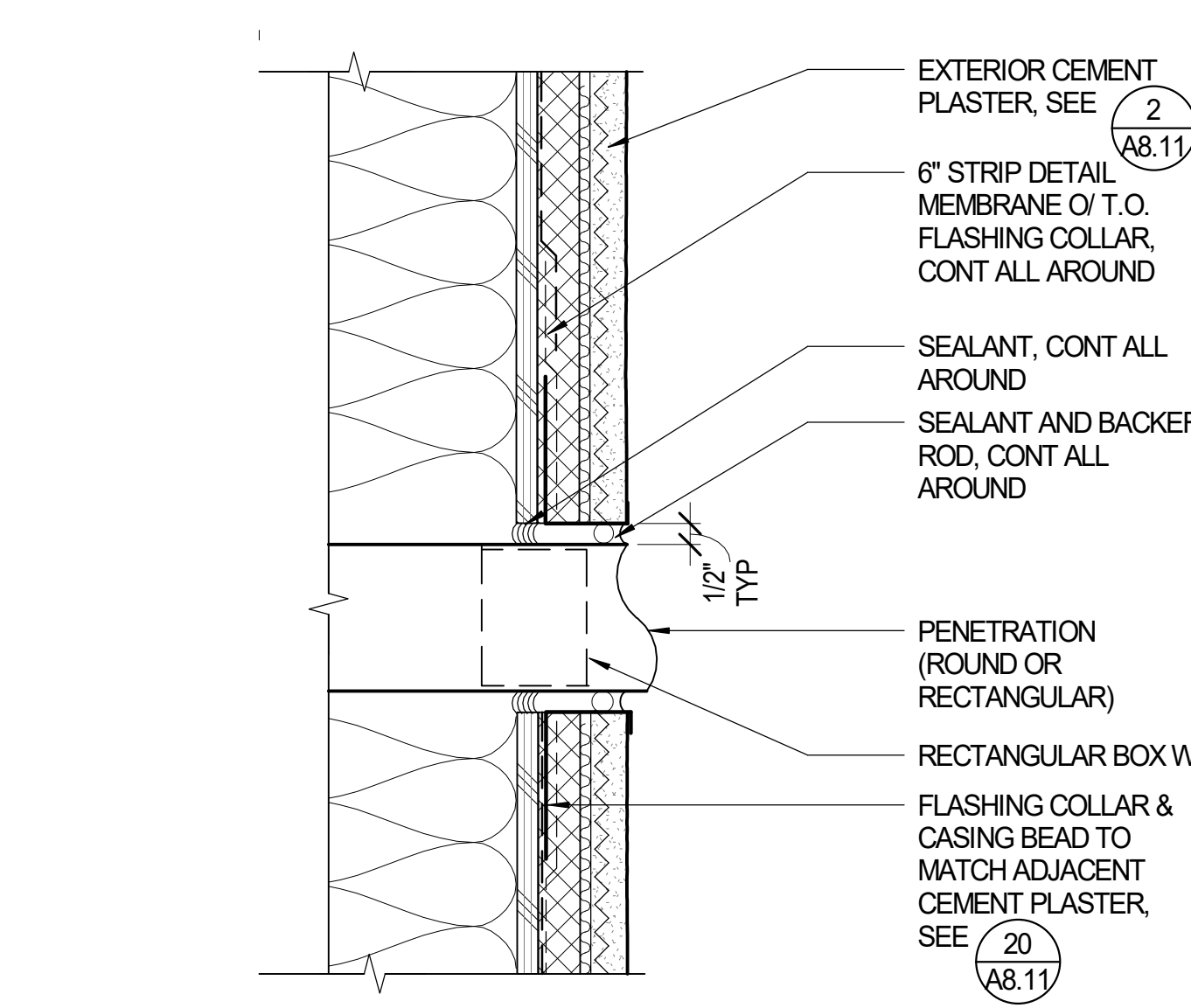
2 TYP CEMENT PLASTER WALL ASSEMBLY

2 A8.11 SCALE: 3" = 1'-0"



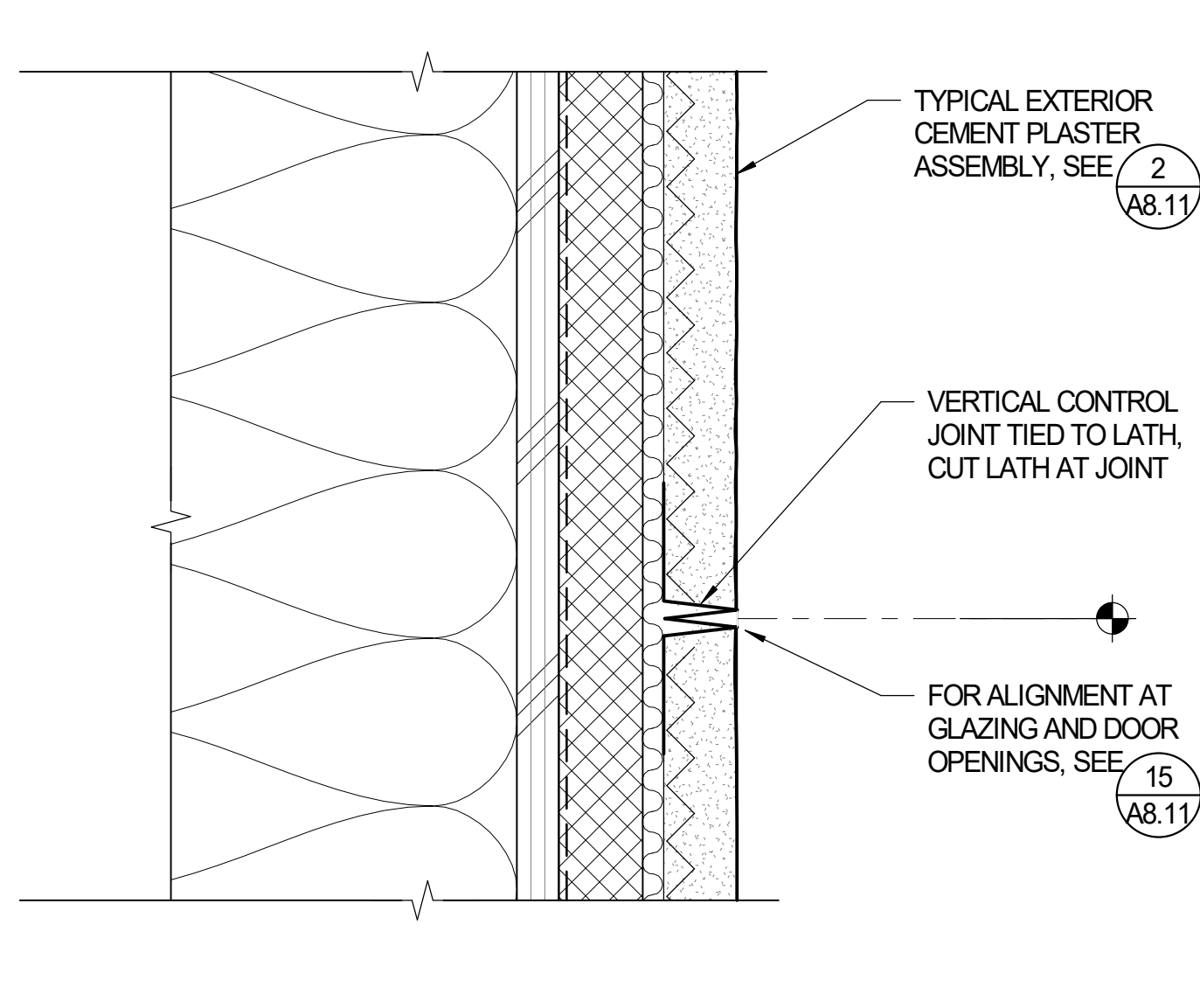
17 LOUVER SILL @ CURB

17 A8.11 SCALE: 3" = 1'-0"



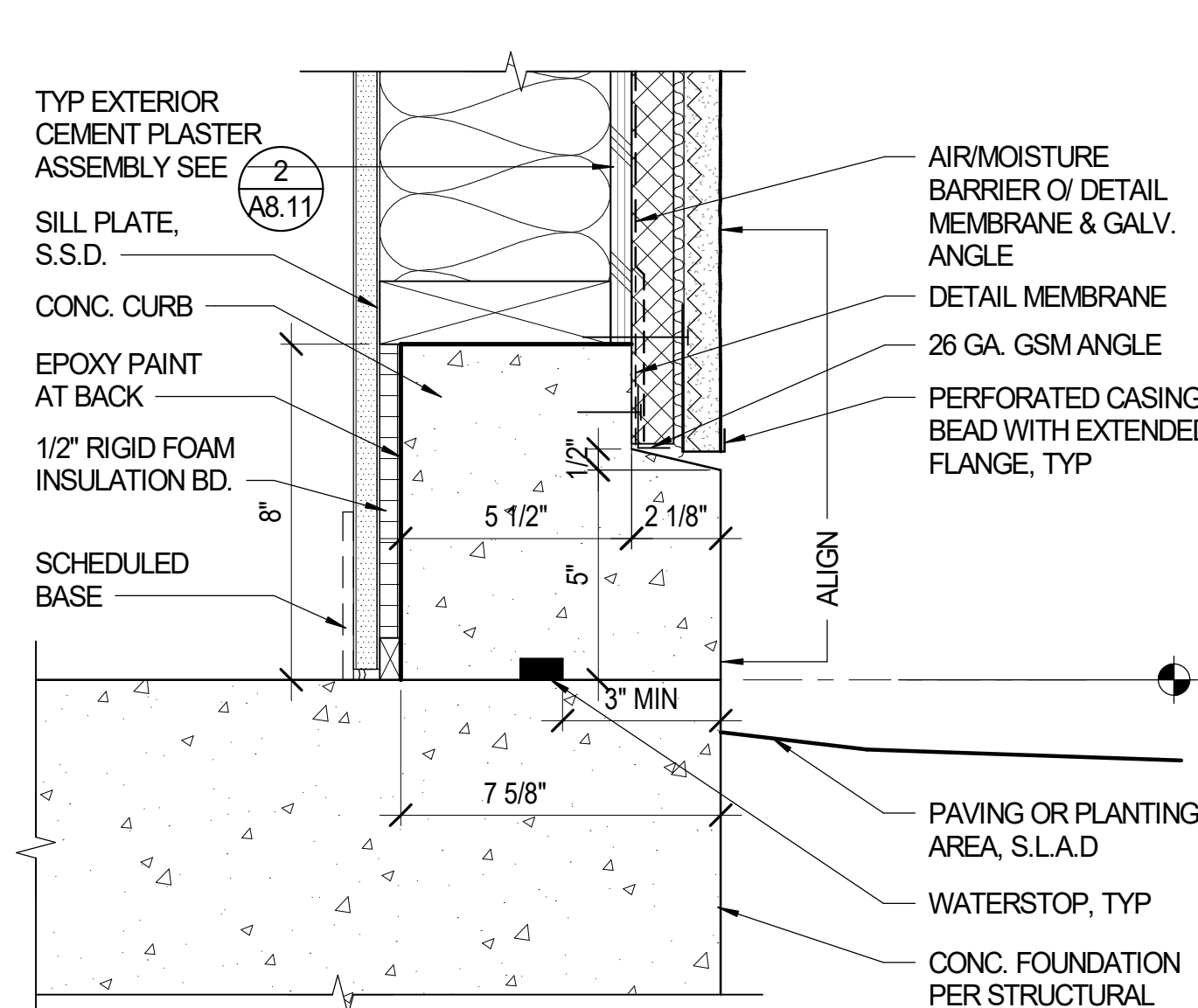
13 TYP PENETRATION AT CEMENT PLASTER - SECTION

13 A8.11 SCALE: 3" = 1'-0"



9 VERTICAL CEMENT PLASTER CONTROL JOINT

9 A8.11 SCALE: 6" = 1'-0"



1 TYPICAL CEMENT PLASTER AT CURB

1 A8.11 SCALE: 3" = 1'-0"

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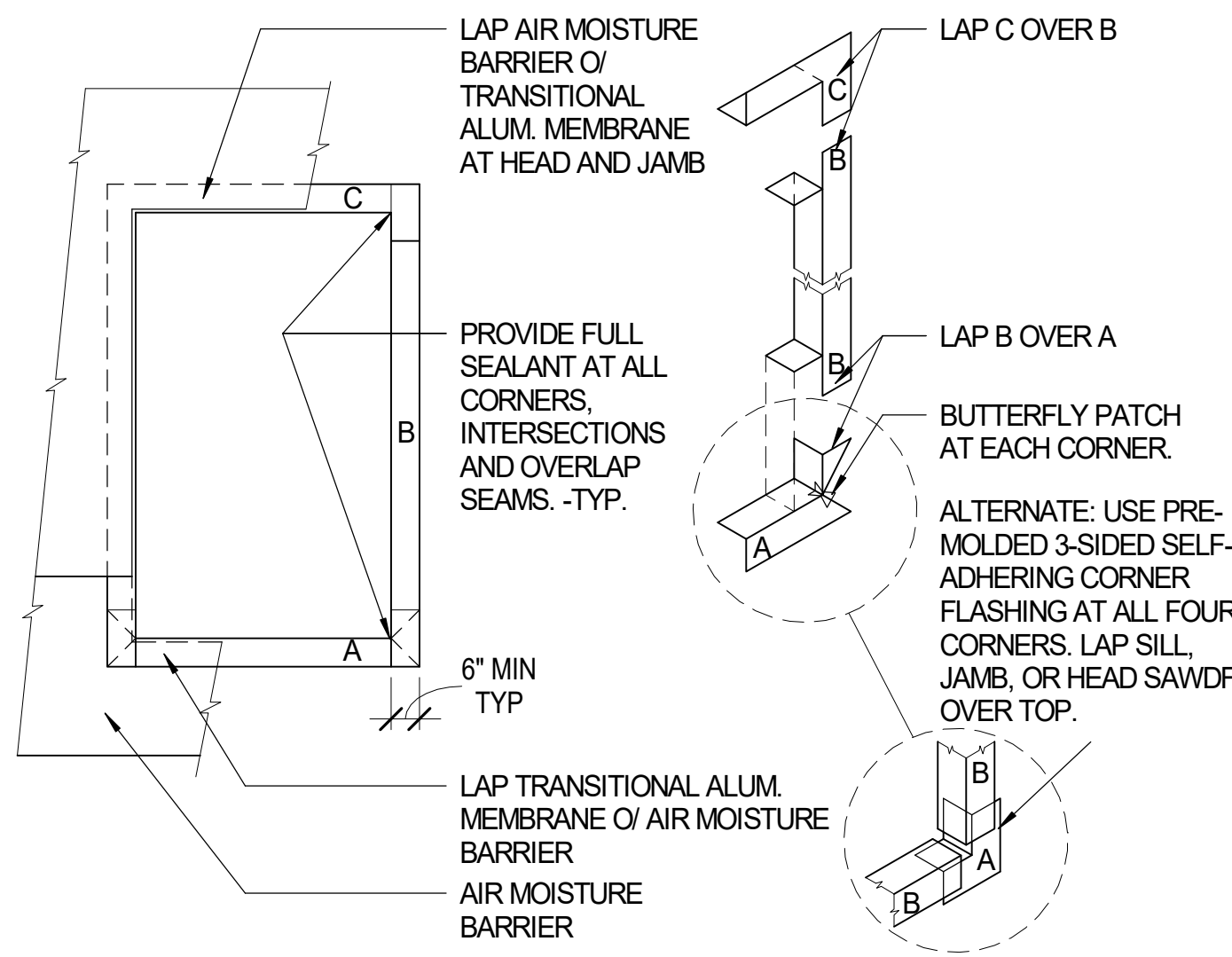
Scale As indicated Drawn by LR EHDD Job Number 20020

EXTERIOR WALL DETAILS - CEMENT PLASTER

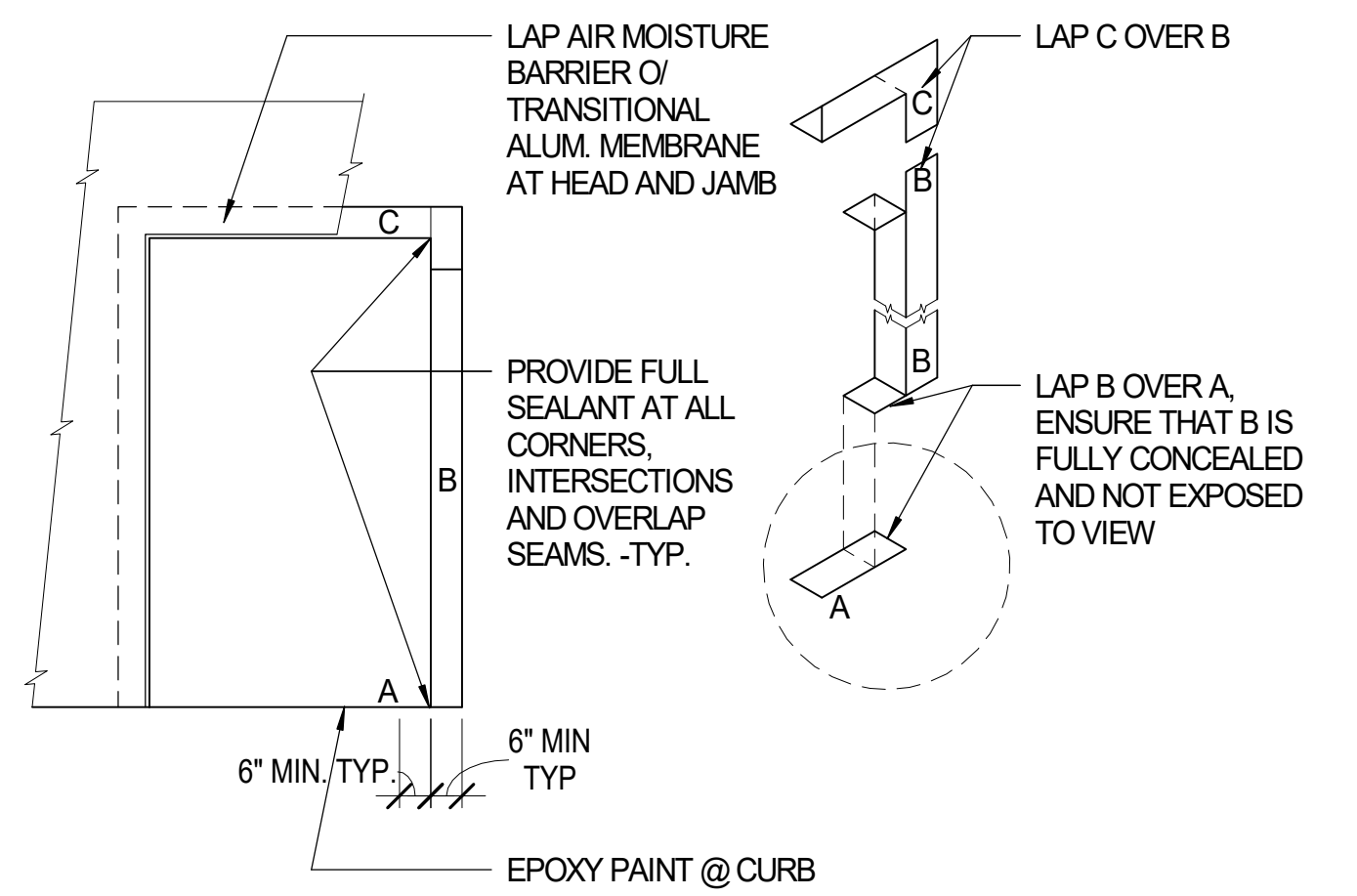
Sheet Number

A8.11

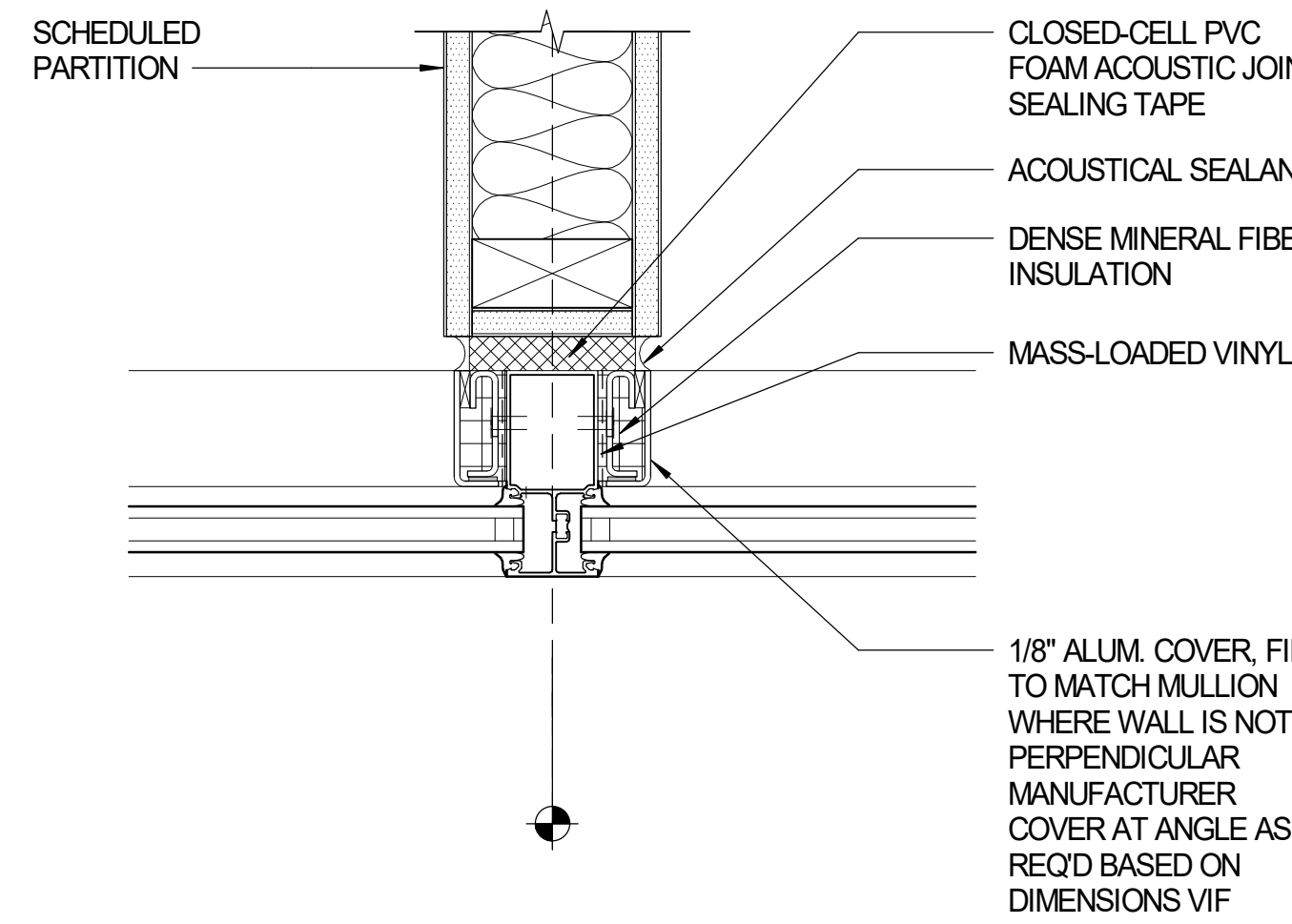




20 TYPICAL FLASHING @ OPENING  
A8.21 SCALE: 3" = 1'-0"

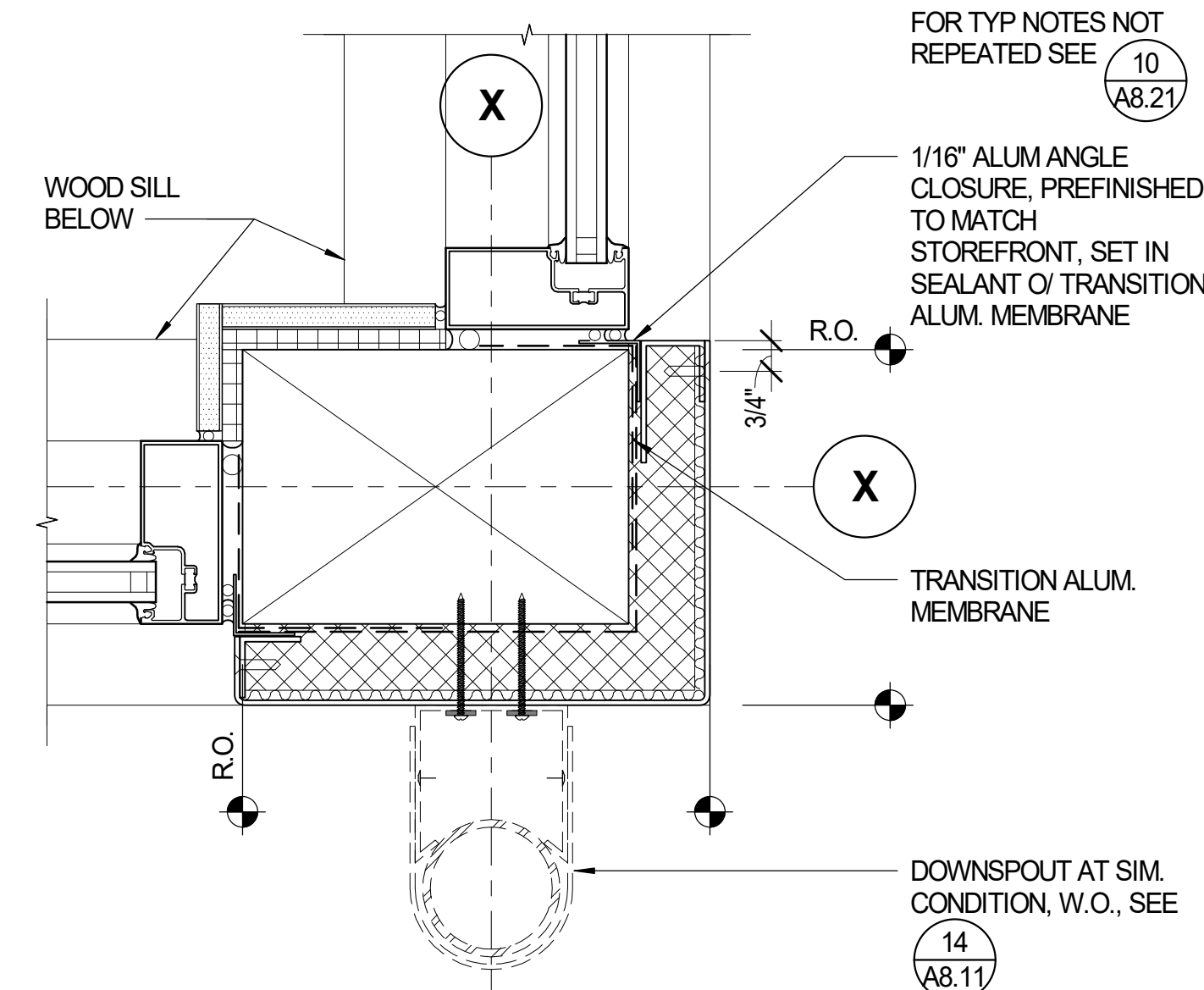


19 TYPICAL FLASHING @ OPENING @ CONC. CURB  
A8.21 SCALE: 3" = 1'-0"

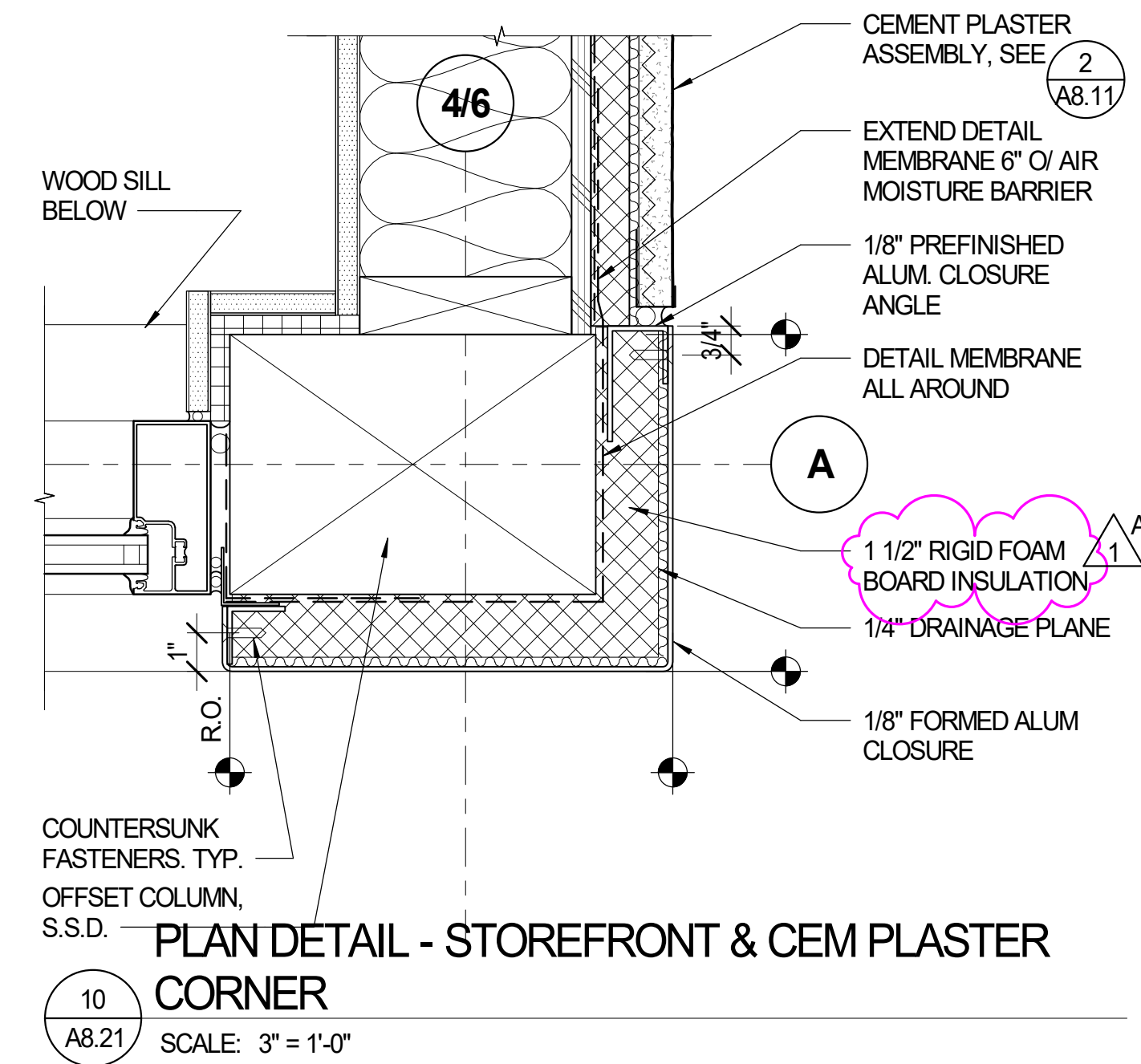


15 ACOUSTIC WALL PARTITION AT MULLION-PLAN  
A8.21 SCALE: 3" = 1'-0"

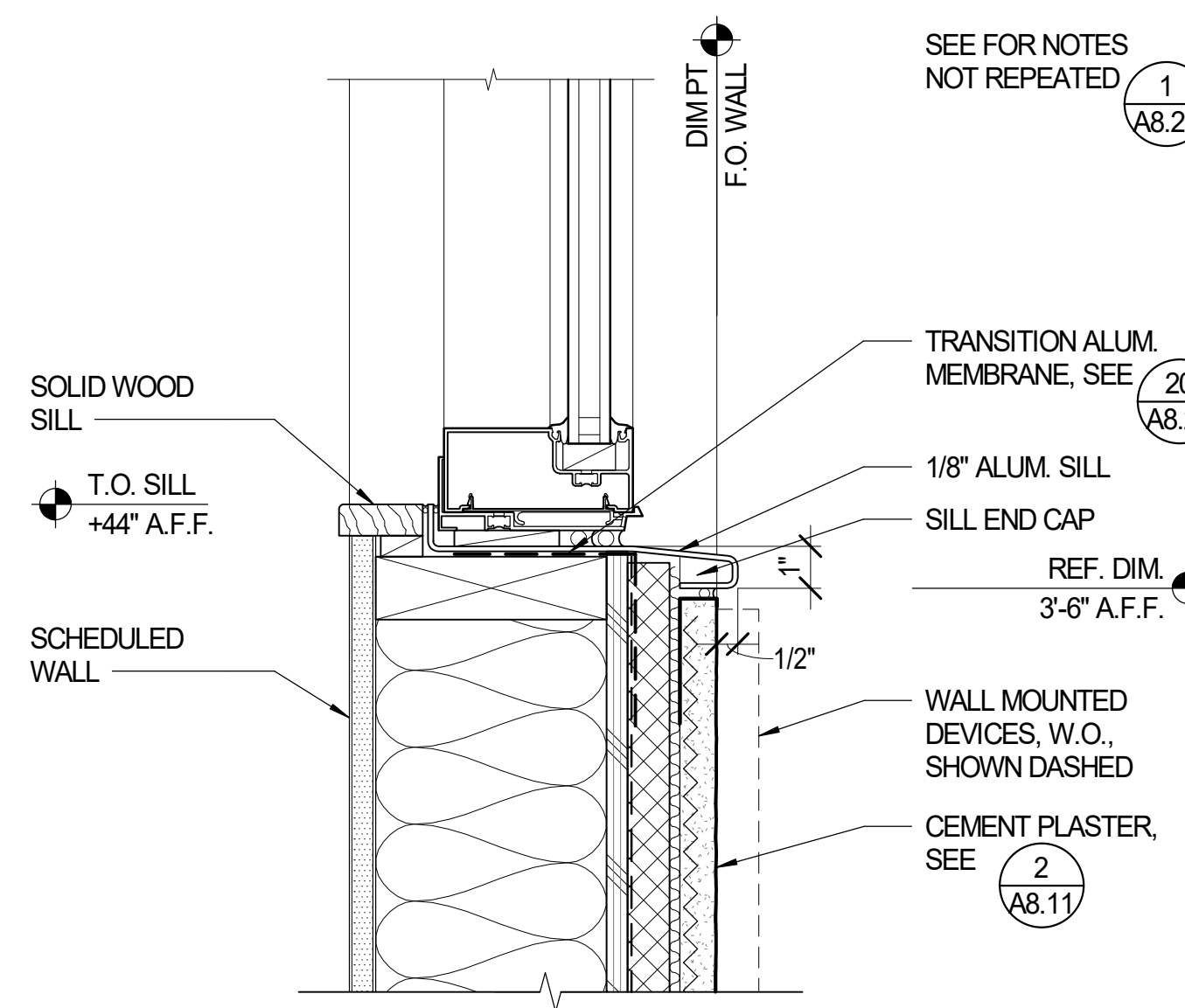
12 HEAD DETAIL - ALUM PANEL @ CORNER  
A8.21 SCALE: 3" = 1'-0"



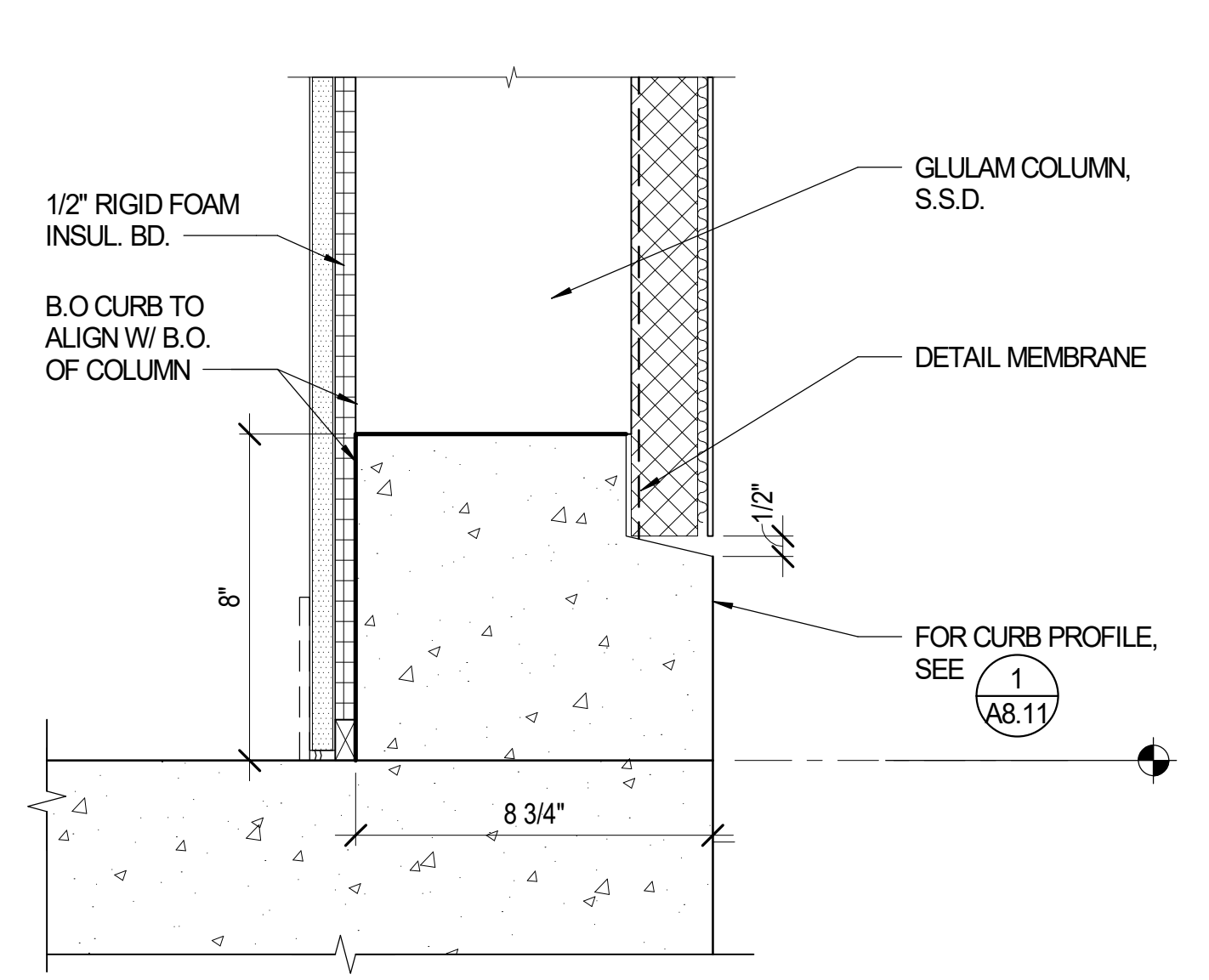
11 PLAN DETAIL - STOREFRONT CORNER  
A8.21 SCALE: 3" = 1'-0"



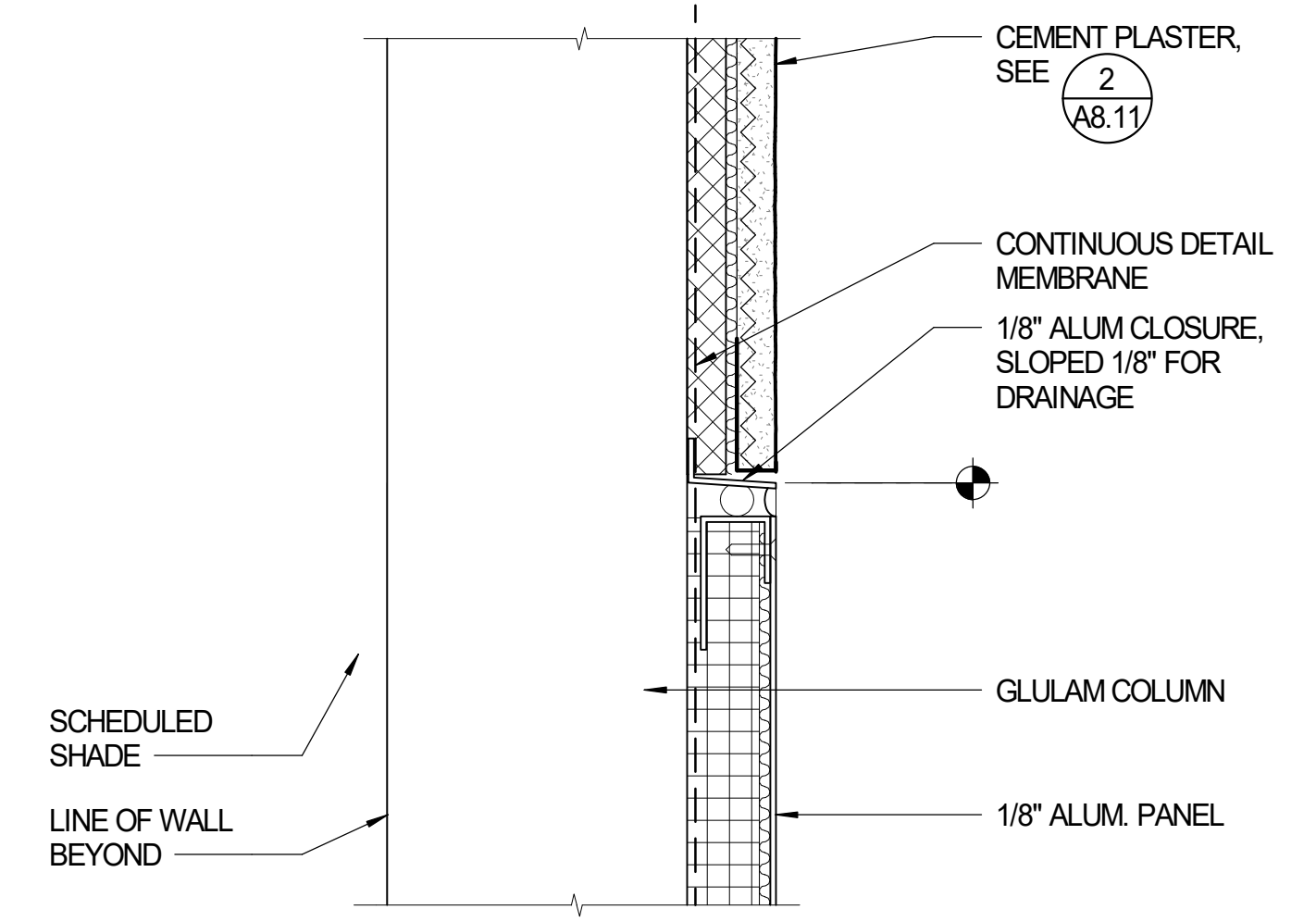
10 PLAN DETAIL - STOREFRONT & CEM PLASTER CORNER  
A8.21 SCALE: 3" = 1'-0"



