

**Eugene School District 4J
ROOSEVELT MIDDLE SCHOOL**
680 East 24th Avenue
Eugene, OR 97405
CIP No. 410.566.001

Mahlum Architects
1231 NW Hoyt, Suite 120
Portland Oregon 97209

Robertson/Sherwood/Architects pc
132 East Broadway - Suite 540
Eugene, Oregon 97401



ADDENDUM NO. 1

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated February 18, 2015 as noted below. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

GENERAL

1. NON-MANDATORY PRE-BID CONFERENCE

- A. Attached to this addendum are the Sign-Up Sheets from the Non-Mandatory Pre-Bid Conference held on February 25, 2015. Clarification: For information only.

SPECIFICATIONS

2. SECTION 22 40 00 – PLUMBING FIXTURES

- A. Replace Section with attached new Section 22 40 00. Clarification: Updated wash station and sink specifications.

3. SECTION 23 36 00 - AIR TERMINAL UNITS

- A. Revise paragraph 2.1D1 to read: "Controller and actuator provided by controls contractor, field mounted in NEMA 1 enclosure."
B. Revise paragraph 2.1E to read: "Air static pressure drop across terminal unit not to exceed 0.10-inch WG without coil. Maximum inlet duct velocities shall not exceed 1500 fpm."
C. Revise paragraph 3.1C to read: "Arrange units for operation with control system. Coordinate with the work provided by controls contractor."

4. SECTION 23 64 00 – PACKAGED WATER CHILLERS

- A. Replace Section with attached new Section 23 64 00. Clarification: Revised chiller specification.

5. SECTION 23 70 00 – CENTRAL HVAC EQUIPMENT:

- A. Revise paragraph 2.2FC to read: "Coil shall have external piping connections, handed as indicated on drawings. Supply and return connections shall be sweat connection. Coil connections shall be labeled, extend beyond the unit casing, and be factory sealed on both the interior and exterior of the unit casing, to minimize air leakage."

6. SECTION 23 81 00 – DECENTRALIZED UNITARY HVAC EQUIPMENT

- A. Replace Section with attached new Section 23 81 00. Clarification: added specification for wall-mount mini-split system.

7. SECTION 23 82 00 – CONVECTION HEATING AND COOLING UNITS

- A. Revise line 2.1.B.3 to read: “Fins shall be nonferrous, mechanically bonded to tubes, with fin spacing of 10 fins per inch maximum.”
B. Revise line 2.2 read: “Fan Coil Unit (Vertical Air Handlers)”
C. Add line 2.2K to read: Mixing Box: “Furnish manufacturer’s mixing plenum with return air and outside air dampers. Air handler to be mounted on plenum.”

8. SECTION 26 09 23 – LIGHTING CONTROL DEVICES

- A. Article 1.2: Add new Paragraph 8:

“8. Contractor shall price the lighting control package separately from the light fixture package and shall provide a unit price breakdown of all components including all deducts (lot price and all-or-none). All pricing shall be transparent from the factory to the owner and all quotes shall be made available to the owner, architect or engineer upon request.”

9. SECTION 26 09 33 – CENTRAL DIMMING CONTROLS

- A. Article 1.1: Add new Paragraph E:

“E. Contractor shall price the lighting control package separately from the light fixture package and shall provide a unit price breakdown of all components including all deducts (lot price and all-or-none). All pricing shall be transparent from the factory to the owner and all quotes shall be made available to the owner, architect or engineer upon request.”

10. SECTION 26 09 43 – NETWORK LIGHTING CONTROLS

- A. Article 1.2: Add new Paragraph J:

“J. Contractor shall price the lighting control package separately from the light fixture package and shall provide a unit price breakdown of all components including all deducts (lot price and all-or-none). All pricing shall be transparent from the factory to the owner and all quotes shall be made available to the owner, architect or engineer upon request.”

11. SECTION 26 50 00 - LIGHTING

- A. Article 1.2: Add new Paragraph 11:

“11. Contractor shall price the lighting control package separately from the light fixture package and shall provide a unit price breakdown of all components including all deducts (lot price and all-or-none). All pricing shall be transparent from the factory to the owner and all quotes shall be made available to the owner, architect or engineer upon request.”

12. SECTION 27 05 13 – COMMUNICATIONS SERVICES

- A. Replace Section with attached new Section 27 05 13. Clarification: Pages 1 through 6 were missing from originally issued Project Manual.

PACKAGE 1 - DRAWING SHEETS

13. SHEETS G-003 AND G-110 THRU G-114 – SURVEY AND FIRE AND LIFE SAFETY PLANS

A. Add the following attached new Sheets attached to this addendum:

- G-003 Survey – For Information Only
- G-110 Code Summary
- G-111 First Floor Plan Fire and Life Safety
- G-112 Second Floor Plan Fire and Life Safety
- G-113 Mechanical Platform Plan Fire and Life Safety
- G-114 After Hours Fire and Life Safety Plans

14. SHEET S-121B – FIRST FLOOR PLAN – ZONE B

- A. Clarification: GB-1 is continuous from Grid Line 10.6 to 14.5 along Grid Line G under the CMU wall.
- B. Clarification: At the raised Forum Stadium Seating: S-1 is the callout for the load bearing stud walls. Reference the load bearing stud schedule on 8/S-801. The slab on deck is called out as Type D-1 in Section 3/S-603 which corresponds to the schedule shown on S-120.

PACKAGE 2 - DRAWING SHEETS

15. SHEET A-121A – FIRST FLOOR PLAN – ZONA A

A. Replace Sheet with attached new Sheet A-121A. Clarification: Added tags for fire-extinguishers.

16. SHEET A-122A – SECOND FLOOR PLAN – ZONE A

A. Replace Sheet with attached new Sheet A-122A. Clarification: Added wall tags, added sink in Room 218 and updated dimensions.

17. SHEET A-131A – MECHANICAL EQUIPMENT PLATFORM PLAN – ZONE A

A. Replace Sheet with attached new Sheet A-131A. Clarification: Modification of floor types.

18. SHEET A-256 – INTERIOR ELEVATIONS – ZONE A FIRST FLOOR

A. Detail D1/A-256: Revise as indicated in attached Drawing ASK-A-256-01.

19. SHEET A-270 – INTERIOR ELEVATIONS – ZONE C

A. Detail B1/A-270: Revise cabinet layout as indicated in attached Drawing ASK-A-270-01.

20. SHEET A-530 – EXTERIOR DETAILS – ROOF

A. Replace Sheet with attached new Sheet A-530. Clarification: Added references to Alternate roof details.

21. SHEET A-531 – EXTERIOR DETAILS – ROOF

A. Replace Sheet with attached new Sheet A-531. Clarification: Added references to Alternate roof details.

22. SHEET A-533 – EXTERIOR DETAILS – ROOF

- A. Replace Sheet with attached new Sheet A-533: Clarification: Added references to Alternate roof details.

23. SHEET A-537 – EXTERIOR DETAILS - ROOF – ALTERNATE

- A. Add new Sheet A-537 attached to this addendum. Clarification: Details for Alternate roof conditions.

24. SHEET A-582 – CASEWORK DETAILS

- A. Detail A1/A-582: Add note as indicated in attached Drawing ADD-A-582-01.

25. SHEET A-603 – INTERIOR WALL DETAILS AND HORIZONTAL ASSEMBLIES

- A. Horizontal Assemblies: Add F07 as indicated in attached Drawing ADD-A-603-01.

26. SHEET M-401A1 – MECHANICAL EQUIPMENT PLATFORM PLAN – ZONE A WEST

- A. Replace Sheet with attached new Sheet M-401A1. Clarification: Added note 8 and 9 for RF-A duct/plenum acoustical lining and fan ceiling mount/isolation.

27. SHEET M-122B – SECOND FLOOR PLAN – ZONE B – MECHANICAL

- A. Replace Sheet with attached new Sheet M-122B. Clarification: Note 2, added detail reference and revised perforated wood panel free area requirement.

28. SHEET P-121C – FIRST FLOOR PLAN – ZONE C – PLUMBING

- A. Replace Sheet with attached new Sheet P-121C. Clarification: Changed sink tags in Clean Lab C3 and Dirty Lab C2.

29. SHEET P-121E – FIRST FLOOR PLAN – ZONE E - PLUMBING

- A. Replace Sheet with attached new Sheet P-121E. Clarification: Changed sink tags in Hallway 182 and Band E5.