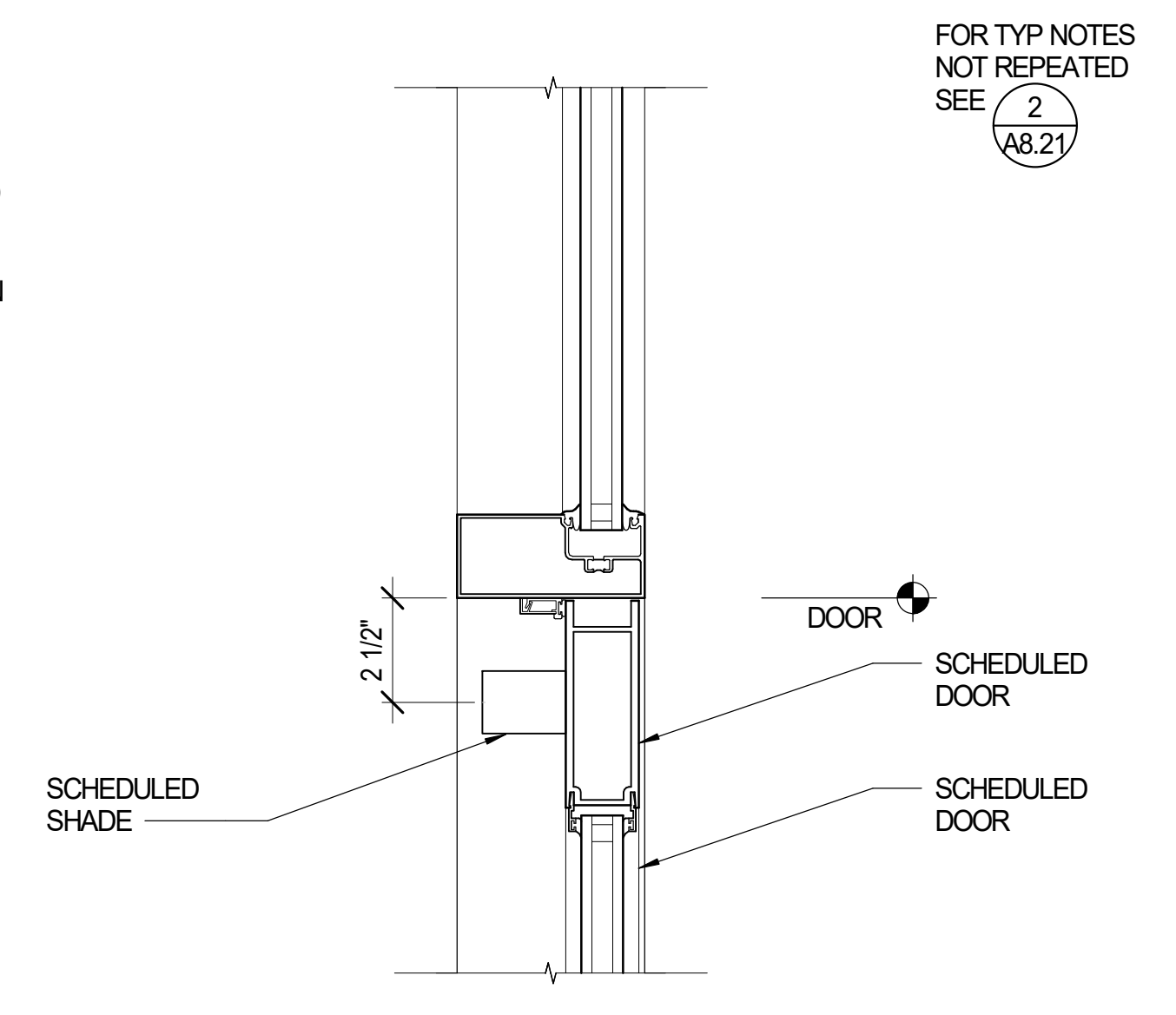
13 SILL DETAIL - STOREFRONT @ CEM. PLASTER  
A8.21 SCALE: 3" = 1'-0"



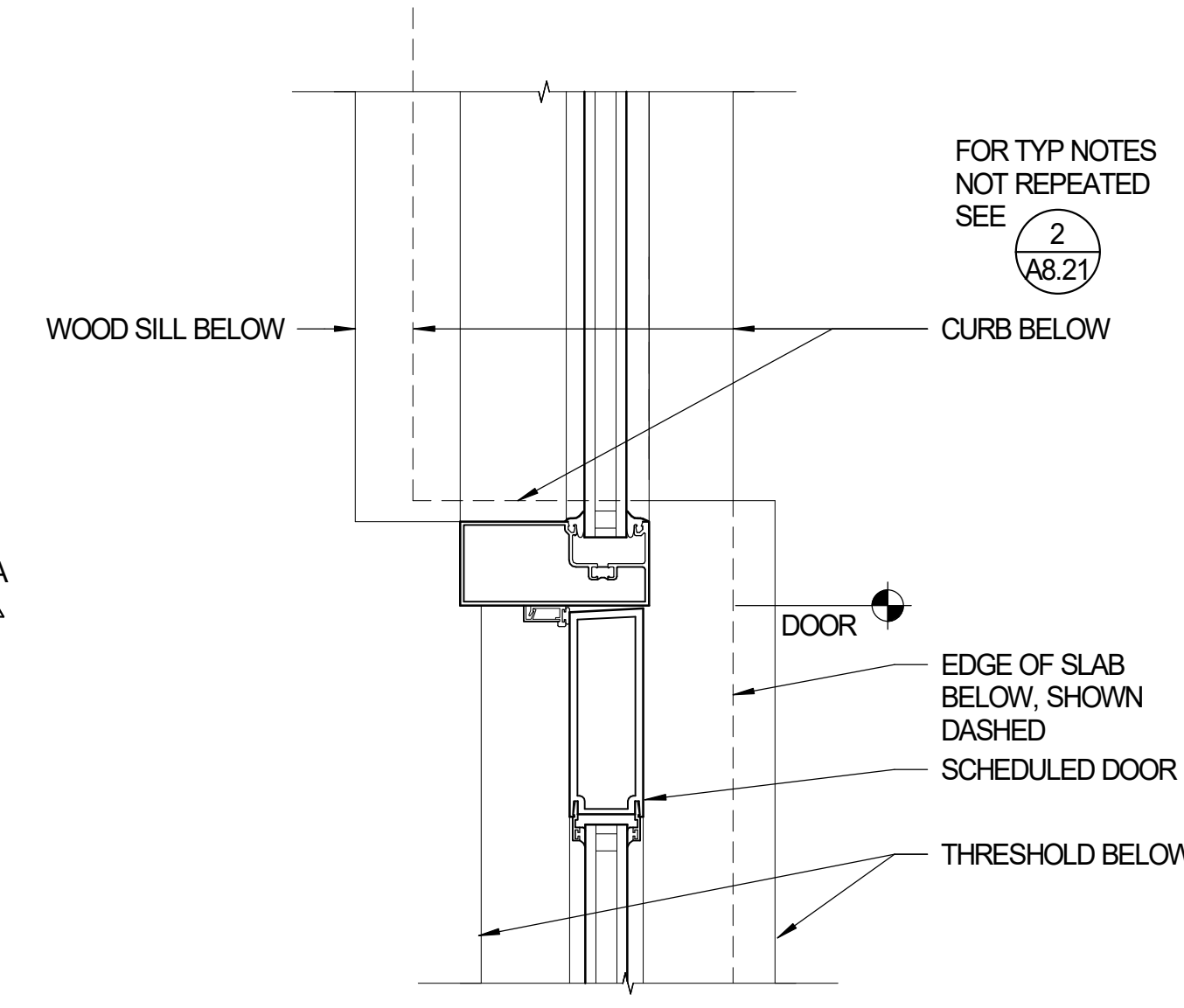
9 SILL DETAIL - ALUM PANEL @ CORNER  
A8.21 SCALE: 3" = 1'-0"



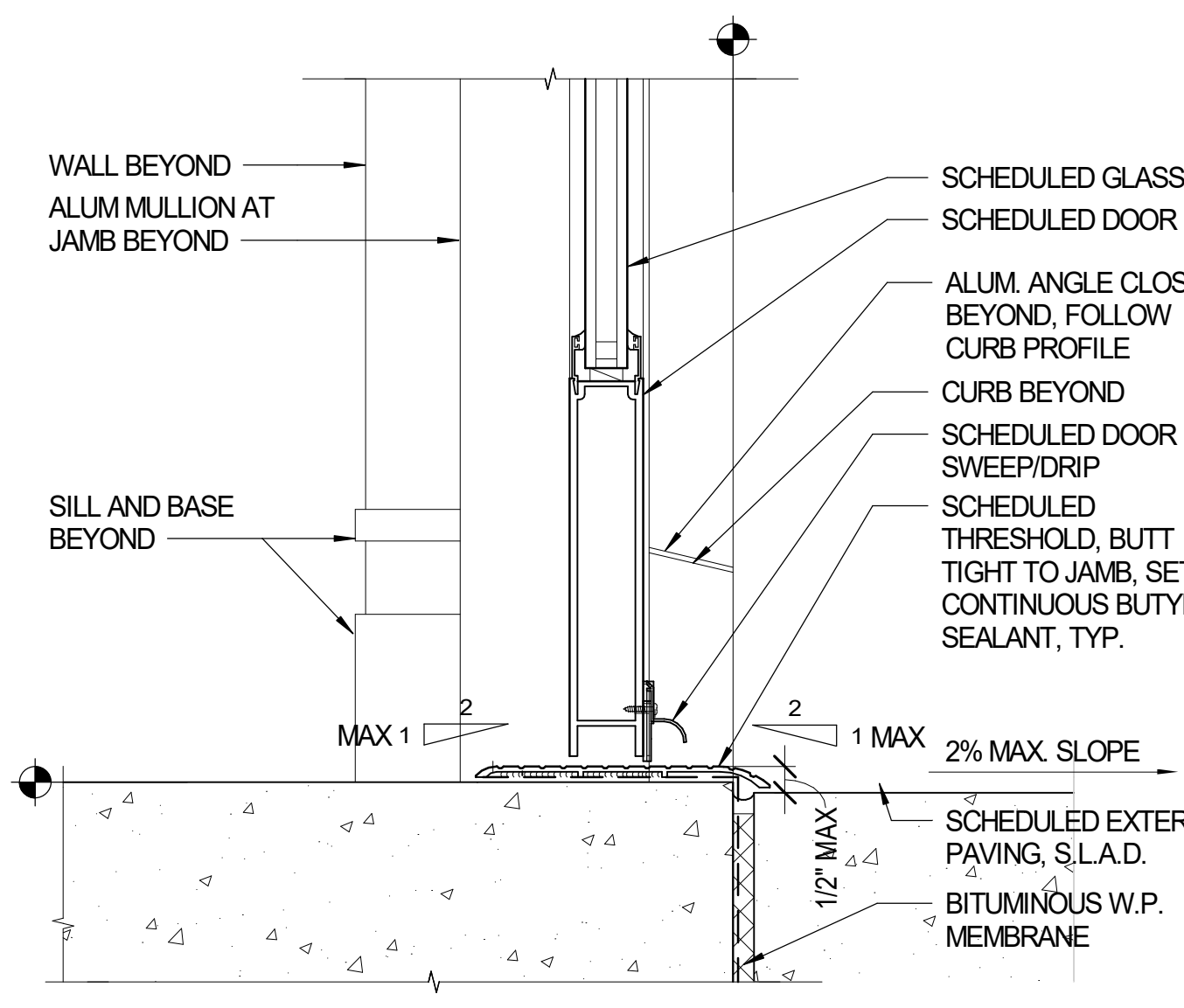
7 HEAD DETAIL - STOREFRONT ENTRANCE  
A8.21 SCALE: 3" = 1'-0"



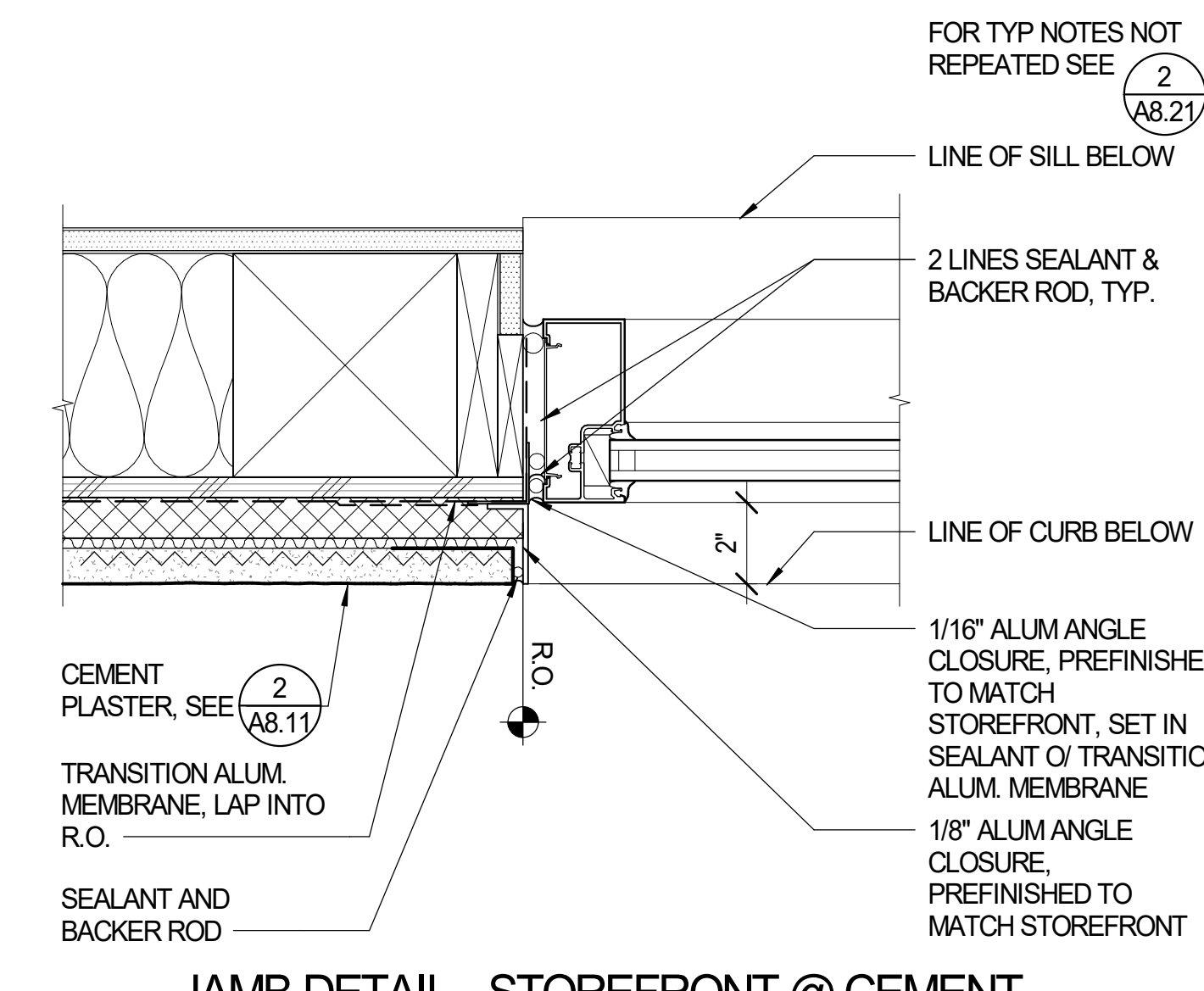
6 JAMB DETAIL - STOREFRONT ENTRANCE  
A8.21 SCALE: 3" = 1'-0"



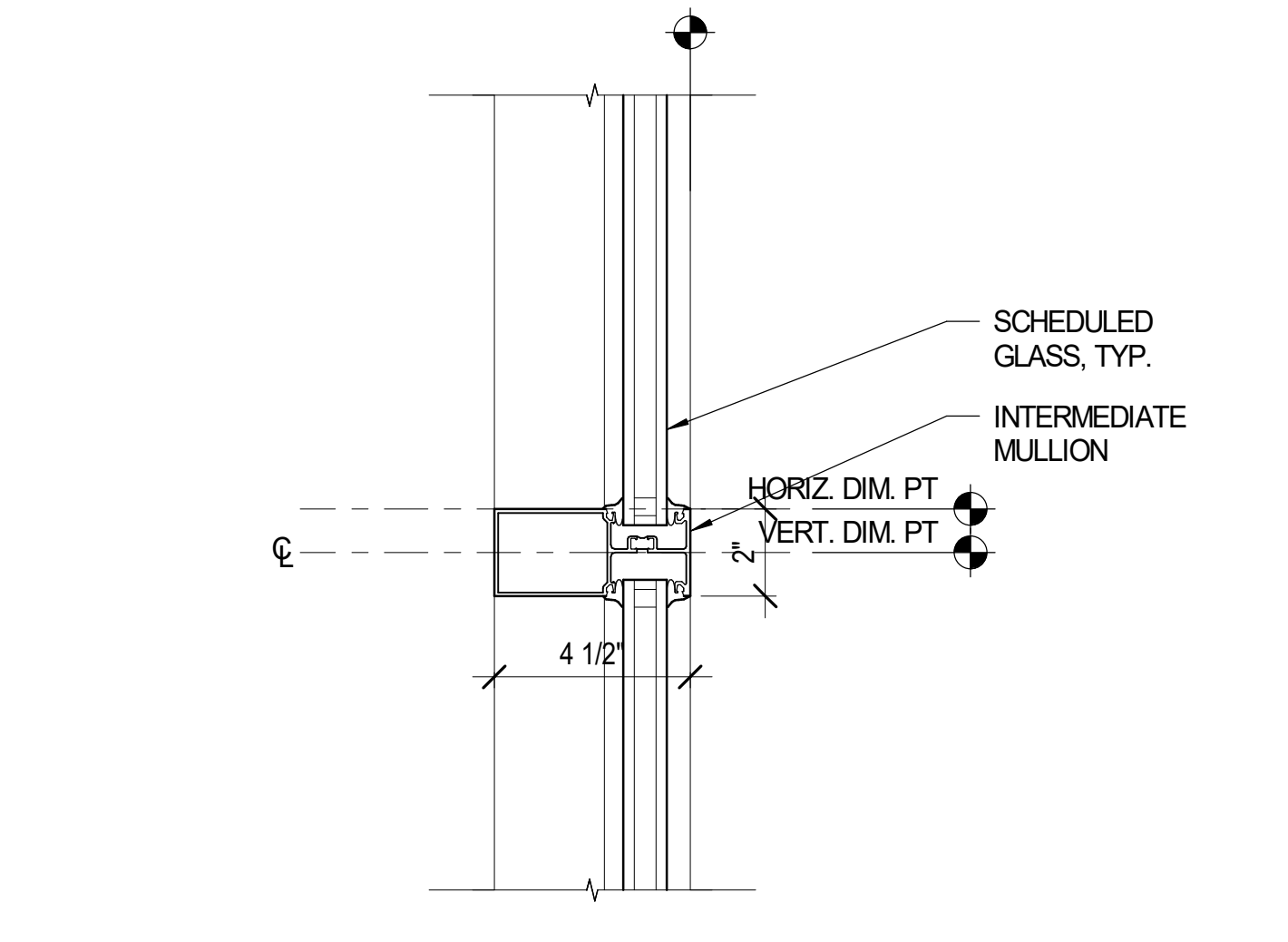
5 SILL DETAIL - STOREFRONT ENTRANCE @ DOOR THRESHOLD  
A8.21 SCALE: 3" = 1'-0"



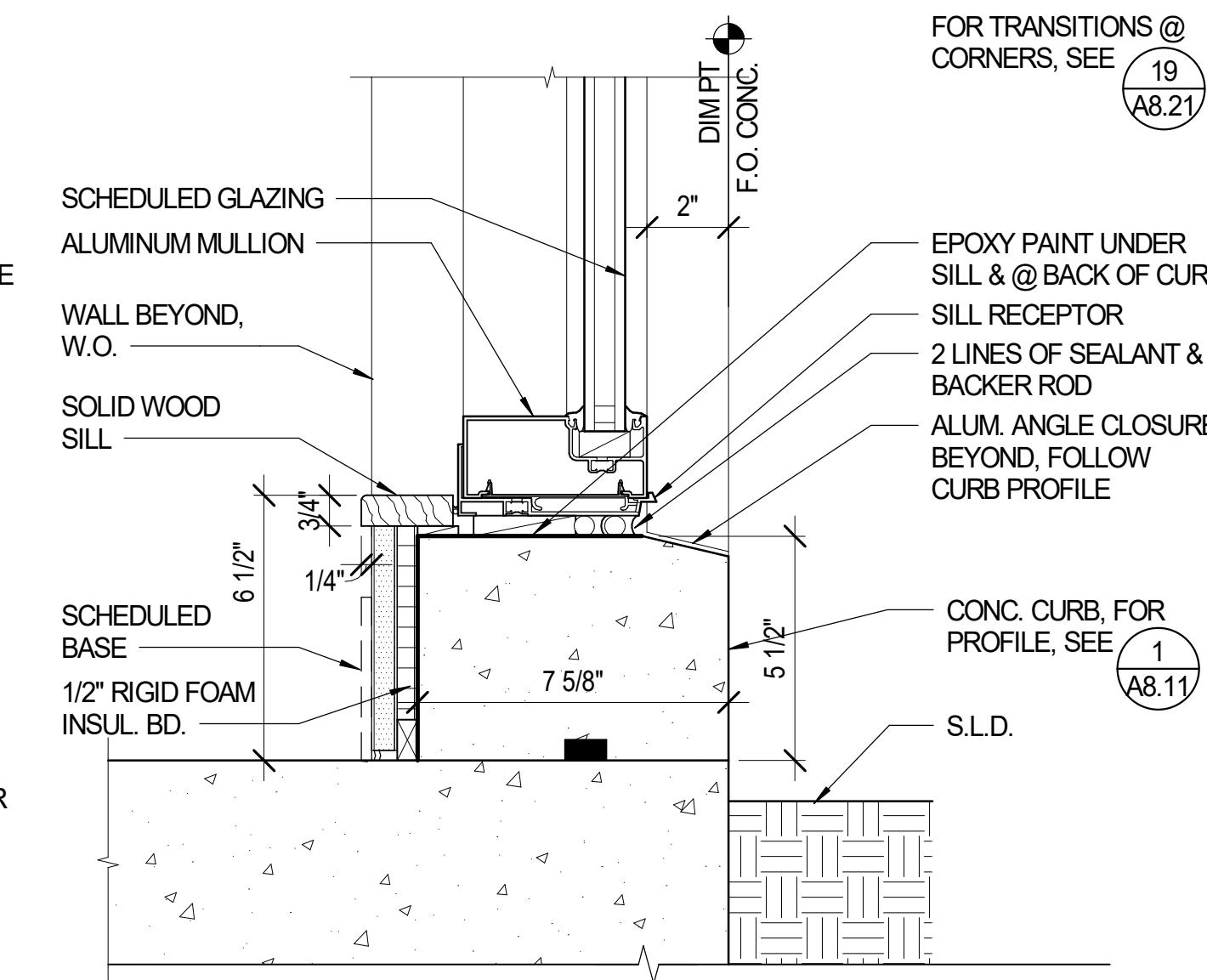
4 HEAD DETAIL - STOREFRONT @ CEMENT PLASTER  
A8.21 SCALE: 3" = 1'-0"



3 JAMB DETAIL - STOREFRONT @ CEMENT PLASTER  
A8.21 SCALE: 3" = 1'-0"



2 PLAN DETAIL - STOREFRONT MULLION  
A8.21 SCALE: 3" = 1'-0"



1 SILL DETAIL - STOREFRONT  
A8.21 SCALE: 3" = 1'-0"



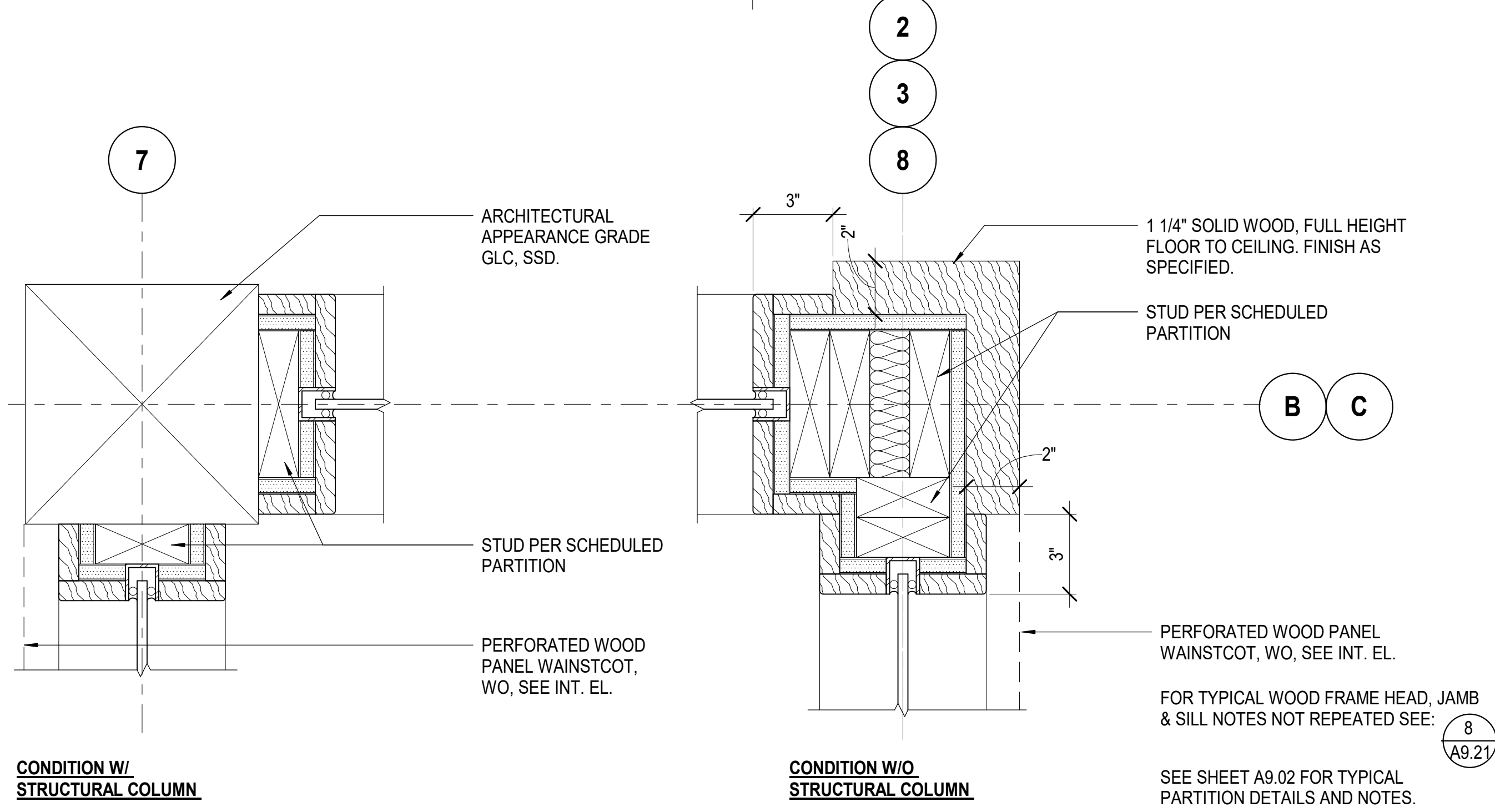
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Scale  
3" = 1'-0"  
Drawn by  
Author  
EHDD Job Number  
20020

Sheet Title  
**EXTERIOR STOREFRONT DETAILS**

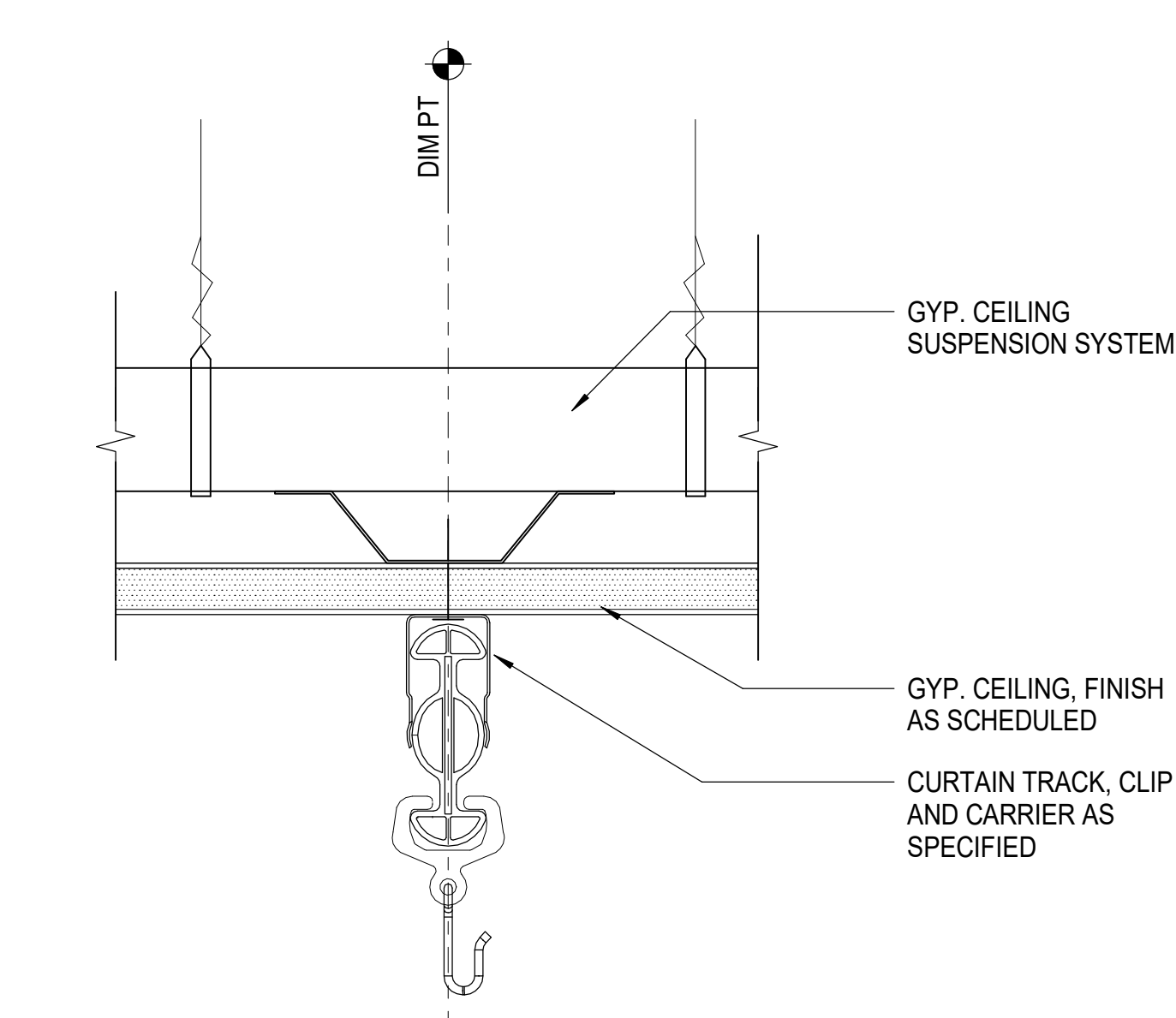
Sheet Number  
**A8.21**



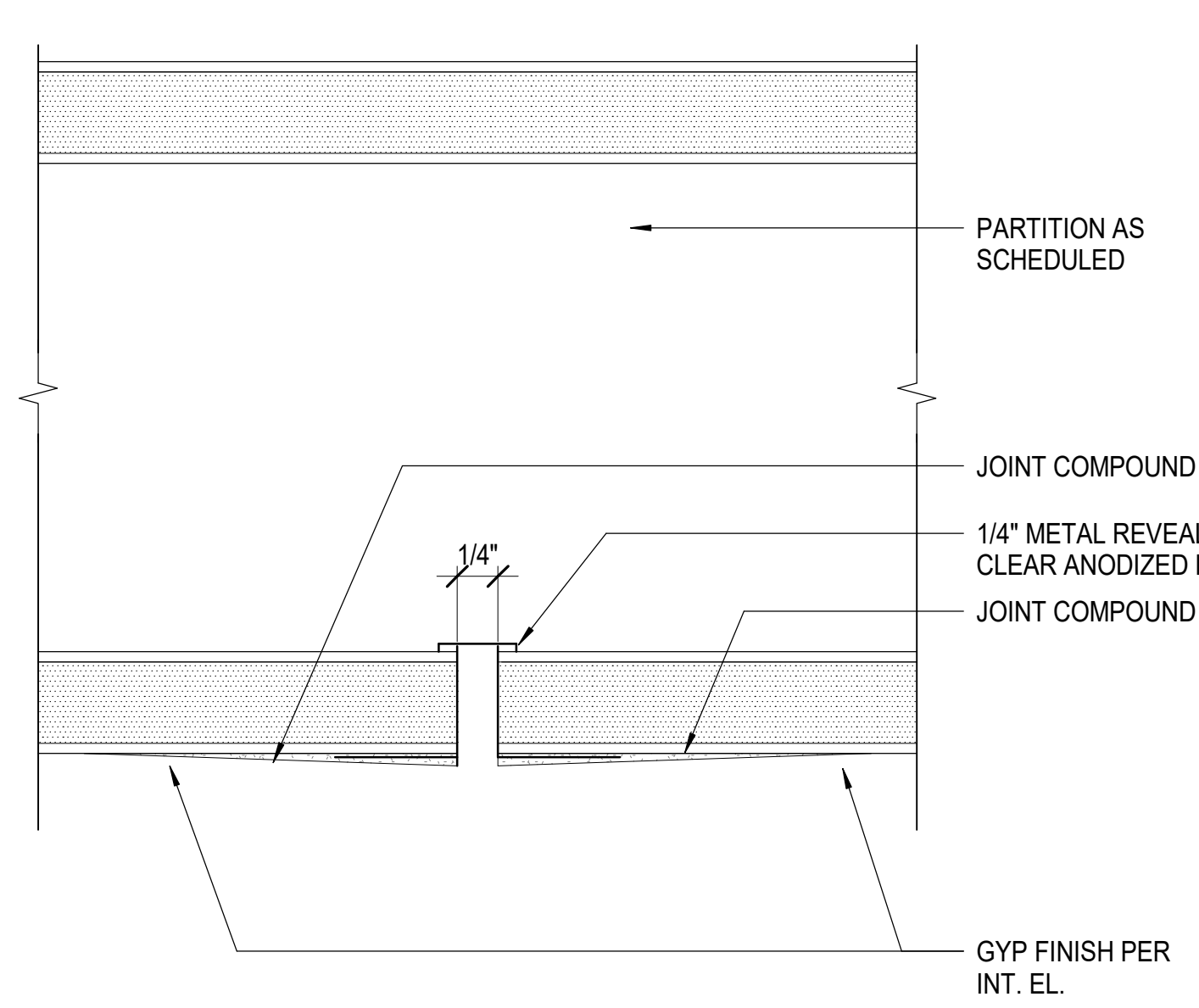
CONDITION W/ STRUCTURAL COLUMN

CONDITION W/O STRUCTURAL COLUMN

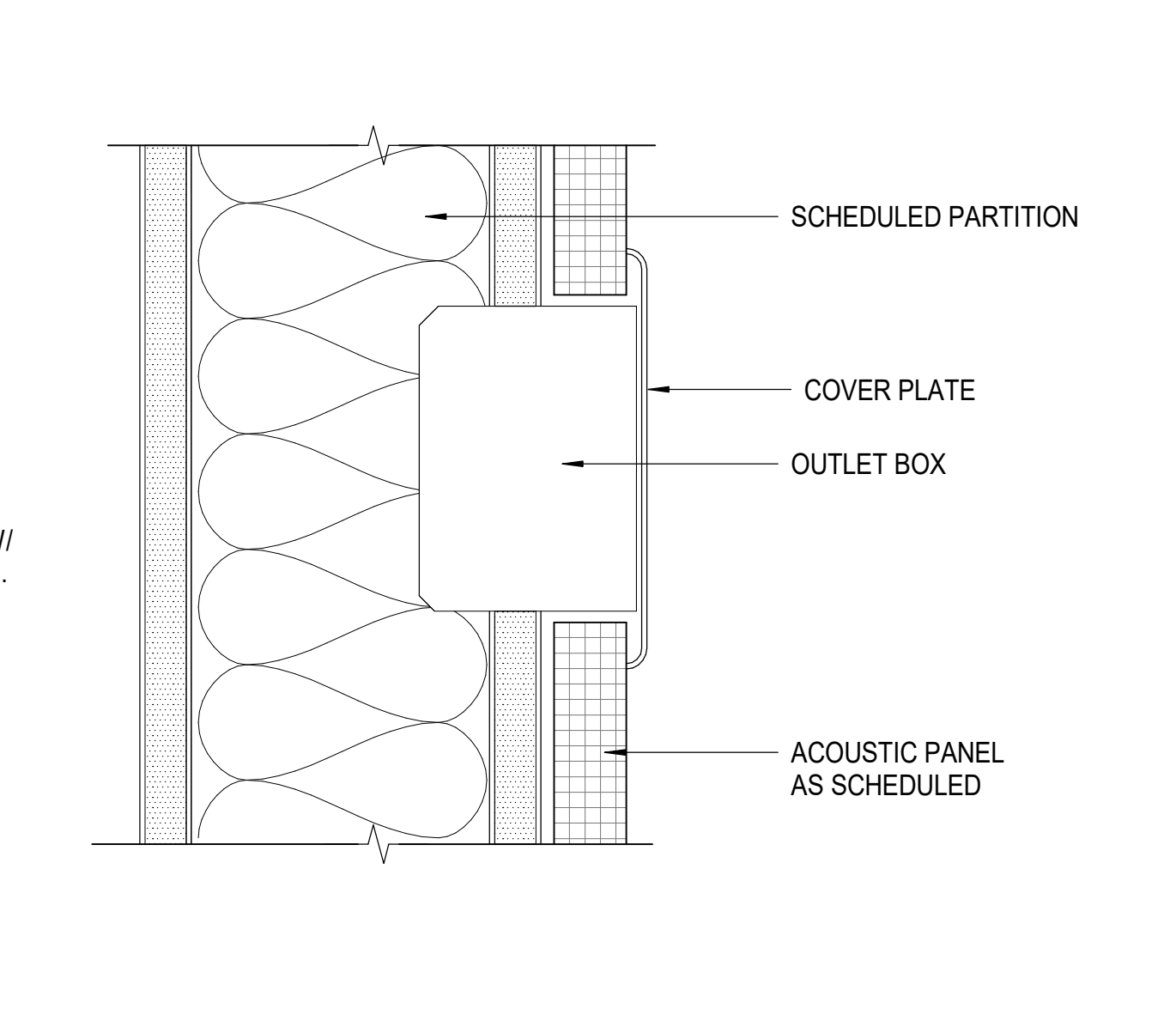
FOR TYPICAL WOOD FRAME HEAD, JAMB & SILL NOTES NOT REPEATED SEE: SEE SHEET A9.02 FOR TYPICAL PARTITION DETAILS AND NOTES.