30. SHEET P-122A – SECOND FLOOR PLAN – ZONE A – PLUMBING

- A. Replace Sheet with attached new Sheet P-122A. Clarification: Changed sink tags in Lounge 209 and Work Room 218.

31. SHEET E-101 – SITE PLAN – ELECTRICAL

- A. Replace Sheet with attached new Sheet E-101. Clarification: Electrical utility vault locations updated to be closer to existing property line.

APPROVALS

- A. None.

END OF ADDENDUM NO. 1

PLUMBING FIXTURES

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.
- B. The provisions of Section 22 05 00, Common Work Results for Plumbing HVAC apply to work specified in this Section.

1.2 SUMMARY

- A. This Section includes:
 - 1. Plumbing fixtures.
 - 2. Fixture trim.
 - 3. Drainage products.
 - 4. Miscellaneous plumbing items.

1.3 QUALITY ASSURANCE

- A. Water closets shall have Maximum Performance (MaP) score of no less than 800.
- B. Faucets shall be certified to NSF/ANSI 61.

1.4 SUBMITTALS

- A. Submit the following:
 - 1. Product data for each item specified.
 - 2. Operating and Maintenance Data:
 - a. Sensor operated flush valves.
 - 3. Mounting heights for all fixtures.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Manufacturers are stated for each fixture specified. The following manufacturers are also acceptable, except when indicated "only".
- B. Drainage Products and Carrier Products: J.R. Smith, Josam, Sioux Chief, Zurn, Wade, Watts Drainage, Woodford, Mifab.
- C. Fixtures: American Standard, Kohler, Sloan, Toto.
- D. Seats: Olsonite, Church, Beneke, Bemis.
- E. Mixing Valves: Powers, Leonard, Symmons, Chicago, Acorn SV16.
- F. Stainless Steel Products: Elkay, Just, Franke.
- G. Mop Sinks: Fiat, Williams, Mustee.
- H. Wash Stations: Bradley, SloanStone.
- I. Drinking Fountains: Elkay, Acorn.
- J. Showers: Moen, Delta.
- K. Faucets: Chicago, Elkay, Delta Commercial, Kohler, Moen Commercial, Sloan.
- L. Shock Arrestors: PPP, J.R. Smith.

- M. Trap Primer Stations: PPP, J.R. Smith.
- N. Exposed Waste and Supply Piping Insulation Kits: Truebro, McGuire.
- O. Other Manufacturers: Submit Substitution Request.

2.2 FIXTURE TRIM

- A. Supply Stops: Chicago cast brass rigid riser supplies with loose key angle stops, wall flanges, NPT female inlet, all chrome plate finish; equivalent NPT McGuire (LK series), Brasscraft (SCR series) or NPT stops by fixture supplier.
- B. Traps:
 - 1. For floor drains, provide coated cast iron P-trap; recessed, screw jointed or bell and spigot.
 - 2. For other fixtures, provide 17 gauge, chrome plated cast brass P-Traps with solder bushings, and clean-out.
- C. Support Rims: Hudee stainless steel rims, if sink not furnished with integral rim.
- D. Vacuum Breakers: Chicago Faucet, A.W. Cash or Febco chrome plated.

2.3 PLUMBING FIXTURES

- A. WC-1 Water Closet:
 - 1. Kohler "Kingston", vitreous china, wall hung, elongated bowl, siphon jet action, 1-1/2-inch top spud, white color finish. Complete with Sloan Regal 111-1.28 battery powered sensor flushometer, with vandal-proof cap.
 - 2. Bemis 1600 series white open-front seat, less cover with external check hinge including 300 series stainless steel post and pintles to stop seat at 11 degrees beyond vertical.
 - 3. J.R. Smith Series 200 chair carrier.
- B. WC-2 Water Closet(Adult ADA):
 - 1. Kohler "Kingston", vitreous china, wall hung, elongated bowl, siphon jet action, 1-1/2-inch top spud, white color finish. Complete with Sloan Regal 111-1.28 battery powered sensor flushometer with vandal-proof cap.
 - 2. Bemis 1600 series white open-front seat, less cover with external check hinge including 300 series stainless steel post and pintles to stop seat at 11 degrees beyond vertical.
 - 3. J.R. Smith Series 200 chair carrier.
- C. U-1 Urinal:
 - 1. Kohler Bardon, vitreous china, wall mounted wash down urinal with 3/4-inch top spud, white color finish. Complete with Sloan Optima 186-0.5 XL SMO sensor activated valve with dual filtered fixed bypass diaphragm, battery powered, with vandal proof cap (0.5 GPF).
 - 2. J. R. Smith Series 600 floor mounted urinal support.
- D. L-1 Lavatory :
 - 1. Kohler Kingston K-2005 21-1/4 x 18-1/8-inch, vitreous china, self-draining deck, backsplash, 4-inch centers, wall hung, concealed arm support, grid drain, white color finish.
 - 2. Chicago 802 series faucet with polished chrome plated solid brass body construction, 4-inch spout, vandal proof metering push handle, 1/2 GPM pressure compensating aerator, adjustable cycle time closure cartridge, vandal resistant complete.
- E. WS-1 Wash Station (ADA):
 - 1. Bradley, model LVRD2 series, wall hung, **Mojave finish**, equipped with Chicago MVP 3500 faucet, 0.5 gpm, manual push button metering faucet with single supply for tempered water service, and Chicago ECAST thermostatic mixing valve.

- F. WS-2 Wash Station (ADA):
- Bradley, model EXD-3N and EDN-2N series wall-hung, Mojave finish with grey trap cover, equipped with ~~Bradley Aerada 900 Series Futura Electronic faucet, 0.5 gpm, battery-operated infrared sensor.~~ Chicago MVP 3500 faucet, 0.5 gpm, manual push button metering faucet with single supply for tempered water service, and Chicago ECAST thermostatic mixing valve.
- G. S-1 Sink:
- Elkay model ELUHAD series A.D.A. compliant, 21.5"x18.5"x5", gourmet undermount sink. ADA compliant, single compartment, 18 gauge, Type 304, 1-hole center, self-rimming, stainless steel sink; LK-18 grid strainer.
 - Chicago 748 series deck mounted, single hole drinking fountain chrome plated solid brass body construction, vandal proof metering push handle, anti-microbial flexible mouth guard.
 - ~~Chicago 2300-8 series ceramic deck mounted, single hole mixing sink faucet, 10" cast brass spout, single handle, 2.2 GPM pressure compensating laminar flow outlet, vandal resistant complete.~~
Chicago 350-VPAXKABCP series, ceramic single hole supply sink faucet, 13" high rigid solid brass swing gooseneck spout, single handle, 2.2 GPM pressure compensating laminar flow outlet, vandal resistant complete.
- H. S-2 Sink:
- Elkay model ELUHAD series, 25"x21.25"x6", A.D.A. compliant gourmet ~~undermount~~ drop in sink. ADA compliant, single compartment, 18 gauge, Type 304, 1-hole center, self-rimming, stainless steel sink; LK-18 grid strainer.
 - ~~Chicago 2300-8 series ceramic deck mounted, single hole mixing sink faucet, 10" cast brass spout, single handle, 2.2 GPM pressure compensating laminar flow outlet, vandal resistant complete.~~
Chicago 350-VPAXKABCP series, ceramic single hole supply sink faucet, 13" high rigid solid brass swing gooseneck spout, single handle, 2.2 GPM pressure compensating laminar flow outlet, vandal resistant complete.
- I. S-3 Sink:
- Elkay model SE Super Economy Series Sink (SE2C18x18-2-18X) free standing sink. Two compartments, two drain boards, backsplash, 18 gauge, Type 300, 1-hole center (each compartment), self-rimming, stainless steel sink; LK-99 grid strainer .
 - Chicago 640-L8E1-317YAB series, ceramic wall mount 8-inch center commercial faucet, two hole dual handle wall mount faucet with 4-inch wrist blades, 1/2" rigid solid brass spout, single handle, 2.2 GPM pressure compensating laminar flow outlet, vandal resistant complete.
- J. S-4 Sink:
- Elkay model DLR (312212) series, 30.5"x18.5"x11.5" ~~top mount~~ undermount sink. Single compartment, 18 gauge, Type 304, 1-hole center, self-rimming, stainless steel sink; LK-99 grid strainer.
 - Chicago 350-VPAXKABCP series, ceramic single hole supply sink faucet, 13" high rigid solid brass swing gooseneck spout, single handle, 2.2 GPM pressure compensating laminar flow outlet, vandal resistant complete.
- K. S-5 Sink:
- Elkay model ELUHAD series, 25"x21.25"x6", A.D.A. compliant gourmet ~~undermount~~ drop in sink. ADA compliant, single compartment, 18 gauge, Type 304, 1-hole center, self-rimming, stainless steel sink; LK-18 grid strainer.
 - ~~Chicago 2300-8 series ceramic deck mounted, single hole mixing sink faucet, 10" cast brass spout, single handle, 2.2 GPM pressure compensating laminar flow outlet, vandal resistant complete.~~

Chicago 350-VPAXKABCP series, ceramic single hole supply sink faucet, 13" high rigid solid brass swing gooseneck spout, single handle, 2.2 GPM pressure compensating laminar flow outlet, vandal resistant complete.