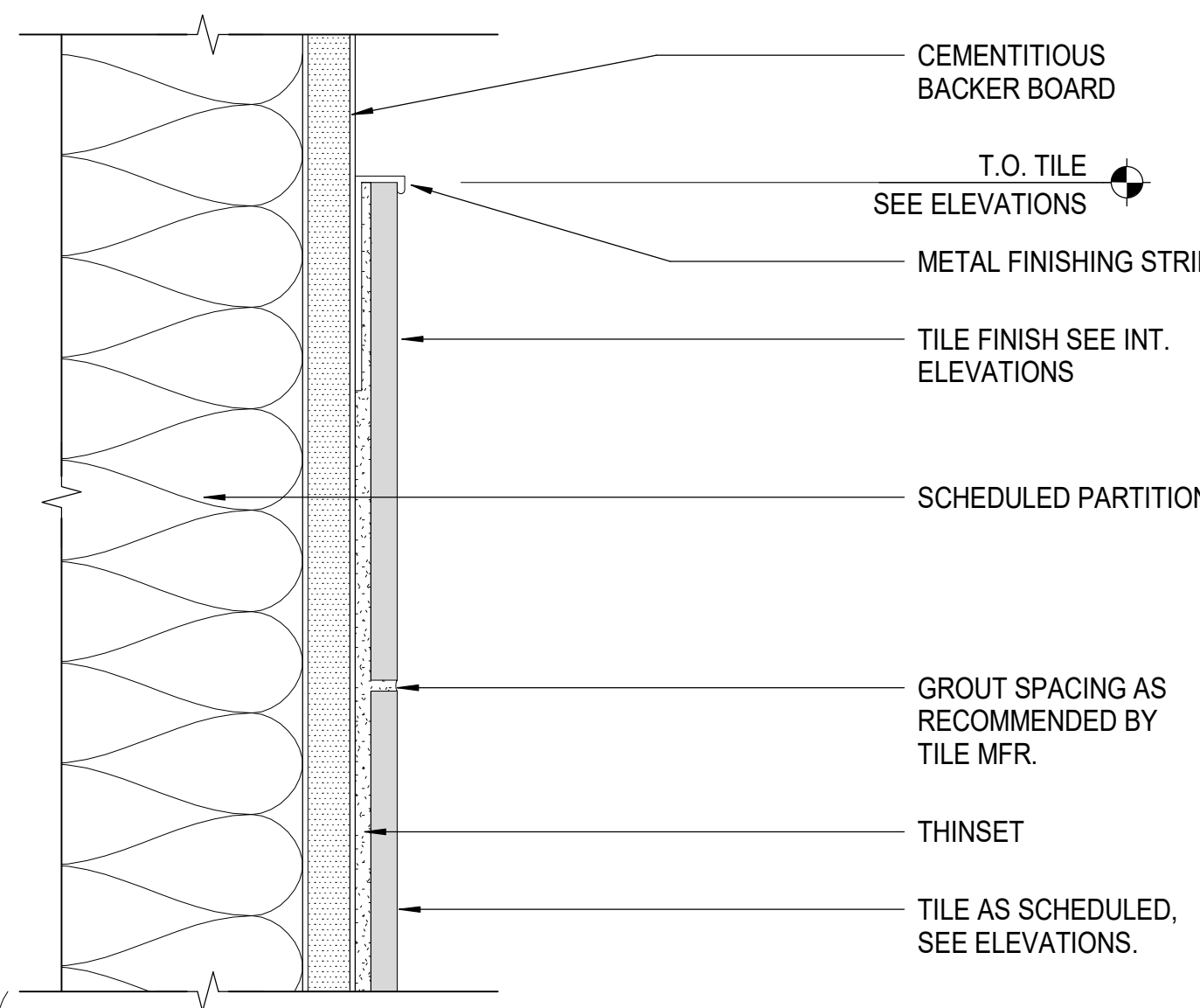
12 CURTAIN TRACK AT CEILING SCALE: 6" = 1'-0"



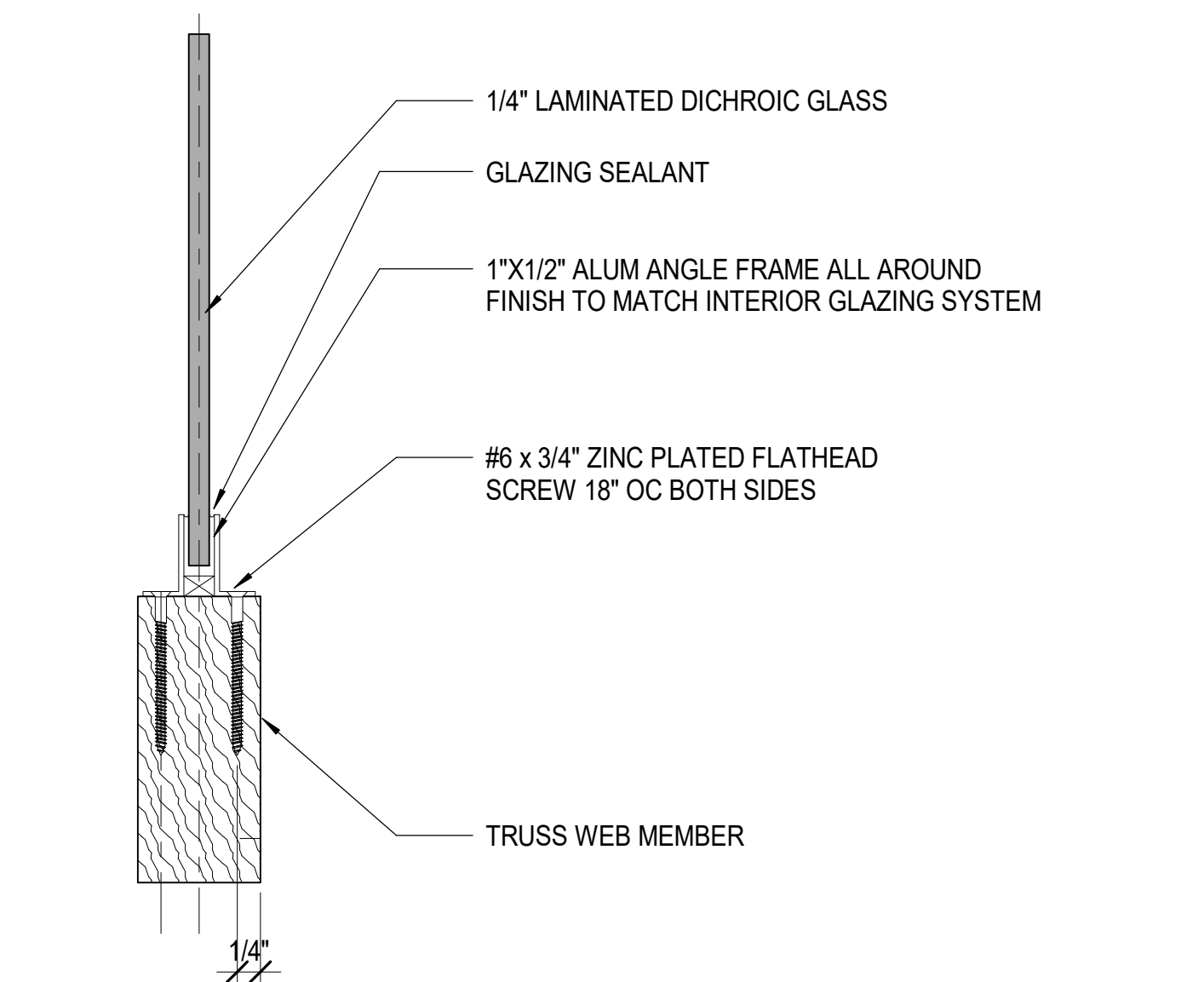
8 GYP. REVEAL FOR PAINT TRANSITION SCALE: 12" = 1'-0"



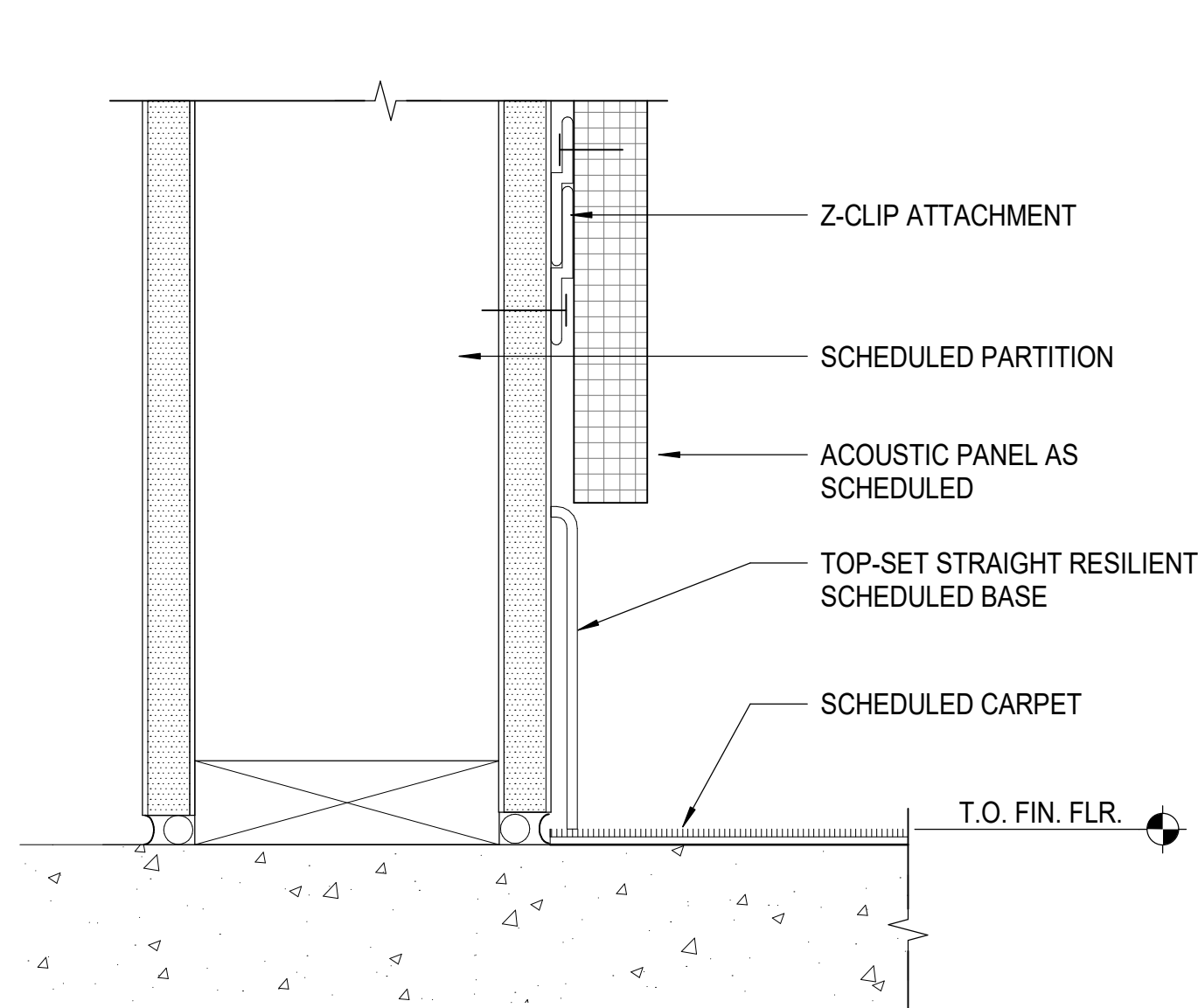
4 ACOUSTIC PANEL @ RECESSED OUTLET SCALE: 6" = 1'-0"



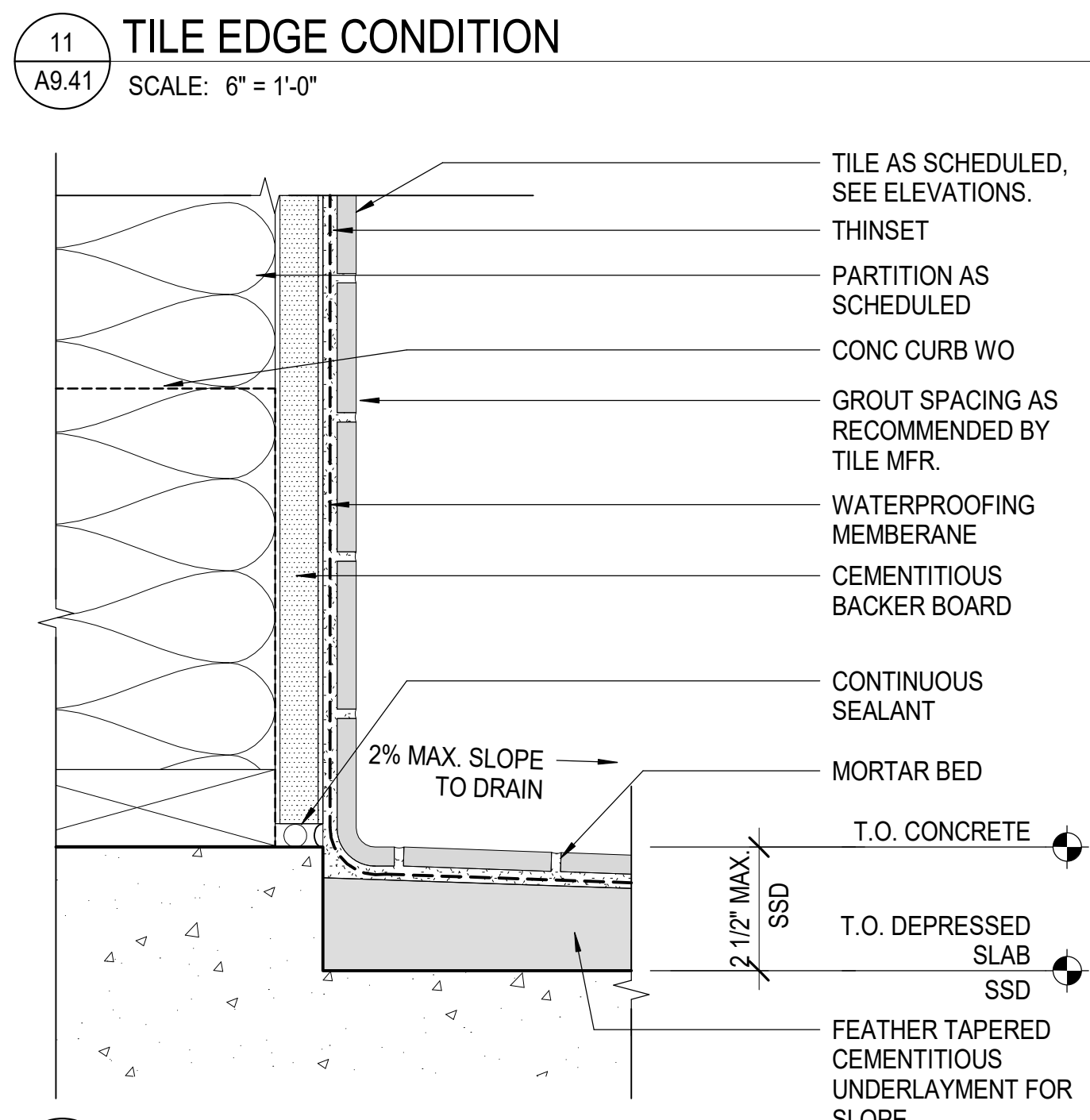
11 TILE EDGE CONDITION SCALE: 6" = 1'-0"



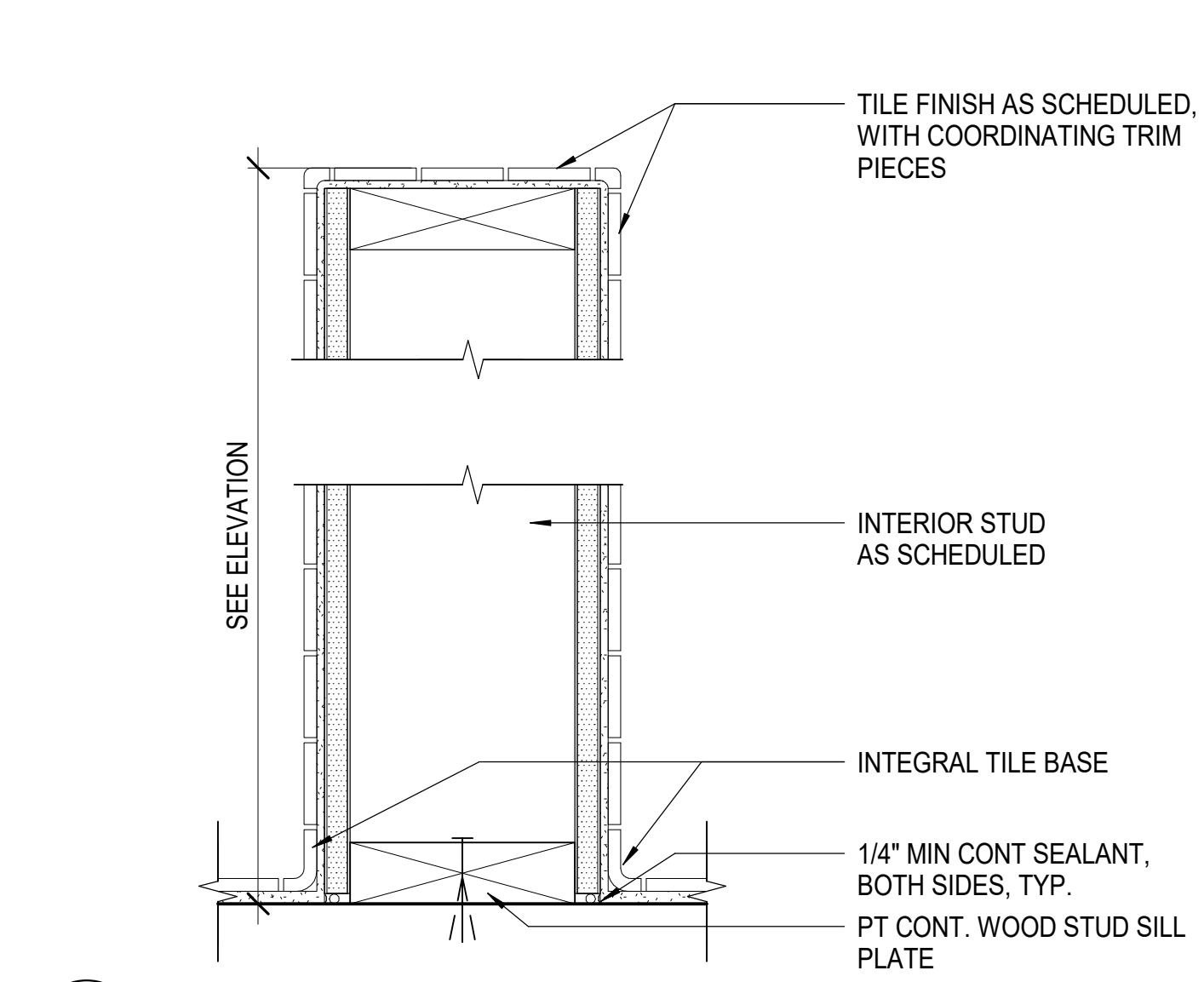
7 DICHRIC GLASS INFILL @ TRUSS - ALT. 10 SCALE: 6" = 1'-0"



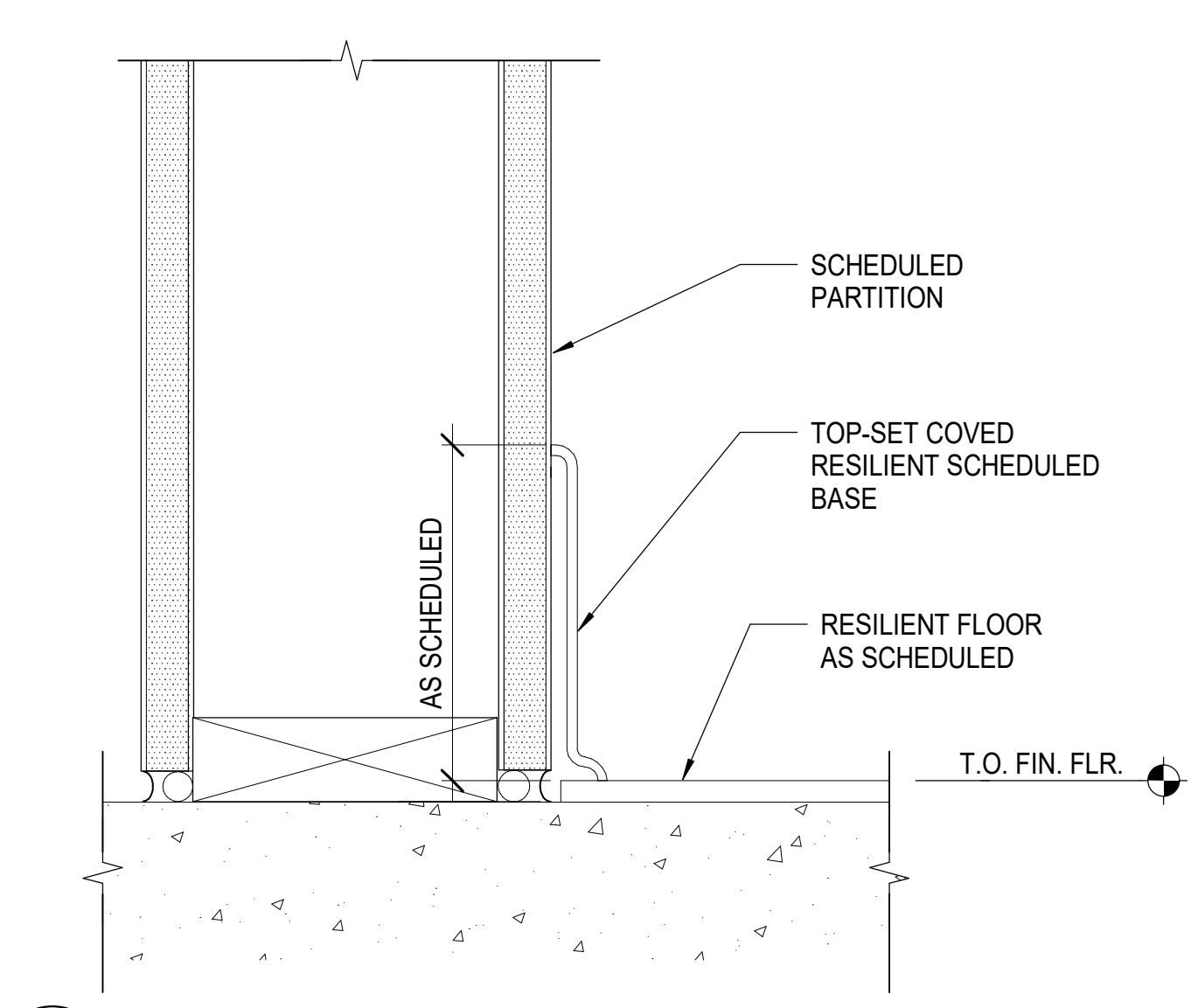
3 RESILIENT BASE AT FABRIC WRAPPED PANEL SCALE: 6" = 1'-0"



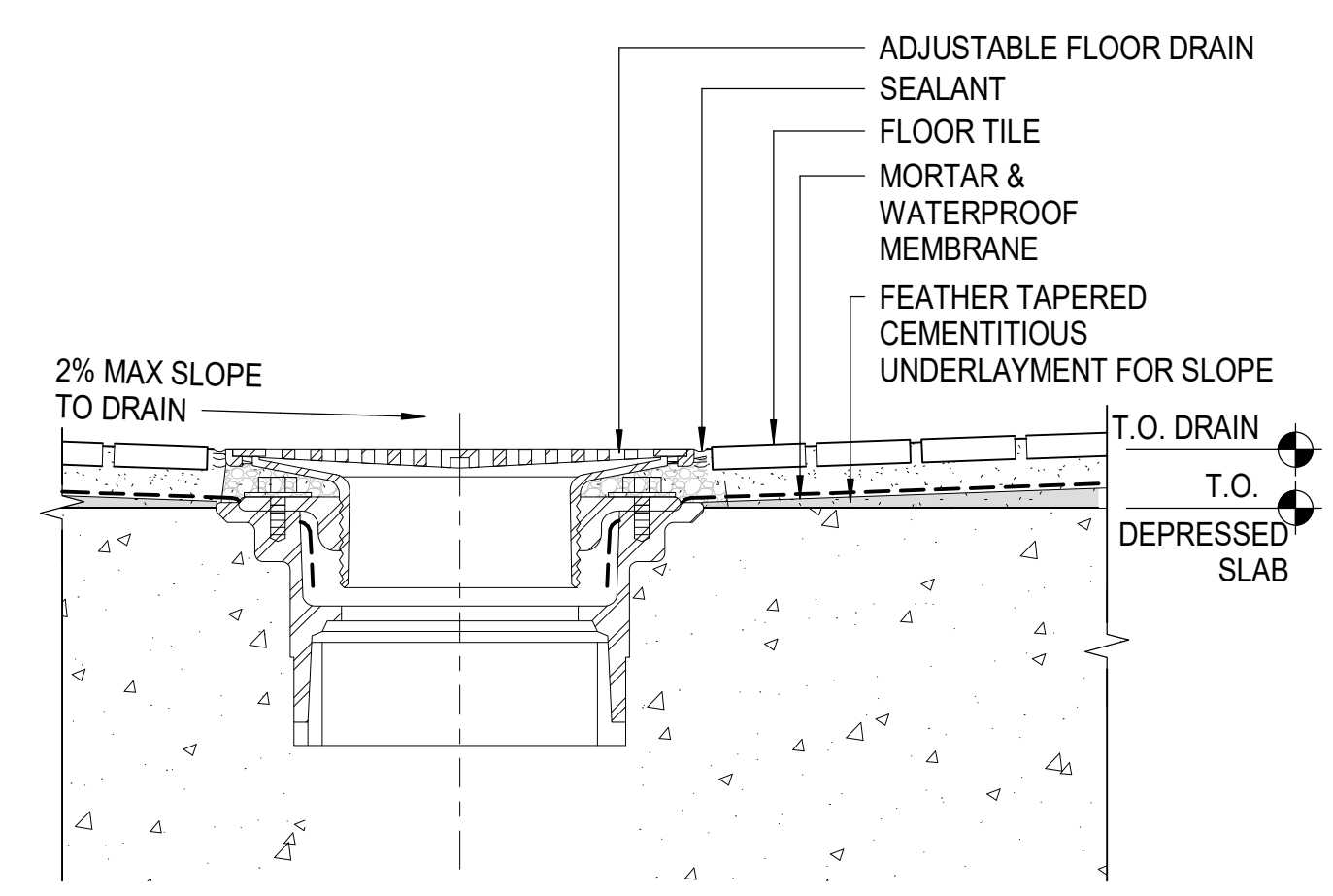
10 WALL TO FLOOR TILE TRANSITION SCALE: 6" = 1'-0"



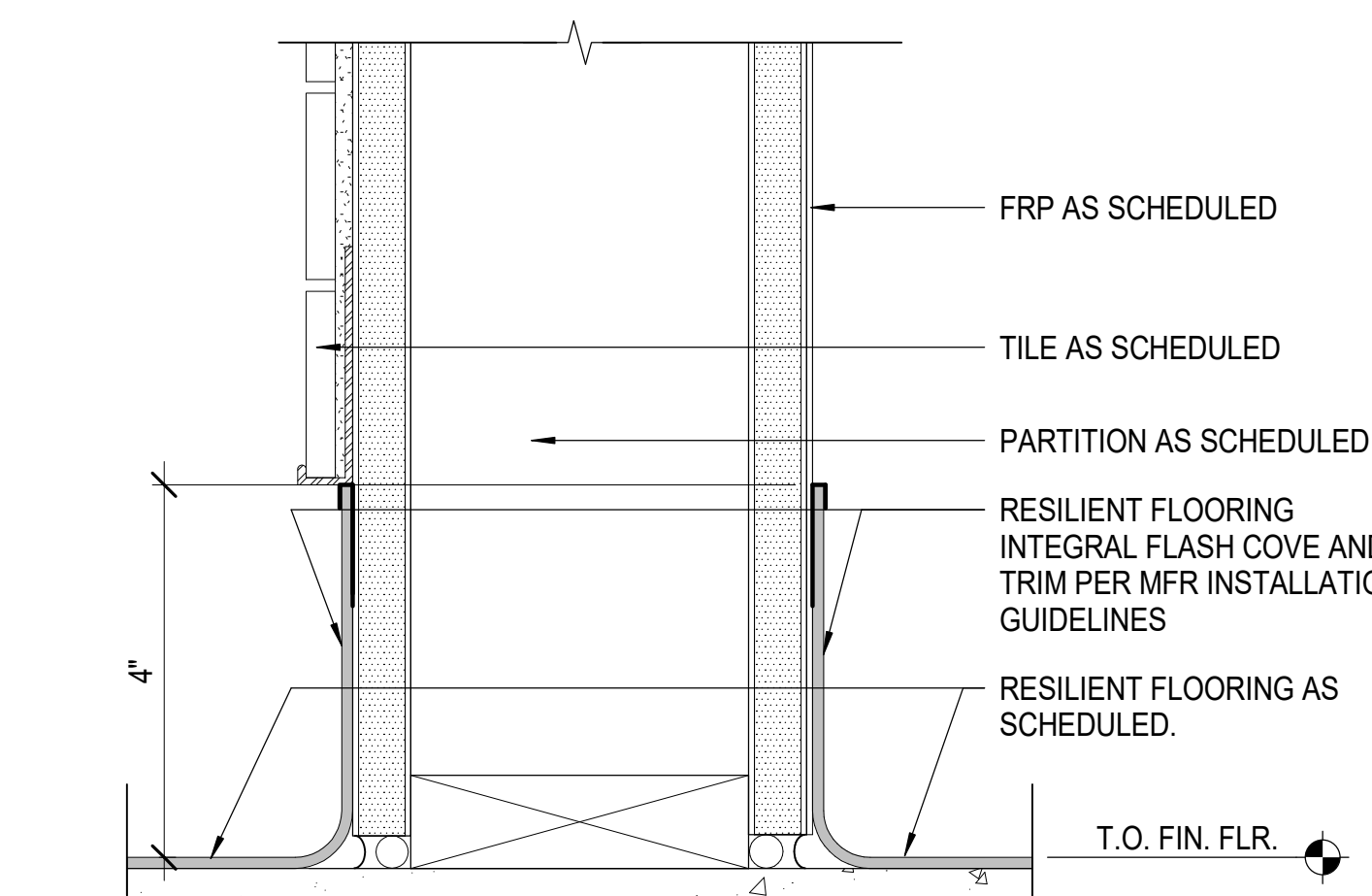
6 LOW WALL CLASSROOM TOILETS SCALE: 3" = 1'-0"



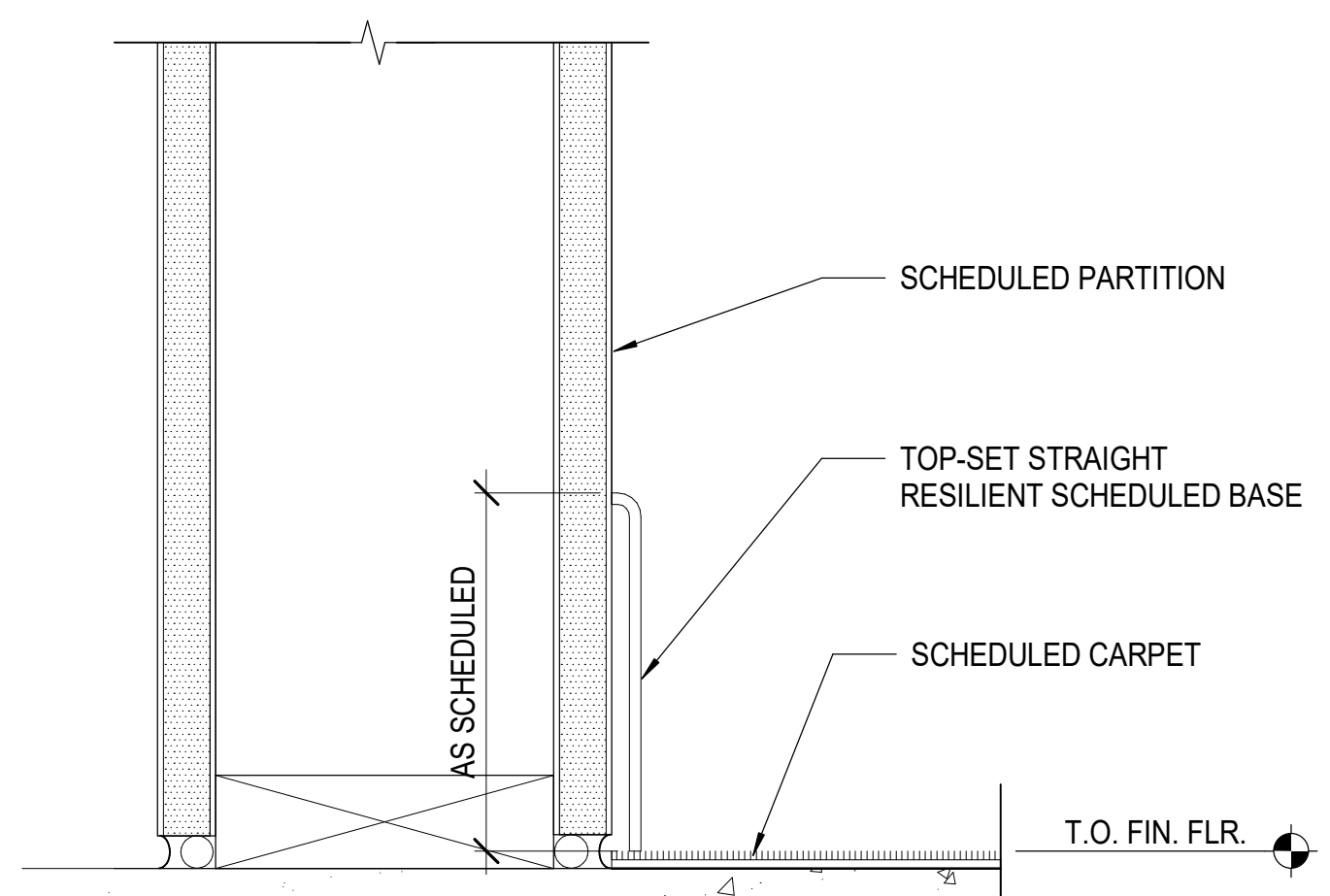
2 RESILIENT BASE AT CONCRETE SCALE: 6" = 1'-0"



9 SLOPE AT DRAIN SCALE: 6" = 1'-0"

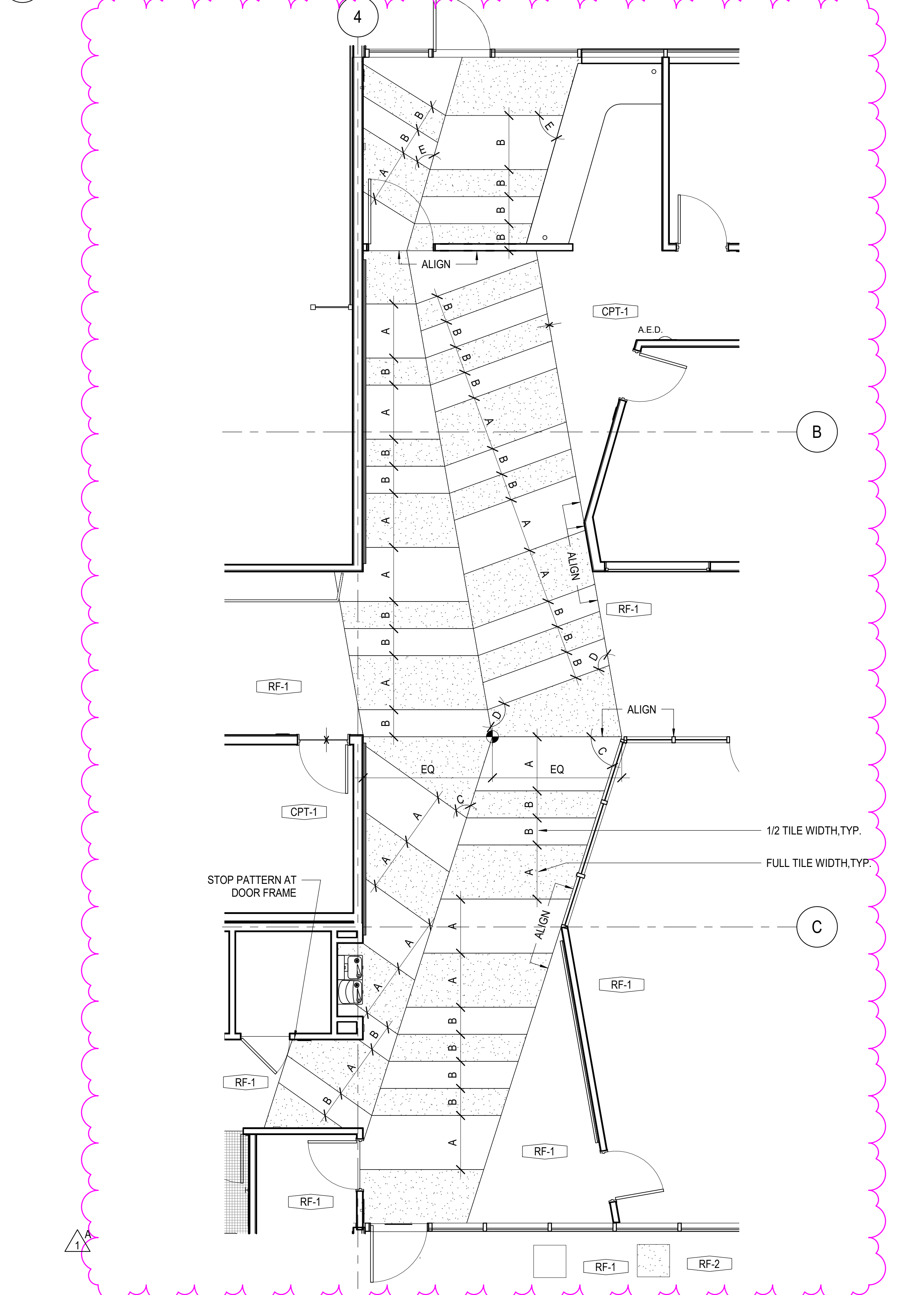


5 FLASH COVE BASE AT TILE & FRP SCALE: 6" = 1'-0"



1 RESILIENT BASE AT CARPET SCALE: 6" = 1'-0"

20 ENLARGED FLOOR PATTERN SCALE: 3" = 1'-0"



17 ENLARGED FLOOR PATTERN SCALE: 1/4" = 1'-0"

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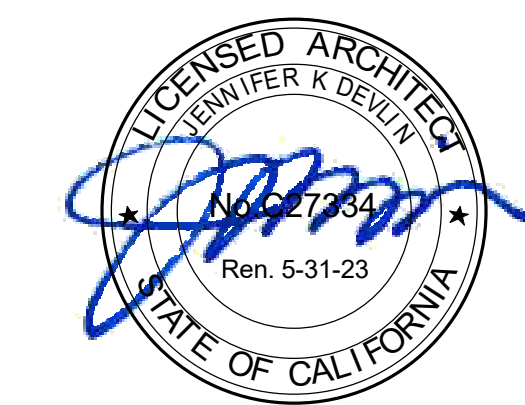
CALIFORNIA STATE UNIVERSITY, STANISLAUS ONE UNIVERSITY CIRCLE TURLOCK, CA 95382



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Sheet Title MISC. INTERIOR DETAILS

Sheet Number

A9.41

## CSUS CHILD DEVELOPMENT CENTER

CALIFORNIA STATE UNIVERSITY, STANISLAUS  
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1	A	Addendum 1	04.01.2022
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Scale  
As indicated

Drawn by  
SCA

EHDD Job Number  
2020,056

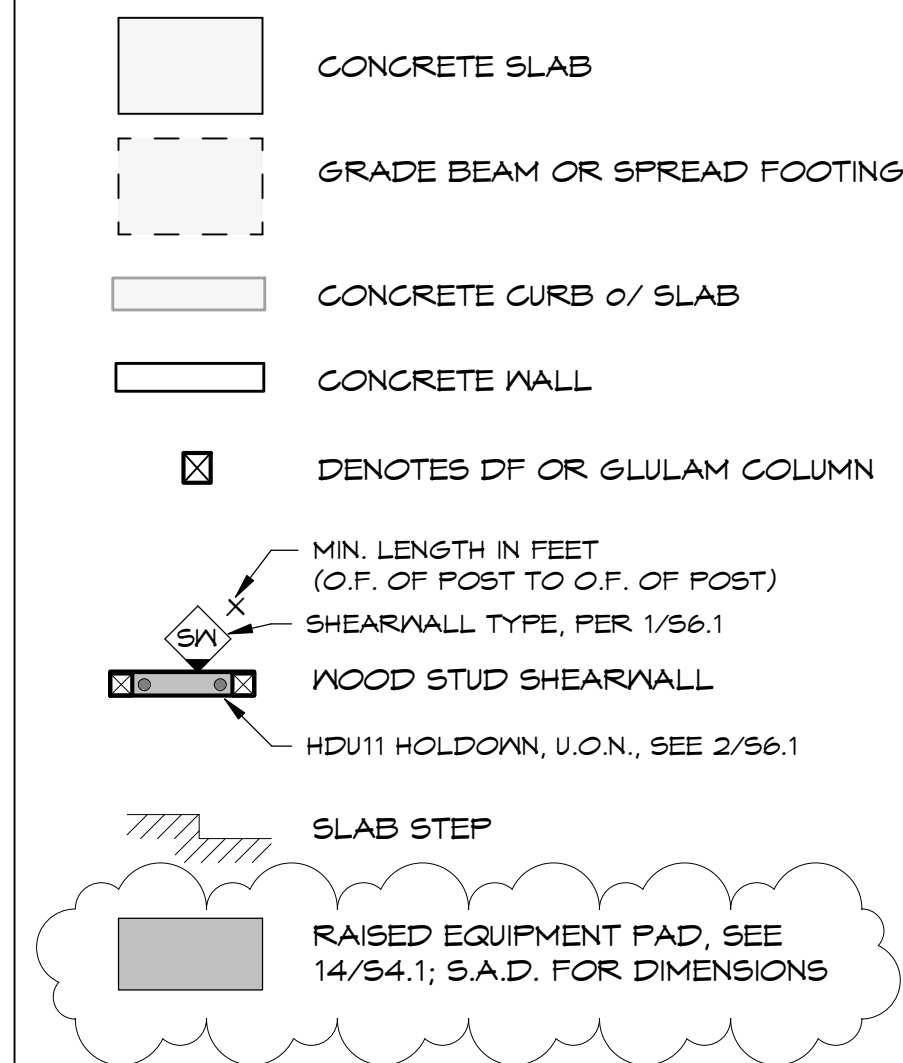
Sheet Title

## FOUNDATION & 1ST FLOOR PLAN

Sheet Number

# S2.0

### FOUNDATION PLAN LEGEND



### PLAN NOTES

- SEE SHEET S1.2 FOR STRUCTURAL NOTES.
- SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS, NON-STRUCTURAL PARTITIONS, FINISH FLOOR ELEVATIONS, SLOPE AND DRAINAGE NOT SHOWN.
- SLAB EDGE DIMENSIONS SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS. SEE STRUCTURAL NOTES AND TYPICAL DETAILS FOR ADDITIONAL INFO.
- COORDINATE LOCATION AND SIZE OF ALL OPENINGS AND EQUIPMENT WITH MECHANICAL DRAWINGS. SEE MECHANICAL DRAWINGS FOR ALL MECHANICAL EQUIPMENT AND PAD, OPENING SIZES AND LOCATIONS NOT SHOWN.
- SEE ARCHITECTURAL DRAWINGS FOR ALL CONCRETE CURBS AND FORMWORK NOTES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY SHORING AND BRACING DURING CONSTRUCTION.
- CONTRACTOR TO VERIFY EXISTING CONDITIONS AND NOTIFY EOR OF DISCREPANCIES PRIOR TO BEGINNING WORK.

### COLUMN SCHEDULE

COL ID	COL SIZE	MATERIAL	COL BASE	COL CAP
C1	4x6	DF	N/A	N/A
C2	6x6	DF	N/A	N/A
C3	6x8	DF	N/A	N/A
C4	6x10	DF	N/A	N/A
C5	6 3/4x1 1/2	GLC	ABU80Z	N/A
C6	6 3/4x1 1/2	GLC	7/S4.1	N/A
C7	8 3/4x9	GLC	ABU1010Z	N/A

POSTS & CAPS PER SCHEDULE U.O.N.  
SEE GENERAL NOTES FOR GRADE REQUIREMENTS.

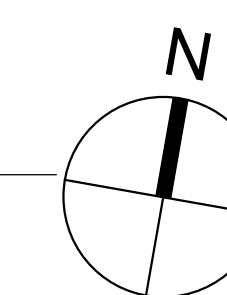
### FOOTING SCHEDULE

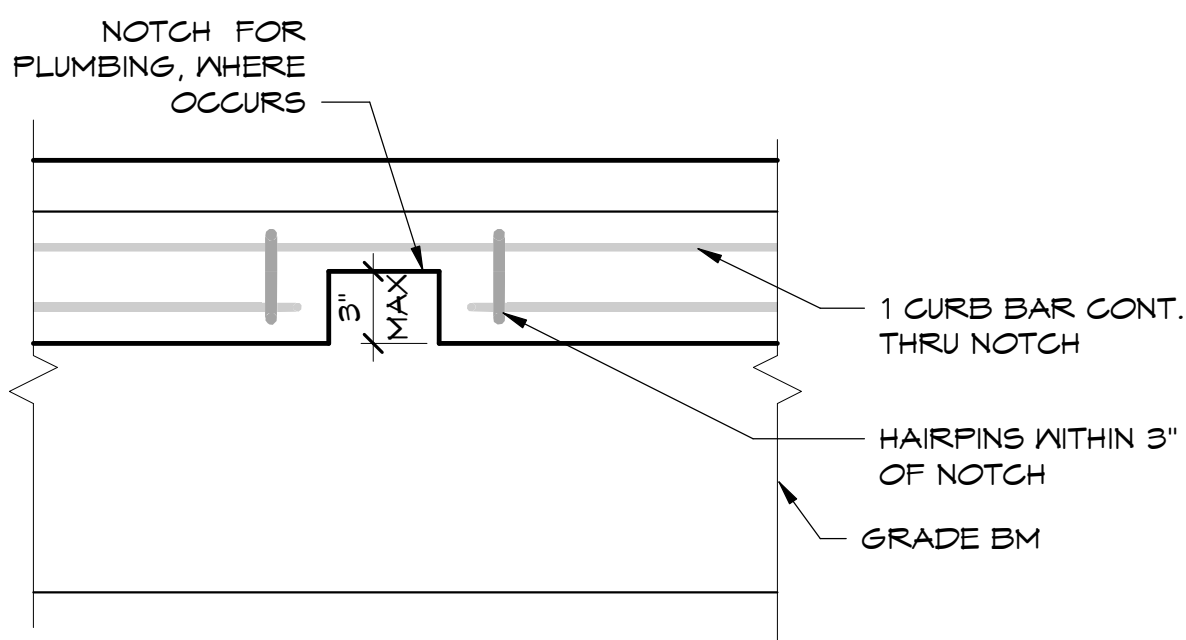
FTG ID	FTG SIZE	DEPTH
F3.5	3'-6" x 3'-6"	1'-9"
F4	4'-0" x 4'-0"	1'-9"

SEE 7/S4.1 & 8/S4.1 FOR DETAILS.



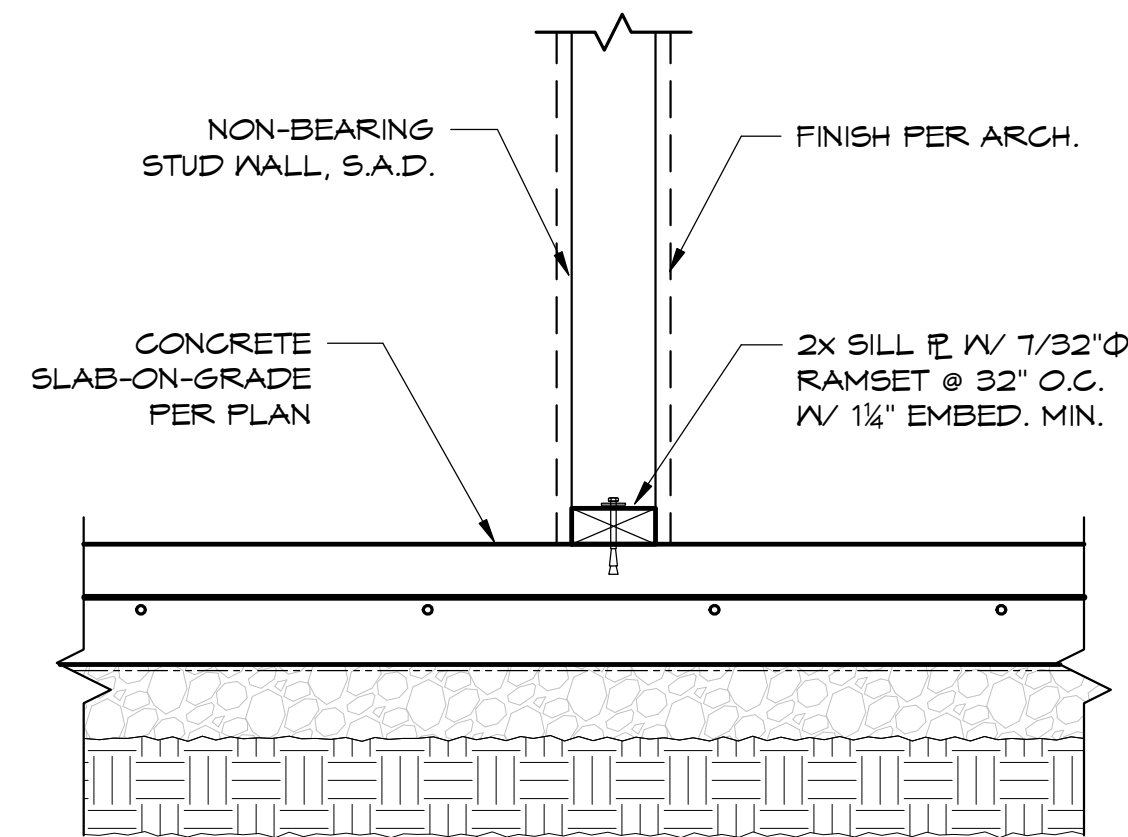
**1 S2.0 FOUNDATION & FIRST FLOOR PLAN**  
1/8"=1'-0"  
0 2 4 8 16



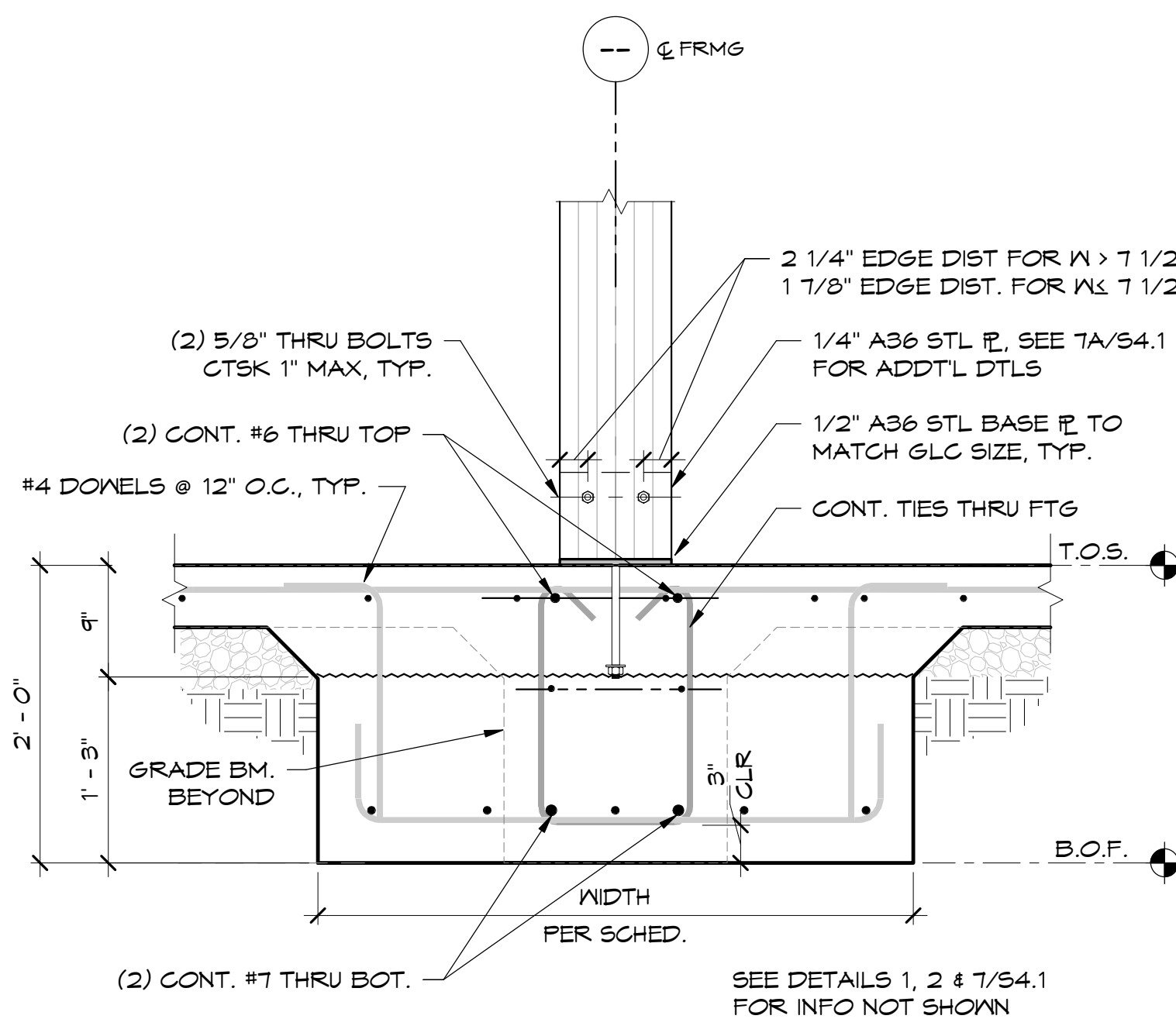


SEE 1/56.0 FOR MUDSILL A.B. PLACEMENT AROUND NOTCH

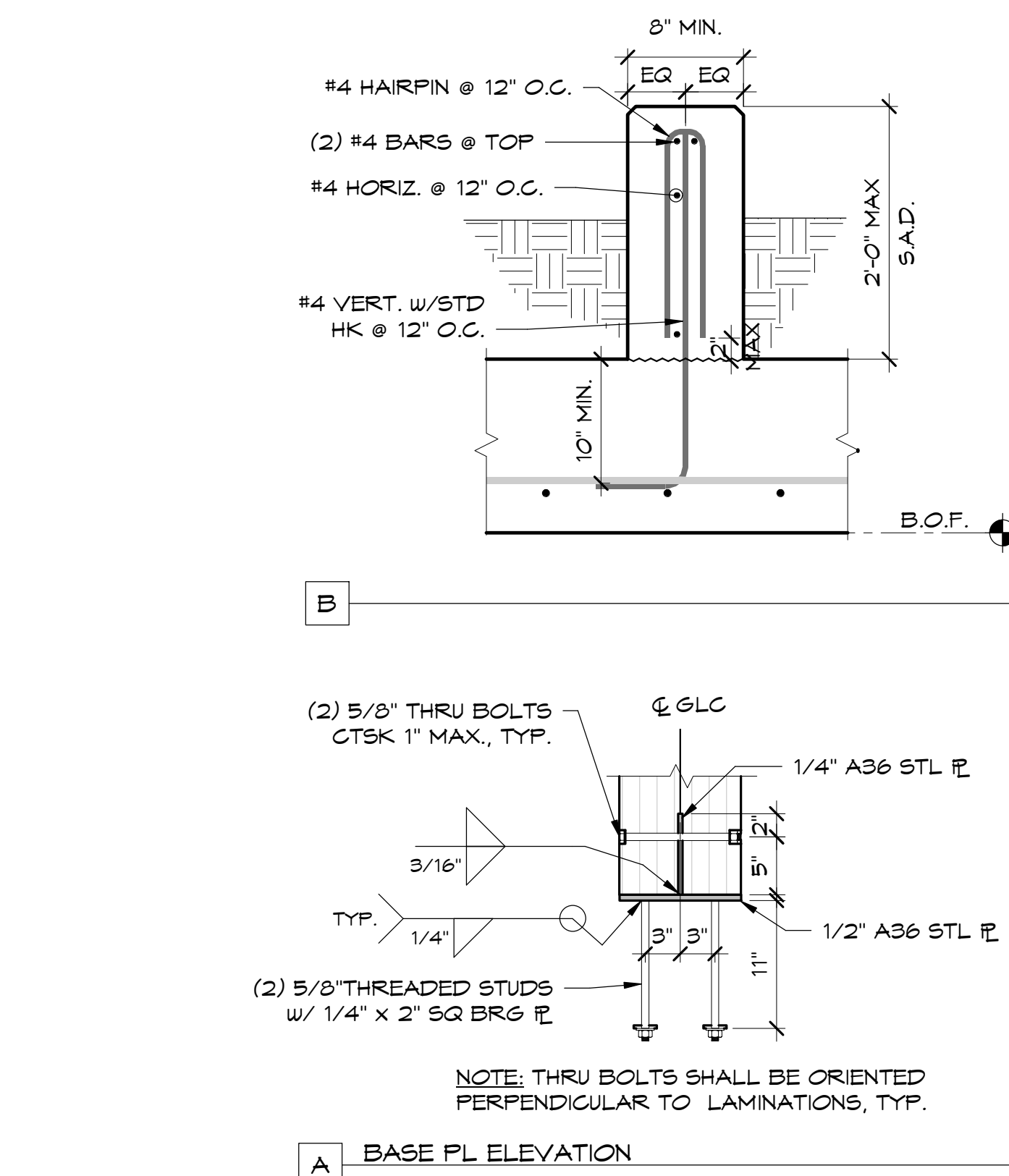
16 NOTCH IN CURB  
S4.1 1 1/2" = 1'-0"



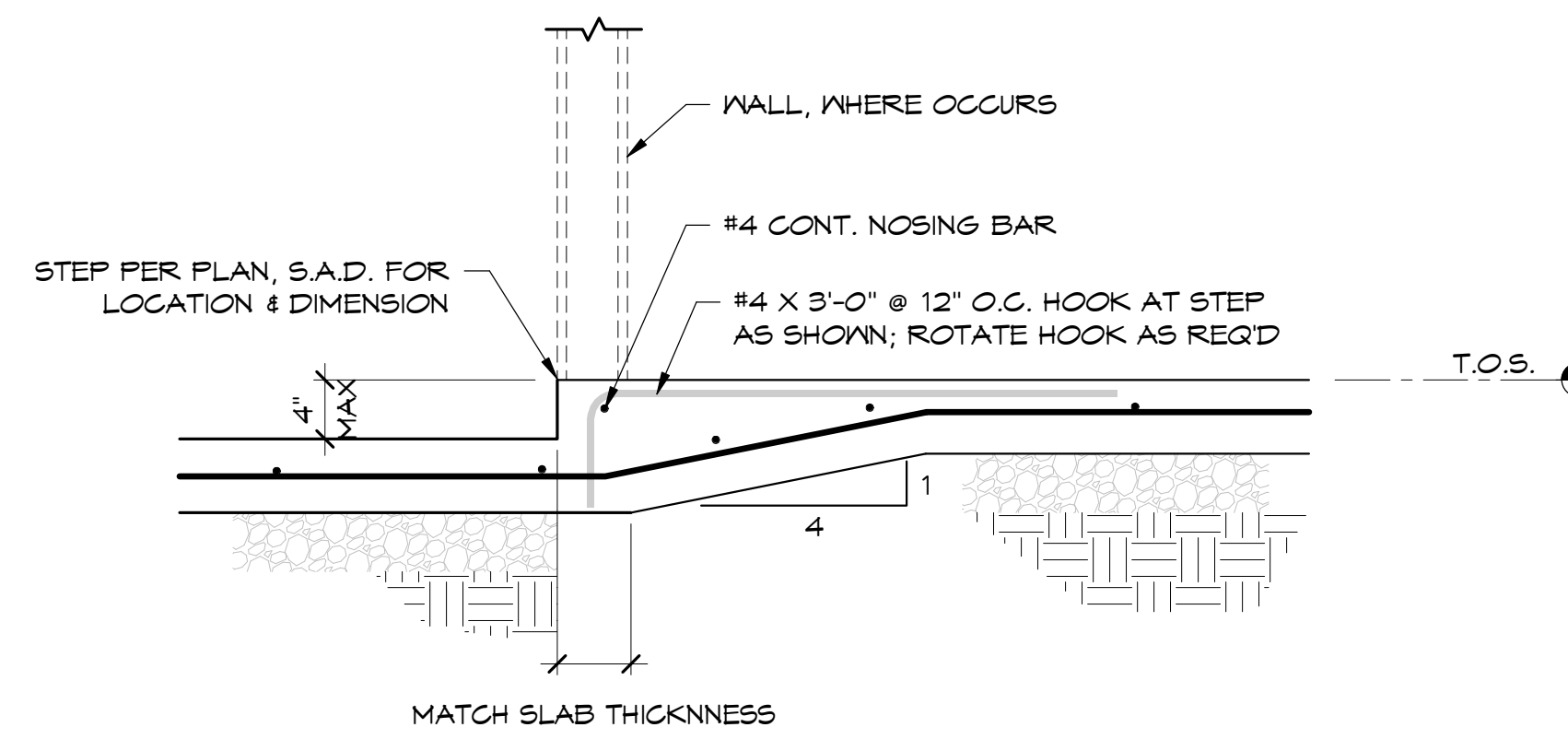
12 INTERIOR NON-BEARING WALL  
S4.1 1 1/2" = 1'-0"



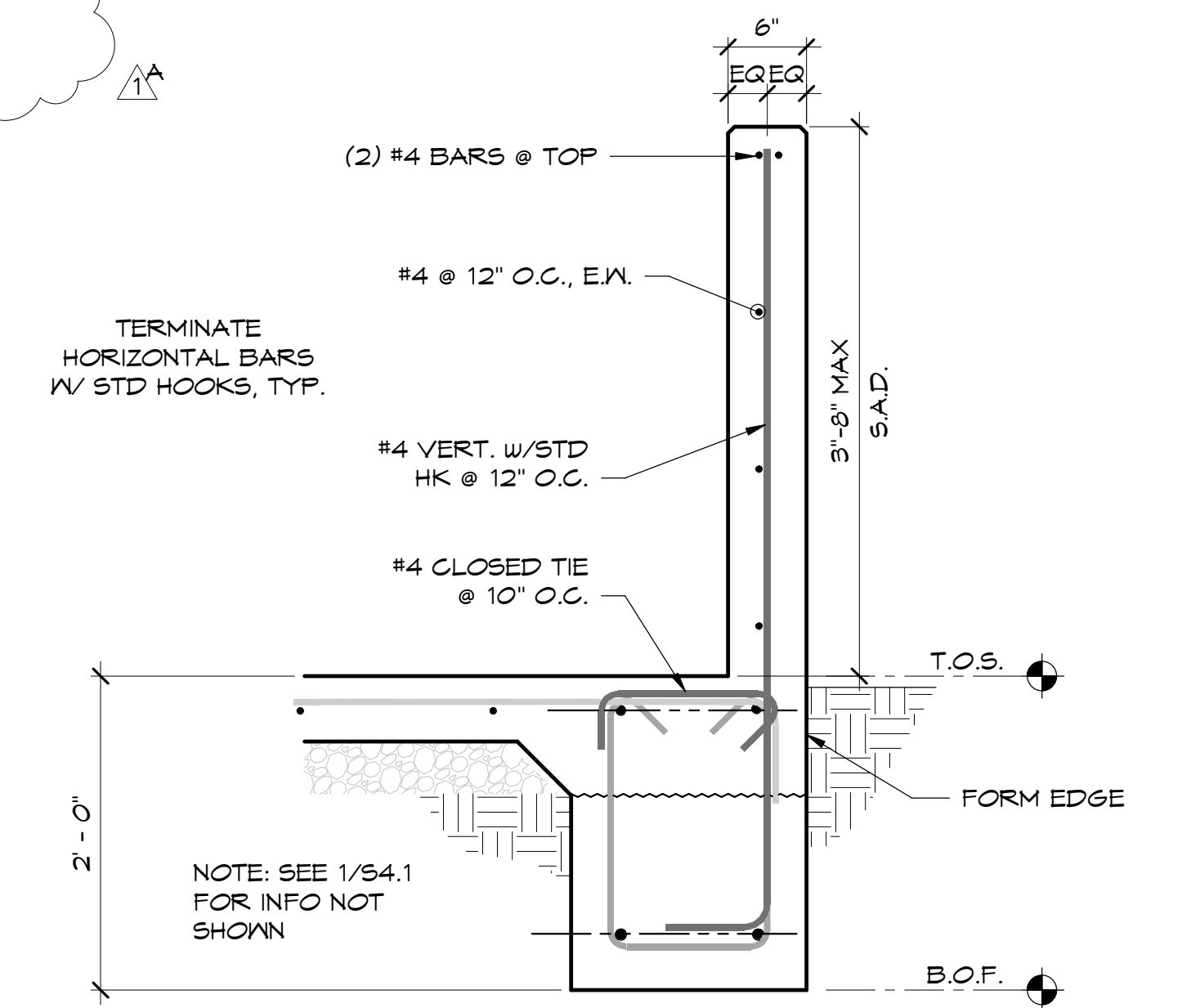
8 TYP. PAD FOOTING AT INTERIOR  
S4.1 1" = 1'-0"



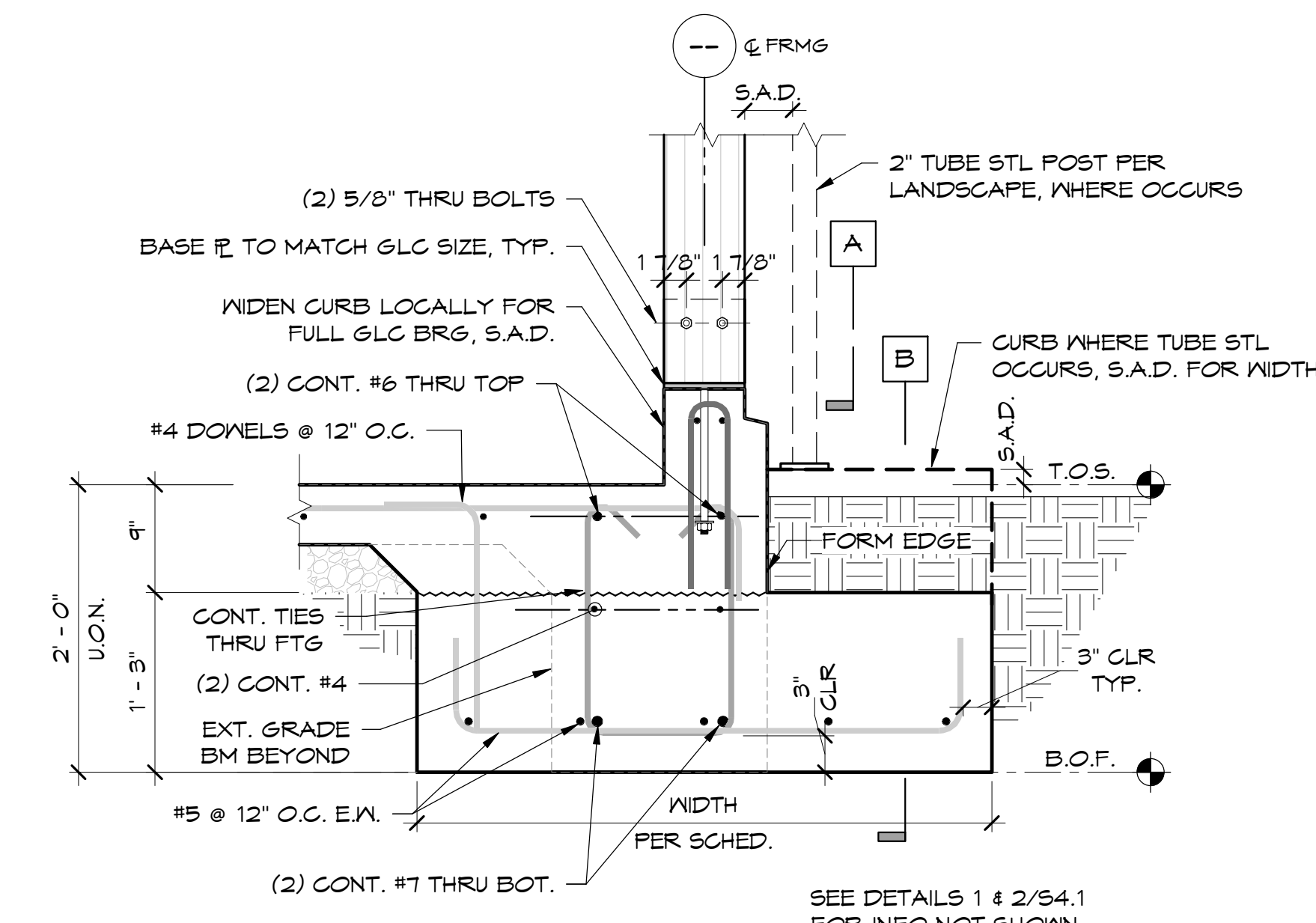
14 TYP. INTERIOR EQUIPMENT PAD  
S4.1 1" = 1'-0"



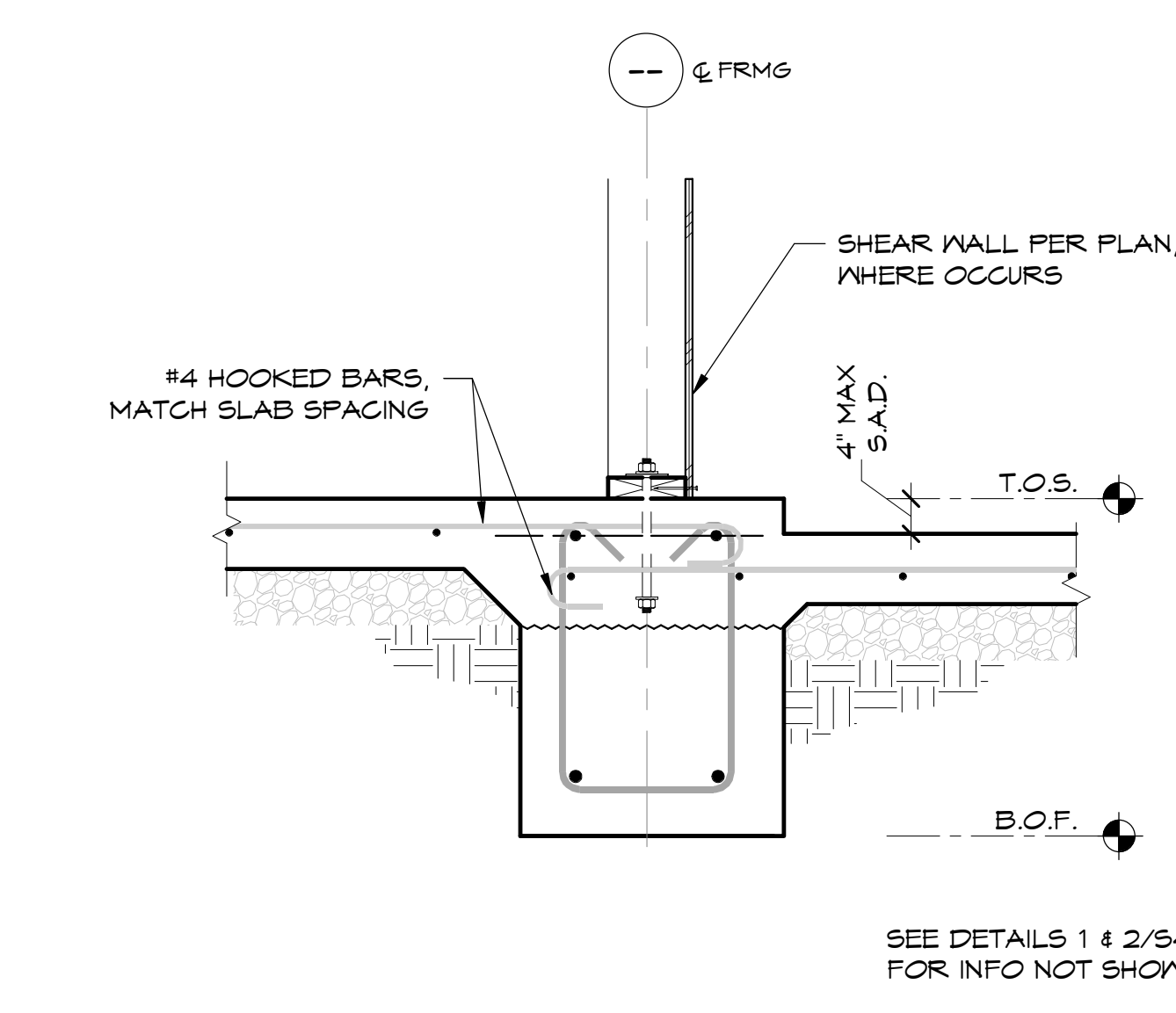
10 TYP. SLAB STEP < 4"  
S4.1 1" = 1'-0"



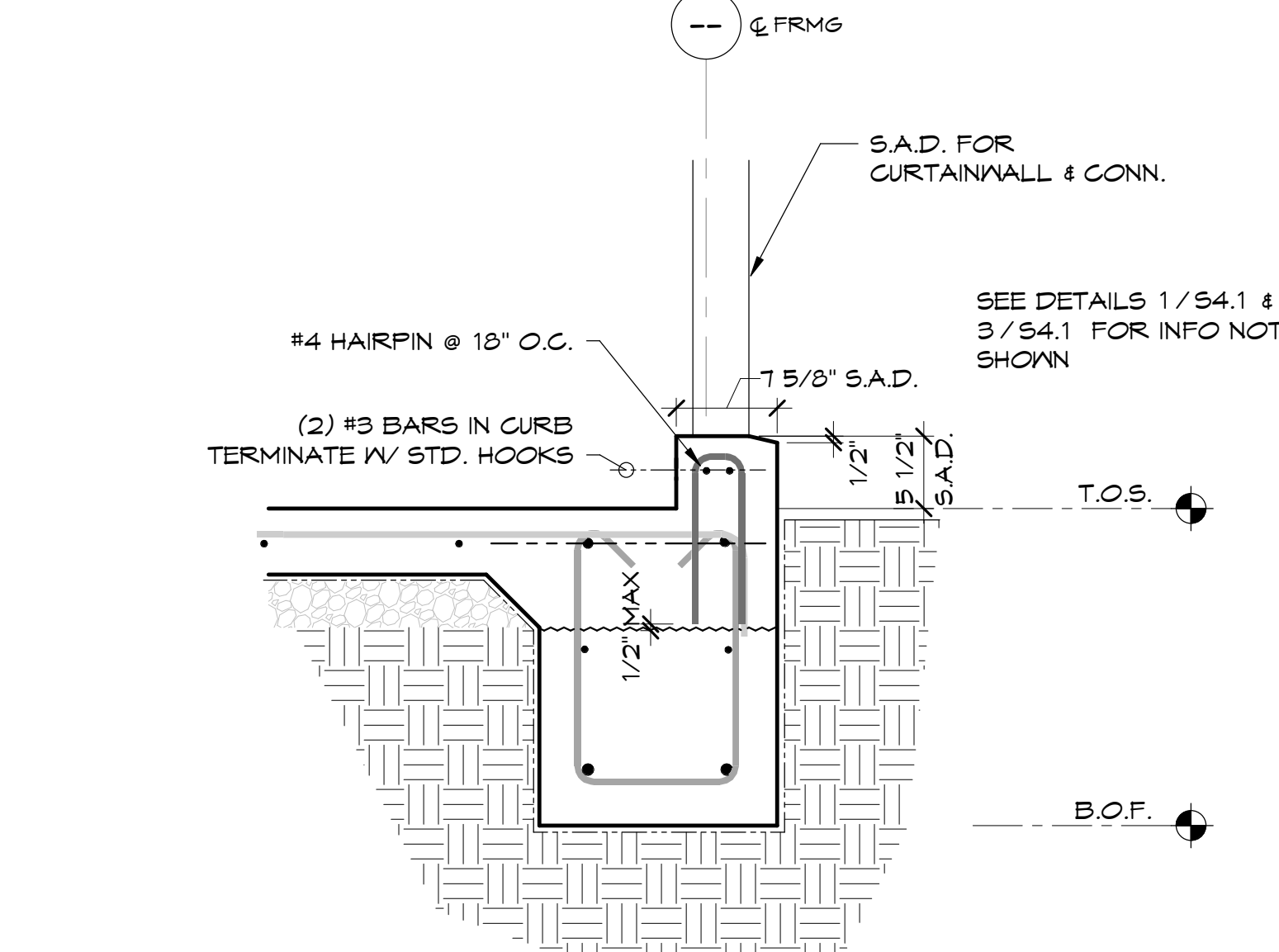
9 CONC. STEM WALL  
S4.1 1" = 1'-0"



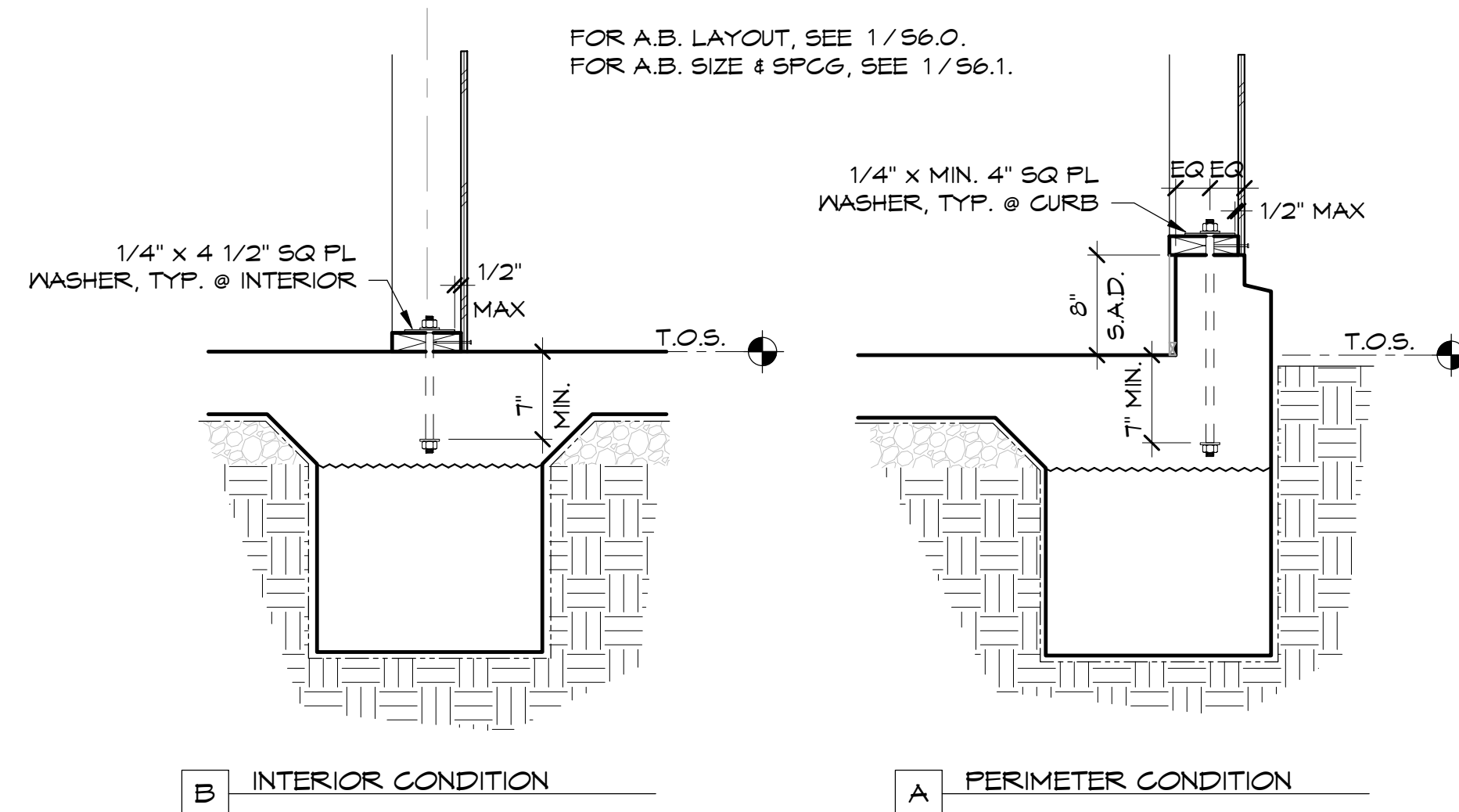
7 TYP. PAD FOOTING AT EXTERIOR  
S4.1 1" = 1'-0"



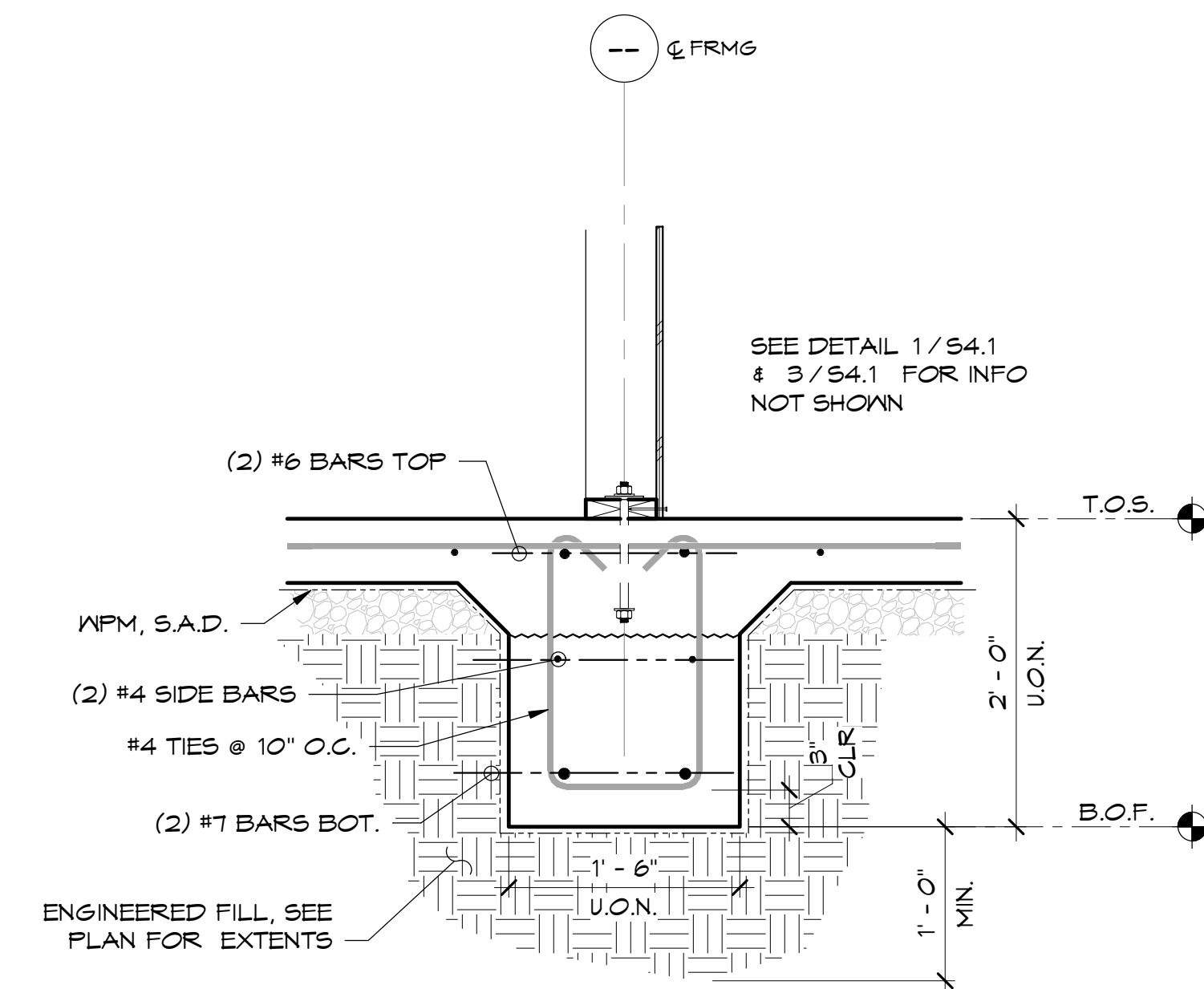
6 INT. GRADE BM AT SLAB STEP  
S4.1 1" = 1'-0"



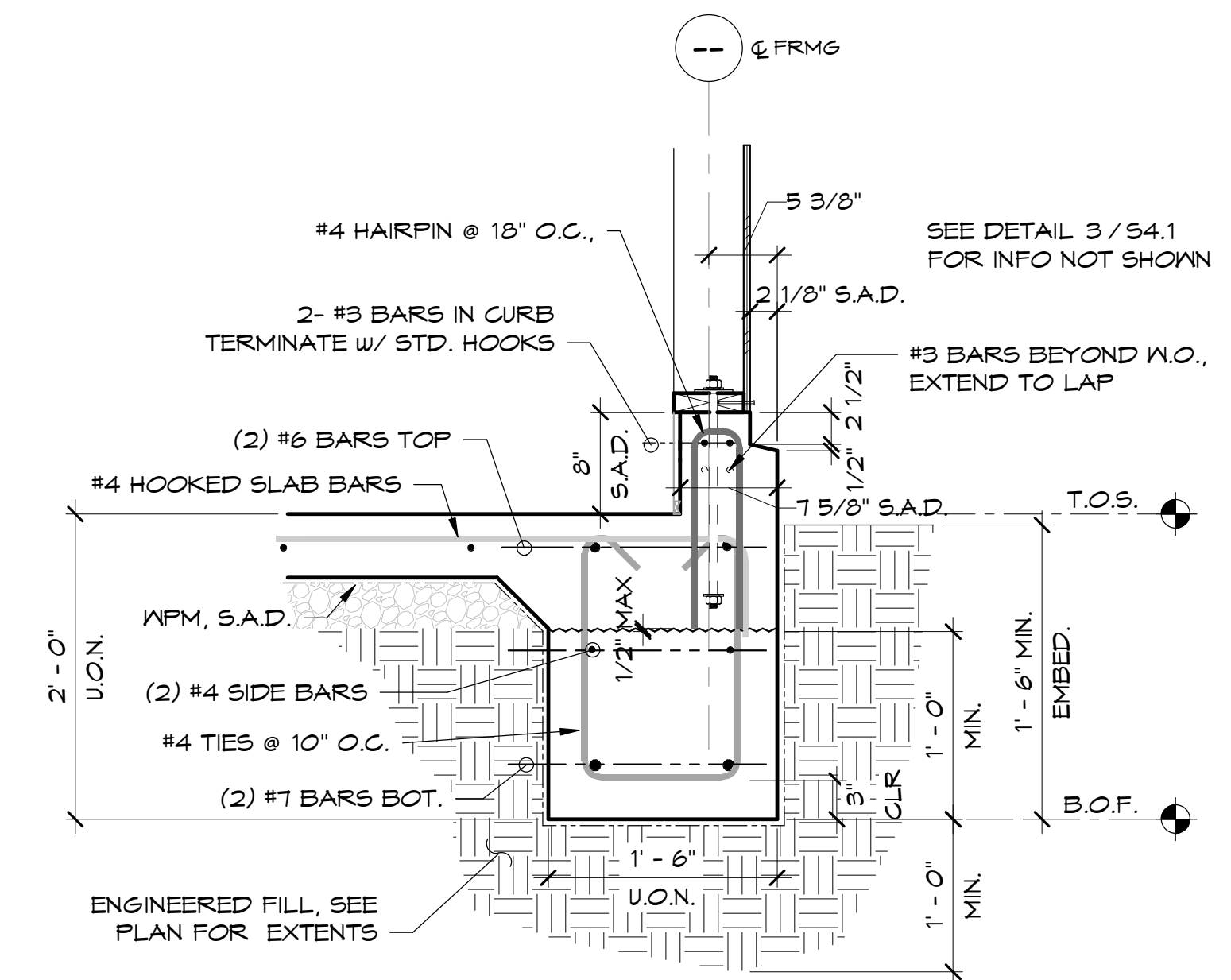
5 PERIM. GRADE BM @ CURTAINWALL  
S4.1 1" = 1'-0"



3 TYP. MUDSILL ANCHOR DETAIL  
S4.1 1" = 1'-0"



2 TYP. INTERIOR GRADE BM  
S4.1 1" = 1'-0"



1 TYP. PERIMETER GRADE BM  
S4.1 1" = 1'-0"

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Mar Structural Design

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Stamp



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Drawn by SCA

EHDD Job Number 2020,056

Sheet Title

CONCRETE FOUNDATION DETAILS

Sheet Number

S4.1

AIR HANDLING UNIT SCHEDULE

Table with columns: TAG, MANUFACTURER & MODEL #, OSA, SUPPLY FANS (2 TOTAL), RETURN FANS (2 TOTAL), ELECTRICAL, COOLING COIL, FLUID, COIL, ROWS, FINIS/ FOOT, WEIGHT (LBS), REMARKS. Includes notes for pad mounting, motorized fans, and electrical specifications.

PUMP SCHEDULE

Table with columns: TAG, MANUFACTURER & MODEL #, DESCRIPTION, GPM, HEAD (FT), MOTOR FRAME, IMPELLER DIA (IN), SUCTION DIA (IN), DISCH. DIA (IN), MOTOR HP, DUTY BHP, MOTOR RPM, MOTOR EFFICIENCY (%), ELECTRICAL, WEIGHT (LBS), REMARKS. Includes notes for pump mounting and electrical connections.

VAV BOX SCHEDULE

Table with columns: TAG, NO., MANUFACTURER, INLET SIZE (IN.), MIN CFM, MAX HEATING CFM, MAX COOLING CFM, HEATING (MBH), HEATING E.A.T. (°F), HEATING L.A.T. (°F), APD (IN WC), ROWS, E.W.T. (°F), L.W.T. (°F), WPD (FT), GPM, Cv, VALVE, OP WEIGHT (LB), REMARKS. Includes notes for duct box construction and controls.

SPLIT SYSTEM INDOOR FAN COIL SCHEDULE

Table with columns: TAG, MANUFACTURER & MODEL #, QTY, DESCRIPTION, COOLING BTU/H, HEATING (47°F) BTU/H, CFM, ELECTRICAL, RURS SIZE, OP. WEIGHT, REMARKS. Includes notes for fan coil installation and controls.

SPLIT SYSTEM OUTDOOR CONDENSING UNIT SCHEDULE

Table with columns: TAG, MANUFACTURER & MODEL #, QTY, DESCRIPTION, NOM. TONS, COOLING BTU/H, HEATING (47°F) BTU/H, VOLT, PH, MCA, MOCP, SEER, OP. WEIGHT, REMARKS. Includes notes for outdoor unit location and refrigerant type.

EXHAUST FAN SCHEDULE

Table with columns: TAG, MANUFACTURER & MODEL #, DESCRIPTION, CFM, FAN RPM, S.P. (IN W.C.), MOTOR RPM, MOTOR HP, ELECTRICAL, INLET NOISE, OP. WT. (LBS), REMARKS. Includes notes for fan mounting and backdraft damper.

GRAVITY VENTILATOR SCHEDULE

Table with columns: TAG, MANUFACTURER & MODEL #, DESCRIPTION, CFM, S.P. (IN W.C.), FACE VELOCITY (FPM), INLET NOISE, OP. WT. (LBS), REMARKS. Includes notes for ventilator installation and materials.