3. Speakman SE-572 series integral countertop mounted emergency eyewash, aerated with flip-top dust caps, stainless steel push handle activation, 1/2" inlet, 3 GPM @ 30 psi.
- L. MS-1 Mop Sink:
1. Fiat TSB series, 28x28x12-inch molded stone mop basin, wall bracket, 5-foot hose, bumper guards & wall guards (two sides).
 2. Chicago 540 series ceramic wall mounted service faucet with polished chrome plated solid brass body construction, lever handles, pail hook, wall brace, vacuum breaker, check stops and hose thread outlet.
- M. SH-1 Shower (ADA):
1. Moen Commercial Shower, Model 8342EP15 assembly with polished chrome finish, pressure balance mixing valve (Acorn SV16), high temperature limit stop, lever handle, 1.5 GPM hand held shower with 2 integral check valves and 69-inch hose and slide bar, 24-inch ADA wall/grab bar and rough in kit.
 2. J.R. Smith 200 series floor drain with nickel bronze grate.
- N. Master Mixing Valve Assembly: Leonard Type TM New Generation High Low, exposed, factory tested and assembled mixing valve assembly consisting of but not limited to: large and small rough bronze finish thermostatic mixing valves, high temperature limit stops, angle checkstops, outlet ball valve shutoffs, built-in spring check valve with pressure gauges, thermometer, inlet piping manifolds with unions. Unit to control discharge temperature to $\pm 1\%$. Unit shall be mounted in locking stainless steel cabinet. See schedule on drawings for capacities.
- O. DF-1 Drinking Fountain (ADA): Elkay LZWS-EDFPBM117K series dual height wall hung drinking fountain with integral bottle filler.
1. Surface mounted fountain.
 2. Contoured basins.
 3. Push pad operated bubblers.
 4. Vandal resistant bubbler guards.
 5. Surface mounting plate.
 6. 1.5 GPM Bottle Filler.
- P. Exposed Waste and Supply Piping Insulation Kits: McGuire Prowrap insulation kit for exposed supplies and waste piping below ADA lavatories and ADA sinks.

2.4 DRAINAGE PRODUCTS

- A. HB-1 Hose Bibb: Chicago 952 series, chrome-plated, removable key, 3/4-inch hose thread, integral vacuum breaker.
- B. WH-1 Wall Hydrant: J.R. Smith Fig. 5609QT, bronze finish, loose key, 3/4-inch hose thread, integral vacuum breaker, freeze proof.
- C. WSCB-1 Water Supply Control Box (for Garbage Can Wash): J.R. Smith 3380 series, recessed water supply control box in type 304 stainless steel with a No. 4 satin finish, cylinder type key lock, cold and hot water screwdriver stops, flow control valve, and atmospheric vacuum breaker.
- D. RD-1 Roof Drain (Small Area): J.R. Smith 1330 series, 8-1/2-inch low profile diameter dome, cast iron body with combined flashing clamp and gravel stop, no-hub outlet and under deck clamp.
- E. OD-1 Overflow Roof Drain (Small Area Overflow): J.R. Smith 1330 series, 8-1/2-inch low profile diameter dome, 2-inch high solid water dam, cast iron body with combined flashing clamp and gravel stop, no-hub outlet and under deck clamp.
- F. FD-1 Floor Drain: J.R. Smith 2005 series, round nickel bronze vandal resistant grate, cast iron body with flashing collar and adjustable strainer head and no-hub outlet.

- G. FD-2 Floor Drain (Unfinished Areas): J.R. Smith 2110 series, round cast iron grate, cast iron body, no-hub outlet, sediment bucket.
- H. FD-3 Floor Drain (Finished Areas - Kitchens): J.R. Smith 2010 series, vandal-proof, square nickel bronze hinged grate, sediment bucket, cast iron body with flashing collar, adjustable strainer head and no-hub outlet
- I. FD-4 Floor Drain (Garbage Can Wash Drain): J.R. Smith 3370 series, acid resisting coated interior, nickel bronze grate, free standing sediment bucket lined with 1/4-inch stainless steel mesh screen, no-hub outlet and bronze adjustable nozzle assembly. FS-1 Floor Sink (Finished Areas - Kitchens): J.R. Smith 3101-12 series, acid resistant coated floor sink, vandal-proof 8-1/2 x 8-1/2-inch nickel bronze 1/2 grate and sediment bucket, no-hub outlet and flashing collar.
- J. FS-1 Floor Sink (Finished Areas - Kitchens): J.R. Smith 3101-12 series, acid resistant coated floor sink, vandal-proof 8-1/2 x 8-1/2-inch nickel bronze 1/2 grate and sediment bucket, no-hub outlet and flashing collar.
- K. FS-2 Floor Sink (Finished Areas - Kitchens): Same as FS-1, except with 3/4 grate.
- L. FS-3 Floor Sink (Finished Areas - Kitchens): Same as FS-1, except no grate.
- M. FS-4 Floor Sink (mechanical room indirect waste): J.R. Smith 3041 series floor sink with 8-inch deep receptor, basket strainer, 1/2 cast iron grate, no-hub outlet and flashing collar..
- N. WCO Wall Cleanout: J.R. Smith 4530 series, round stainless steel vandal resistant cover and screw.
- O. FCO Floor Cleanout: J.R. Smith 4020 series, round vandal resistant, nickel bronze top.
- P. CTG Cleanout to Grade: J.R. Smith 4220 series, round, extra heavy duty cast iron top set in 12x12x4-inch deep concrete pad, vandal resistant.
- Q. DSB-1 Downspout Boot: J.R. Smith 1787 series, 4-inch round downspout connection.
- R. DSB-2 Downspout Boot: J.R. Smith 1785 series, 4x3-inch rectangular downspout connection.
- S. Trap Priming Valves: Precision Plumbing Products Prime-time electronic trap priming manifold including but not limited to: atmospheric vacuum breaker, pre-set 24 hour clock, manual over ride, 120V solenoid valve, calibrated manifold for equal water distribution, 3/4-inch water hammer arrester. Components pre-installed in recessed steel cabinet with SS access door.
- T. Water Hammer Arrester: J.R. Smith 5005 – 5050 series, Precision Plumbing Products Model SC (Maintenance-Free).

PART 3 - EXECUTION

3.1 FIXTURE TRIM

- A. Provide plumbing fixture trim where applicable on fixtures, including but not limited to supply stops, traps, support rims, flush valve, and vacuum breakers.
- B. Provide rough-in and final piping connection to fixtures. Carefully review all construction documents to assure that all fixtures are provided with necessary services for a complete operating system.
- C. Rigidly secure rough-in piping, carriers and supports, and other service piping to structure.

3.2 PLUMBING FIXTURES

- A. Americans with Disabilities Act:

1. Those fixtures indicated by "ADA" shall comply with and be installed in accordance with Americans with Disabilities Act Guidelines (ADAAG). Where applicable building code requirements are more stringent than ADAAG guidelines, building code requirements shall be followed.
 2. Water Closets:
 - a. Mounting height of ADA water closet shall be 17 to 19 inches from floor to top of the toilet seat.
 - b. Mount flush valve for ADA water closets on wide side of enclosure.
 3. Lavatories:
 - a. Mounting height of ADA lavatories shall be at a maximum height of 34 inches from floor to rim.
 - b. Provide insulation kits on exposed hot water and waste piping beneath ADA lavatories.
 4. Sinks: Provide insulation kits on exposed hot water and waste piping beneath ADA sinks.
 5. Urinals:
 - a. Mounting height of ADA water closet shall be at a maximum height of 17 inches from floor to rim.
- B. Fixture Mounting Heights: All fixtures standard rough-in catalogued heights unless shown otherwise on the Architectural Drawings.