FLOW METER SCHEDULE

Table with columns: TAG, MANUFACTURER & MODEL #, DESCRIPTION, REMARKS. Includes notes for flow meter installation and accuracy.

MECHANICAL GENERAL NOTES

1. SCOPE: A NEW COMPLETE HVAC SYSTEM, INCLUDING MECHANICAL EQUIPMENT & DUCTWORK AS GENERALLY DELINEATED ON THE DRAWINGS... 2. CODES: 2019 CALIFORNIA ADMINISTRATIVE CODE (CAC) PART 1, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)...

MECHANICAL LEGEND

Table with columns: DESCRIPTION, SYMBOL. Lists symbols for supply/return air duct sections, duct size net inside dimension, exhaust air duct section, flexible duct connection, door louvers, air extractor, access door, volume damper, auto motorized controlled damper, fire damper, motorized fire/smoke damper, smoke detector, duct with acoustical lining, thermostat, condensate drain line, control valves, balance valves, check valves, globe valves, manual air vent, petes plug, pressure gauge, pressure reducing valve, reducer, shut off cock, shut off valve, strainer, thermometer, chilled water supply/return, heating hot water supply/return, analog input/output, automatic air vent, cubic feet per hour/minute, differential pressure transducer, digital input/output, flow switch, gallons per minute, new, occupancy sensor, outside air, point of connection, refrigerant liquid/suction, square feet, temperature control panel, thousands of btus per hour.

AIR DISTRIBUTION DEVICE SCHEDULE

Table with columns: TAG, MANUFACTURER & MODEL NO., FRAME TYPE, BLOW PATTERN, OBD, REMARKS. Lists details for various air distribution devices like linear slots, surface diffusers, and egg crates.

SHEET INDEX - MECHANICAL

Table listing sheet numbers and titles for mechanical schedules and notes, including M0.01 through M5.04.

CSUS CHILD DEVELOPMENT CENTER

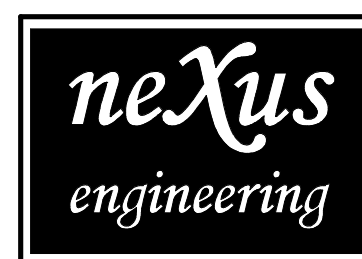
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Consultant



Consulting Mechanical Engineers 1400 Lone Palm Ave, Suite A Modesto, CA 95351 Tel: 209.572.7399 Fax: 209.236.1579

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Revisions and Description Date

Table with columns: Revisions and Description, Date. Shows one revision: Addendum 1 on 04.01.2022.

Scale

12" = 1'-0"

Drawn by GL

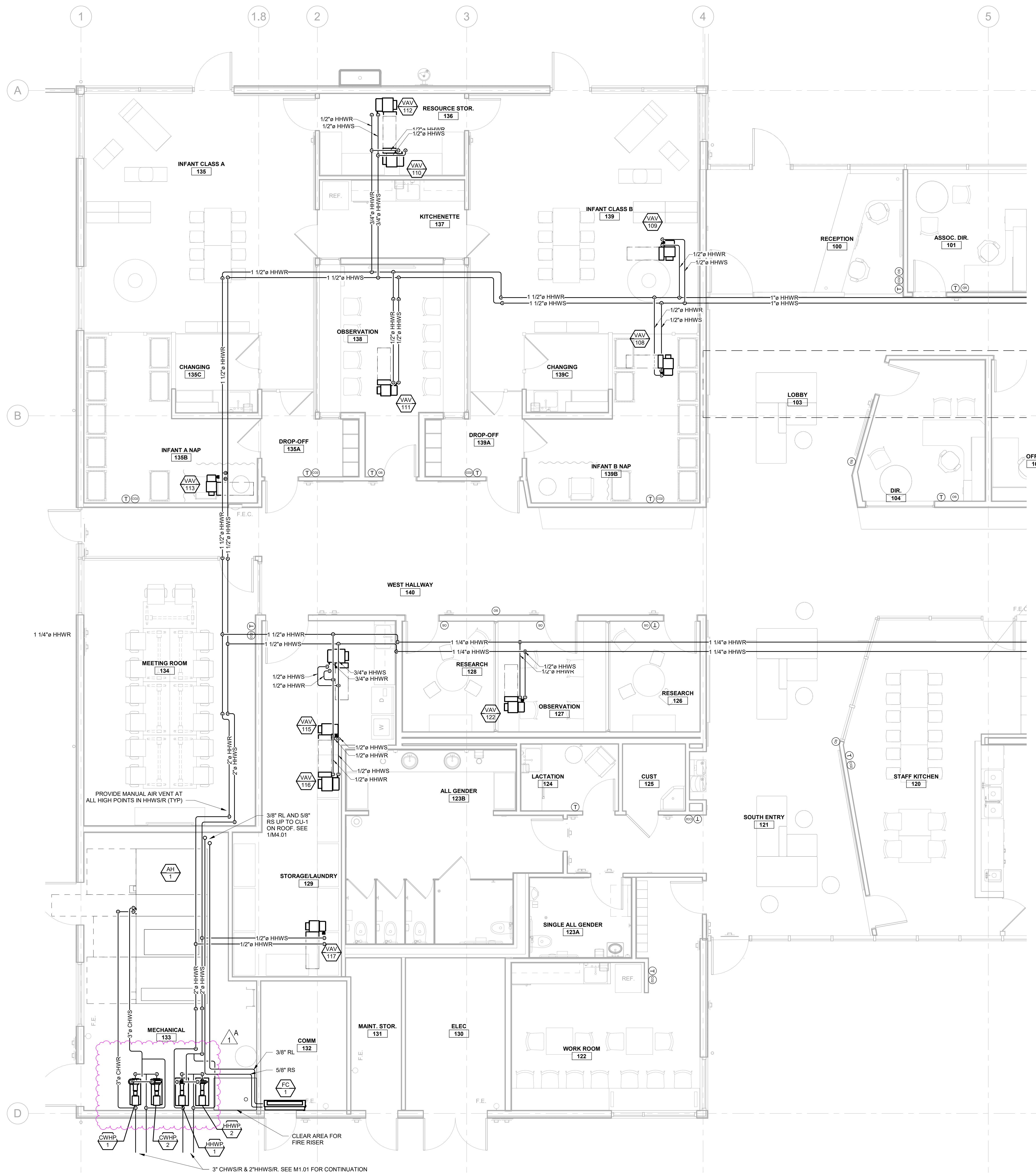
EHDD Job Number 20020

Sheet Title

MECHANICAL - SCHEDULES, LEGEND & NOTES

Sheet Number

M0.01



**MECHANICAL - HVAC PIPING FLOOR PLAN - A**  
 SCALE: 1/4" = 1'-0"  
 1 M3.02



**CSUS CHILD DEVELOPMENT CENTER**

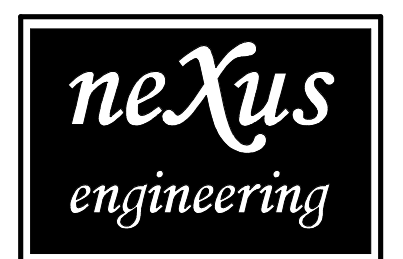
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Revisions and Description Date

1	A	Addendum 1	04.01.2022
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Scale  
 1/4" = 1'-0"

Drawn by  
 GL

EHDD Job Number  
 20020

Sheet Title

**MECHANICAL - ENLARGED HVAC PIPING FLOOR PLAN**

Sheet Number

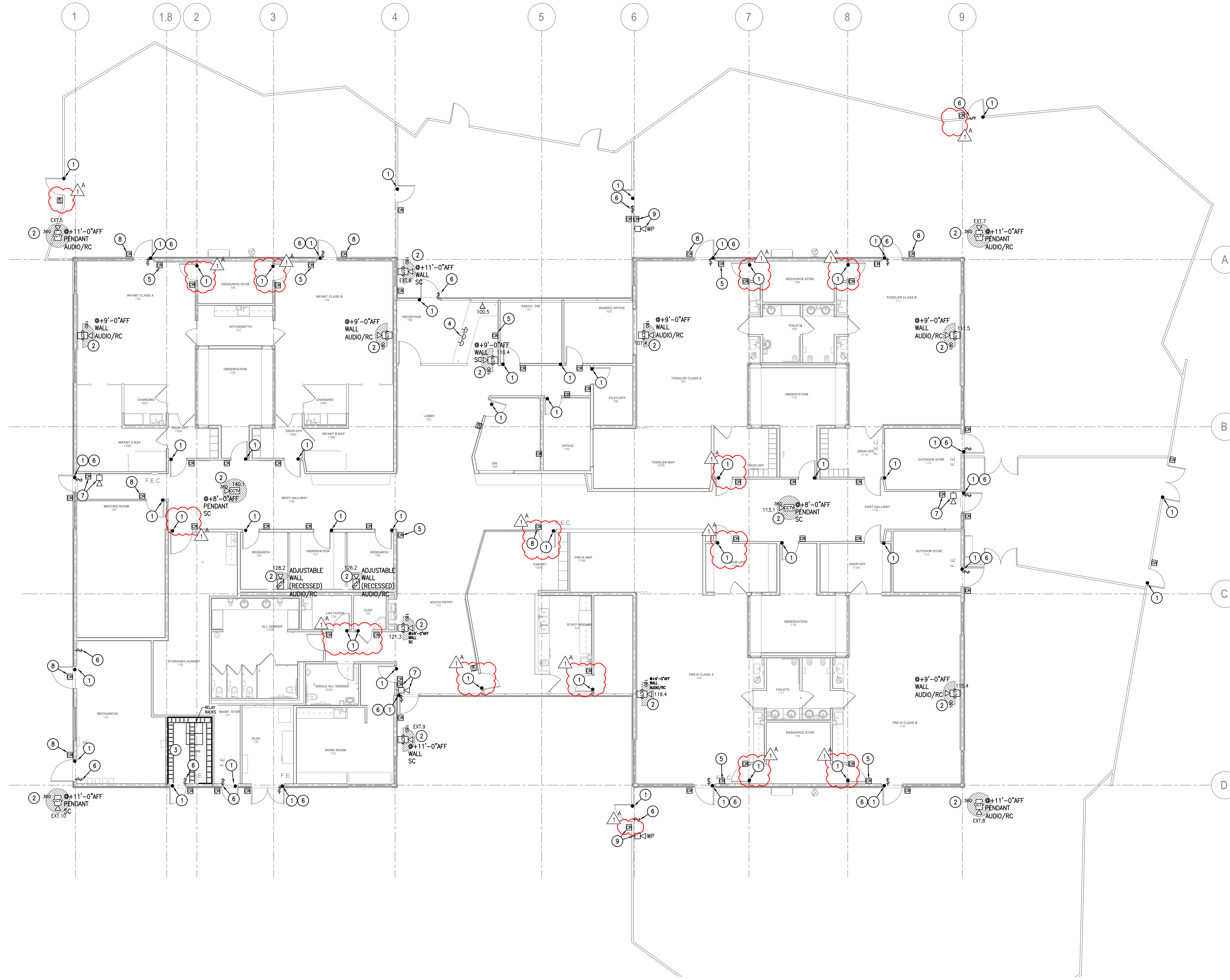
**M3.02**

### SHEET NOTES

- REFER TO THE GENERAL NOTES ON SHEET E0.1 FOR ADDITIONAL REQUIREMENTS.
- SUBSCRIPT "ACT" AT DEVICE SYMBOL AT DEVICE INDICATES MOUNTING ABOVE COUNTER HEIGHT, COORDINATE DEVICE MOUNTING HEIGHT WITH THE ARCHITECTURAL INTERIOR ELEVATIONS PRIOR TO ROUGH-IN.
- CCTV CAMERA INFORMATION IS AS FOLLOWS:  
 1ST LINE = CAMERA MOUNTING HEIGHT  
 2ND LINE = MOUNTING STYLE (WALL/PENDANT/CEILING/ETC.)  
 3RD LINE = DENOTES FEATURES:  
 AUDIO = AUDIO ENABLED CAMERA/MIC. LOCATION  
 RC = RESEARCH ONLY CAMERA  
 SC = SECURITY/CAMPUS POLICE CAMERA
- REFER TO SHEET G0.8 REGARDING LOCKDOWN NARRATIVE AND SYSTEM OPERATION.

### PLAN NOTES

- (N) ACCESS CONTROL DOOR -ELECTRIC LOCK & CARD READER -PAXTON
- (N) IP BASED CCTV CAMERA. SEE LEGEND IN SHEET NOTES ABOVE.
- PAXTON CONTROLLERS LOCATED ON WEST WALL OF TELE ROOM -SEE ELEVATION VIEW
- FRONT DESK PANIC BUTTONS LOCATION VA 100.5 (COORDINATE FINAL LOCATION IN CASEWORK W/UNIVERSITY STAFF) FOR THE FOLLOWING: (1) BUTON TO CAMPUS SECURITY.
- LOCKDOWN ENGAGE/RELEASE CARD READER -PROVIDE PLACARD ABOVE READER WHICH READS "LOCKDOWN".
- PROVIDE DOOR SWITCH MAGNET AT FRAME PER DETAIL 4/E9.3.
- CARD READER REXTIT & LOCAL SOUNDER (SYSTEM SENSOR #P2WL 12/24VDC, WHITE) +96" AFF
- MOUNT CARD READER ON MULLION & ROUTE WITHIN FRAME TO ATTIC SPACE.
- CARD READER REXTIT & LOCAL SOUNDER (SYSTEM SENSOR #HRK 12/24VDC, WP) +38" AFF.



**1 FLOOR PLAN -ACCESS CONTROL & CCTV**  
 SCALE: 1/8"=1'-0"  
 SCALE IN INCHES  
 0 1/16" 1/8" 1/4"

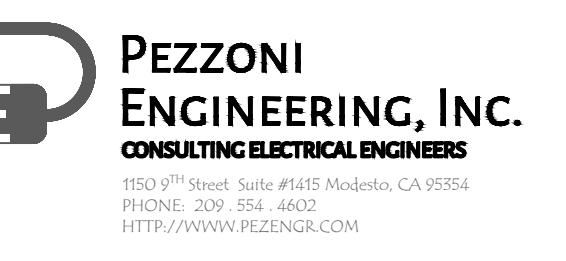
## CSUS CHILD DEVELOPMENT CENTER

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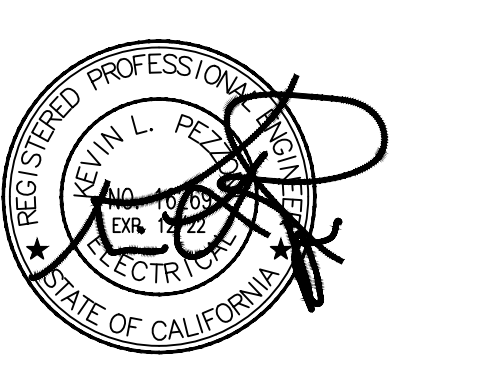
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Revisions and Description	Date
1 A Addendum 1	04.01.2022

Scale  
**AS NOTED**  
 Drawn by  
**CCM / KP**  
 EHDD Job Number  
**20020**

Sheet Title  
**FLOOR PLAN -ACCESS CONTROL & CCTV**

Sheet Number  
**E3.2**

# CSUS CHILD DEVELOPMENT CENTER

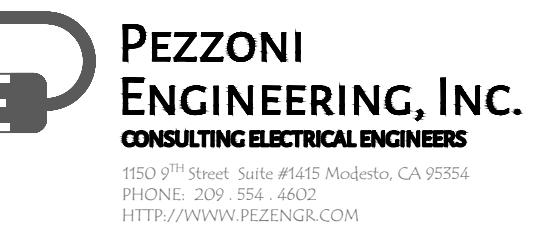
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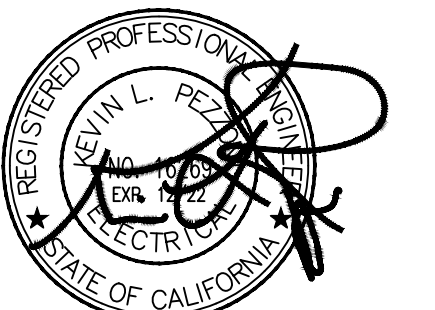
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Revisions and Description Date

1	A	Addendum 1	04.01.2022

Scale

AS NOTED

Drawn by

CCM / KP

EHDD Job Number

2020

Sheet Title

ROOF PLAN POWER

Sheet Number

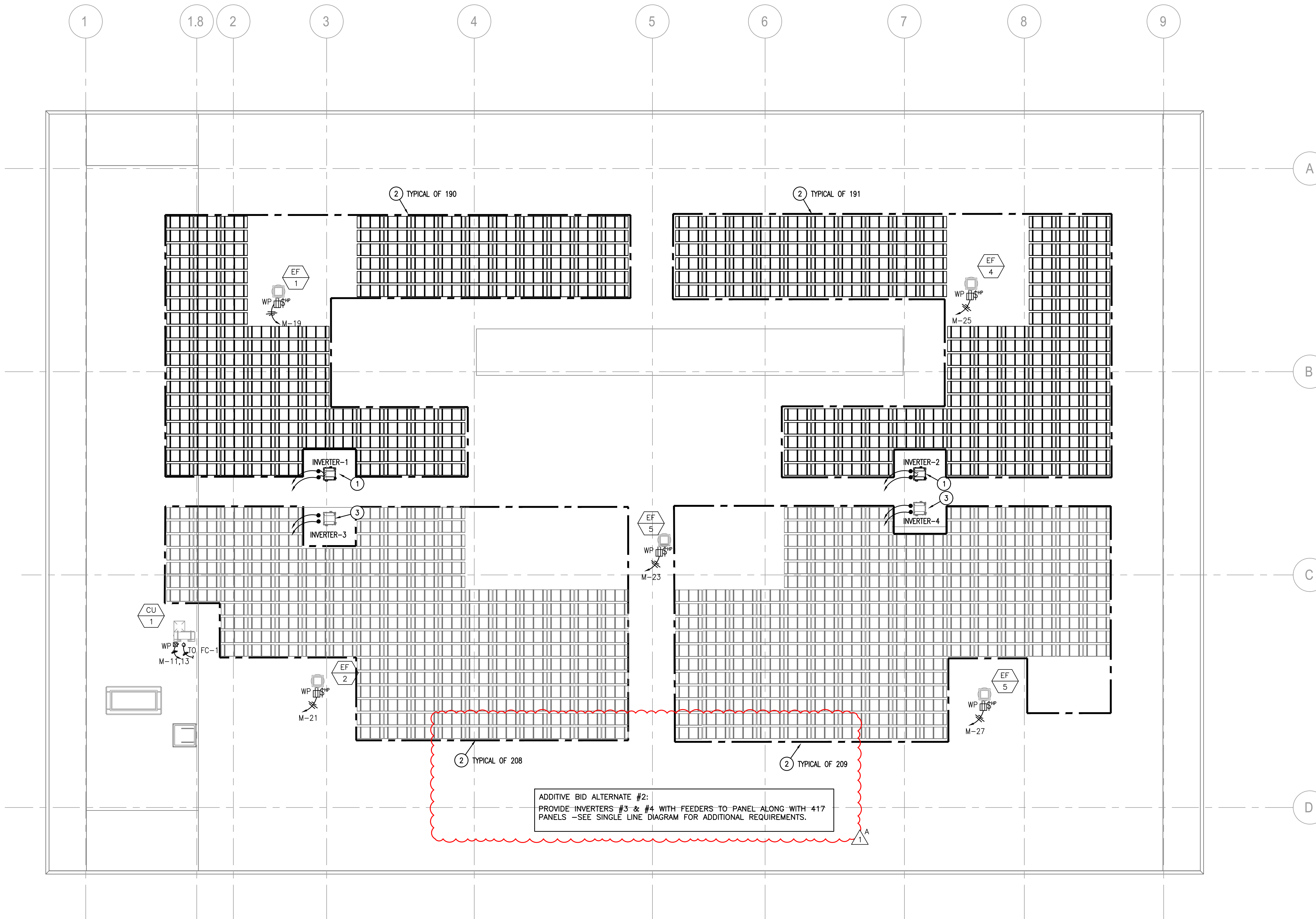
# E6.1

## SHEET NOTES

- REFER TO THE GENERAL NOTES ON SHEET E0.1 FOR ADDITIONAL REQUIREMENTS.
- ALL RECEPTACLES, WHETHER INDICATED OR NOT, INSTALLED WITH-IN SIX FEET (6') OF A SINK SHALL BE EQUIPPED WITH A GROUND FAULT CIRCUIT INTERRUPTER AS REQUIRED BY THE CALIFORNIA ELECTRICAL CODE (C.E.C.) 210.8(B)(5).
- RECEPTACLE OUTLET BOX, (WITH UNRESTRICTED CLEAR APPROACH), MOUNTING HEIGHT SHALL BE LOCATED NO MORE THAN 48" MEASURED FROM THE TOP OF THE OUTLET BOX NOR LESS THAN 15" MEASURED FROM THE BOTTOM OF THE OUTLET BOX TO THE LEVEL OF THE FINISHED FLOOR OR WORKING PLATFORM AS REQUIRED BY C.E.C. SECTION 11B-308.1.2. RECEPTACLE OUTLET BOX LOCATED ABOVE COUNTER, WHERE ACCESS IS RESTRICTED, MOUNTING HEIGHT SHALL BE NO MORE THAN 3'-10" MEASURED FROM THE TOP OF THE OUTLET BOX FOR SIDE REACH OR 3'-8" MEASURED FROM THE TOP OF THE OUTLET BOX FOR FORWARD REACH TO THE LEVEL OF THE FINISHED FLOOR OR WORKING PLATFORM.
- SUBSCRIPT "ACT" AT DEVICE SYMBOL AT DEVICE INDICATES MOUNTING ABOVE COUNTER HEIGHT. COORDINATE DEVICE MOUNTING HEIGHT WITH THE ARCHITECTURAL INTERIOR ELEVATIONS PRIOR TO ROUGH-IN.
- CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL JUNCTION BOXES, CONDUIT AND WIRING AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM. MULTI-WIRE BRANCH CIRCUIT WIRING SHALL COMPLY WITH C.E.C. 210.4(B).
- ALL RECEPTACLES SHALL BE TAMPER RESISTANT.
- THE EQUIPMENT DESIGNATED "N.I.E.S." IS EITHER OWNER FURNISHED/CONTRACTOR INSTALLED OR FURNISHED AND INSTALLED UNDER OTHER SECTIONS OF THIS PROJECT. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO MAKE ELECTRICAL CONNECTION TO EQUIPMENT AS REQUIRED BY THE EQUIPMENT. PROVIDE ALL NECESSARY JUNCTION BOXES, CONDUIT AND WIRING AS REQUIRED FOR COMPLETE INSTALLATION. COORDINATE CONNECTION REQUIREMENTS WITH EQUIPMENT PRIOR TO THE EXECUTION OF WORK.
- REFER TO THE MECHANICAL SCHEDULE ON SHEETS M0 FOR MECHANICAL EQUIPMENT REQUIREMENTS.
- MECHANICAL DRAWINGS AND SPECIFICATIONS ARE SUBJECT TO LAST MINUTE CHANGES, THEREFORE THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL COORDINATION BETWEEN ELECTRICAL AND MECHANICAL DRAWINGS. CONDUIT AND WIRING FOR THE LOW VOLTAGE CONTROLS SHALL BE PROVIDED UNDER DIVISION 23 SCOPE OF WORK.
- ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT AS SPECIFIED ON THE MECHANICAL DRAWINGS MAY BE DIFFERENT BASED ON ACTUAL MECHANICAL EQUIPMENT SUBMITTALS. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL COORDINATION WITH THE ACTUAL MECHANICAL EQUIPMENT SUBMITTALS AND PROVIDE CONDUIT, WIRES, DISCONNECT AND CIRCUIT BREAKERS, SIZE AS REQUIRED, PER EQUIPMENT NAMEPLATE RATING.
- DISCONNECT SWITCHES LOCATED OUTSIDE SHALL BE WEATHERPROOF.

## PLAN NOTES

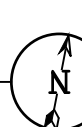
- (N) PV INVERTER -ROOF TOP MOUNTED -SMA #CORE1-50-US (50kW -480V -3PH) UNIT -SEE STRUCTURAL FOR MOUNTING -INSTALL (N) 1 1/2" (POWER) & 1" (DATA) W/LFMC CONNECTIONS
- (N) 430W PV PANEL -TYPICAL
- (F) PV INVERTER -ROOF TOP MOUNTED -SMA #CORE1-50-US (62kW -480V -3PH) UNIT -SEE STRUCTURAL FOR MOUNTING -INSTALL (N) 1 1/2" (POWER) & 1" (DATA) W/CAPS
- (F) PV PANELS -TYPICAL



ADDITIVE BID ALTERNATE #2:  
 PROVIDE INVERTERS #3 & #4 WITH FEEDERS TO PANEL ALONG WITH 417  
 PANELS -SEE SINGLE LINE DIAGRAM FOR ADDITIONAL REQUIREMENTS.

## 1 ROOF PLAN POWER

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





### CSUS CHILD DEVELOPMENT CENTER

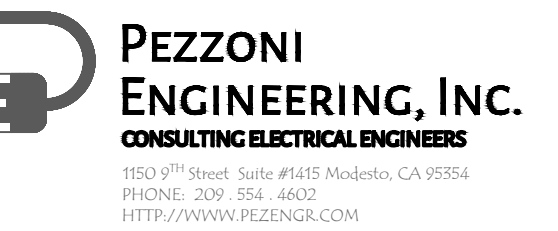
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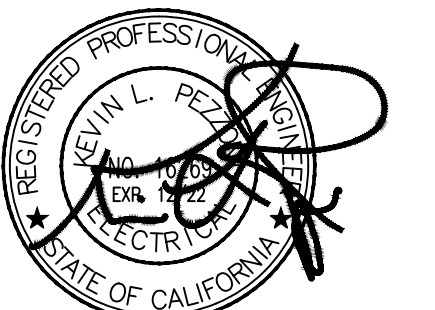
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Revisions and Description

1	A	Addendum 1	04.01.2022

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CCM / KP

EHDD Job Number

20020

Sheet Title

SINGLE LINE DIAGRAM

Sheet Number

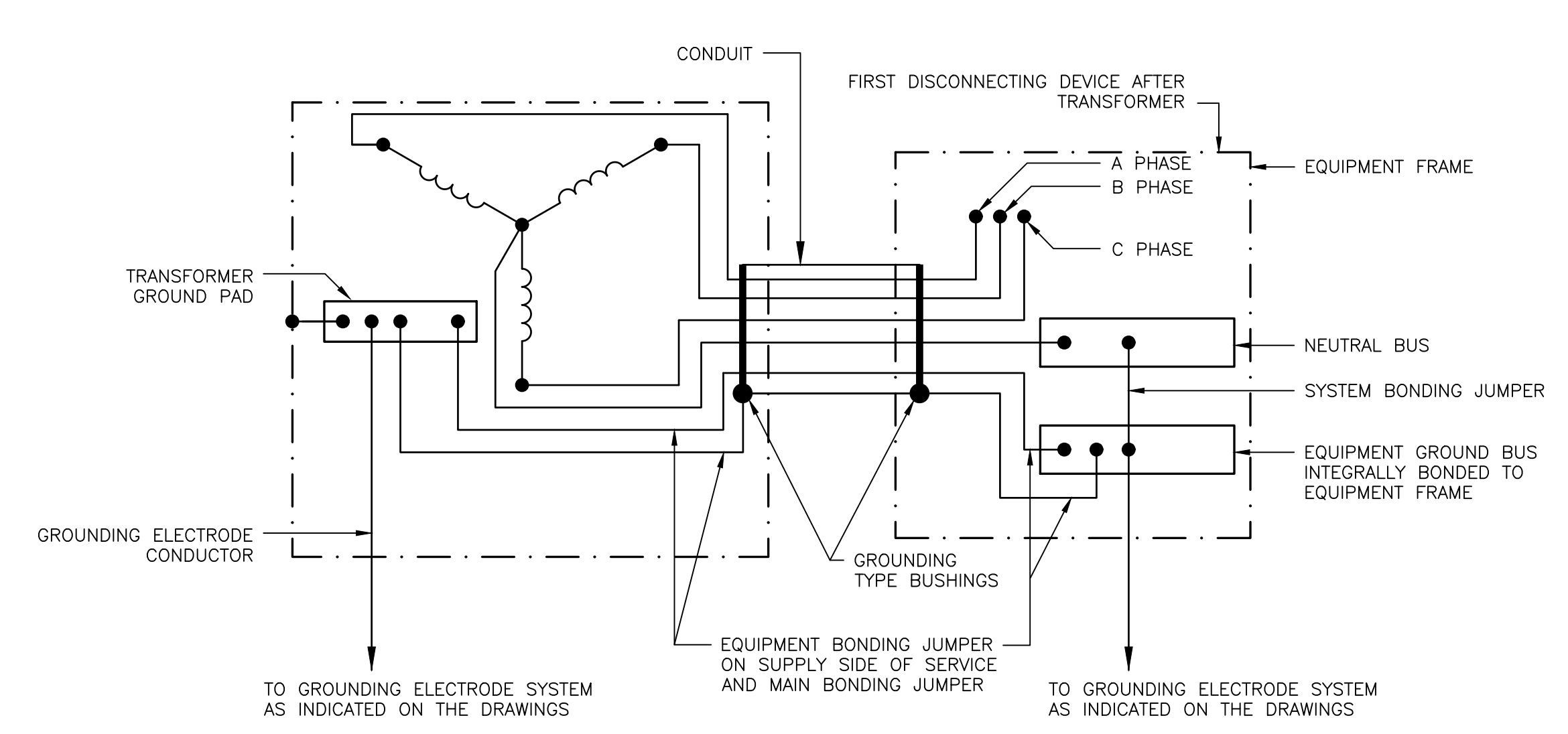
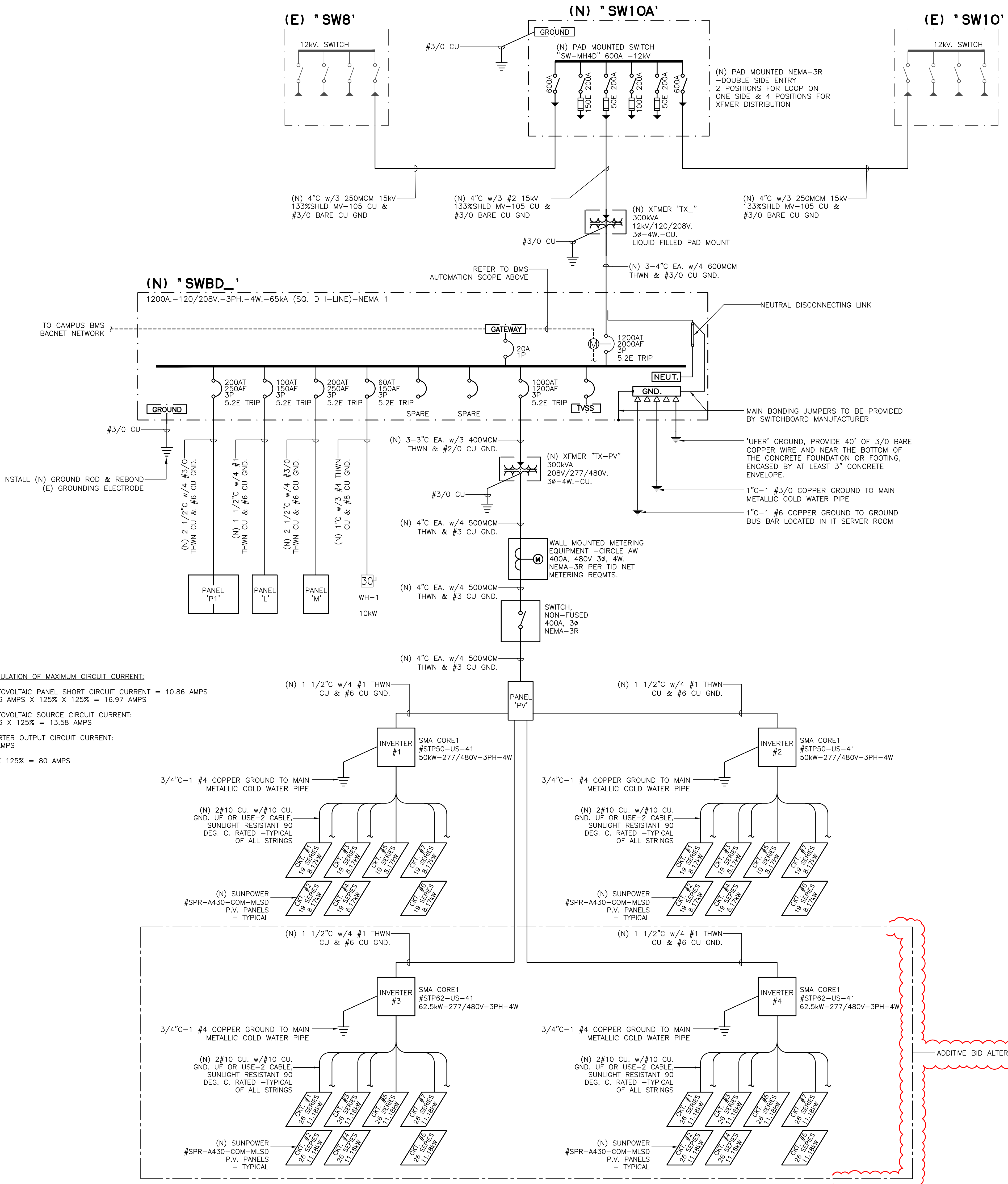
# E7.1

### BMS METERING AUTOMATION SCOPE

INTERNAL/EXTERIOR EQUIPMENT CABINET (20"Wx36"Hx6"D MIN.) W/BACKBOARD FOR CAMPUS METERING EQUIPMENT. CONTRACTOR TO COORDINATE WITH VENDOR FOR A MODBUS NETWORK BETWEEN ALL (N) METERS. WITHIN THE CABINET PROVIDE THE FOLLOWING DIN RAIL MOUNTED EQUIPMENT:

- POWERLOGIC EGX300 MODBUS ETHERNET GATEWAY
- PHOENIX CONTACT #2891028- 4 PORT INDUSTRIAL ETHERNET SWITCH
- PHOENIX CONTACT #2866763- POWER SUPPLY UNIT 120VAC IN/24VDC OUT -10A OUTPUT
- PHOENIX CONTACT #5600462- DIN RAIL MOUNTED GFCI RECEPTACLE
- PROSOFT S201-MNET-BACNET- MODBUS TCP/IP TO BACNET/IP CLIENT GATEWAY
- DIN MOUNTED BREAKERS (QNTY & RATING AS REQ'D.)

REFER TO DRAWING 5/E3.0 FOR 120VAC AND 24VDC INTERCONNECTION WIRING AS WELL AS COORDINATE 24VDC TO ALL MODBUS DEVICES (POWER ION METERS AND POWERLOGIC DEVICES). CONTRACTOR TO PROVIDE CAT-6 SHIELD PATCH CABLES FOR GATEWAYS, ETHERNET SWITCH, AND WAP. PROVIDE A COMPLETE AND WORKING SYSTEM FOR ALL POWERLOGIC BREAKERS SHOWN AND THE POWER-ION METER. CONTRACTOR TO COORDINATE MODBUS TAGS INTO BACNET GATEWAY FOR UNIVERSITY'S BMS VENDOR. CONTRACTOR SHALL COORDINATE ETHERNET TCP/IP CONNECTIVITY WITH UNIVERSITY'S EXISTING WIRELESS NETWORK VIA IT DEPT.



### TRANSFORMER (NON-UTILITY) 3-PHASE, 4-WIRE SECONDARY POWER GROUNDING DETAIL

### 1 SINGLE LINE DIAGRAM

SCALE: NTS

**Addendum no. 2**  
**to the**  
**Contract Documents**  
**April 13, 2022**

**General**

1. Bidders are cautioned to examine the Addendum in detail, allowing for all changes, additions or deletions as set forth below. All other conditions remain the same.
2. Acknowledge receipt of this Addendum on the Bid Form.
3. The Bid Date remains.

**Project Manual**

The following pages of the Project Manual are revised by this Addendum and are enclosed herewith as revised for immediate insertion to replace pages originally issued. Revised text, which may consist of additions to, deletions of, or other modifications of the text originally issued, is marked with an asterisk and superscript [“A1” (\*A1)] as is the corresponding Addendum designation (number and date) at the bottom of the reissued page. Previously issued addendum or revision designations remain as does the modified text.

Document Title

Page Number(s)

**Bidding Requirements**

The following pages of the Contract Conditions are revised by this Addendum and are enclosed herewith as revised for immediate insertion to replace pages originally issued. Revised text, which may consist of additions to, deletions of, or other modifications of the text originally issued, is marked with an asterisk and superscript [“A1” (\*A1)] as is the corresponding Addendum designation (number and date) at the bottom of the reissued page. Previously issued addendum or revision designations remain as does the modified text.

Document Title

Page Number(s)

## Bidding Requirements

The following pages of the Contract Conditions are issued by this Addendum and are enclosed herewith for immediate insertion into the Bidding Documents

Document Title	Page Number(s)
----------------	----------------

## Specifications

The following Specification sections are revised by this Addendum and are enclosed herewith as revised for immediate insertion to replace pages originally issued. Revised text, which may consist of additions to, deletions of, or other modifications of the text originally issued, is marked with an asterisk and superscript [“A1” (\*A1)] as is the corresponding Addendum designation (number and date) at the bottom of the reissued page. Previously issued addendum or revision designations remain as does the modified text.

Specification Section	Revision Description
10 14 00	2.01, Clarified materials and added exterior signage requirements. 3.01 D, Added backer plate requirement.
26 13 13	Update to Part 2 to reflect changes on another CSU Stanislaus project that recently bid.

The following Specifications sections were omitted from the originally issued set and are enclosed herewith as issued new by this Addendum.

Specification Section	Section Title
XXX	XXX

## Drawings

The following Contract Drawings are revised by this Addendum and are transmitted herewith as revised to replace immediately the respective original drawings.

Sheet	Revision Description
G0.01	Deleted sheet L5.1
G0.11	Details 17, 18, 20, Revised and added signage at entries.
L2.3	Elevation C, Added note for entry signage.
L5.1	Deleted extra sheet, no landscape scope outside of immediate project site, see Civil drawings for extended site and utility scope.

A2.21	Clarified signage locations at storage rooms, added signage types.
A4.01	Deleted toilet accessory type 'V'.
M0.01	Originally specified motorized impeller fans have been changed to plenum fans.
E2.1	Electrical change to air handler per Mechanical fan change.
E7.2	Electrical change to air handler per Mechanical fan change.

The following Contract Drawings are added by this Addendum and are transmitted herewith as new to be inserted immediately in the drawing set.

<b>Sheet</b>	<b>Reference Title</b>
XXX	XXX

**+ + End of Addendum No. 2 + +**

## SECTION 10 14 00

## SIGNAGE

## PART 1 - GENERAL

## 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

## 1.02 DESCRIPTION

- A. This Section describes the requirements for furnishing and installing the following types of signs:
1. Accessibility entrance signs.
  2. Public toilet room entry signs.
  3. Room identification signs.
  4. International symbol of accessibility.
  5. No Smoking signs at building entrances.
  6. Other signs indicated on the Drawings.

## 1.03 SUBMITTALS

- A. General: Comply with the requirements specified in Division 01.
- B. Product Data: Manufacturer's construction details relative to materials, dimensions of individual components, profiles, and finishes for each type of sign required.
- C. Shop Drawings: Furnish shop drawings for fabrication and erection of signs. Include plans, elevations, and large-scale sections of typical members and other components. Show anchors, grounds, reinforcement, accessories, layout, and installation details.
1. Furnish message list for each sign required, including large scale details of wording and layout of lettering.
  2. For signs supported by or anchored to permanent construction, furnish setting drawings, templates, and directions for installation of anchor bolts and other anchors.
- D. Samples: Furnish samples of each exposed material, including letters and other graphics, showing finish, color, and qualities of fabrication and design.

## 1.04 QUALITY ASSURANCE

- A. Comply with California Building Code (CBC) Section 11B-703 and 501.2.

## PART 2 - PRODUCTS

## 2.01 MATERIALS AND FABRICATION

- A2**
- A. Acrylic Sheet: Transparent, clear, semi-matte or non-glare, <sup>A2</sup> ¼ inch thickness ~~specified~~. <sup>A2</sup>
- B. Aluminum Sheet <sup>A2</sup> and Solid Aluminum <sup>A2</sup>: Alloy and temper recommended by the aluminum producer or finisher for the type of use and finish indicated and specified. <sup>A2</sup> **Sheet to be 3/16" minimum thickness, solid-cut aluminum thickness per drawings.** <sup>A2</sup>
- C. Aluminum Extrusions: Alloy and temper recommended by the aluminum producer or finisher for the type of use and finish indicated and specified.

- D. Stainless Steel Plate, Sheet, and Strip: Provide stainless steel plate, sheet, or strip, AISI Type 302, complying with ASTM A167.
- E. Fasteners: Use concealed fasteners fabricated from metals that are not corrosive to the sign material and mounting surface.
- F. Colored Coatings for Acrylic Plastic Sheet: Use colored coatings, including inks and paints for copy and background colors that are recommended by acrylic manufacturer for optimum adherence to acrylic surface and are non-fading for the application intended.
- G. Interior Signage:
  - 1. Signs shall be sign manufacturer's standard one-piece photopolymer sign face with tactile Braille and letters or acrylic sign face with applied tactile lettering and Braille, at manufacturer's option, and shall be interior rated.
  - 2. Sign materials and fabrication shall comply with applicable CBC and ADA signage requirements.
  - 3. Sign Finish: Eggshell, matte, or non-glare as selected by the Architect.
  - 4. Copy: 5/8-inch minimum, 2-inch maximum as recommended by sign manufacturer for required copy, raised minimum 1/32-inch.
  - 5. Font: Formata Regular.
  - 6. Braille: Contracted Grade 2 Braille complying with CBC Section 11B-703.3.
  - 7. Mounting: Vinyl foam tape or silicone adhesive.