- C. Showers:
 - 1. Piping from shower mixing valve to shower head shall be rigid pipe. PEX piping not allowed.
 - 2. Shower Head Mounting Heights: Mount so that face of head is at 6'-6" above finished floor and shall not conflict with shower enclosure.
- D. Water Supplies: When both hot and cold water to a fixture is required, connect the hot on the left and the cold on the right.
- E. Lavatories:
 - 1. Public toilet room lavatories shall have grid strainers.
 - 2. Those lavatories indicated as "ADA" are ADA compatible. Coordinate with Architect to verify if all wall hung lavatories are to be installed at ADA height.
- F. Floor Drain and Floor Sinks:
 - 1. Set top flush with finished floor.
 - 2. Provide flashing clamp for all drain bodies installed in floors provided with waterproof membranes.
- G. Cleanout:
 - 1. Where shown or required.
 - 2. Cover set flush with finished surface.
- H. Roof and Area Drains: Provide sump receivers for all drains except poured in place installations. Provide extension section as required to compensate for the specified insulation thickness above the roof slab or deck.
- I. Water Hammer Arresters: Provide where shown and where recommended by Plumbing Drainage Institute (PDI).
- J. Drinking Fountains:
 - 1. All water-bearing materials shall comply with the Safe Drinking Water Act of 1986 and the Lead Contamination Control Act of 1988. The waterway system of the unit shall be manufactured of copper components and other completely lead-free materials.
 - 2. Provide fixture manufacturer's wall mounting plate or floor mounted support for all wall-hung drinking fountains.
- K. Mixing Valves: Provide piping connections per manufacturer's installation instructions.
- L. Wall hung lavatories with pop-up waste assemblies: Contractor shall verify there is no vertical pull rod assembly conflict with lavatory backsplash prior to submitting product data.

3.3 PRIMING VALVES

- A. All floor drains, floor sinks and similar traps shall be primed. Use minimum 3/8-inch type K annealed copper tubing. Primer line to be continuous and without joints.
- B. Where priming valves are installed in finished rooms, conceal in wall and provide access panel.
- C. Coordinate locations of electronic trap primer stations with electrical contractor for 120V service.

3.4 KITCHEN EQUIPMENT

- A. General: Kitchen equipment is supplied and set in place by Kitchen Supplier, installed in construction contract. Obtain drawings before any rough-in is started. Complete installation and furnish all equipment required or scheduled below to give complete working installation. Symbol numbers are indicated by oval symbol with number inside. See "PLUMBING FIXTURES" for supply types and traps.

END OF SECTION

PACKAGED WATER CHILLERS

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.
- B. The provisions of Section 23 05 00, Common Work Results for HVAC apply to work specified in this Section.

1.2 SUMMARY

- A. This Section includes: Air-cooled water chiller.

1.3 SUBMITTALS

- A. Submit the following:
 1. Shop Drawings showing complete details of construction.
 2. Catalog data showing performance data.
 3. Part load operating characteristics and application part load value calculation (APLV) per ARI Standard 550-88.
 4. Operating and maintenance data.

PART 2 - PRODUCTS

2.1 AIR COOLED WATER CHILLER

- A. Acceptable Manufacturers:
 1. Daikin Applied, JCI, Carrier, Trane.
 2. Other Manufacturers: Submit Substitution Request.

2.2 UNIT DESCRIPTION

- A. Factory-assembled, factory-charged air-cooled scroll compressor packaged chiller consisting of hermetic tandem or triple scroll compressor sets, direct expansion, ~~shell-and-tube~~brazed plate evaporator air-cooled condenser section, microprocessor-based control system and all components necessary for controlled unit operation.
- B. Factory run-test with water to verify full-load operation. Operating controls and refrigerant charge shall be verified for proper operation and optimum performance. Any deviation shall be remedied prior to shipment and the unit retested if necessary to confirm repairs or adjustments.

2.3 DESIGN REQUIREMENTS

- A. Performance: As scheduled. The chiller shall be capable of stable operation to a minimum percentage of full load (without hot gas bypass) of 25% for units 130 tons and less and 17% for units over 130 tons. Performance shall be in accordance with AHRI Standard 550/590.

2.4 CHILLER COMPONENTS

- A. Compressor: Sealed hermetic, scroll type with crankcase oil heater and suction strainer. Motor shall be refrigerant gas cooled, high torque, hermetic induction type, two-pole, with inherent thermal protection on all three phases and shall be mounted on RIS vibration isolator pads. The ~~20—40 ton~~ compressors shall be equipped with an internal module providing compressor protection and communication capability.

B. Evaporator

1. Type: Compact, high efficiency, dual circuit, brazed plate-to-plate type heat exchanger consisting of parallel stainless steel plates expansion, U-tube with water flowing in baffled shell side and refrigerant flowing through tubes. Two independent refrigerant circuits within the evaporator serve the unit's dual refrigerant circuits.
2. Construction: Carbon steel shell and seamless high efficiency copper tubes roller-expanded into a carbon steel tube sheet. The top and bottom of the evaporator shall have ½ inch vent and drain plugs.
- 3.2. Freeze Protection: Electric resistance immersion heater, insulated with ¾ inch thick vinyl-nitrate polymer sheet insulation and with K-factor of minimum 0.28 at 75°F protecting against water freeze-up at ambient air temperatures to -20°F. A fluid thermostat shall control the heater.
- 4.3. Certification: Water side working pressure shall be 152 minimum 653 psig. Vent and drain connections shall be provided in the inlet and outlet chilled water piping by the installing contractor. Evaporators shall be designed and constructed according to, and listed by, Underwriters Laboratories (UL), designed, constructed, inspected, and stamped according to the requirements of the ASME Boiler and Pressure Vessel Code.

C. Condenser

1. Coils: All aluminum alloy microchannel design with series of flat tubes containing multiple, parallel flow microchannels layered between refrigerant manifolds. 3/8 inch seamless copper tubes mechanically bonded into plate type fins. Fins shall have full drawn collars to completely cover the tubes. A subcooling coil shall be an integral part of the main condenser coil.
2. Fans: Single piece, composite, propeller type arranged for vertical air discharge and individually driven by direct drive fan motors. Each fan shall be in its own compartment to eliminate cross flow of condenser air during fan cycling and shall be equipped with a heavy-gauge vinyl coated fan guard.
3. Motors: Weather protected, three-phase, direct-drive, 1140 rpm, TEAO type with permanently lubricated ball bearings and inherent overload protection. External coil surfaces shall have wire mesh protective guards.
4. Fins: Rippled aluminum.

D. Refrigerant Circuit: Each refrigerant circuit shall include a replaceable-core refrigerant filter-drier, sight glass with moisture indicator, liquid line solenoid valve (no exceptions), thermal expansion valve, and insulated suction line.

E. Construction

1. Unit casing and all structural members and rails: Fabricated of steel and painted to meet ASTM B117, 500-hour salt spray test.
2. Upper condenser coil section of unit: Protective, 12 ga, PVC-coated, wire grille guards.

F. Control System

1. Control Panel: Centrally located weatherproof control panel shall contain the field power connection points, control interlock terminals, and control system. Power and starting components shall include factory circuit breaker of fan motors and control circuit, individual contactors for each fan motor, solid-state compressor three-phase motor overload protection, inherent fan motor overload protection and two power blocks (one per circuit) for connection to remote, contractor supplied disconnect switches. Hinged access doors shall be lockable. Barrier panels or separate enclosures are required to protect against accidental contact with line voltage when accessing the control system.
2. Connection: Single-point connection to a non-fused disconnect switch with through-the-door handle and compressor circuit breakers.

G. Unit Controller: DDC microprocessor unit controller with minimum 4-line by 20-character liquid crystal display. provides. The controller shall take pre-emptive limiting action in case of high discharge pressure or low evaporator pressure.

1. Equipment Protection:

- a. By alarms that shut the unit down and require manual reset to restore unit operation and
 - b. By limit alarms that reduce unit operation in response to some out-of-limit condition. Shut down alarms shall activate an alarm signal.
2. Shutdown Alarms
 - a. No evaporator water flow (auto-restart)
 - b. Sensor failures
 - c. Low evaporator pressure
 - d. Evaporator freeze protection
 - e. High condenser pressure
 - f. Outside ambient temperature (auto-restart)
 - g. Motor protection system
 - h. Phase voltage protection (Optional)
 3. Limit Alarms
 - a. Condenser pressure stage down, unloads unit at high discharge pressures.
 - b. Low ambient lockout, shuts off unit at low ambient temperatures.
 - c. Low evaporator pressure hold, holds stage #1 until pressure rises.
 - d. Low evaporator pressure unload, shuts off one compressor.
 4. Unit Enable Selection
 - a. Enables unit operation from either local keypad, digital input, or BAS
 5. Analog Inputs:
 - a. Reset of leaving water temperature, 4-20 mA
 - b. Current Limit
 6. Digital Inputs
 - a. Unit off switch
 - b. Remote start/stop
 - c. Flow switch
 - d. Motor protection
 7. Digital Outputs
 - a. Shutdown alarm; field wired, activates on an alarm condition, off when alarm is cleared
 8. Condenser fan control - The unit controller shall provide control of condenser fans based on compressor discharge pressure.
 9. Building Automation System (BAS) Interface
 - a. Factory mounted DDC controller(s) shall support operation on a BAC network via BACnet MS/TP master (Clause 9), BACnet IP, (Annex J), or BACnet ISO 8802-3, (Ethernet).
 - b. The information communicated between the BAS and the factory mounted unit controllers shall include the reading and writing of data to allow unit monitoring, control and alarm notification as specified in the unit sequence of operation and the unit points list.
 - c. All communication from the chiller unit controller as specified in the points list shall be via standard BACnet objects. Proprietary BACnet objects shall not be allowed. BACnet communications shall conform to the BACnet protocol (ANSI/ASHRAE135-2001). A BACnet Protocol Implementation Conformance Statement (PICS) shall be provided along with the unit submittal.

2.5 OPTIONS AND ACCESSORIES

- A. The following options are to be included:
 1. BAS interface module to provide interface with the BACnet/IP protocol.
 2. Evaporator inlet strainer, 40-mesh with extension pipe and Victaulic couplings

PART 3 - EXECUTION

3.1 INSTALLATION

- A. General: Comply with manufacturer's instructions for installation.

- B. Pipe Connections: Arrange connections to chiller to prevent pipe weight or stresses from being transferred to chiller and to provide easy access for tube cleaning.
- C. Water Treatment: Treat chilled and condenser water system as specified.
- D. Strainer: Install manufacturer-supplied strainer in chilled water return line at evaporator inlet; 40-mesh on units with brazed-plate evaporators or 20-mesh on shell-and-tube evaporators.

3.2 START UP

- A. General: Comply with manufacturer's instructions for startup.
- B. Start up shall be provided under the direct supervision of the manufacturer's representative with factory trained personnel.

3.3 FIELD QUALITY CONTROL

- A. Prior to installation, manufacturer's representative shall coordinate chiller control interface and verify that intended installation (controls, piping, etc.) complies with the manufacturer's recommendations.
- B. Field Test: Except where initial chiller operation clearly shows the performance meets or exceeds the requirements, test to show compliance. Tests performed by the manufacturer's representative in the presence of the Engineer.

END OF SECTION

DECENTRALIZED UNITARY HVAC EQUIPMENT

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.
- B. The provisions of Section 23 05 00, Common Work Results for HVAC apply to work specified in this Section.

1.2 SUMMARY

- A. This Section includes:
 - 1. Split-system air conditioning unit.
- B. Related Sections include:
 - 1. Section 23 05 48 Vibration and Seismic Controls for HVAC Piping and Equipment.

1.3 SUBMITTALS

- A. Submit the following:
 - 1. Shop drawings showing details of construction, dimensions, arrangement of components, isolation, filters, etc.
 - 2. Product data showing performance data, standard items and accessories, operating weight.
 - 3. Operating and maintenance data.

PART 2 - PRODUCTS

2.1 SPLIT-SYSTEM AIR CONDITIONING UNIT

- A. Acceptable Manufacturers:
 - 1. Carrier, Trane, Lennox, Daikin, JCI.
 - 2. Other Manufacturers: Submit Substitution Request.
- B. Indoor Unit:
 - 1. Description: Furnish complete unit including cabinet, wall mounting kit and accessories, refrigerant line set, fan and motor assembly, cooling coil and filter. Unit as scheduled on drawing, factory-tested and assembled, factory wired, refrigerant-to-air heat exchanger, fan/motor assembly, compressor, controls and safety devices, control circuit transformer, shipped in one piece with ARI certification and UL listing.
 - 2. Cabinet: 18 gauge steel, removable panels for access to components. Drain connection and return air filter racks.
 - 3. Fan and Motor: The evaporator fan shall be an assembly with a turbo fan direct driven by a single motor. The fan shall be statically and dynamically balanced and run on a motor with permanently lubricated bearings. The fan shall consist of two (2) speeds, High and Low.
 - 4. Mixing box: Provide manufacturer's standard economizer section with return air and outside air dampers. Outside air dampers to be low-leak per Oregon Energy Code.
 - 5. Controls: Wiring shall run direct from the indoor unit to the controller with no splices. The system shall be capable of automatic restart when power is restored after power interruption
 - 6. Condensate Pump: Provide condensate pump when required; pipe drain to floor drain.

- C. Outdoor Unit:
1. Description: Provide air cooled air conditioner (outdoor unit) designed for outdoor installation with factory supplied supports, properly assembled and tested at the factory. Unit shall be completely weatherproofed and include compressor, condenser coils, condensing fans, motor, refrigerant reservoir, charging valve, all controls, and a holding charge of R410A. Provide guards on condenser fans and coil guard.
 2. Compressors: Furnish hermetically sealed type with isolation and sound muffling. Units shall have overload and inherent winding thermostat protection to prevent burn out. Provided crankcase heater. Two-stage compressors.
 3. Refrigeration Circuits: Unit shall include back seating service valve and gauge ports in liquid and suction lines. Provided refrigerant filter-dryer.
 4. Condenser Fans and Motors: Direct driven propeller type fans with permanently lubricated motors.
 5. Controls: Provide high and low pressure cutouts, contractors and internal overload protection on all motors. Provide low ambient operation to 20°F outside to maintain condensing temperature on part load operation. Provide short cycle timer.
- D. Controls Interface: The control system shall be equipped with a network port and shall have a network type data transfer interface with the DDC controller. The following interface shall be required:
1. BACnet protocol compatible with the Owner furnished DDC system.
 2. The following analog signals shall be read to the DDC controller as a minimum: Space temperature.
- E. Electrical: Furnish all starters, contactors and disconnects. Arrange for single point electrical connections. Provide power and control wiring.
- F. Controls: Provide wall-mounted thermostat, fan on-auto switch, system off-auto switch, and individual set point for cooling with backlit LCD display. Hand-held remote controller is not acceptable.

2.2 SPLIT-SYSTEM AIR CONDITIONING UNIT

- A. Acceptable Manufacturers:
1. Mitsubishi (Mr. Slim), Daikin, Sanyo, LG, Fujitsu.
 2. Other Manufacturers: Submit Substitution Request.
- B. Indoor Unit:
1. Description: Furnish complete unit including cabinet, wall mounting kit and accessories, refrigerant line set, fan and motor assembly, cooling coil and filter. Unit as scheduled on drawing, factory-tested and assembled, factory wired, refrigerant-to-air heat exchanger, fan/motor assembly, compressor, controls and safety devices, control circuit transformer, shipped in one piece with ARI certification and UL listing.
 2. Cabinet: 18 gauge steel, removable panels for access to components. Drain connection and return air filter racks.
 3. Fan and Motor: The evaporator fan shall be an assembly with a turbo fan direct driven by a single motor. The fan shall be statically and dynamically balanced and run on a motor with permanently lubricated bearings. The fan shall consist of two (2) speeds, High and Low.
Controls: Wiring shall run direct from the indoor unit to the controller with no splices. The system shall be capable of automatic restart when power is restored after power interruption
 4. Condensate Pump: Provide condensate pump when required; pipe drain to floor drain.
- C. Outdoor Unit:
1. Description: Provide air cooled air conditioner (outdoor unit) designed for outdoor installation with factory supplied supports, properly assembled and tested at the factory. Unit shall be completely weatherproofed and include compressor, condenser coils, condensing fans, motor, refrigerant reservoir, charging valve, all controls, and a holding charge of R410A. Provide guards on condenser fans and coil guard.