**A2**

- A<sup>2</sup> H. Exterior Signage:**
  - 1. Signs shall be sign manufacturer's standard one-piece brushed aluminum sign face with tactile Braille and letters, and shall be exterior rated.**
  - 2. Sign materials and fabrication shall comply with applicable CBC and ADA signage requirements.**
  - 3. Sign Finish: Painted, color as selected by the Architect.**
  - 4. Copy: 5/8-inch minimum, 2-inch maximum as recommended by sign manufacturer for required copy, raised minimum 1/32-inch.**
  - 5. Font: Formata Regular.**
  - 6. Braille: Contracted Grade 2 Braille complying with CBC Section 11B-703.3.**
  - 7. Mounting: countersunk fasteners, heads painted to match sign.**
- I. Exterior Vinyl Signage at Glazing:**
  - 1. Signs shall be sign manufacturer's standard vinyl decal material.**
  - 2. Sign Color: as selected by the Architect.**
  - 3. Font: Formata Regular.**
  - 4. Mounting: vinyl adhesive as recommended by sign manufacturer <sup>A2</sup>**

2.02 SIGN SUMMARY

- A. Entrance Signs:
  - 1. All building entrances that are accessible to and useable by physically disabled persons shall be identified with at least one standard accessibility symbol sign and with additional directional signs as required, to be visible to persons along approaching pedestrian ways.
  - 2. Comply with CBC Section 501.2.
- B. Public and Staff Toilet Room Entry Signs:
  - 1. Provide geometric symbols as follows. Material and colors as indicated or as selected by the Architect.
    - a. Men: 12-inch equilateral triangle with international symbol for men.
    - b. Women: 12-inch diameter circle with international symbol for women.
    - c. Gender Neutral: 12-inch diameter circle with 12-inch equilateral triangle.
    - d. Comply with CBC Section 11B-703.7.2.6 and ADA Article 4.30.
  - 2. Provide sign with raised letters and Braille on the wall adjacent to the latch outside the door. Where there is no wall space on the latch side and at double leaf doors, provide sign on nearest adjacent wall. Comply with CBC Section 11B-703.4.2.
  - 3. Center geometric symbols on door and signs on wall at a height of 60-inches above finished floor.
- C. Room Identification Signs:
  - 1. Provide one sign adjacent to latch side of doors or on the nearest adjacent wall where indicated. Signs shall identify room name as directed by the Architect.
  - 2. Provide signs with raised upper case letters with Grade 2 Braille. Comply with ADA Article 4.30.
  - 3. Mount signs 60-inches above finish floor to centerline of sign.
  - 4. Comply with CBC Section 11B-703.4.2.
- D. International Symbol of Accessibility:
  - 1. Design: As indicated in CBC Section 11B-703.7.2.1
  - 2. Color: White figure on a blue background. Blue color equal to Color No. 15090 in Federal Standard 595B.
- E. Delayed Egress Sign: Provide where indicated in accordance with CBC Section 1010.1.9.8.1 Section 6.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Locate where indicated and as required by applicable codes and secure with specified fasteners.
- B. Install level, plumb and at height indicated or required, with surfaces free from distortion or other appearance defects.
- C. Where signs are adhesively applied, adhesive shall be spread over full contact area.
- A<sup>2</sup> D. Where signs are mounted on glazing and there are no signs on opposite side, backer panel to be provided: acrylic at interior, painted aluminum at exterior. A<sup>2</sup>**

**A2**

3.02 CLEANING AND PROTECTION

- A. At completion of installation, clean soiled surfaces in accordance with manufacturer's instructions. Protect units from damage until final acceptance.

3.03 CONSTRUCTION WASTE MANAGEMENT

- A. General: Comply with the requirements of Division 01 for removal and disposal of construction debris and waste.
- B. Separate and recycle waste materials to the maximum extent possible.

END OF SECTION



## **SECTION 26 13 13 – PAD MOUNTED UNDERGROUND DISTRIBUTION SWITCHGEAR**

### **PART 1 GENERAL**

#### **1.01 SUMMARY**

- A. Section includes
  - 1. Provide all labor, materials and equipment necessary to complete the installation required for the items specified under this Section, including but not limited to pad mounted switchgear.
- B. Related sections
  - 1. Where items specified in other Division 16 sections conflict with the requirements of this Section, the most stringent requirement shall govern.
    - a. 26 05 26 – Grounding and Bonding for Electrical Systems
  - 2. The requirements of this Section apply to all Division 16 work, as applicable.
  - 3. Consult all other sections, determine the extent and character of related work and properly coordinate work specified herein with that specified elsewhere to produce a complete installation.

#### **1.02 REFERENCES**

- A. Comply with the latest edition of the following applicable specifications and standards except as otherwise shown or specified:
  - 1. CCR –California Code of Regulations, Title 24
    - a. Part 3 -California Electrical Code(CEC); NFPA 70 National Electrical Code (NEC) with California amendments

#### **1.03 SUBMITTALS**

- A. Submit manufacturer's data for materials specified within this Section in accordance to Section 26 05 00.
- B. Shop Drawings shall indicate front and side enclosure elevations with overall dimensions shown; conduit entrance locations and requirements; nameplate legends; one-line diagrams; equipment schedule; and instrument details.

#### **1.04 QUALITY ASSURANCE**

- A. All materials, equipment and parts comprising the materials specified herein shall be new and unused, bearing UL labels where applicable.
- B. The manufacturing facility shall be registered by Underwriters Laboratories Inc. to the International Organization for Standardization ISO 9002 Series Standards for quality.

#### **1.05 DELIVERY, STORAGE AND HANDLING**

- A. Deliver, store, protect, and handle products in conformance with manufacturer's recommended practices as outlined in applicable Installation and Maintenance Manuals.

- B. Switchgear shall be individually wrapped for protection and mounted on shipping skids.
- C. Store in a clean, dry space. Maintain factory protection and/or provide an additional heavy canvas or heavy plastic cover to protect structure from dirt, water, construction debris, and traffic. Where applicable, provide adequate heating within enclosures to prevent condensation.
- D. Handle in accordance with manufacturer's written instructions. Lift only by lifting means provided for this express purpose. Handle carefully to avoid damage to switchboard internal components, enclosure, and finish.

**PART 2 PRODUCTS**

2.01 MANUFACTURERS

- A2| A. S & C PME series,<sup>A2</sup> ~~Scott Engineering~~ **G & W<sup>A2</sup>**, or approved equal.

2.02 GENERAL

- A. The pad-mounted gear shall be in accordance with the one-line diagram, and shall conform to the following specification.
- A2| B. ~~A<sup>2</sup>The pad-mounted gear shall consist of a single self-supporting enclosure, containing interrupter switches and power fuses with the necessary accessory components, all completely factory assembled and operationally checked. The interrupter switches and fuses shall be enclosed within an inner grounded steel compartment for electrical isolation and for protection from contamination. Switch terminals shall be equipped with bushings rated 600 amperes continuous, and fuse terminals and bus terminals shall be equipped with bushing wells rated 200 amperes continuous to provide for elbow connection. Bushings and bushing wells shall be mounted on the walls of the inner compartment and shall extend into termination compartments. Termination compartments shall be provided as follows: one for each three phase switch, one for each three phase set of fuses, and one for each three phase set of bus terminals. Each switch shall be equipped with 3-phase Trident fault interrupter ways, as indicated on the one-line diagram. Load break only capable switches will not be accepted. Switches shall be designed for front access to cables and operators.~~

~~2.03 RATINGS~~

- A. ~~The ratings for the integrated pad-mounted gear shall be as designated below.~~
  - 1. ~~Nominal Voltage: 14.4 kV~~
  - 2. ~~Maximum Voltage: 17.0 kV~~
  - 3. ~~BIL Voltage: 95 kV~~
  - 4. ~~Main Bus Continuous: 600 A~~
  - 5. ~~Three-Pole Interrupter Switches:~~
    - a. ~~Continuous: 600 A~~
    - b. ~~Load Dropping: 600 A~~
    - c. ~~Two Time Duty Cycle Fault Closing RMS Asymmetrical: 22,400 A~~

~~6. Fuses Maximum, Amperes: 200E~~

~~7. Short-Circuit Ratings~~

~~a. Amperes Rms Symmetrical: 14,000 A~~

~~b. Three-Phase Symmetrical at Rated Nominal Voltage: 350 MVA~~

~~B. The momentary and two-time duty-cycle fault-closing ratings of switches, momentary rating of bus, and interrupting ratings of fuses shall equal or exceed the short-circuit ratings of the pad-mounted gear.~~

#### ~~2.04 CERTIFICATION OF RATINGS~~

~~A. The manufacturer of the pad-mounted gear shall be completely and solely responsible for the performance of the basic switch and fuse components as well as the complete integrated assembly as rated.~~

~~B. The manufacturer shall furnish, upon request, certification of ratings of the basic switch and fuse components and/or the integrated pad-mounted gear assembly consisting of the switch and fuse components in combination with the enclosure.~~

#### ~~2.05 COMPLIANCE WITH STANDARDS AND CODES~~

~~A. The pad-mounted gear shall conform to or exceed the applicable requirements of the following standards and codes:~~

~~1. All portions of ANSI C57.12.28, covering enclosure integrity for pad-mounted equipment.~~

~~2. Article 710-21(e) in the National Electrical Code, which specifies that the interrupter switches in combination with power fuses shall safely withstand the effects of closing, carrying, and interrupting all possible currents up to the assigned maximum short-circuit rating.~~

~~3. All portions of ANSI, IEEE, and NEMA standards applicable to the basic switch and fuse components.~~

#### ~~2.06 ENCLOSURE DESIGN~~

~~A. To ensure a completely coordinated design, the pad-mounted gear shall be constructed in accordance with the minimum construction specifications of the fuse and/or switch manufacturer to provide adequate electrical clearances.~~

~~B. In establishing the requirements for the enclosure design, consideration shall be given to all relevant factors such as controlled access, tamper resistance, corrosion resistance, and resistance to entry of foliage, animals, and airborne contaminants.~~

#### ~~2.07 CONSTRUCTION ASSEMBLY~~

~~A. Insulators~~

~~1. The interrupter switch and fuse mounting insulators shall be of a cycloaliphatic epoxy resin system with characteristics and restrictions as follows:~~

~~a. Operating experience of at least 15 years under similar conditions.~~

~~b. Adequate leakage distance established by test per IEC Publication 507, First Edition, 1975.~~

- ~~c. Adequate strength for short-circuit stress established by test.~~
- ~~d. Conformance with applicable ANSI standards.~~
- ~~e. Homogeneity of the cycloaliphatic epoxy resin throughout each insulator to provide maximum resistance to power arcs. Ablation due to high temperatures from power arcs shall continuously expose more material of the same composition and properties so that no change in mechanical or electrical characteristics takes place because of arc-induced ablation. Furthermore, any surface damage to insulators during installation or maintenance of the pad-mounted gear shall expose material of the same composition and properties so that insulators with minor surface damage need not be replaced.~~

~~B. High Voltage Bus~~

- ~~1. Bus and interconnections shall consist of aluminum bar of 56% IACS conductivity.~~
- ~~2. Bus and interconnections shall withstand the stresses associated with short-circuit currents up through the maximum rating of the pad-mounted gear.~~
- ~~3. Bolted aluminum-to-aluminum connections shall be made with a suitable number of galvanized steel bolts and with two Belleville spring washers per bolt, one under the bolt head and one under the nut. Bolts shall be tightened to 50 foot-pounds torque.~~
- ~~4. Before installation of the bus, all electrical contact surfaces shall first be prepared by machine abrading to remove any aluminum oxide film. Immediately after this operation, the electrical contact surfaces shall be coated with a uniform coating of an oxide inhibitor and sealant.~~
- ~~5. Tie bus, where furnished, shall consist of continuous, one piece sections of aluminium bar with no intermediate splices. Flexible braid or cable shall not be used.~~

~~C. Provisions for Grounding~~

- ~~1. A ground connection pad shall be provided in each termination compartment of the pad-mounted gear.~~
- ~~2. The ground connection pad shall be constructed of 1/4" thick steel, which shall be nickel plated and welded to the enclosure, and shall have a short-circuit rating equal to that of the pad-mounted gear.~~
- ~~3. Ground connection pads shall be coated with a uniform coating of an oxide inhibitor and sealant prior to shipment.~~
- ~~4. A 3/8" diameter copper rod connected to the ground connection pad shall be provided in each termination compartment for switches and each termination compartment for bus. The rod shall extend across the full width of each compartment to allow convenient grounding of cable concentric neutrals and accessories, and shall have a short-circuit rating equal to that of the pad-mounted gear.~~
- ~~5. Continuous copper ground bus shall be provided across the full width of each termination compartment for fuses. For each fuse mounting, there shall be a ground ring made of 3/8" diameter copper rod bolted to the ground bus and~~

~~placed to allow convenient grounding of cable concentric neutrals and accessories. Ground rings and bus shall have a short circuit rating equal to that of the pad-mounted gear.~~

~~D. Bushings and Bushing Wells~~

- ~~1. Bushings and bushing wells shall conform to ANSI/IEEE Standard 386 (ANSI Standard C119.2).~~
- ~~2. Bushings and bushing wells shall be of a cycloaliphatic epoxy resin system with characteristics and restrictions as follows:
 
  - ~~a. Operating experience of at least 10 years under similar conditions.~~
  - ~~b. Adequate leakage distance for in-air application established by test per IEC Publication 507, First Edition, 1975.~~
  - ~~c. Adequate strength for short circuit stress established by test.~~
  - ~~d. Conformance with applicable ANSI standards.~~
  - ~~e. Homogeneity of the cycloaliphatic epoxy resin throughout each bushing or bushing well to provide maximum resistance to power arcs. Ablation due to high temperatures from power arcs shall continuously expose more material of the same composition and properties so that no change in mechanical or electrical characteristics takes place because of arc-induced ablation.~~~~
- ~~3. Bushings and bushing wells shall be mounted in such a way that the semiconductive coating is solidly grounded to the enclosure.~~
- ~~4. Bushings rated 600 amperes continuous shall have a removable threaded stud so that the bushings are compatible with all 600 ampere elbow systems those requiring a threaded stud as well as those that do not.~~

~~E. Termination Compartments~~

- ~~1. Termination compartments for switches shall have bushings, and termination compartments for fuses shall have bushing wells to permit connection of elbows. The bushings and bushing wells shall be mounted on the interior walls at a minimum height of 33 inches above the enclosure base.~~
- ~~2. Termination compartments for bus shall have bushing wells to permit connection of elbows. The bushing wells shall be mounted on the interior walls at a minimum height of 25 inches above the enclosure base.~~
- ~~3. Termination compartments for bushings rated 600 amperes continuous shall be of an adequate depth to accommodate two 600 ampere elbows mounted piggyback, encapsulated surge arresters or grounding elbows mounted on 600 ampere elbows having 200 ampere interfaces, or other similar accessory combinations without the need for an enclosure extension.~~
- ~~4. Termination compartments for bushing wells rated 200 amperes continuous shall be of an adequate depth to accommodate 200 ampere elbows mounted on portable feed through or standoff insulators, or other similar accessory combinations without the need for an enclosure extension.~~
- ~~5. Termination compartments shall be provided with one parking stand for each bushing or bushing well. The parking stand shall be located immediately adjacent~~

~~to the associated bushing or bushing well and shall accommodate standard feed through and standoff insulators, and other similar accessories.~~

- ~~6. Each termination compartment for a switch shall be equipped with a viewing window to allow visual inspection of interrupter switch blades to allow positive verification of switch position.~~
- ~~7. Each termination compartment for a set of fuses shall be equipped with a set of viewing windows to allow visual inspection of blown fuse indicators.~~

## ~~2.08 CONSTRUCTION ENCLOSURE INCLUDING OUTDOOR FINISH~~

### ~~A. Enclosure~~

- ~~1. The pad-mounted gear enclosure shall be of unitized monocoque (not structural frame and bolted sheet) construction to maximize strength, minimize weight, and inhibit corrosion.~~
- ~~2. The basic material shall be 11-gauge hot-rolled, pickled and oiled steel sheet.~~
- ~~3. All structural joints and butt joints shall be welded, and the external seams shall be ground flush and smooth. The gas metal arc welding process shall be employed to eliminate alkaline residues and to minimize distortion and spatter.~~
- ~~4. To guard against unauthorized or inadvertent entry, enclosure construction shall not utilize any externally accessible hardware.~~
- ~~5. The base shall consist of continuous 90-degree flanges, turned inward and welded at the corners, for bolting to the concrete pad.~~
- ~~6. The door openings shall have 90-degree flanges, facing outward, that shall provide strength and rigidity as well as deep overlapping between doors and door openings to guard against water entry.~~
- ~~7. Gasketing between the roof and the enclosure shall guard against entry of water and airborne contaminants and shall discourage tampering or insertion of foreign objects.~~
- ~~8. A heavy coat of insulating "no-drip" compound shall be applied to the inside surface of the roof to minimize condensation of moisture thereon.~~
- ~~9. An internal steel-enclosed compartment shall encase the interrupter switches and fuses for electrical isolation and protection from contamination. The compartment shall have~~
- ~~10. a galvanized steel sheet floor to exclude foliage and animals. The floor shall have screened drain vents to allow drainage if the enclosure is flooded. The top of this compartment shall be gasketed to provide sealing with the enclosure roof.~~
- ~~11. Insulating barriers of NEMA GPO3-grade fiberglass-reinforced polyester shall be provided for each interrupter switch where required to achieve BIL ratings. Additional insulating barriers of the same material shall isolate the tie bus (where furnished).~~
- ~~12. Full-length steel barriers shall separate adjoining termination compartments.~~
- ~~13. Lifting tabs shall be removable. Sockets for the lifting tab bolts shall be blind-tapped. A resilient material shall be placed between the lifting tabs and the enclosure to help prevent corrosion by protecting the finish against scratching by~~

~~the tabs. To further preclude corrosion, this material shall be closed-cell to prevent moisture from being absorbed and held between the tabs and the enclosure in the event that lifting tabs are not removed.~~

~~14. The enclosure shall be provided with an instruction manual holder.~~

~~B. Doors~~

- ~~1. Doors shall be constructed of 11 gauge hot rolled, pickled and oiled steel sheet; door edge flanges shall overlap with door opening flanges to discourage tampering or insertion of foreign objects.~~
- ~~2. Doors shall have a minimum of two extruded aluminum hinges with stainless-steel hinge pins, and interlocking extruded aluminum hinge supports for the full length of the door to provide strength, security, and corrosion resistance. Mounting hardware shall be stainless steel or zinc nickel plated steel, and shall not be externally accessible to guard against tampering.~~
- ~~3. Doors shall be hinged at the sides to swing open with minimum effort. Doors hinged at the top requiring significant effort to lift open shall not be allowed.~~
- ~~4. In consideration of controlled access and tamper resistance, each door (or set of double doors) shall be equipped with an automatic three-point latching mechanism.
 
  - ~~a. (1) The latching mechanism shall be spring loaded, and shall latch automatically when the door is closed. All latch points shall latch at the same time to preclude partial latching.~~
  - ~~b. (2) A pentahead socket wrench or tool shall be required to actuate the mechanism to unlatch the door and, in the same motion, recharge the spring for the next closing operation.~~
  - ~~c. (3) The latching mechanism shall have provisions for padlocking that incorporate a means to protect the padlock shackle from tampering and that shall be coordinated with the latches such that:
 
    - ~~1) It shall not be possible to unlatch the mechanism until the padlock is removed, and~~
    - ~~2) It shall not be possible to insert the padlock until the mechanism is completely latched closed.~~~~~~
- ~~5. Doors providing access to solid material power fuses shall have provisions to store spare fuse units or refill units.~~
- ~~6. Each door shall be provided with a zinc nickel plated steel door holder located above the door opening. The holder shall be hidden from view when the door is closed, and it shall not be possible for the holder to swing inside the enclosure.~~

~~C. Finish~~

- ~~1. Full coverage at joints and blind areas shall be achieved by processing enclosures independently of components such as doors and roofs before assembly into the unitized structures.~~
- ~~2. All exterior seams shall be filled and sanded smooth for neat appearance.~~

3. ~~To remove oils and dirt, to form a chemically and anodically neutral conversion coating to improve the finish to metal bond, and to retard underfilm propagation of corrosion, all surfaces shall undergo a thorough pretreatment process comprised of a fully automated system of cleaning, rinsing, phosphatizing, sealing, drying, and cooling before any protective coatings are applied. By utilizing an automated pretreatment process, the enclosure shall receive a highly consistent thorough treatment, eliminating fluctuations in reaction time, reaction temperature, and chemical concentrations.~~
4. ~~After pretreatment, protective coatings shall be applied that shall help resist corrosion and protect the steel enclosure. To establish the capability to resist corrosion and protect the enclosure, representative test specimens coated by the enclosure manufacturer's finishing system shall satisfactorily pass the following tests:~~
  - a. ~~4000 hours of exposure to salt spray testing per ASTM B 117 with~~
    - 1) ~~Under film corrosion not to extend more than 1/32" from the scribe as evaluated per ASTM D 1645, Procedure A, Method 2 (scraping); and~~
    - 2) ~~Loss of adhesion from bare metal not to extend more than 1/8" from the scribe.~~
  - b. ~~1000 hours of humidity testing per ASTM D 4585 using the Cleveland Condensing Type Humidity Cabinet with no blistering as evaluated per ASTM D 714.~~
  - c. ~~500 hours of accelerated weathering testing per ASTM G 53 using lamp UVB 313 with no chalking as evaluated per ASTM D 659, and no more than 10% reduction of gloss as evaluated per ASTM D 523.~~
  - d. ~~Crosshatch adhesion testing per ASTM D 3359 Method B with no loss of finish.~~
  - e. ~~160 inch pound impact adhesion testing per ASTM D 2794 with no chipping or cracking.~~
  - f. ~~Oil resistance testing consisting of a 72-hour immersion bath in mineral oil with no shift in color, no streaking, no blistering, and no loss of hardness.~~
  - g. ~~3000 cycles of abrasion testing per ASTM 4060 with no penetration to the substrate.~~
5. ~~Certified test abstracts substantiating the above capabilities shall be furnished upon request.~~
6. ~~After the finishing system has been properly applied and cured, welds along the enclosure bottom flange shall be coated with a wax-based anticorrosion moisture barrier to give these areas added corrosion resistance.~~
7. ~~A resilient closed cell material, such as PVC gasket, shall be applied to the entire underside of the enclosure bottom flange to protect the finish on this surface from scratching during handling and installation. This material shall isolate the bottom flange from the alkalinity of a concrete foundation to help protect against corrosive attack.~~



8. ~~After the enclosure is completely assembled and the components (switches, fuses, bus, etc.) are installed, the finish shall be inspected for scuffs and scratches. Blemishes shall be touched up by hand to restore the protective integrity of the finish.~~
  9. ~~The finish shall be outdoor light gray, satisfying the requirements of ANSI Standard Z55.1 for No. 61 or No. 70.~~
- D. ~~To guard against corrosion, all hardware (including door fittings, fasteners, etc.), all operating mechanism parts, and other parts subject to abrasive action from mechanical motion shall be of either nonferrous materials, or galvanized or zinc-nickel-plated ferrous materials. Cadmium-plated ferrous parts shall not be used.~~

## 2.09 ~~BASIC COMPONENTS~~

### A. ~~Interrupter Switches~~

1. ~~Interrupter switches shall be enclosed in an inner steel compartment and shall be provided with bushings rated 600 amperes continuous to permit connection of elbows external to the switch compartment.~~
2. ~~Interrupter switches shall have a two time duty cycle fault closing rating equal to or exceeding the short circuit rating of the pad mounted gear. These ratings define the ability to close the interrupter switch twice against a three phase fault with asymmetrical current in at least one phase equal to the rated value, with the switch remaining operable and able to carry and interrupt rated current. Tests substantiating these ratings shall be performed at maximum voltage with current applied for at least 10 cycles. Certified test abstracts establishing such ratings shall be furnished upon request.~~
3. ~~Interrupter switches shall be operated by means of an externally accessible 3/4" hex switch operating hub. The switch operating hub shall be located within a recessed stainless steel pocket mounted on the side of the pad mounted gear enclosure and shall accommodate a 3/4" deep socket wrench or a 3/4" shallow socket wrench with extension. The switch operating hub pocket shall include a padlockable stainless steel access cover that shall incorporate a hood to protect the padlock shackle from tampering. Stops shall be provided on the switch operating hub to prevent overtravel and thereby guard against damage to the interrupter switch quick make quick break mechanism. Labels to indicate switch position shall be provided in the switch operating hub pocket.~~
4. ~~Each interrupter switch shall be provided with a folding switch operating handle. The switch operating handle shall be secured to the inside of the switch operating hub pocket by a brass chain. The folded handle shall be stored behind the closed switch operating hub access cover.~~
5. ~~Interrupter switches shall utilize a quick make quick break mechanism installed by the switch manufacturer. The quick make quick break mechanism shall be integrally mounted on the switch frame, and shall swiftly and positively open and close the interrupter switch independent of the switch operating hub speed.~~
6. ~~Each interrupter switch shall be completely assembled and adjusted by the switch manufacturer on a single rigid mounting frame. The frame shall be of welded steel construction such that the frame intercepts the leakage path which~~

parallels the open gap of the interrupter switch to positively isolate the load circuit when the interrupter switch is in the open position.

- ~~7. Interrupter switch contacts shall be backed up by stainless steel springs to provide constant high contact pressure.~~
- ~~8. Interrupter switches shall be provided with a single blade per phase for circuit closing including fault closing, continuous current carrying, and circuit interrupting. Springloaded auxiliary blades shall not be permitted. Interrupter switch blade supports shall be permanently molded in place in a unified insulated shaft constructed of the same cycloaliphatic epoxy resin as the insulators.~~
- ~~9. Circuit interruption shall be accomplished by use of an interrupter which is positively and inherently sequenced with the blade position. It shall not be possible for the blade and interrupter to get out of sequence. Circuit interruption shall take place completely within the interrupter, with no external arc or flame. Any exhaust shall be vented in a controlled manner through a deionizing vent.~~
- ~~10. Key interlocks shall be provided to guard against opening the door(s) of fuse-termination compartment(s) unless all switches are locked open.~~

~~B. Solid Material Power Fuses~~

- ~~1. Fuses shall be solid material power fuses, and shall utilize refill unit and holder or fuse unit and end fitting construction. The refill unit or fuse unit shall be readily replaceable and low in cost.~~
- ~~2. Fusible elements shall be nonaging and nondamageable so that it is unnecessary to replace unblown companion fuses on suspicion of damage following a fuse operation.~~
- ~~3. Fusible elements for refill units or fuse units rated 10 amperes or larger shall be helically coiled to avoid mechanical damage due to stresses from current surges.~~
- ~~4. Fusible elements, that carry continuous current, shall be supported in air to help prevent damage from current surges.~~
- ~~5. Each refill unit or fuse unit shall have a single fusible element to eliminate the possibility of unequal current sharing in parallel current paths.~~
- ~~6. Solid material power fuses shall have melting time current characteristics that are permanently accurate to within a maximum total tolerance of 10% in terms of current. Time current characteristics shall be available which permit coordination with protective relays, automatic circuit reclosers, and other fuses.~~
- ~~7. Solid material power fuses shall be capable of detecting and interrupting all faults whether large, medium, or small (down to minimum melting current), under all realistic conditions of circuitry, with line to line or line to ground voltage across the fuse, and shall be capable of handling the full range of transient recovery voltage severity associated with these faults.~~
- ~~8. All arcing accompanying operation of solid material power fuses shall be contained within the fuse, and all arc products and gases evolved shall be effectively contained within the exhaust control device during fuse operation.~~
- ~~9. Solid material power fuses shall be equipped with a blown fuse indicator that shall provide visible evidence of fuse operation while installed in the fuse mounting.~~

~~2.10 LABELING~~

~~A. Hazard Alerting Signs~~

- ~~1. All external doors shall be provided with "Warning Keep Out Hazardous Voltage Inside Can Shock, Burn, or Cause Death" signs.~~
- ~~2. The inside of each door shall be provided with a "Danger Hazardous Voltage Failure to Follow These Instructions Will Likely Cause Shock, Burns, or Death" sign. The text shall further indicate that operating personnel must know and obey the employer's work rules, know the hazards involved, and use proper protective equipment and tools to work on this equipment.~~
- ~~3. (c) Termination compartments shall be provided with "Danger Keep Away Hazardous Voltage Will Shock, Burn, or Cause Death" signs.~~

~~B. Nameplates, Ratings Labels, and Connection Diagrams~~

- ~~1. The outside of each door (or set of double doors) shall be provided with a nameplate indicating the manufacturer's name, catalog number, model number, date of manufacture, and serial number.~~
- ~~2. The inside of each door (or set of double doors) shall be provided with a ratings label indicating the following: voltage ratings; main bus continuous rating; short-circuit ratings (amperes rms symmetrical and Mva three-phase symmetrical at rated nominal voltage); the type of fuse and its maximum ampere rating; and interrupter switch ratings including duty cycle fault closing and short time (momentary, amperes rms asymmetrical and one second, amperes rms symmetrical).~~
- ~~3. A three-line connection diagram showing interrupter switches, fuses, and bus along with the manufacturer's model number shall be provided on the inside of each door (or set of double doors), and on the inside of each switch operating hub access cover.~~

~~C. Accessories (Supply the following:)~~

- ~~1. End fittings or holders, and fuse units, refill units, or interrupting modules and control modules for original installation, as well as one spare fuse unit, refill unit, or interrupting module for each fuse mounting shall be furnished.~~

**2.02 SWITCH CONSTRUCTION**

- A. The switch shall be a dead-front design. The operating mechanism housing shall be stainless steel with a viewing window for verification of vacuum interrupter contact position. The mechanism housing shall be painted ANSI 70 light gray using corrosion-resistant epoxy paint. Operating handles shall be padlockable and adaptable to keylock schemes. The operating shaft shall be stainless steel providing maximum corrosion resistance. A double "O" ring shaft seal shall be used for a leak resistant, long life seal.**
- B. The solid dielectric modules must be coated with a semi-conductive layer of epoxy, providing a completely dead front device. The semi-conductive layer must be tested to IEEE 592 to ensure it can carry fault current to ground so as to ensure operator safety.**

- C. The switch shall be designed for long term operation in the harshest environments. The interrupter design must be tested to IEC60529 and achieve a protection rating of IP68, subjected to a 10' head of water pressure for 7 days.
- D. The switch shall interrupt all load and fault currents within the vacuum bottle.
- E. Each switch mechanism shall consist of three individual vacuum bottle assemblies mechanically linked to a single spring-assisted operating mechanism. Manual opening and closing of each way shall be via an operating handle.
- F. The fault interrupters shall be G&W Trident for 3-phase trip and reset

**2.03 2.3 DESIGN RATINGS**

**A. Switch Ratings SELECTION OF RATINGS = IEEE/IEC**

- 1. Maximum Design Voltage, kV = 15.5
- 2. Impulse Level (BIL) Voltage, kV = 110
- 3. Continuous Current, Amperes = 630
- 4. Load break Current, Amperes = 630
- 5. One Minute Withstand (dry), AC kV = 35
- 6. Production Test Rating = 34
- 7. Momentary Current, kA asymmetrical = 20
- 8. Fault Close Current, kA asymmetrical = 20
- 9. Fault Interrupter rating, kA asymmetrical = 20
- 10. Fault Interrupter rating, kA symmetrical = 12.5
- 11. Mechanical Endurance, Operations = 2000

**B. IEEE C37.60 Fault Interrupting Duty for 12.5kA rated switches**

Percent of Maximum Interrupting Rating	Approximate Interrupting: Current, Amps	No. of Fault: Interruptions
15-20%	2000	44
45-55%	6000	56
90-100%	12500	16
<b>Total Number of Fault Interruptions: 116</b>		

**2.04 CABLE ENTRANCES AND GROUNDING**

- A. Fault interrupters Cable entrances shall be tested to IEEE 386 and be, as indicated on the switch drawing: 15KV 1110kV BIL 600A Dead break Apparatus Bushings per IEEE 386 Figure 11

- B. A copper ground bus bar should provided with holes for NEMA 2-hole pad connections.

**2.05 VOLTAGE INDICATION**

- A. Integral voltage sensing bushings should be included on radial loop ways. External elbow type sensors will not be accepted.
- B. Sensors should be capacitively coupled to allow testing at the assemblies full High Potential testing requirements per IEEE. Resistive type sensors will not be accepted.
- C. Sensor output should be Low Energy Analog.
- D. All sensor outputs should be wired to the control.

**2.06 CURRENT TRANSFORMERS**

- A. All ways should be fault interrupters equipped to receive a trip signal for opening in 3-4 cycles.
- B. Each phase should include integral current transformers molded into the switch to prevent tampering or damage. External current transformers will not be accepted.
- C. Current transformers to be 500:1 ratio
- D. CT secondary to be wired to the control

**2.07 CONTROL POWER**

- A. Power to the control should be provided by one (1) ABB VIL-95 solid dielectric PT
- B. Connections from the switch to the transformer are not included with the switchgear
- C. The PT should be designed for a 12470V Line to line system connected ling to ground
- D. Provision for a future ABB VIL-95 solid dielectric PT should be made in the enclosure

**2.08 PAD MOUNT ENCLOSURE**

- A. The enclosure shall be fabricated of 12 gauge galvanized steel and manufactured to ANSI C37.72 and C57.12.28 standards. The enclosure shall be tamper resistant incorporating hinged access doors with pentahead locking bolts and provisions for padlocking. The enclosure shall be provided with lifting provisions and painted with a Munsell 7.0GY3.29/1.5 green finish.

**2.09 FACTORY PRODUCTION TESTS**

- A. Each interrupter shall undergo the following production testing. Test reports must be available upon request
- B. A mechanical operation check

- C. AC hi-pot tested one minute phase-to-phase, phase-to-ground and across the open contacts
- D. Circuit resistance shall be checked.
- E. Each solid dielectric module shall undergo an X-ray inspection and a partial discharge test to ensure void-free construction.
- F. Leak test to insure the integrity of all seals and gaskets
- G. Primary current injection test to test CTs, trip mechanism, and electronic control

**2.10 STANDARD COMPONENTS**

- A. The following shall be included as standard:
- B. Welded stainless steel mechanism housing painted light gray with stainless steel and brass fasteners.
- C. Lifting provisions
- D. 1/2"-13 nuts to provide sufficient grounding provisions for interrupter and all cable entrances.
- E. Stainless steel three line diagram and corrosion-resistant nameplates.
- F. Switch operating handle with padlock provision.
- G. Removable parking stands
- H. Mounting bracket
- I. Operating handle

**2.11 2.12 LABELING**

- A. A. Hazard Alerting Signs
  - 1. The exterior of the pad mount enclosure (if furnished) shall be provided with "Warning--Keep Out--Hazardous Voltage Inside--Can Shock, Burn, or Cause Death" signs. Each unit of switchgear shall be provided with a "Danger--Hazardous Voltage--Failure to Follow These Instructions Will Likely Cause Shock, Burn, or Death" sign. The text shall further indicate that operating personnel must know and obey the employer's work rules, know the hazards involved, and use proper protective equipment and tools to work on this equipment. Each unit of switchgear shall be provided with a "Danger--Keep Away--Hazardous Voltage--Will Shock, Burn, or Cause Death" sign.
- B. Nameplates, Ratings Labels, and Connection Diagrams
  - 1. Each unit of switchgear shall be provided with a nameplate indicating the manufacturer's name, catalog number, model number, date of manufacture, and serial number. Each unit of switchgear shall be provided with a ratings label indicating the following: voltage rating; main bus continuous rating; short-circuit rating; fault interrupter ratings including interrupting and duty-cycle fault-closing; and fault interrupter switch ratings including duty-cycle fault-closing and short-time. <sup>A2</sup>

**PART 3 EXECUTION**

3.01 EXAMINATION

- A. Examine switchgear to provide adequate clearances for installation.
- B. Check that concrete pads are level and free of irregularities.
- C. Begin work only after unsatisfactory conditions are corrected.

3.02 INSTALLATION

- A. Install switchboard in location shown on Drawings, in accordance with manufacturer's written instructions. Anchor to resist seismic forces as indicated on Drawings and in accordance with Title 24 anchorage requirements. Provide all testing and inspections requirements by inspecting authority.
- B. Tighten accessible bus connection and mechanical fasteners after placing switchgear.

3.03 FIELD QUALITY CONTROL

- A. Obtain the services of an independent testing company who shall provide quality control and adjustments as well as tests.
- B. Inspect complete installation for physical damage, proper alignment, anchorage and grounding prior to energizing.
- C. Check tightness of accessible bolted bus joints using a calibrated torque wrench per manufacturer's specifications.
- D. Physically test key interlock systems to check for proper functionality.

3.04 ADJUSTING

- A. Adjust all operating mechanisms for free mechanical movement per manufacturer's specifications.
- B. Tighten bolted bus connections in accordance with manufacturer's instructions.

3.05 CLEANING

- A. Touch up scratched or marred surfaces to match original finish

**END OF SECTION**





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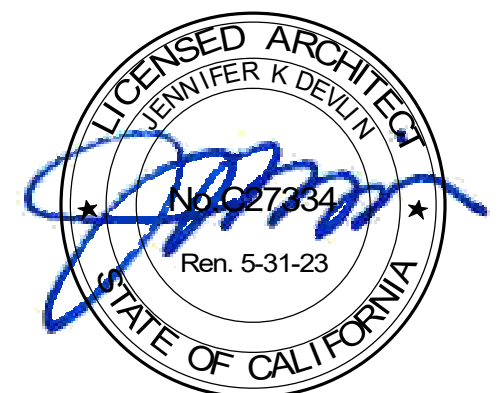


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2	A	Addendum 2	04.13.2022

Scale As indicated

Drawn by Author

EHDD Job Number 20020

Sheet Title

CODE SIGNAGE

Sheet Number

# G0.11

**4 TYPICAL SIGNAGE AT BUILDING ACCESSIBLE ENTRY**  
G0.11/ 3'-1'-0"

APPLICABLE CODE: CBC 11B-216.6, 11B-703.7.2.1

**10 FACP & FIRE RISER SIGNAGE**  
G0.11/ 3'-1'-0"

APPLICABLE CODE: CFC 509.1, CBC 914.2, 11B-216.3, 11B-703.5

**3 ROOM NUMBER/NAME SIGNAGE**  
G0.11/ 3'-1'-0"

APPLICABLE CODE: CBC 11B-216.3, 11B-703.1-5

**9 FACP & FIRE RISER SIGNAGE**  
G0.11/ 3'-1'-0"

APPLICABLE CODE: CFC 509.1, CBC 914.2, 11B-216.3, 11B-703.5

**2 MEANS OF EGRESS SIGNAGE**  
G0.11/ 3'-1'-0"

APPLICABLE CODE: CBC 1013.4, 11B-703.1-3, 703.5

**8 OCCUPANT LOAD SIGNAGE**  
G0.11/ 3'-1'-0"

APPLICABLE CODE: CBC 1004.3, 11B-216.3, 11B-703.5

**1 BACK OF HOUSE ROOM NUMBER/NAME SIGNAGE**  
G0.11/ 3'-1'-0"

APPLICABLE CODE: CBC 914.2, 11B-216.2, 11B-703.1-5

**7 ASSISTIVE LISTENING SYSTEM SIGNAGE**  
G0.11/ 3'-1'-0"

APPLICABLE CODE: CBC 11B-216.10, 11B-703.5, 11B-703.7.2.4

- GENERAL NOTES**
- SIGNAGE TO BE PROVIDED AT ALL LOCATIONS REQUIRED BY CODE, AND SHALL BE ACCESSIBLE AS REQUIRED BY 2019 CBC 11B-216 AND 11B-703.
  - CBC 11B-703.5.1 FINISH AND CONTRAST: CHARACTERS, SYMBOLS AND THEIR BACKGROUND SHALL HAVE A NONGLARE FINISH. CHARACTERS AND SYMBOLS SHALL CONTRAST WITH THEIR BACKGROUND, EITHER LIGHT ON A DARK BACKGROUND OR DARK ON A LIGHT BACKGROUND.
  - CBC 11B-703.2 RAISED CHARACTERS: 1/32" RAISED LETTERING AND GRAPHICS, WHERE NOTED. LETTERING TO BE SANS SERIF FONT (SEE SPECIFICATIONS) AND UPPERCASE WITH A HEIGHT MINIMUM OF 5/8" AND MAXIMUM 2". UON. CHARACTER PROPORTIONS: WIDTH OF THE LETTER "O" IS 50% MINIMUM AND 110% MAXIMUM OF THE HEIGHT OF THE LETTER "I". STROKE THICKNESS OF THE LETTER "I" SHALL BE 15% MAXIMUM OF THE HEIGHT OF THE CHARACTER. LINE SPACING: SPACING BETWEEN THE BASELINES OF SEPARATE LINES OF RAISED CHARACTERS WITHIN A MESSAGE SHALL BE 135 PERCENT MINIMUM AND 170 PERCENT MAXIMUM OF THE RAISED CHARACTER HEIGHT.
  - CBC 11B-703.3 BRAILLE: RAISED CHARACTERS SHALL BE DUPLICATED IN BRAILLE. BRAILLE TO BE CONTRACTED (GRADE 2), INTEGRAL WITH SIGN. LOCATE BELOW THE CORRESPONDING TEXT. FLUSH LEFT OR CENTERED. IF TEXT IS MULTILINE BRAILLE SHALL BE PLACED BELOW THE ENTIRE TEXT. BRAILLE SHALL BE SEPARATED 3/8" MINIMUM AND 1/2" MAXIMUM FROM ANY OTHER TACTILE CHARACTERS AND 3/8" MINIMUM FROM RAISED BORDERS AND DECORATIVE ELEMENTS. (EXCEPTION: ELEVATOR CONTROLS PER 11B-703.3.2)
  - SIGNS TO RECEIVE VINYL FOAM TAPE FOR TEMPORARY PLACEMENT, AND SILICONE ADHESIVE SPREAD OVER FULL CONTACT AREA FOR FINAL PLACEMENT, UON.
  - FOR TYPICAL MOUNTING HEIGHTS NOT NOTED ON THIS SHEET, SEE G0.12. MOUNTING HEIGHTS TO COMPLY WITH 2019 CBC.
  - SIGNS SHALL BE FIELD-INSPECTED PER CBC 11B-703.1.1.2

**15 DELAYED EGRESS DOOR SIGN**  
G0.11/ 3'-1'-0"

APPLICABLE CODE: CBC 1010.1, 9.8.1-6, 11B-703.2, 11B-703.3, 11B-703.5

**14 TYP SINGLE OCCUPANCY RESTROOM DOOR SIGNAGE**  
G0.11/ 3'-1'-0"

APPLICABLE CODE: CBC 11B-216.8, 11B-703.7.2.6

**13 TYP RESTROOM WALL SIGNAGE**  
G0.11/ 3'-1'-0"

APPLICABLE CODE: CBC 11B-216.8, 11B-703.1-5, 11B-703.7.2.1

**20 BUILDING ENTRY SIGNAGE**  
G0.11/ SCALE: 1/2" = 1'-0"

**18 BUILDING IDENTIFICATION ANCHORAGE DETAIL**  
G0.11/ SCALE: 3" = 1'-0"

**17 BUILDING IDENTIFICATION**  
G0.11/ SCALE: 1" = 1'-0"



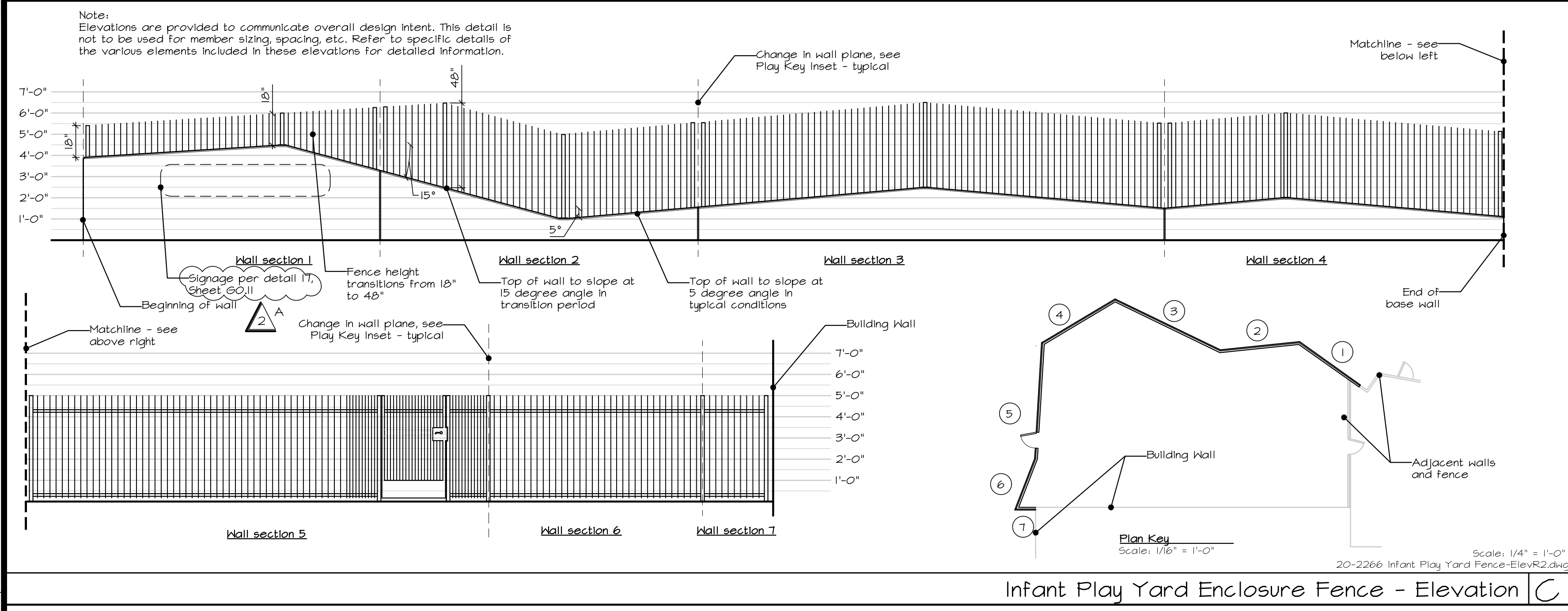
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2 A Addendum 2	04.13.2022