2. Compressors: Furnish hermetically sealed type with isolation and sound muffling. Units shall have overload and inherent winding thermostat protection to prevent burn out. Provided crankcase heater. Multiple compressors shall be manifolded for single joint connection on liquid and suction lines.
 3. Refrigeration Circuits: Unit shall include back seating service valve and gauge ports in liquid and suction lines. Provided refrigerant filter-dryer.
 4. Condenser Fans and Motors: Direct driven propeller type fans with permanently lubricated motors.
 5. Controls: Provide high and low pressure cutouts, contactors and internal overload protection on all motors. Provide low ambient operation to 20°F outside to maintain condensing temperature on part load operation. Provide short cycle timer.
- D. Electrical: Furnish all starters, contactors and disconnects. Arrange for single point electrical connections. Provide power and control wiring.
- E. Controls: Provide wall-mounted thermostat with automatic change over, fan on-auto switch, system off-auto switch, with backlit LCD display. Hand-held remote controller is not acceptable.

PART 3 - EXECUTION

3.1 SPLIT-SYSTEM AIR CONDITIONING UNIT

- A. Installation:
1. Install in location shown on the Drawings. Level unit and secure to structure.
 2. Make piping connections and unit installation per manufacturer's recommendations and installation guides.
 3. Size and run refrigerant piping between fan coil unit(s) and air-cooled condensing unit(s) per manufacturer's recommendations. Provide traps and double suction and/or discharge risers if recommended by the manufacturer.
 4. Insulate refrigerant piping as specified in 23 07 00.
 5. Pipe condensate pan to floor drain per manufacturers installation guide.
 6. Make refrigerant piping connections, install refrigeration accessories and charge system. Provide additional refrigerant as required for proper operation at design capacities.
- B. Start-up:
1. General: Comply with manufacturer's instructions.
 2. Install filters before operating unit.
 3. Insure proper refrigerant and air flow before operating unit compressor.
- C. Provide interconnecting power and control wiring, routed in conduit from the outdoor unit to the indoor unit, and control panel thermostat. Where unit provided requires separate power connections to the indoor and outdoor units, provide at no additional cost. This shall include branch circuit conduit, wiring, circuit breaker, terminations, etc. as required for complete system. Branch circuit serving indoor unit shall originate in same panelboard serving outdoor unit.
- D. Testing and Adjusting/Performance Test: Except where initial unit operation clearly shows the performance meets or exceeds the requirements, test to show compliance.

END OF SECTION

COMMUNICATIONS SERVICES**PART 1 - GENERAL REQUIREMENT****1.01 SECTION INCLUDES**

- A. Basic Communication Requirements
- B. Administrative Requirements
 - 1. Contract Documents, Quality Assurance, and Manufacturer's Warranty
 - 2. Technical Qualifications
 - 3. Certificates and Reference Standards
 - 4. Laws and Regulations, Permits
 - 5. Submittal and Substitution Information
 - 6. Environmental Requirements
 - 7. Progress Drawings and Schedules

1.02 PROJECT SUBMITTAL COMPLIANCE

- A. Project Architect shall be responsible for receiving and compiling all submittal information. As such, all such data pertaining to Section 27 shall conform to the following Division 1 Sections:
 - 1. Section 01 6000 – Substitutions
 - 2. Section 01 3300 – Submittals
 - 3. Section 01 7823 – Operations and Maintenance Data
 - 4. Section 01 7839 – Project Record Drawings

1.03 RELATED SECTIONS

- A. Section 27 0000 – Communications
- B. Section 27 0500 – Common Results for Communications Services
- C. Section 27 0526 – Grounding and Bonding for Communications Systems
- D. Section 27 0528 – Pathways for Communications Systems
- E. Section 27 0528.29 - Hangers and Supports for Communications Systems
- F. Section 27 0528.33 - Conduits and Backboxes for Communications Systems
- G. Section 27 0528.36 - Cable Trays for Communications Systems
- H. Section 27 0528.39 - Surface Raceways for Communications Systems
- I. Section 27 0553 – Identification for Communication Systems
- J. Section 27 0800 – Commissioning of Communications
- K. Section 27 1100 – Communications Equipment Room Fittings
- L. Section 27 1116 – Communications Cabinets, Racks, Frames and Enclosures
- M. Section 27 1119 – Communications Terminal Blocks and Patch Panels
- N. Section 27 1123 – Communications Cable Management and Ladder Rack
- O. Section 27 1126 – Communications Rack Mounted Power Protection and Power Strips
- P. Section 27 1313 – Communications Copper Backbone Cabling
- Q. Section 27 1323 – Communications Optical Fiber Backbone Cabling
- R. Section 27 1513 – Communications Copper Horizontal Cabling
- S. Section 27 1543 – Communications Faceplates and Connectors
- T. Section 27 1619 – Communications Patch and Station Cords
- U. Section 27 2133 – Wireless Access Points
- V. Section 27 4100 - Audio-Video Systems
- W. Section 27 4116 – Integrated AV Systems
- X. Section 27 5113 – Paging Systems
- Y. Section 27 5313 – Clock Systems
- Z. Section 27 5319 – Distributed Antenna Systems
- AA. Division 28 – Access Control and Intrusion Systems

1.04 BASIC COMMUNICATION REQUIREMENTS

- A. All materials and equipment installed under this contract shall be new, unused, free of defects, and of current manufacture.

- B. The Contractor shall field-investigate this facility to ascertain the exact physical and electrical conditions in the main Equipment Room (MDF), and the Telecommunications Room (IDF) locations to become familiar with the physical environment of the building.
- C. The Contractor shall provide, install, and test the entire cable infrastructure as described under this contract.
- D. The Contractor shall call attention to the Owner any error, conflict, or discrepancy in Plans and/or Specifications. Do not proceed with any questionable items of work until a resolution or clarification has been made. Supplemental Plans and Specifications may be supplied as required and shall become part of the Contract Documents.

1.05 CONTRACT DOCUMENTS

- A. The contract documents, such as drawings, schedules and specifications are used to describe the required work.
- B. The work to be performed under the contract documents includes furnishing all labor, materials, equipment and services necessary, whether listed in the specifications or not, to construct and install the complete communications infrastructure as shown on contract drawings and specifications.
- C. The drawings and schedules depict, in general, application-dependent data while the narrative/specifications, in general, define broader requirements, such as overall quality.
- D. The Contractor shall follow all specifications herein. In case of conflict between drawings and specifications, the latter shall prevail unless authorized in writing by the Owner.
- F. Supplementary Details and Plans may be supplied as required. They shall be issued as addendum and shall become a part of the Contract Documents.

1.06 QUALITY ASSURANCE

- A. All cable and equipment shall be installed in a neat and workmanlike manner. All methods of construction that are not specifically described or indicated in the contract documents shall be subject to the control and approval of the Owner.
- B. Equipment and materials shall be of the quality and manufacture indicated. The equipment specified is based upon the acceptable manufacturers listed. Where "approved equal" is stated or a substitution is requested, equipment shall be equivalent in every way to that of the equipment specified. All substitutions are subject to the control and approval of the owner or the owner representative.
- C. Strictly adhere to all Telecommunications Industry Association (TIA) and BICSI recommended installation practices and manufacturer's guidelines when installing communications components.

1.07 MANUFACTURER'S WARRANTY CERTIFICATION

- A. The manufacturer's certification must be supported by Contractor's successful completion of an installation class recognized by an independent organization (such as BICSI or an accredited school). A written test is strongly preferred.

1.08 TECHNICAL QUALIFICATIONS

- A. Contractor must be certified by manufacturer as able to provide a 20 year (minimum) manufacturer's warranty certificate.
- B. A minimum of three references demonstrating Contractor's past installation experience in Certified Category 6A systems in similar facilities with a minimum of 500 nodes shall be submitted. The Contractor must supply a one year warranty upon completion of the job.
- C. At least 50% of the technicians, to include all on-site Journeymen Electricians, must have successfully completed the manufacturer's warranty certification class.
- D. All Journeymen are to possess a current Oregon License.
- E. All Apprentices are to be actively enrolled in an Oregon State approved electrical apprenticeship program.

- F. All Equipment/Telecommunication Room and Telecommunications Outlet equipment shall be installed and tested on-site by a technician(s) who, by virtue of an acceptable training course or documented experience, is qualified to perform these procedures. Acceptable training may include successful completion of the manufacturer's training course, documented on-the-job experience or successful completion of applicable technical courses in a recognized trade school.
- G. Verification of the above requirements must be submitted in writing with bid.

1.09 CERTIFICATES

- A. Contractor must provide evidence of ability to provide a Manufacturer's Certificate of Warranty for the system bid.
- B. Contractor must provide Technician Certificate(s) for the 50% mentioned above.

1.10 REFERENCE STANDARDS

- A. This section references the latest revisions of the following documents. In case of conflict between the requirements of this section and those of the listed documents, the more stringent shall prevail.

<u>Reference</u>	<u>Title</u>
ANSI/IEEE 802.3i-x	Physical Layer Specifications for 10/100/1,000/10,000Mbps Transmission over Twisted Pair Cable
ANSI/TIA-568-C.0-3	Building Telecommunications Wiring Standards
ANSI/TIA-569-C	Commercial Building Standard for Telecommunications Pathways and Spaces
EIA RS-310-C	Racks, Panels, and Associated Equipment
UL 94	Tests for Flammability of Plastic Materials and Parts in Devices and Appliances
ANSI/ICEA S-80-576-1988	Communications Wire and Cable for Wiring of Premises
ANSI-TIA-607-B	Generic Telecommunications Bonding and Grounding (Earthing) for Customer Premises
TI/TSB-162-A	Telecommunications Cabling Guidelines for Wireless Access Points
UL1863	Standard for Communication Circuit

1.11 LAWS AND REGULATIONS

- A. This section references the latest revisions of the following documents. In case of conflict between the requirements of this section and those listed documents, the requirements of the listed documents shall prevail.

<u>Reference</u>	<u>Title</u>
NFPA-70	National Electric Code® (NEC®) plus all Oregon State Electrical Code plus local County and City Amendments
IBC	International Building Code
UL®	Underwriters Laboratories Inc.

Oregon Fire Code

1.12 UNDERWRITERS LABORATORIES LISTING

- A. Unless otherwise specified, electrical equipment and material shall be listed and labeled by Underwriters Laboratories (UL®) for the purpose for which it is used. This requirement may be waived only if a UL® listing is not available for this type of product. Telecommunications cables are acceptable if UL® recognized.

1.13 PERMITS, LICENSES AND TAXES

- A. Contractor shall obtain and pay for permits, inspections, licenses and taxes applicable to this work. Copies of all permits and inspections are to be prominently displayed at each site. Copies of all inspection reports are to be presented to Owner upon closeout of project.

1.14 SUBMITTALS**A. GENERAL**

- 1. Owner must approve all submittals before the start of fabrication (or shipment, for stock items) of any equipment requiring submittals.

B. DRAWINGS

- 1. The Contractor shall submit shop drawings for any modification or new product installation not previously identified in bid documents.
- 2. The drawing must be submitted not less than five (5) days (weekends and national holidays excluded) before the scheduled work begins.
- 3. The Contractor shall proceed with the installation only after approval from the Owner.

C. MATERIALS LIST

- 1. The Contractor shall submit a list of all materials for the proposed work.

D. FIRESTOPPING

- 1. The Contractor shall comply with all requirements of Section 07 8400 – Fire Stopping

E. SOUND DEADENING MATERIALS

- 1. The Contractor shall submit a list of acoustic separation products and procedures. The submittal shall include the manufacturer's technical data for each product including product description, specifications (including labeling or listing by an agency acceptable to the Owner), and storage requirements.

F. MATERIAL SAFETY DATA SHEETS

- 1. Supply Material Safety Data Sheets (MSDS) to Owner for all material accompanied by such.

G. TEST PLANS

- 1. The Contractor shall submit a plan for the testing the installed network.
- 2. The test plan shall include test equipment to be used, procedure and report structure.

H. CERTIFICATES

- 1. Low Voltage Electrical Permit
- 2. The Contractor shall post a copy of the permit and email or fax a copy to the Owner.
- 3. The Contractor shall provide copy of approved permit to the Owner certifying that the work has been inspected and that the work conforms to the requirements of the Authority Having Jurisdiction.

I. PRODUCT WARRANTY

- 1. A manufacturer's warranty is required for this work in addition; Contractor shall provide no-cost warranty on the installed work for a period of one year.

1.15 REQUESTS FOR SUBSTITUTION

- A. Substitution of items shown in the contract documents must be requested in writing.
- B. Approval shall be by written addendum or change order. Substitutions made without prior written approval will be reversed and all costs related to reversal will be the responsibility of the Contractor.
- C. Contractor shall be responsible for any design changes and costs related to substitution approval.
- D. The functions and features specified are vital to the operation of these facilities; therefore the acceptance of alternate manufacturers does not release Contractor from strict compliance with the requirements of the specification.

1.16 ENVIRONMENTAL REQUIREMENTS

- A. Power and lighting, and parking spaces for standard installer's trucks shall be provided by the General Contractor.
- B. Job site trailer, if required, shall be coordinated with the General Contractor prior to placement. Secured storage is the responsibility of the Contractor.

1.17 PROGRESS DRAWINGS AND SCHEDULES

- A. All drawings shall be revised as necessary during the course of the work.
- B. The Contractor shall maintain on-site, one neatly and legibly marked (redlined) set of full-size Drawings accurately depicting as-built locations, changes, and repairs made during the work.
 - 1. Marking of the Drawings shall be kept current.
 - 2. Drawings shall be delivered to the Owner prior to final progress payments.

PART 2 - PRODUCTS**2.01 GENERAL**

- A. The use of a manufacturer's name and model or catalog number herein is for the purpose of establishing the product set, which the Contractor is to supply and install.
- B. Quantities are to be determined by Contractor unless specified.
- C. Products shall be UL[®] listed for the purpose they are to be used.
- D. Cable passing through Plenum spaces shall be rated for such use.

2.02 PRE-APPROVED PRODUCT SETS

- A. The following product sets are pre-approved for this project. Except as noted, all others will require a substitution request to be completed and approved as per these documents. The District will not consider product sets that have not been pre-approved or accepted as per the substitution request process.
 - 1. Structured Cable Systems:
 - a. CommScope - all category 5e, 6 and category 6A components, i.e., jacks, patch panels, patch cords and fiber optic components.
 - b. Panduit - all category 5e, 6 and category 6A components, i.e., jacks, patch panels, patch cords and fiber optic components. Partner cable, i.e., General is acceptable for the Panduit solution.
 - 2. Racks, cabinets, frames and associated fastening devices
 - a. Chatsworth Products Incorporated (CPI)

2.03 FIRESTOPPING

- A. Comply with the requirements of Section 07 8400
- B. Products may be in the form of caulk, putty, strip, sheet, or devices that shall be specifically designed to fill holes, spaces, and voids at communications penetrations.
- B. Firestopping materials shall also provide adhesion to substrates and maintain fire and smoke seal under normal expected movements of substrates, conduits and cables.

2.04 ACOUSTIC SEPARATION

- A. Acceptable products for 2" through 4" penetrations are as follows
 - 1. STI EasyPath™
 - 2. Resilient latex caulk and re-enterable putty manufactured by 3M™, Specified Technologies or Hilti.
 - 3. Or approved substitution
- B. Acceptable products for less than 2" penetrations are as follows
 - 1. Resilient latex caulk and re-enterable putty manufactured by 3M™, Specified Technologies or Hilti.
 - 2. Or approved substitution

PART 3 - EXECUTION**3.01 GENERAL**

- A. Manufacturer's installation instructions and requirements shall be strictly adhered to in the telecommunications equipment installation, fabrication and testing process.
- B. Where conflicts arise between the requirements of this Specification and the manufacturer's installation instructions, the Owner shall be consulted for resolution.
- C. All twisted pair wiring systems shall be installed according to manufacturers' installation guidelines, and according to related ANSI/TIA-568-C standards.
- D. All installed cables shall be kept free from nicking, abrading, or cutting during storage and during the installation process.
- E. Cable shall be installed into conduits after conduit installation is complete and appropriate bushings or couplers have been installed. Manufacturers' recommendations for maximum pulling tensions and minimum bend radii for all cables must not be exceeded.
- F. Care shall be exercised in wiring to avoid damage to wiring and equipment.
- G. Connections shall be made with approved mechanical connectors.
- H. All wiring and connectors shall be installed in strict adherence to standard communications installation practices and to federal, state or local applicable codes.
- I. Equipment shall be firmly held in place. Fastenings, supports, and hangers shall be adequate to support their loads.
- J. Open areas requiring suspension for cables will employ properly rated support mechanisms and devices to accommodate future addition of cable.
- K. Cable ties will be used in concealed areas only as mandated by code or ANSI/TIA-568-C. Cable ties shall bear the same rating as the cable when installed in plenum areas.
- L. Cable running in exposed areas will be bundled using Velcro® or similar hook and loop material. Such material will be used exclusively in the ER and TRs. Cable ties are permitted for temporary cable dressing only and shall be removed prior to substantial completion.
- M. The installation must conform to OSHA standards and comply with state and local safety codes.