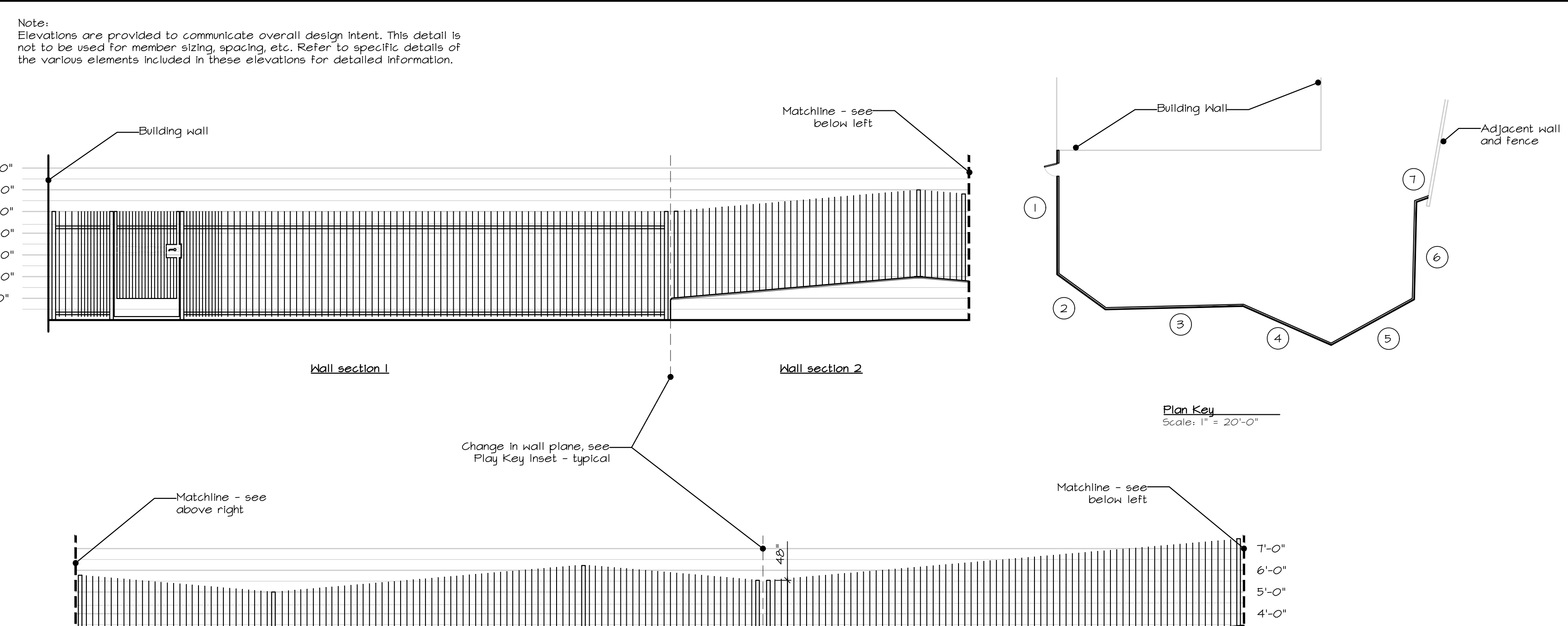
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MBH  
EHDD Job Number  
KLA 20-2266

Sheet Title  
**Construction Details**

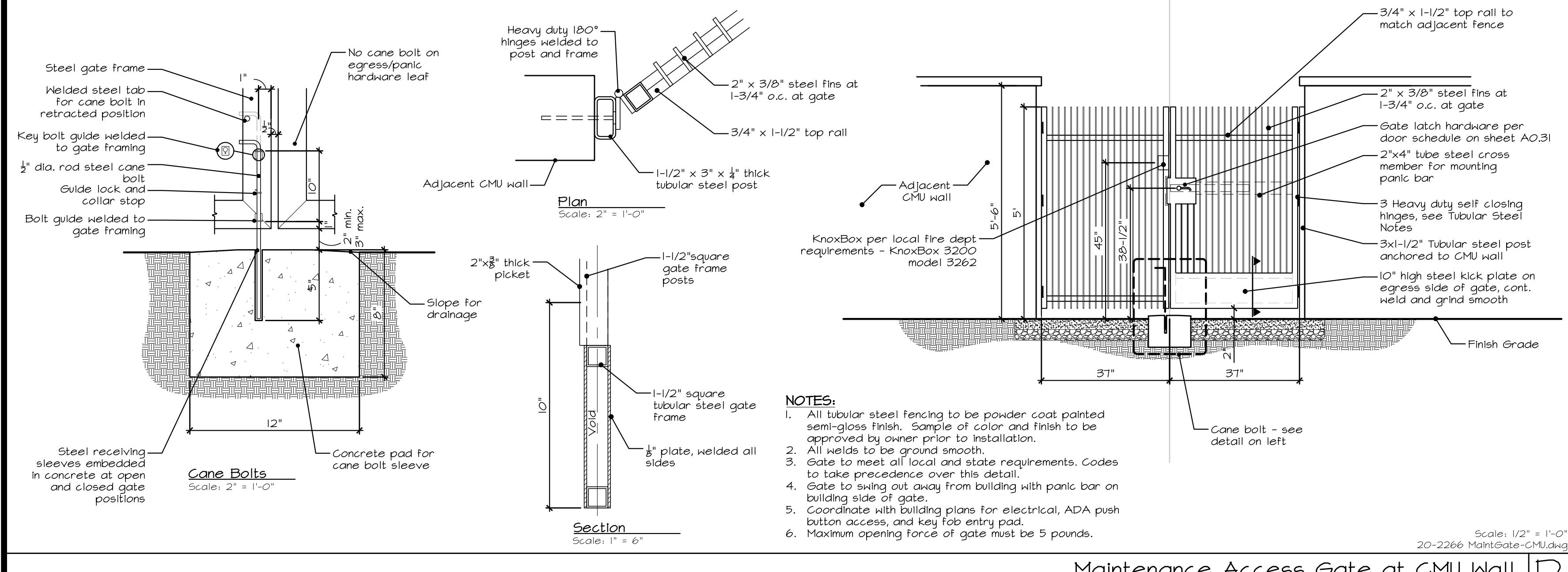
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**L2.3**



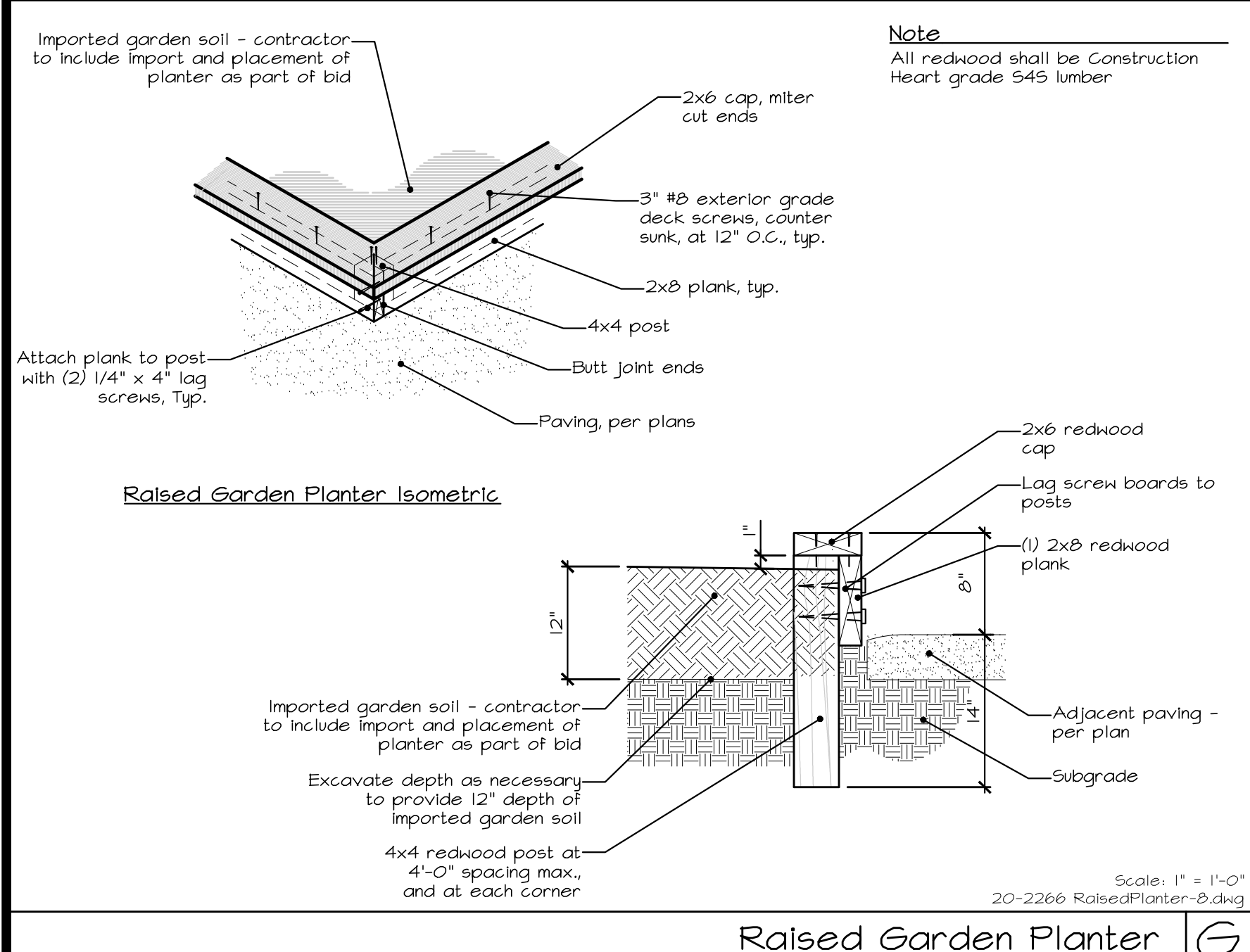
Infant Play Yard Enclosure Fence - Elevation C



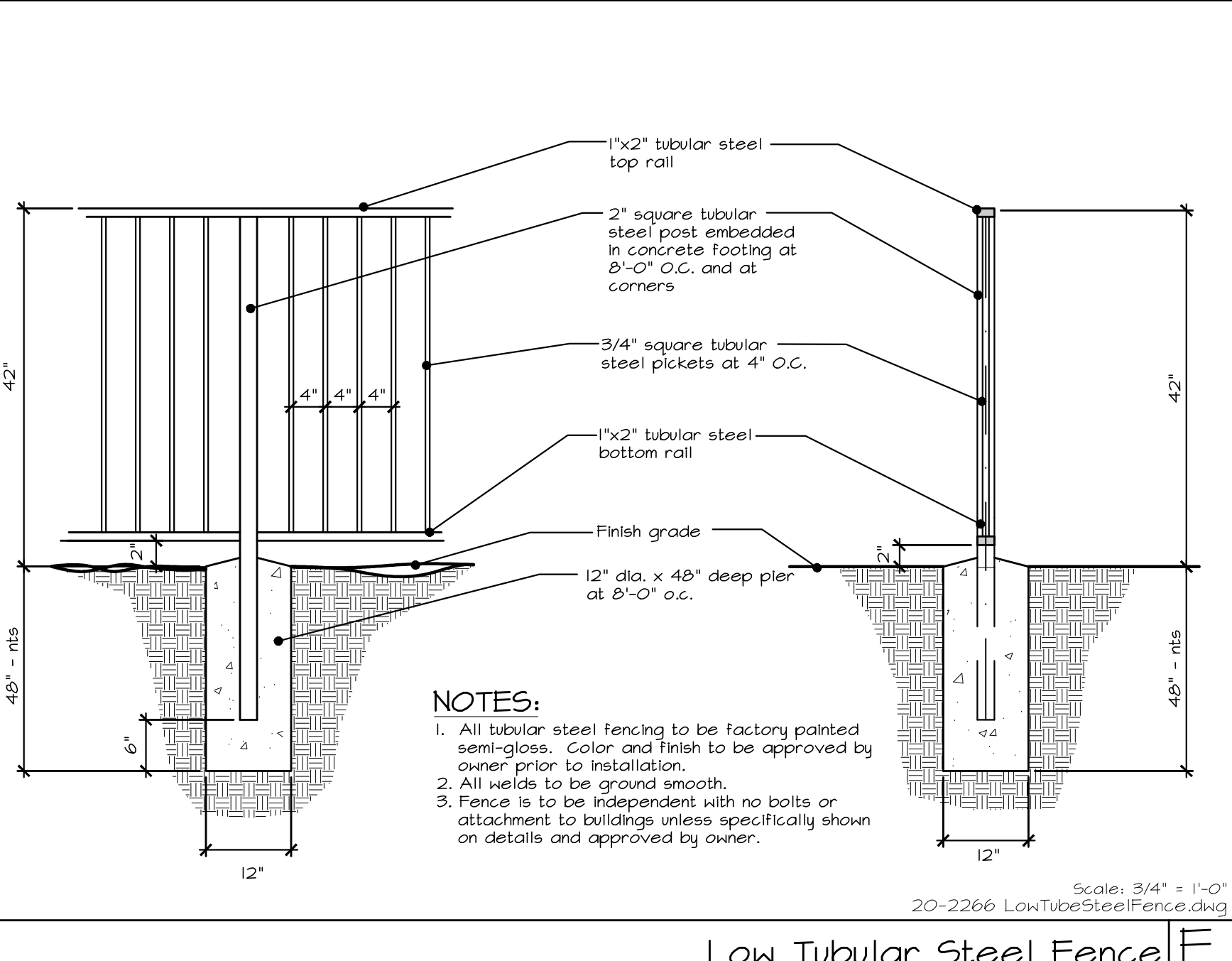
Preschool Play Yard Fence-Elev A



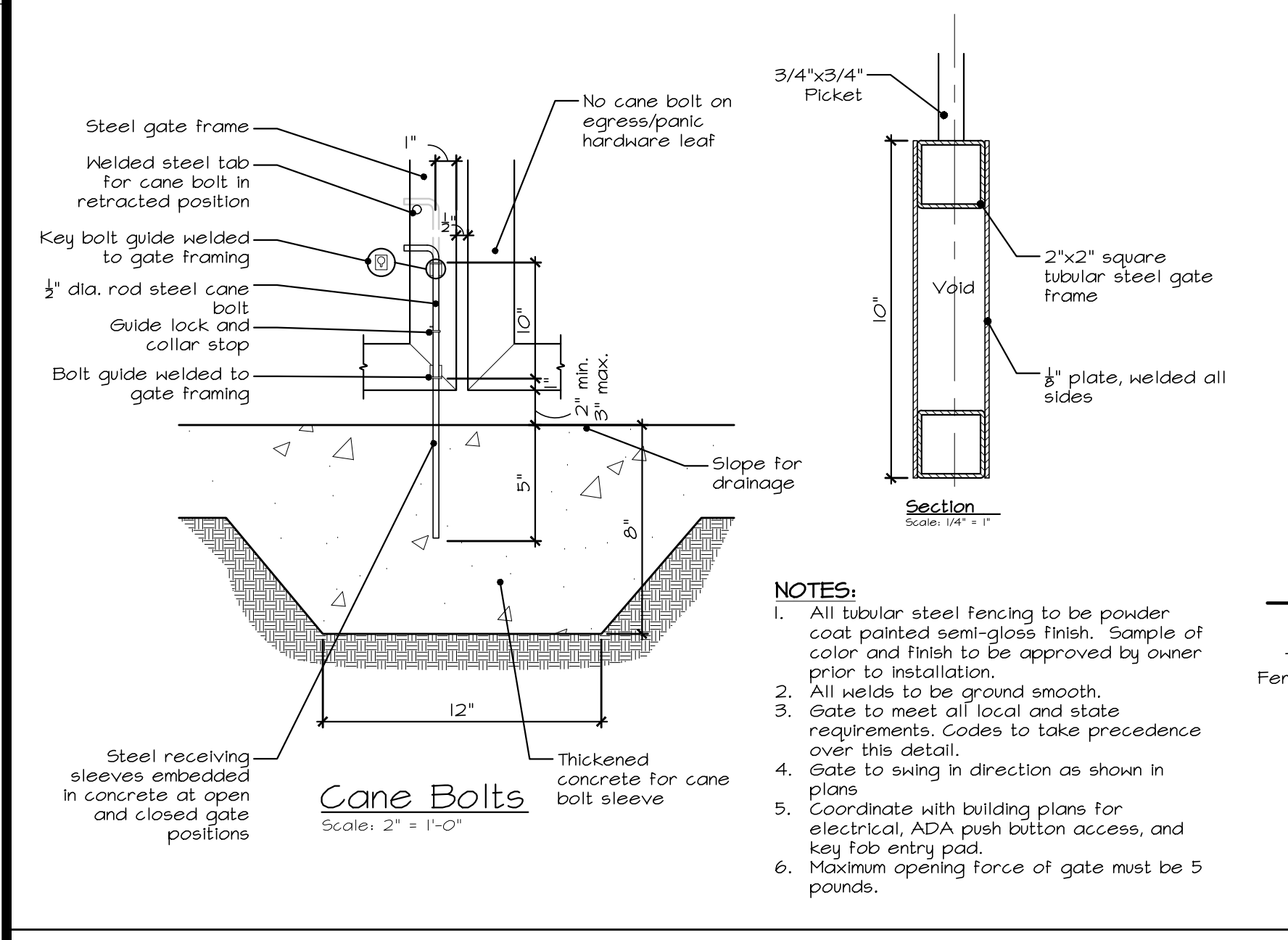
Maintenance Access Gate at CMU Wall D



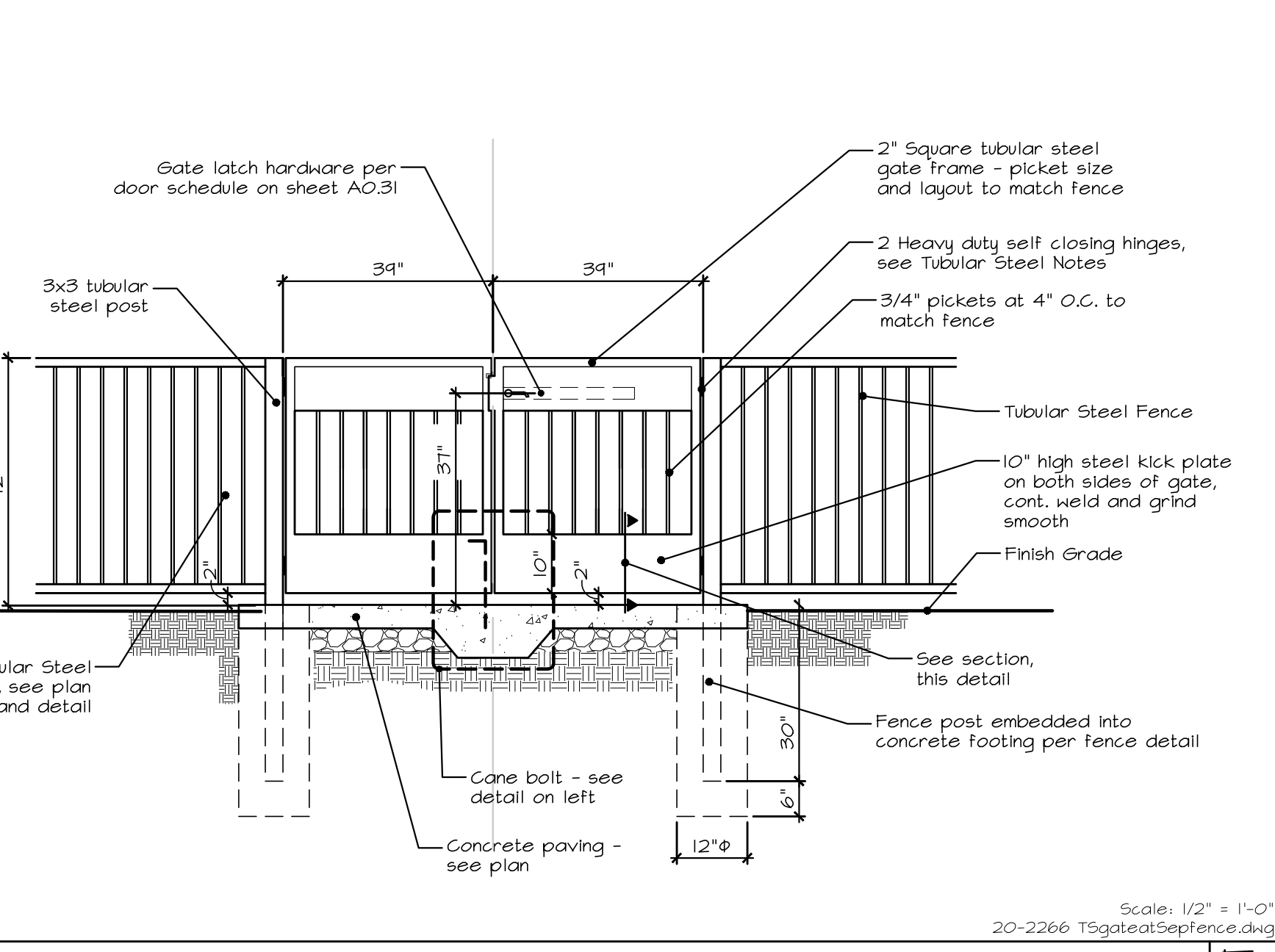
Raised Garden Planter G



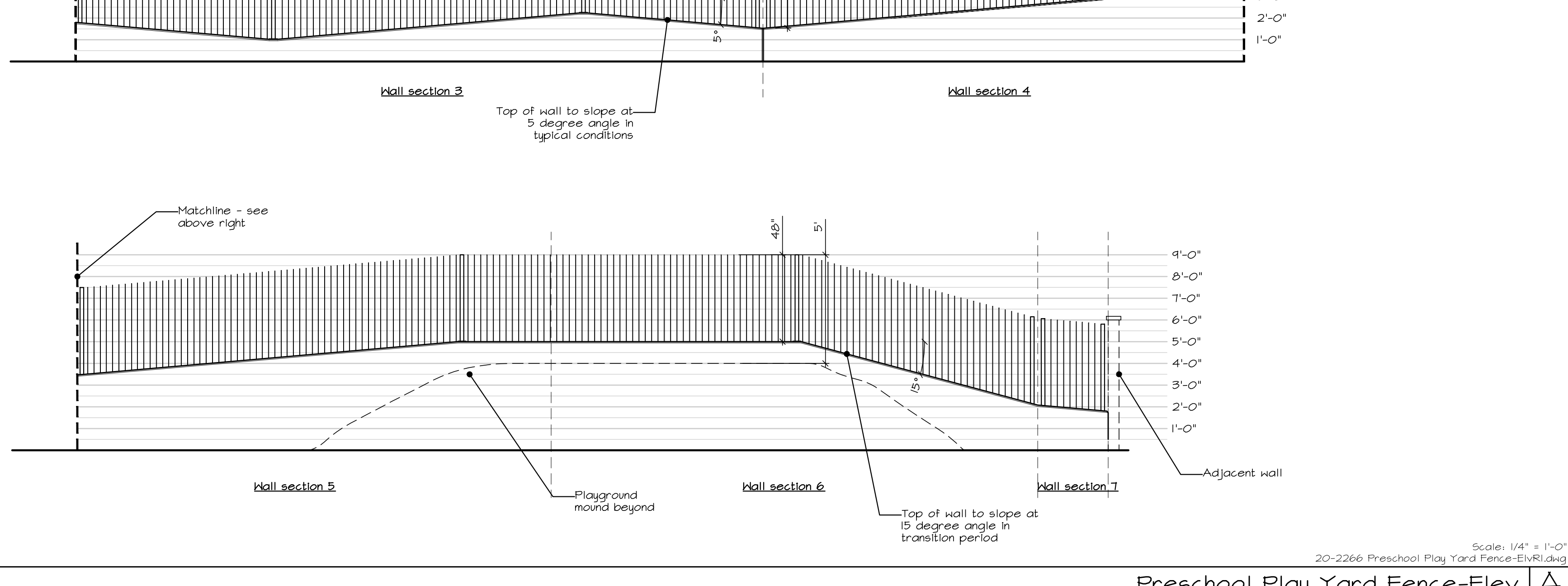
Low Tubular Steel Fence E



Cane Bolts



Tube Steel Double Leaf Pedestrian Gate at Separation Fence F



Toddler Play Yard Enclosure Fence - Elevation B



### FINISH PLAN SHEET NOTES

- USE PAINT PT-1 ON ALL GYPSUM SURFACES THROUGHOUT, TYP UON.
- CONTINUE SPECIFIED FLOORING MATERIALS BENEATH CASEWORK, TYP UON.
- PROVIDE WALL BASE RB-1 AT ALL GYPSUM BOARD WALLS, TYP UON.
- SEE A5 SERIES INTERIOR ELEVATIONS FOR ADDITIONAL FINISH INFORMATION.
- SEE DOOR SCHEDULE FOR THRESHOLDS AND FLOOR TRANSITIONS AT DOORS.

### FINISH PLAN LEGEND

- FINISH TYPE
- FINISH TAG
- FINISH NUMBER
- SHEET NUMBER
- SIGNAGE TAG
- DETAIL NUMBER
- CARPET DIRECTION
- CHANGE IN FLOOR FINISH
- CUSTOM FLOOR PATTERN SEE DETAIL (17) A9.41
- FLOOR TILE

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2 A Addendum 2	04.13.2022

**1 FINISH PLAN**  
A2.21 SCALE: 1/8" = 1'-0"

FINISH TAG	DESCRIPTION	MANUFACTURER	PRODUCT	COLOR	SIZE	INSTALLATION NOTES	LOCATION
AWP-1	ACOUSTIC WALL PANEL	FSORB	1/2" ACOUSTIC PANEL	GREY FS-160	48" X 96" X 1/2"	FULL WALL WHERE IT OCCURS.	
CON-1	SEALED CONCRETE	TBD					
CPT-1	CARPET TILE	SHAW CONTRACT	SHELTER TILE ST240	MINT 38327	9' X 36"	INSTALL ASHLAR. EDGES AND CORNERS TO BE INSTALLED USING MFR STANDARD VINYL TRIM.	
FRP-1	FIBER REINFORCED PLASTIC	MARLITE	STANDARD FRP, SMOOTH	S 100G WHITE	FULL PANEL	INSTALL WITH COORDINATING COVE BASE AND TRIM PIECES AS REQD. GROUT COLOR #335 WINTER GRAY	CUST. 125 AT SINGLE ALL GENDER 123A & ALL GENDER 123B
FT-1	FLOOR TILE	DALTILE	KEYSTONES	DESERT GRAY SPECKLE D200	2" X 2"	GROUT COLOR #335 WINTER GRAY	TOILETS 109 & 117
FT-2	FLOOR TILE	DALTILE	KEYSTONES RANDOM PATTERN	50% DESERT GRAY D014, 25% SPA D148, 25% MINT ICE D152	1" X 1" (12" X 12" SHEET)	SURFACE MOUNTED CEILING TRACK.	
PC-1	PRIVACY CURTAIN	MAHARAM	PROSE 511503	SCENIC 002	72" WIDTH		
PL-1	PLASTIC LAMINATE	FORMICA	HDPL	FOSSIL 5349-58			
PT-1	GENERAL WHITE PAINT	BENJAMIN MOORE	PAINT	SOFT CHAMOIS OC-13		SEMI-GLOSS FINISH THROUGHOUT, UON.	TYPICAL WHITE PAINT THROUGHOUT.
PT-2	ACCENT PAINT	BENJAMIN MOORE	PAINT	CASTLE WALLS 1573		SEMI-GLOSS FINISH THROUGHOUT, UON.	ACCENT PAINT WHERE SPECIFIED.
PT-4	METAL PAINT COLOR	AS SPECIFIED	PAINT	MATCH KAWNEER PERMAFLUOR "CHARCOAL"			ON METAL MATERIALS WHERE SPECIFIED.
PT-5	ACRYLIC FINISH ON CEMENT PLASTER	AS SPECIFIED	CEMENT PLASTER	MATCH BENJAMIN MOORE 1598 SILVER LAKE			
PT-6	ACRYLIC FINISH ON CEMENT PLASTER	AS SPECIFIED	CEMENT PLASTER	MATCH BENJAMIN MOORE 1616 STORMY SKY			
RB-1	RESILIENT BASE	MANNINGTON	TYPE TS	603 ASH	4" BASE	TYPICAL BASE THROUGHOUT, UON. ROLLED GOODS. STRAIGHT BASE AT CARPET. COVE BASE AT RESILIENT FLOOR.	
RF-1	RESILIENT FLOORING	NORA FLOORING	NORAMENT SATURA	5114 CIRCINUS	40" X 40" X 3.5 MM	BRICK INSTALL, UON, SEE CUSTOM PATTERN LAYOUT	
RF-2	RESILIENT FLOORING	NORA FLOORING	NORAMENT SATURA	511 CASTOR	40" X 40" X 3.5 MM		
SS-1	SOLID SURFACE	FORMICA	SIGNATURES	WHITE RENEW	1/2" THK		
SS-2	SOLID SURFACE	FORMICA	EVERFORM	SEA GLASS 505	1/2" THK		
WD-1	WOOD	N/A, MATCH ARCHITECTS SAMPLE	EUROPLY CORE / PREMIUM VENEER CORE	SLIP MATCHED, PLAIN SLICED MAPLE, TRANSPARENT FINISH	3/4" THK		
WD-2	PERFORATED PLYWOOD PANELS	N/A, MATCH ARCHITECTS SAMPLE	EUROPLY CORE / PREMIUM VENEER CORE	SLIP MATCHED, PLAIN SLICED MAPLE, TRANSPARENT FINISH	3/4" THK	PANEL SIZES PER ELEVATIONS	
WT-1	WALL TILE	DALTILE	COLOR WHEEL CLASSICS LINEAR	ARCTIC WHITE 0790 - MATTE	2" X 8"	GROUT COLOR #335 WINTER GRAY. PATTERN STACKED ON SHORT END. SEE RESTROOM ELEVATIONS.	AT SINGLE ALL GENDER 123A & ALL GENDER 123B
WT-2	WALL TILE	DALTILE	KEYSTONES RANDOM PATTERN	50% DESERT GRAY D014, 25% SPA D148, 25% MINT ICE D152	1" X 1" (12" X 12" SHEET)	GROUT COLOR #335 WINTER GRAY	TOILETS 109 & 117
WT-3	WALL TILE	DALTILE	COLOR WHEEL CLASSICS MOSAIC	ARCTIC WHITE 0790 - MATTE	1" X 3" LATTICE (12" X 12" SHEET)	GROUT COLOR #335 WINTER GRAY	AT STAFF KITCHEN 120

Scale  
1/8" = 1'-0"  
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Author  
EHDD Job Number  
20020

**SIGNAGE PLAN & FINISH PLAN AND SCHEDULE**

Sheet Number

**A2.21**

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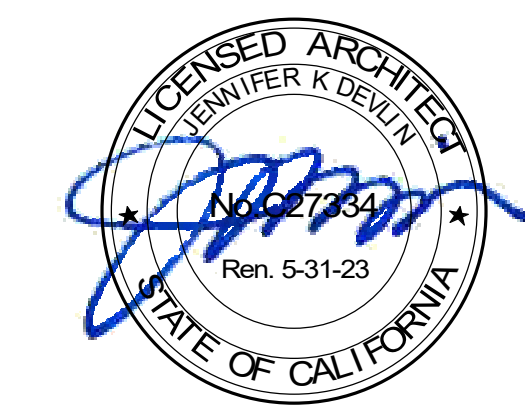


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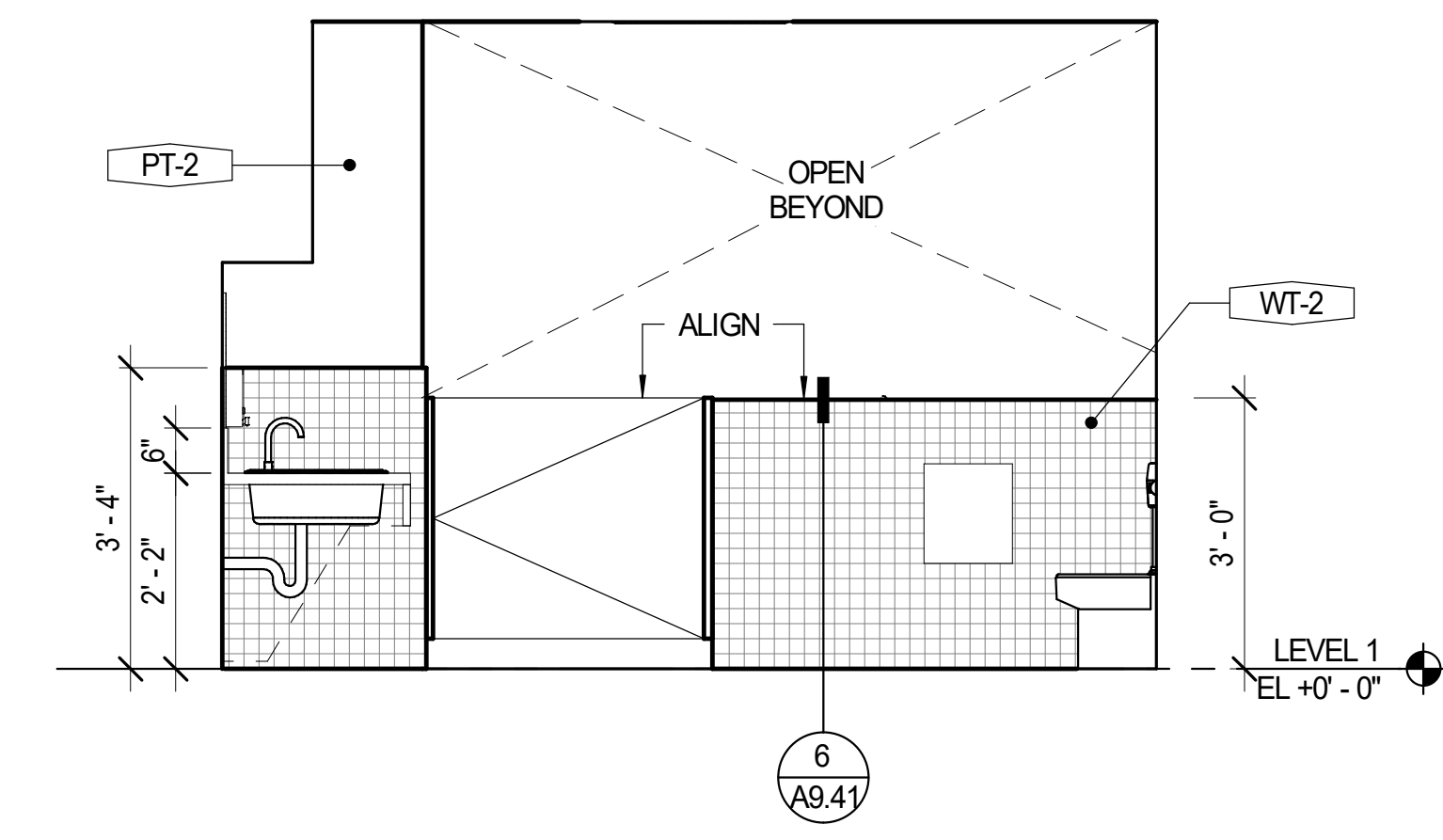
2	A	Addendum 2	04.13.2022
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Author  
EHDD Job Number  
20020

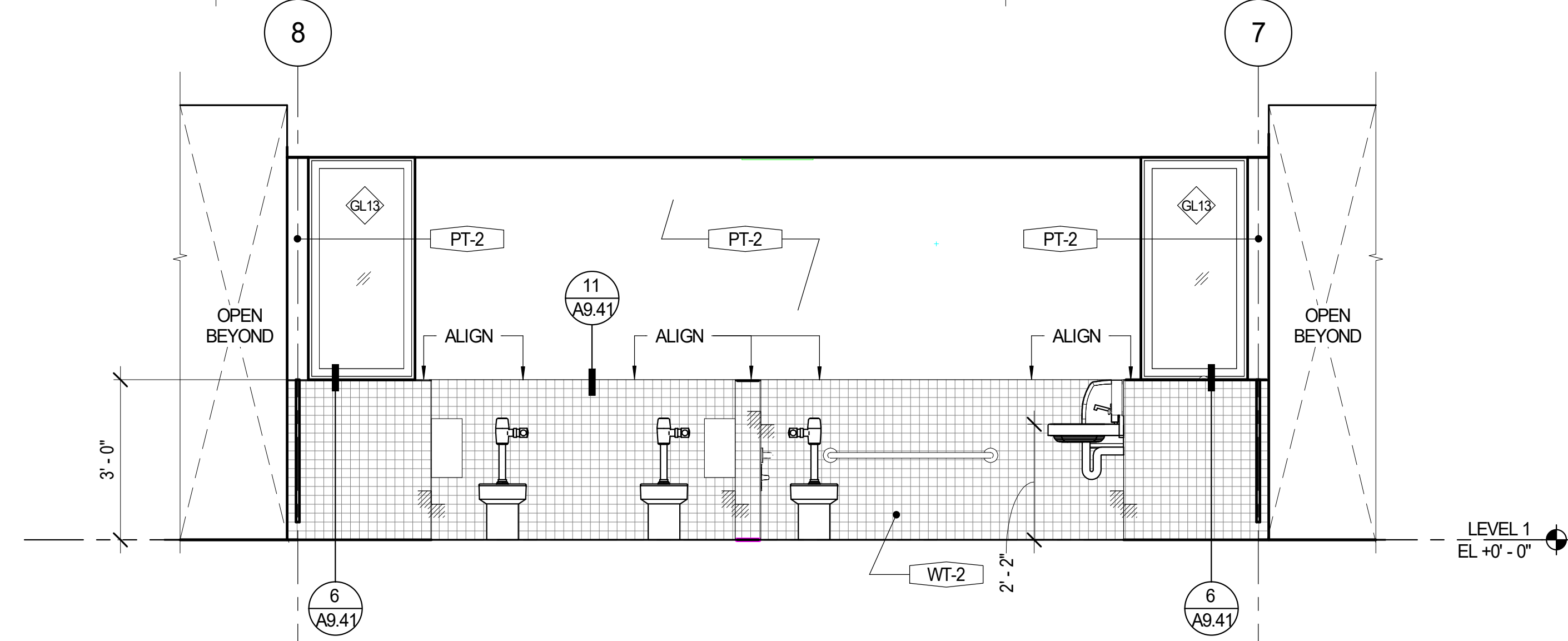
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**ENLARGED RESTROOM PLANS AND ELEVATIONS**

Sheet Number

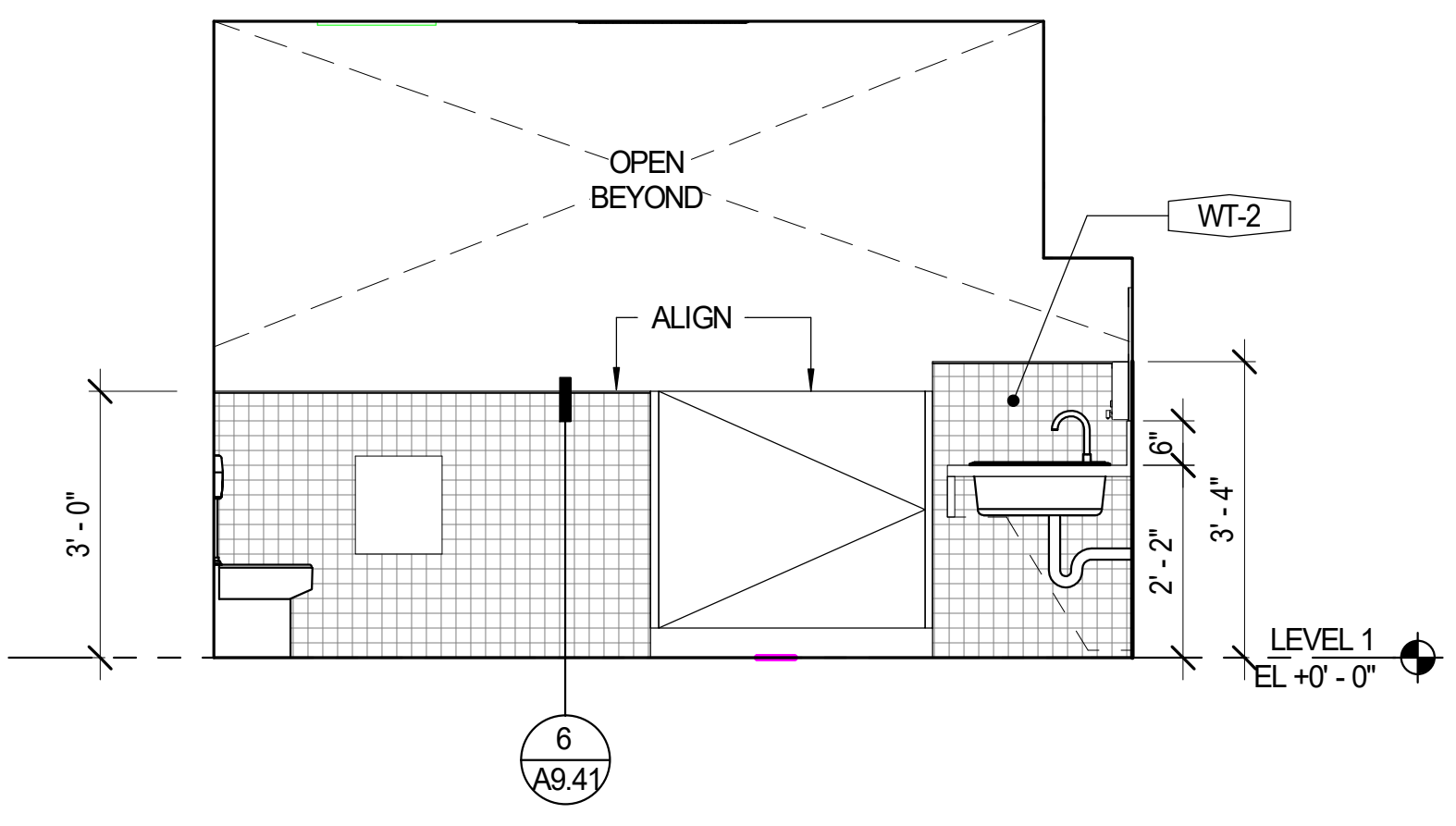
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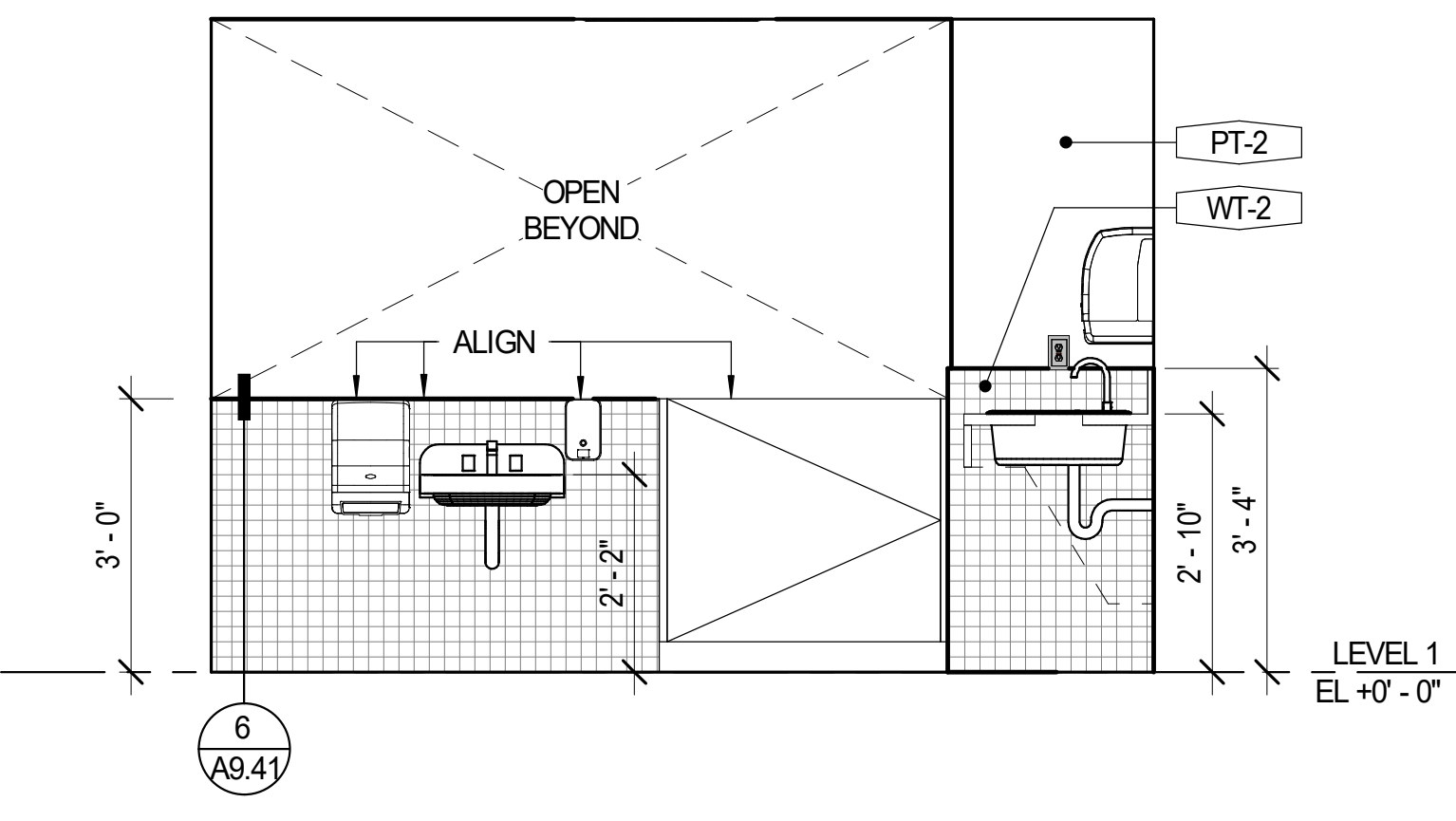
6 TOILET 108 - EAST (1)  
A4.01 SCALE: 1/2" = 1'-0"



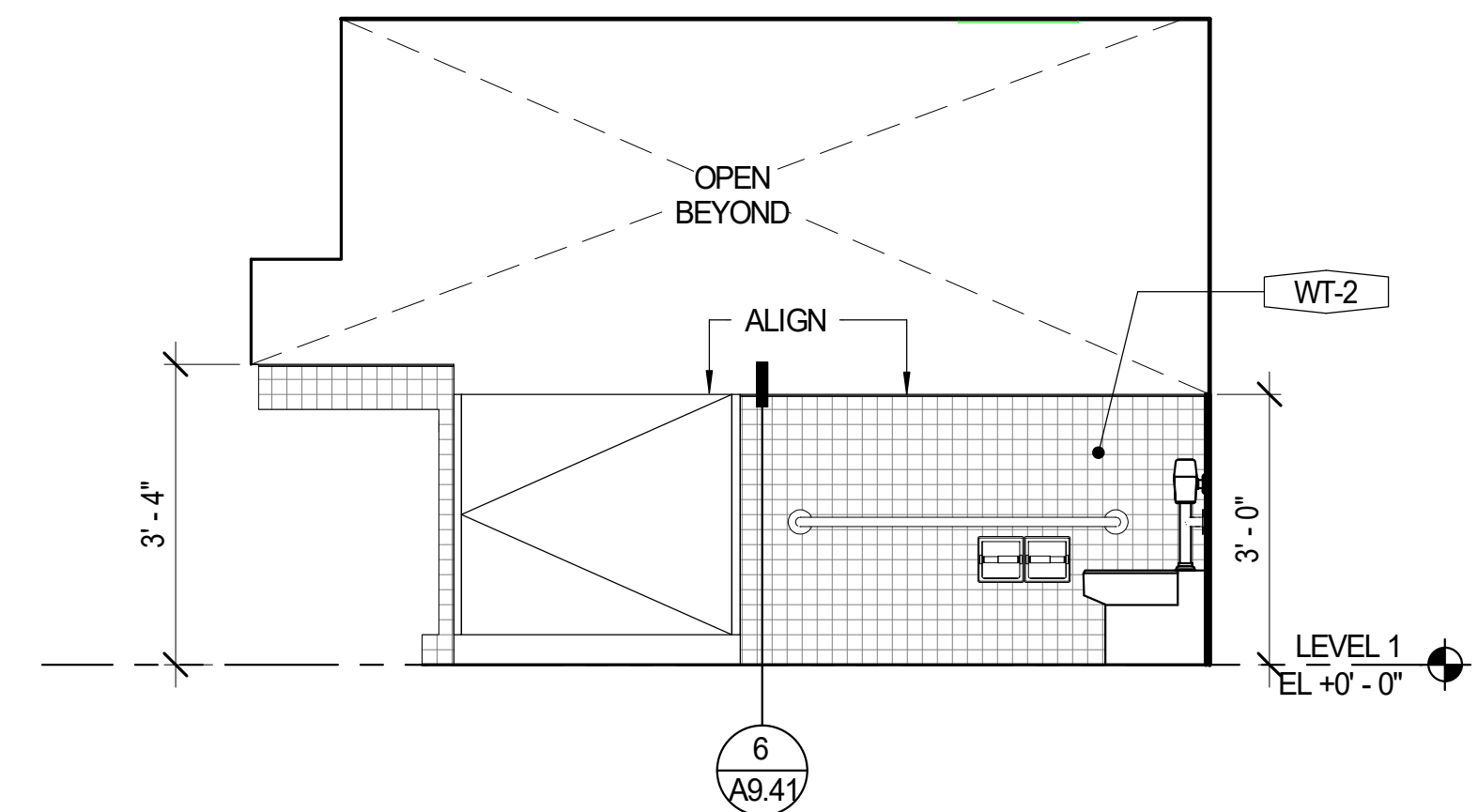
7 TOILET 108 - SOUTH  
A4.01 SCALE: 1/2" = 1'-0"



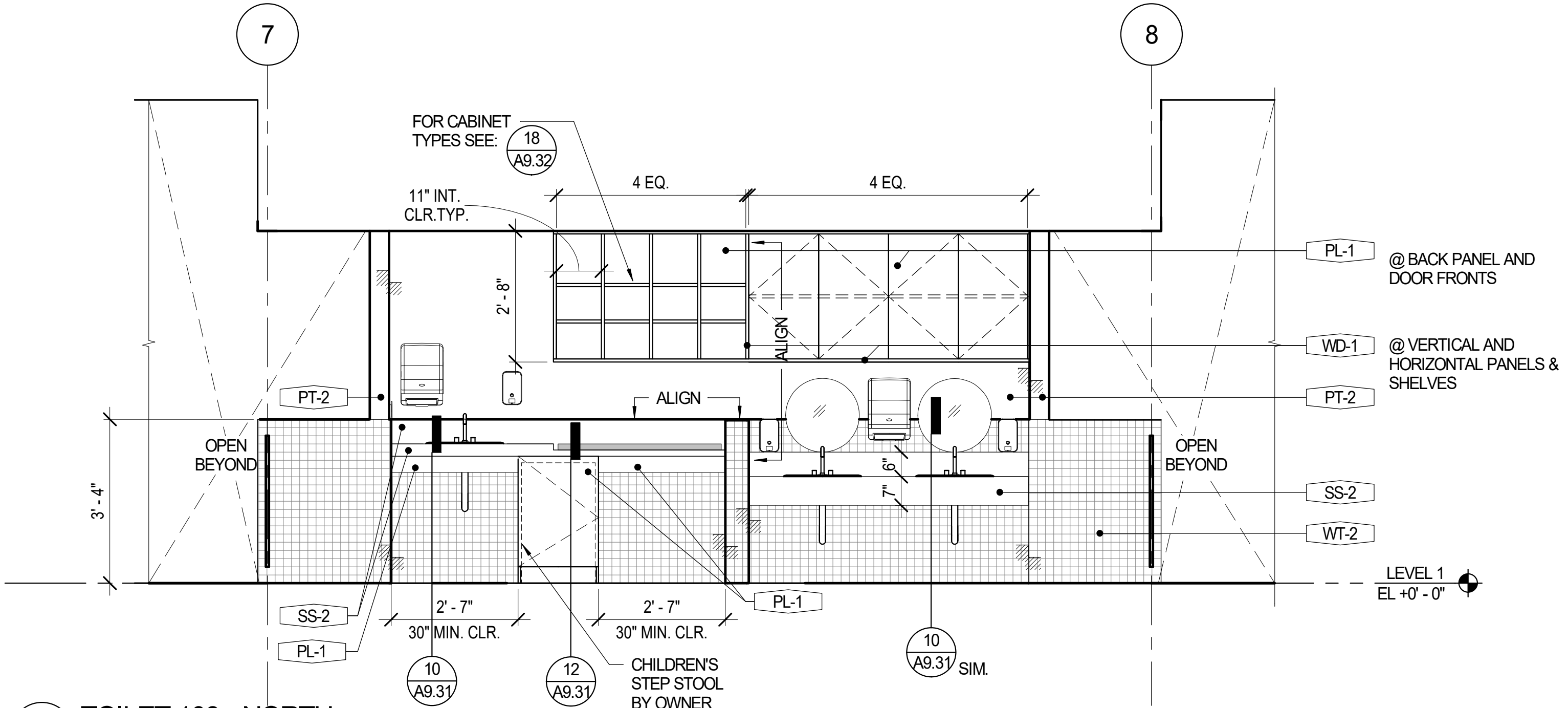
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A4.01 SCALE: 1/2" = 1'-0"



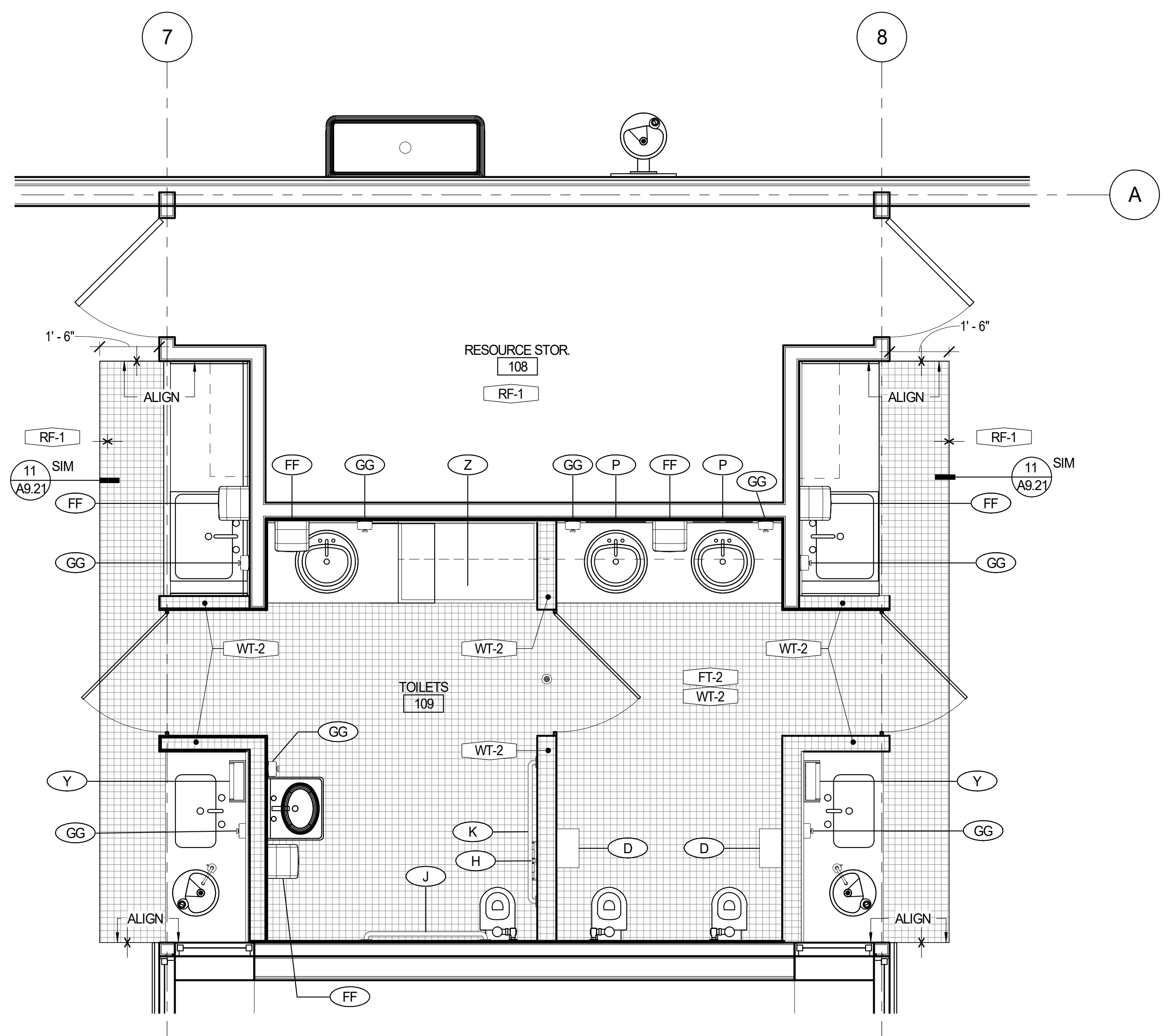
3 TOILET 108 - WEST (2)  
A4.01 SCALE: 1/2" = 1'-0"



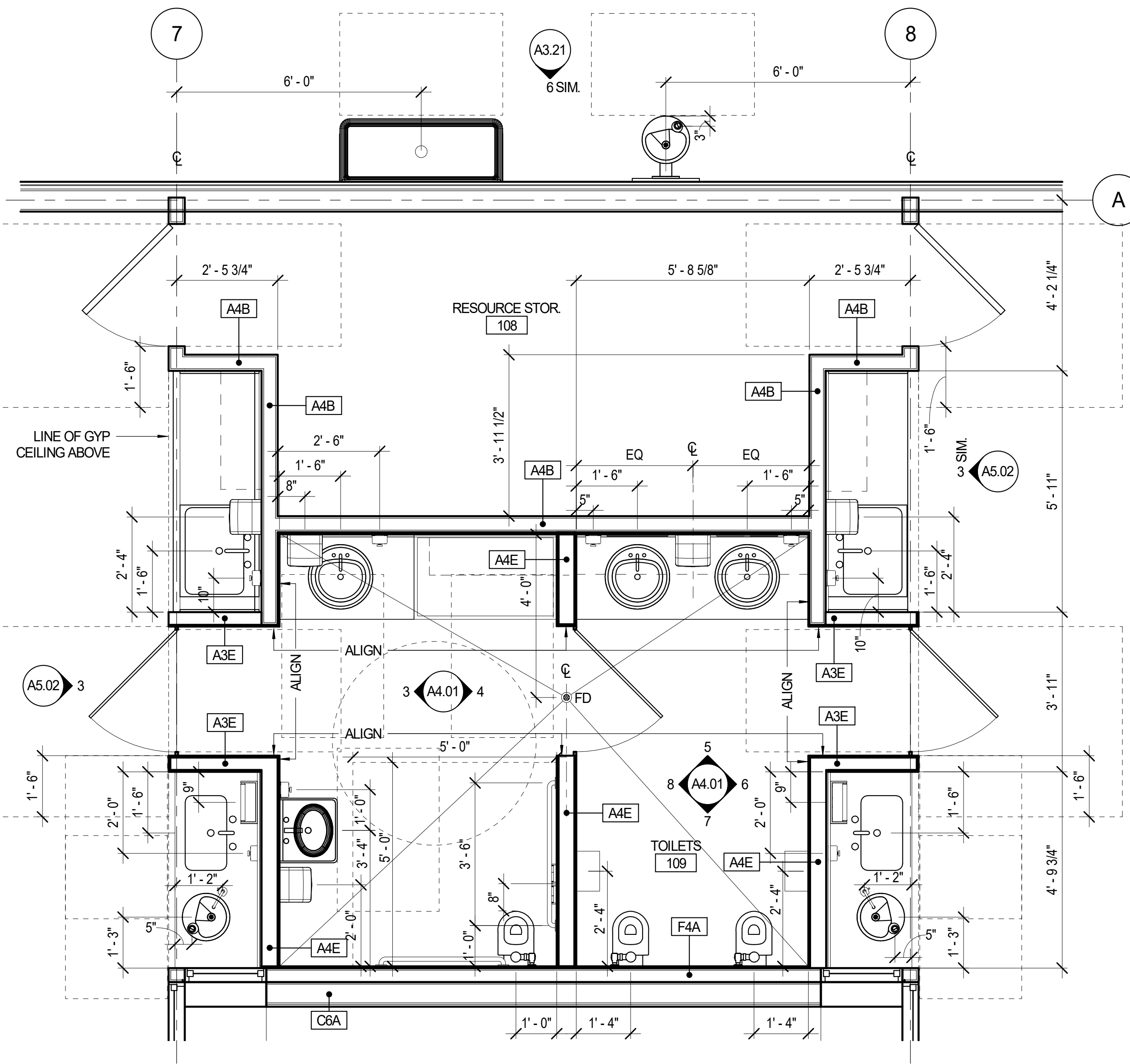
4 TOILET 108 - EAST (2)  
A4.01 SCALE: 1/2" = 1'-0"



5 TOILET 108 - NORTH  
A4.01 SCALE: 1/2" = 1'-0"



1 ENLARGED TOILETS 109 - FINISH AND ACCESSORIES PLAN  
A4.01 SCALE: 1/2" = 1'-0"



2 ENLARGED TOILETS 109 - CODE COMPLIANCE PLAN  
A4.01 SCALE: 1/2" = 1'-0"

**ENLARGED PLAN SHEET NOTES**

- FOR GENERAL NOTES APPLICABLE TO ALL DRAWINGS REFER TO THE "PROJECT GENERAL NOTES".
- FOR TOILET ACCESSORY MOUNTING HEIGHTS SEE G0.12.
- SEE PLUMBING FOR PLUMBING FIXTURE SCHEDULE.
- SEE A0.31 DOOR SCHEDULE FOR SIZES, HARDWARE AND DETAIL REFERENCES.
- USE PAINT PT-1 ON ALL GYPSUM SURFACES THROUGHOUT, TYP UON.
- CONTINUE SPECIFIED FLOORING MATERIALS BENEATH CASEWORK, TYP UON.
- SEE AS SERIES INTERIOR ELEVATIONS FOR ADDITIONAL FINISH INFORMATION.
- SEE A2.21 FOR FINISH SCHEDULE AND SIGNAGE REFERENCES.

GLASS TYPE, 'T' DENOTES TEMPERED GLASS, SEE SPEC SECTION 08 80 00

**TOILET ACCESSORIES SCHEDULE**

TAG	DESCRIPTION	MFR	MODEL
A	SURFACE MOUNTED SEAT COVER DISPENSER	BOBRICK	B-221
D	TOILET TISSUE DISPENSER	GEORGIA PACIFIC	COMPACT CORELESS 56744A
FF	AUTO SENSOR SURFACE MOUNTED PAPER TOWEL DISPENSER	KIMBERLY CLARK	SANITOUCH 09990
G	SURFACE MOUNTED SANITARY NAPKIN DISPOSAL	BOBRICK	B-270
GG	SURFACE MOUNTED SOAP DISPENSER	GOJO	ADX-12
H	RECESSED DUAL ROLL TOILET TISSUE DISPENSER	BOBRICK	B-6977
J	STAINLESS STEEL GRAB BAR	BOBRICK	B-6806x36
K	STAINLESS STEEL GRAB BAR	BOBRICK	B-6806x42
P	CHILDREN'S CIRCULAR MIRROR, 18" DIA	N/A	N/A
Q	FULL LENGTH MIRROR - 24"W X 60"H	N/A	N/A
R1	MIRROR, 72" X 30"	N/A	N/A
R2	MIRROR 18"W X 30"H	N/A	N/A
W	STAINLESS STEEL DOUBLE ROBE HOOK	BOBRICK	B-76727
X1	12 GALLON ALUMINUM WASTE RECEPTACLE	RUBBERMAID	FGA0T15SAPL
X2	STAINLESS STEEL CIRCULAR WASTE CHUTE FOR MOUNTING IN COUNTERTOP	BOBRICK	B-529
Y	ROLL PAPER TOWEL DISPENSER	BOBRICK	B-253
Z	EXTRA VINYL TODDLER CHANGING TABLE PAD 23" X 41.5" X 1"	LAKESHORE	AP303

AIR HANDLING UNIT SCHEDULE

Table with columns: TAG, MANUFACTURER & MODEL #, OSA, SUPPLY FANS (2 TOTAL), RETURN FANS (2 TOTAL), ELECTRICAL, COOLING COIL, FLUID, COIL, ROWS, FINIS/FOOT, WEIGHT (LBS), REMARKS. Includes notes for pad mounted air handler, plenum fans, and safety switches.

PUMP SCHEDULE

Table with columns: TAG, MANUFACTURER & MODEL #, DESCRIPTION, GPM, HEAD (FT), MOTOR FRAME, IMPELLER DIA (IN), SUCTION DIA (IN), DISCH DIA (IN), MOTOR HP, DUTY BHP, MOTOR RPM (DUTY PT), MOTOR RPM (MAX), ELECTRICAL, WEIGHT (LBS), REMARKS. Includes notes for pumps with base frame and VFD.

VAV BOX SCHEDULE

Table with columns: TAG, NO., MANUFACTURER, INLET SIZE (IN.), MIN CFM, MAX HEATING CFM, MAX COOLING CFM, HEATING (MBH), HEATING E.A.T (°F), HEATING L.A.T. (°F), APD (IN WC), ROWS, E.W.T (°F), L.W.T. (°F), WPD (FT), GPM, Cv, VALVE, OP WEIGHT (LB), REMARKS. Includes notes for single duct VAV box with HHV reheat coil.

SPLIT SYSTEM INDOOR FAN COIL SCHEDULE

Table with columns: TAG, MANUFACTURER & MODEL #, QTY., DESCRIPTION, COOLING BTU/H, HEATING (47°F) BTU/H, CFM, ELECTRICAL, R/URS SIZE, OP. WEIGHT, REMARKS. Includes notes for fan coil with thermostat and condensate pump.

SPLIT SYSTEM OUTDOOR CONDENSING UNIT SCHEDULE

Table with columns: TAG, MANUFACTURER & MODEL #, QTY., DESCRIPTION, NOM. TONS, COOLING BTU/H, HEATING (47°F) BTU/H, ELECTRICAL, SEER, OP. WEIGHT, REMARKS. Includes notes for outdoor unit with refrigerant type and disconnect.

EXHAUST FAN SCHEDULE

Table with columns: TAG, MANUFACTURER & MODEL #, DESCRIPTION, CFM, FAN RPM, S.P. (IN W.C.), MOTOR, MOTOR HP, ELECTRICAL, INLET NOISE, OP. WT. (LBS), REMARKS. Includes notes for backdraft damper and fan speed control.

GRAVITY VENTILATOR SCHEDULE

Table with columns: TAG, MANUFACTURER & MODEL #, DESCRIPTION, CFM, S.P. (IN W.C.), FACE VELOCITY (FPM), INLET NOISE, OP. WT. (LBS), REMARKS. Includes notes for backdraft damper and gauge.

FLOW METER SCHEDULE

Table with columns: TAG, MANUFACTURER & MODEL #, DESCRIPTION, REMARKS. Includes notes for wetted component and calibration.

MECHANICAL GENERAL NOTES

1. SCOPE: A NEW COMPLETE HVAC SYSTEM, INCLUDING MECHANICAL EQUIPMENT & DUCTWORK AS GENERALLY DELINEATED ON THE DRAWINGS... 2. CODES: ALL WORK MATERIAL AND EQUIPMENT SHALL BE FURNISHED AND INSTALLED IN COMPLIANCE WITH THE FOLLOWING CODES... 3. WORKMANSHIP: ALL WORKMANSHIP SHALL BE DONE IN A NEAT AND ORDERLY MANNER...

MECHANICAL LEGEND

Table with columns: DESCRIPTION, SYMBOL. Lists symbols for supply/return air duct sections, duct size net inside dimension, flexible duct connection, door louver, air extractor, access door, volume damper, auto motorized controlled damper, fire damper, motorized fire/smoke damper, smoke detector, duct with acoustical lining, thermostat, condensate drain line, 2-way control valve, 3-way control valve, balance valve, butterfly valve, check valve, flexible coupling, globe valve, manual air vent, petes plug, pressure gauge, pressure reducing valve, reducer, shut off cock, shut off valve, strainer, thermometer, union, chilled water supply, chilled water return, heating hot water supply, heating hot water return, analog input/output, automatic air vent, cubic feet per hour, cubic feet per minute, differential pressure transducer, digital input/output, existing, flow switch, gallons per minute, new, occupancy sensor, outside air, point of connection, refrigerant liquid/suction, square feet, temperature control panel, thousands of BTUs per hour.

Office of the State Fire Marshal

CSUS CHILD DEVELOPMENT CENTER

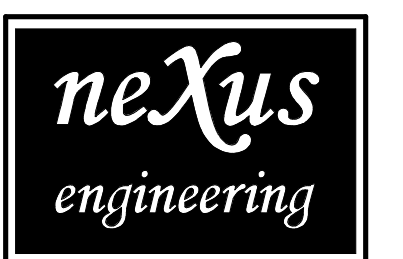
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Stamp



Printing

Date

Table with columns: PERMIT SET, PERMIT SET - DSA V2, PERMIT SET - SFM. Includes dates: 08.15.2021, 12.15.2021, 12.21.2021.

Revisions and Description

Table with columns: Revision, Description, Date. Includes: 1 A Addendum 1 04.01.2022, 2 A Addendum 2 04.13.2022.

Scale

12" = 1'-0"

Drawn by

GL

EHDD Job Number

20020

Sheet Title

MECHANICAL - SCHEDULES, LEGEND & NOTES

Sheet Number

M0.01

SHEET INDEX - MECHANICAL

Table with columns: TAG, DESCRIPTION. Lists items: M0.01 MECHANICAL - SCHEDULES, LEGEND & NOTES; M0.02 MECHANICAL - SCHEDULES, LEGEND & NOTES; M0.03 MECHANICAL - GREEN BUILDING NOTES; M1.01 MECHANICAL - SITE PLAN; M2.01 MECHANICAL - OVERALL HVAC FLOOR PLAN; M2.02 MECHANICAL - ENLARGED HVAC FLOOR PLAN; M2.03 MECHANICAL - ENLARGED HVAC FLOOR PLAN; M3.01 MECHANICAL - OVERALL HVAC PIPING FLOOR PLAN; M3.02 MECHANICAL - ENLARGED HVAC PIPING FLOOR PLAN; M3.03 MECHANICAL - ENLARGED HVAC PIPING FLOOR PLAN; M4.01 MECHANICAL - ROOF PLAN; M5.01 MECHANICAL - DETAILS; M5.02 MECHANICAL - DETAILS; M5.03 MECHANICAL - DETAILS; M5.04 MECHANICAL - DETAILS; T24.01 ENERGY COMPLIANCE; T24.02 ENERGY COMPLIANCE; T24.03 ENERGY COMPLIANCE; T24.04 ENERGY COMPLIANCE.

# CSUS CHILD DEVELOPMENT CENTER

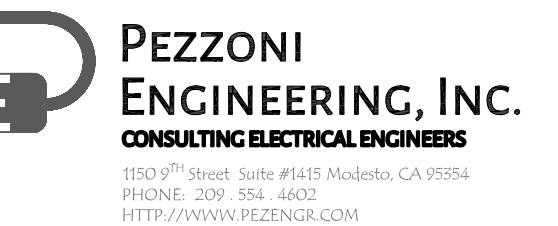
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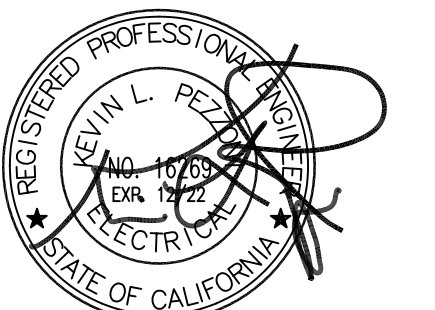
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Printing	Date
95% CONSTRUCTION DOCUMENTS	06.25.2021
PERMIT SET - DSA V2	08.18.2021
PERMIT SET - DSA V2	12.15.2021
PERMIT SET - SFM	12.21.2021

Revisions and Description

1	A	Addendum 1	04.01.2022

Scale AS NOTED

Drawn by CCM / KP

EHDD Job Number 20020

Sheet Title

FLOOR PLAN - POWER

Sheet Number

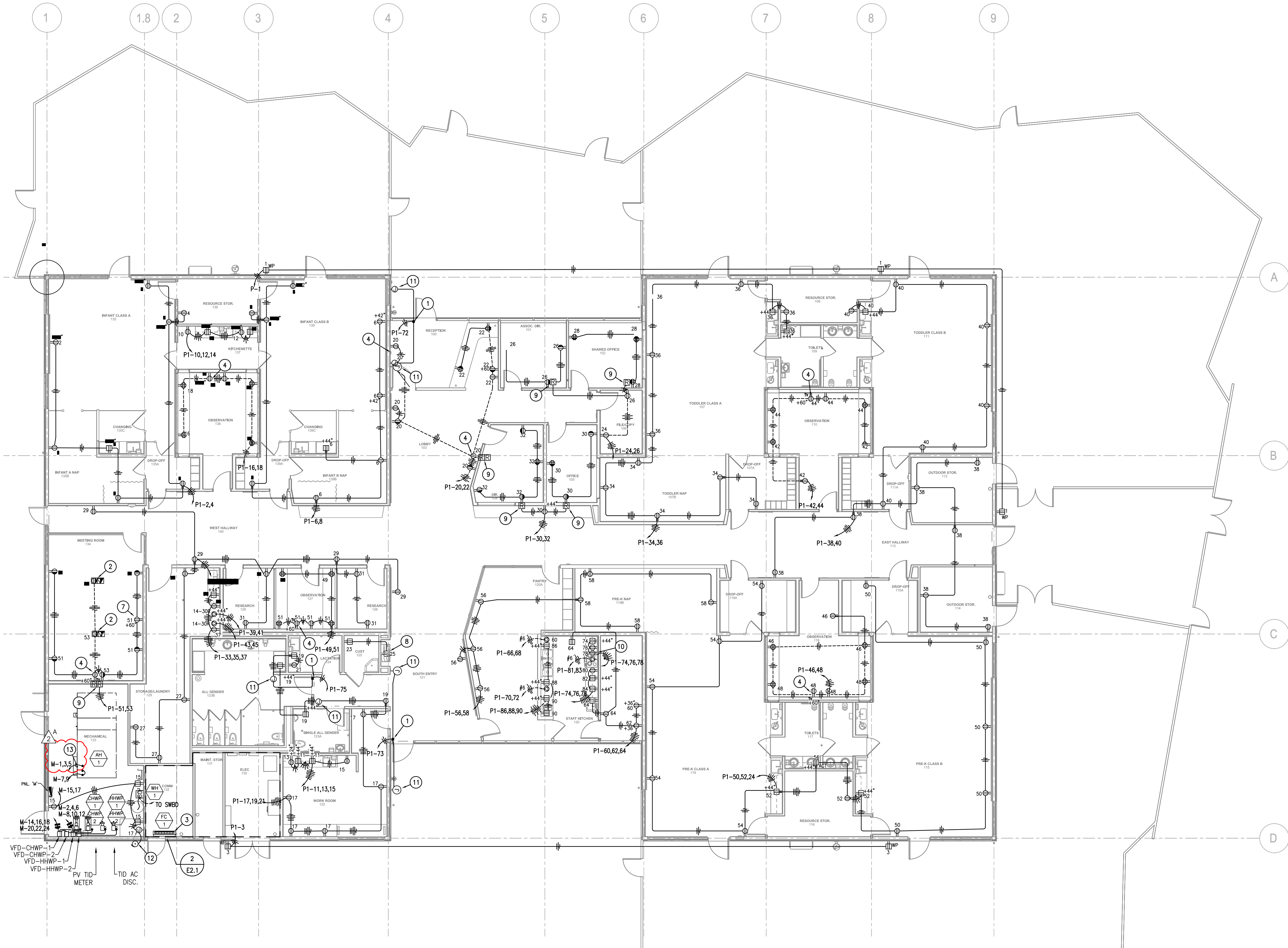
# E2.1

## SHEET NOTES

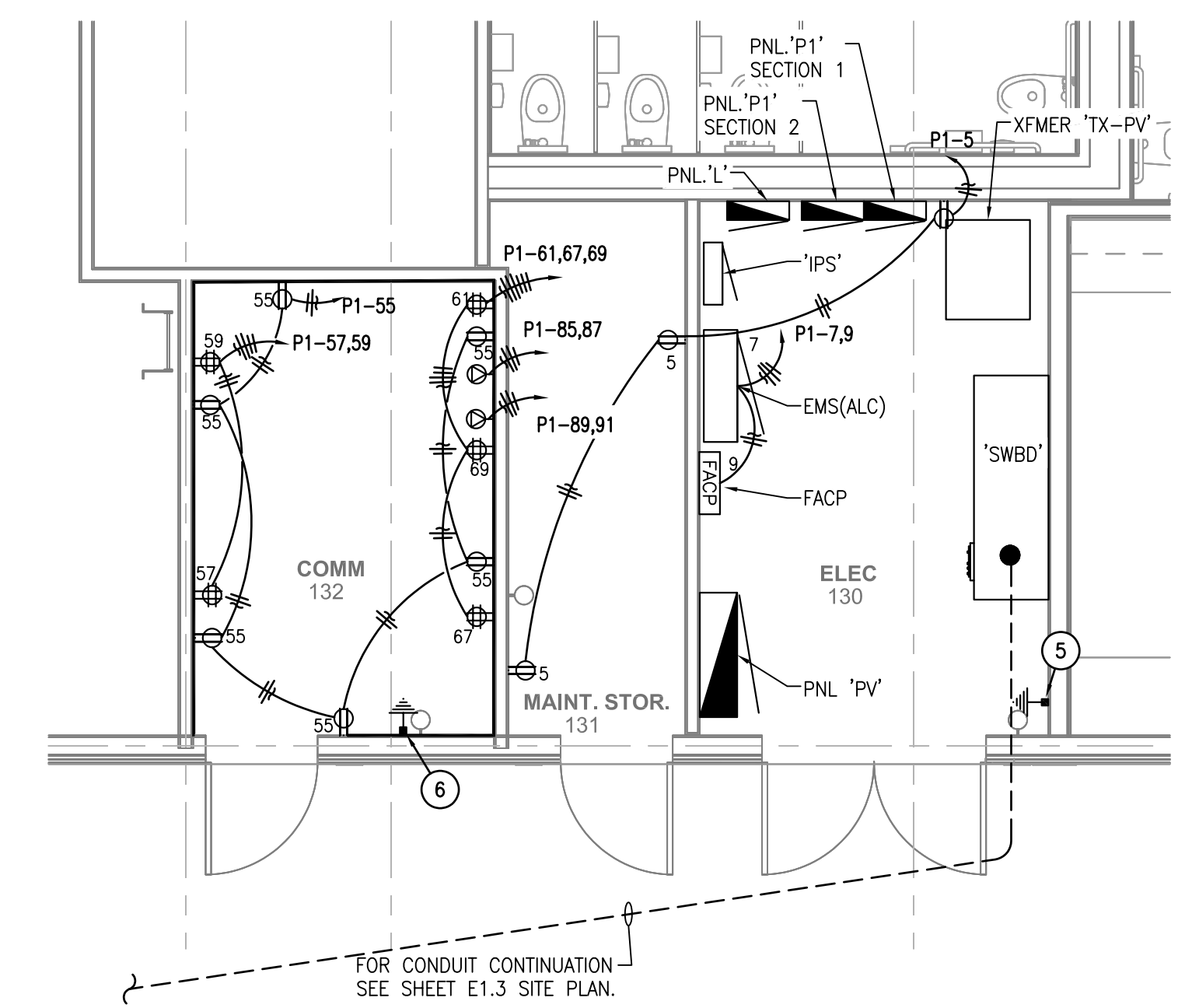
- REFER TO THE GENERAL NOTES ON SHEET E0.1 FOR ADDITIONAL REQUIREMENTS.
- ALL RECEPTACLES, WHETHER INDICATED OR NOT, INSTALLED WITH-IN SIX FEET (6') OF A SINK SHALL BE EQUIPPED WITH A GROUND FAULT CIRCUIT INTERRUPTER AS REQUIRED BY THE CALIFORNIA ELECTRICAL CODE (C.E.C.) 210.8(B)(5).
- RECEPTACLE OUTLET BOX, (WITH UNRESTRICTED CLEAR APPROACH), MOUNTING HEIGHT SHALL BE LOCATED NO MORE THAN 48" MEASURED FROM THE TOP OF THE OUTLET BOX NOR LESS THAN 15" MEASURED FROM THE BOTTOM OF THE OUTLET BOX TO THE LEVEL OF THE FINISHED FLOOR OR WORKING PLATFORM AS REQUIRED BY C.E.C. SECTION 11B-308.1.2. RECEPTACLE OUTLET BOX LOCATED ABOVE COUNTER, WHERE ACCESS IS RESTRICTED, MOUNTING HEIGHT SHALL BE NO MORE THAN 3'-10" MEASURED FROM THE TOP OF THE OUTLET BOX FOR SIDE REACH OR 3'-8" MEASURED FROM THE TOP OF THE OUTLET BOX FOR FORWARD REACH TO THE LEVEL OF THE FINISHED FLOOR OR WORKING PLATFORM.
- SUBSCRIPT "ACT" AT DEVICE SYMBOL AT DEVICE INDICATES MOUNTING ABOVE COUNTER HEIGHT. COORDINATE DEVICE MOUNTING HEIGHT WITH THE ARCHITECTURAL INTERIOR ELEVATIONS PRIOR TO ROUGH-IN.
- CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL JUNCTION BOXES, CONDUIT AND WIRING AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM. MULTI-WIRE BRANCH CIRCUIT WIRING SHALL COMPLY WITH C.E.C 210.4(B).
- ALL RECEPTACLES SHALL BE TAMPER RESISTANT.
- THE EQUIPMENT DESIGNATED "N.I.E.S." IS EITHER OWNER FURNISHED/CONTRACTOR INSTALLED OR FURNISHED AND INSTALLED UNDER OTHER SECTIONS OF THIS PROJECT. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO MAKE ELECTRICAL CONNECTION TO EQUIPMENT AS REQUIRED BY THE EQUIPMENT. PROVIDE ALL NECESSARY JUNCTION BOXES, CONDUIT AND WIRING AS REQUIRED FOR COMPLETE INSTALLATION. COORDINATE CONNECTION REQUIREMENTS WITH EQUIPMENT PRIOR TO THE EXECUTION OF WORK.
- REFER TO THE MECHANICAL SCHEDULE ON SHEETS M0 FOR MECHANICAL EQUIPMENT REQUIREMENTS.
- MECHANICAL DRAWINGS AND SPECIFICATIONS ARE SUBJECT TO LAST MINUTE CHANGES, THEREFORE THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL COORDINATION BETWEEN ELECTRICAL AND MECHANICAL DRAWINGS. CONDUIT AND WIRING FOR THE LOW VOLTAGE CONTROLS SHALL BE PROVIDED UNDER DIVISION 23 SCOPE OF WORK.
- ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT AS SPECIFIED ON THE MECHANICAL DRAWINGS MAY BE DIFFERENT BASED ON ACTUAL MECHANICAL EQUIPMENT SUBMITTALS. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL COORDINATION WITH THE ACTUAL MECHANICAL EQUIPMENT SUBMITTALS AND PROVIDE CONDUIT, WIRES, DISCONNECT AND CIRCUIT BREAKERS, SIZE AS REQUIRED, PER EQUIPMENT NAMEPLATE RATING.
- DISCONNECT SWITCHES LOCATED OUTSIDE SHALL BE WEATHERPROOF.

## PLAN NOTES

- (N) DOOR OPERATOR -COORDINATE W/DOOR HARDWARE VENDOR FOR ROUGH-IN REQUIREMENTS.
- (N) FLOORBOX -WALKER RFB4 SERIES OR EQUAL.
- CONNECT W/(N) 2 POLE DISCONNECT SWITCH W/3/4"C & 3#12AWG CONDUCTORS TO HP-1 AT ROOF
- (N) 3 GANG MEDIA BOX FOR TV LOCATION -P&S TV3W-TVSS OR EQUAL -CENTER ON WALL & REVIEW FINAL ROUGH-IN LOCATION W/UNIVERSITY.
- GROUNDING BUS BAR "GGB" -SEE SECTION 26 05 26.
- GROUND BUS BAR "TMGB" -SEE 27 05 26.
- (N) SMARTBOARD -VERIFY ROUGH-IN LOCATION & REQUIREMENTS W/UNIVERSITY.
- (N) "DF-1" DRINKING FOUNTAIN -120V, 5A -COORDINATE ROUGH-IN W/MECHANICAL.
- (N) PLUG LOAD RECEPTACLE CONTROLLER -CONNECT ONTO LTG CONTROL SYSTEM.
- (N) MECHANICAL HOOD & LIGHT -COORDINATE ROUGH-IN HEIGHT W/ GENERAL CONTRACTOR.
- (N) PUSH PAD LOCATION 1-GANG FLUSH +36" AFF W/3/4" TO DOOR OPERATOR.
- (N) 120VAC GONG +9'-0" AFF MIN. -COORDINATE W/FIRE SPRINKLER CONTRACTOR FOR EXACT HEIGHTS.
- (N) 1 1/2" W/3 #1 THWN CU & #6 CU GND



**1 FLOOR PLAN - POWER**  
SCALE: 1/8"=1'-0"  
SCALE IN INCHES  
0 1/16" 1/8" 1/4"



**2 PLOT PLAN ELECTRICAL AND COMM RM.**  
SCALE: 1/4"=1'-0"  
SCALE IN INCHES  
0 1/8" 1/4" 1/2"