- N. Applicable fire codes will be strictly adhered to in regards to plenum ratings for cable and associated cable ties. Fire stopping will be the responsibility of this contract in areas penetrated as a part of this project.
- O. Installation shall be neat, well organized, and professional.
- P. Installation shall be conducted as to maintain consistency between color-coding, labeling and documentation.
- Q. Splicing of any unshielded twisted pair or fiber optic is not acceptable, unless directed to by specifications, addendum, drawings or other written communication with owner or authorized representative.
- R. Any discrepancies, conflicts or issues must be brought to the attention of the Owner before installation or as soon as possible thereafter.
- S. The Contractor shall clean up the work area at the end of each day. At the end of the project all material removed or left over, and/or not being used shall be removed from the project site unless other arrangements have been made. A final clean up shall be made before final payment is made.
- T. The Contractor shall coordinate with the General Contractor for final cleaning of the Equipment and all Telecommunications Rooms. Final cleaning shall include necessary steps to remove all debris from the rooms and provide completely dust-free surfaces on all installed components.
- U. All wall and floor penetrations shall be fire stopped at or before substantial completion.

3.02 PREPARATION

- A. Before installation of cabling and/or equipment in telecommunications spaces, the Contractor shall field-investigate the facility and ascertain if the physical and electrical conditions within the facility shall permit commencement of the Contractor's work.
- B. Any discrepancies, questions, or concerns noted at that time should be brought to the immediate attention of the Owner.

3.03 DOCUMENTATION

- A. TEST REPORTS
 1. The Contractor shall compile test results into the forms that contain all applicable test data. Hard copy output indicating successful testing of every location is not required.
 2. A solid state USB memory device containing all test data and the appropriate application to display such in a Windows-based environment shall be provided.

3.04 AS BUILTS

- A. Contractor will be provided the T series AutoCAD® drawings electronically. These drawings shall be the base drawings for the as built documentation with the following being provided by the Contractor as a separate AutoCAD® layer:
 1. Outlet location,
 2. Cable ID.

3.05 TELECOMMUNICATION OUTLETS

- A. All locations shall be annotated with information that duplicates the labeling on the jack. In the case of a field terminated plug, such as WAPs or IP based, single cable applications the location shall be so noted.

END OF SECTION

TOPOGRAPHIC SURVEY FOR
**4-J SCHOOL DISTRICT,
ROOSEVELT MIDDLE SCHOOL**

S.W. 1/4, SEC. 5, T.18S., R.3W., W.M.

EUGENE, LANE COUNTY, OREGON

FEBRUARY 12, 2014
REVISED: DECEMBER 19, 2014

SCALE 1"=50'

BENCHMARK DATUM

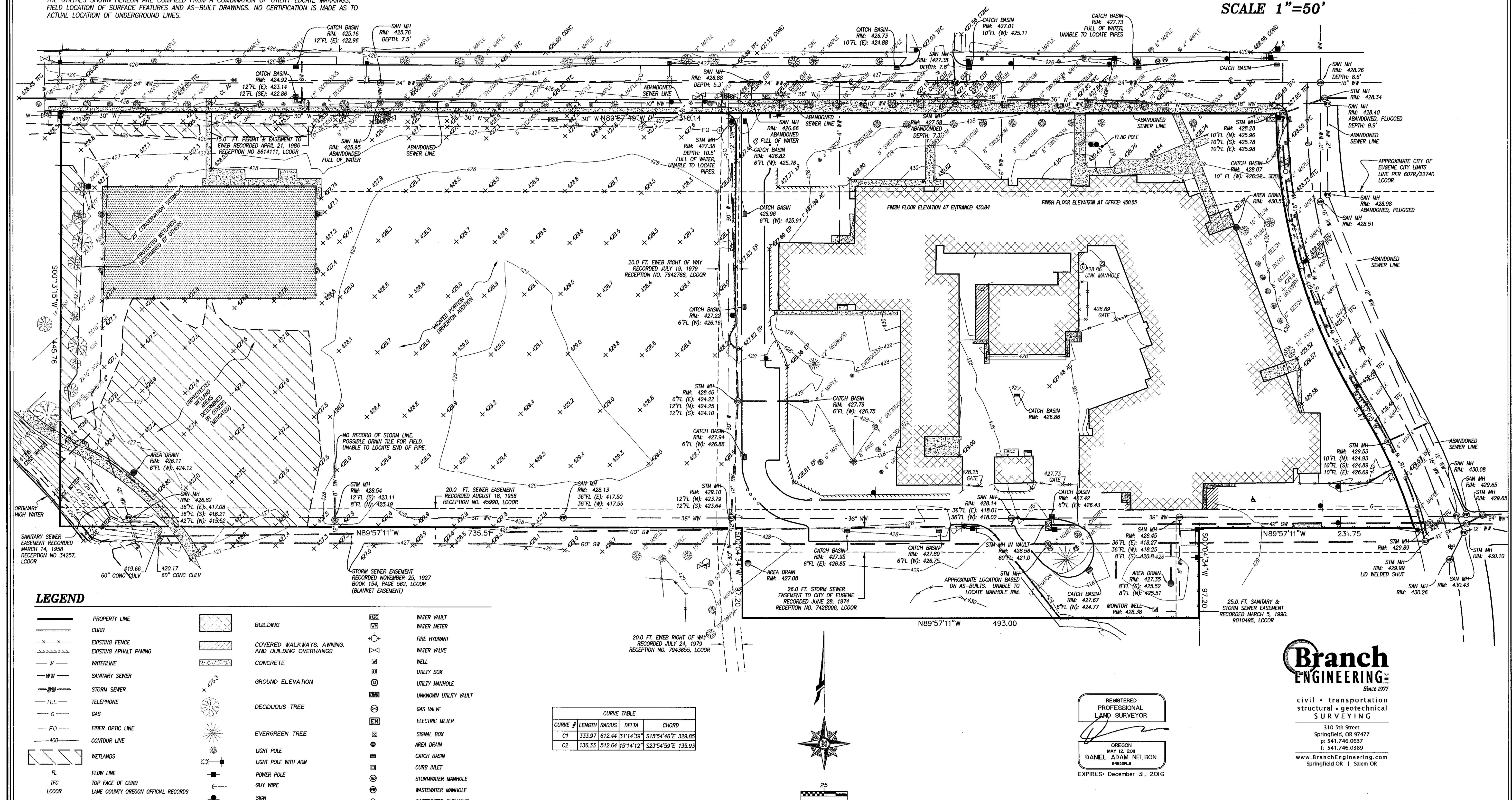
CITY OF EUGENE DATUM. "SE-476" STANDARD BRASS DISK LOCATED AT THE NORTHEAST CORNER OF 26TH AVENUE AND HILYARD STREET. BRASS DISK IS LOCATED 0.5' NORTH AND 0.5' EAST FROM BACK OF EXISTING SIDEWALK CITY OF EUGENE ELEVATION = 429.32, NGVD '29.

BASIS OF BEARINGS

THE SPLIT OF THE EXISTING NORTH AND SOUTH CURB LINES ALONG 24TH AVENUE EAST HOLDING THE PLAT BEARING OF NORTH 89°59'45" WEST AS PER SURVEY BY RALPH FOLLET FILED NOVEMBER, 1957 IN COUNTY SURVEY FILE NO. 10677.

UTILITY NOTE

THE UTILITIES SHOWN HEREON ARE COMPILED FROM A COMBINATION OF UTILITY LOCATE MARKINGS, FIELD LOCATION OF SURFACE FEATURES AND AS-BUILT DRAWINGS. NO CERTIFICATION IS MADE AS TO ACTUAL LOCATION OF UNDERGROUND LINES.



EUGENE SCHOOL DISTRICT 4J



REPLACEMENT ROOSEVELT MIDDLE SCHOOL
CIP NUMBER 410.566.001
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REGISTERED PROFESSIONAL LAND SURVEYOR
DANIEL ADAM NELSON
LICENSE NO. 10000
EXPIRES: December 31, 2016

MARK	DATE	DESCRIPTION
1	2-27-2015	ADDENDUM 1
ISSUE DATE:	FEBRUARY 18, 2015	
ISSUE:	CONSTRUCTION DOCUMENTS	
VOLUME:	PACKAGE 1	
PROJECT NO.:	2013912.00	
DRAWN BY:	Author	
CHECKED BY:	Checker	
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SURVEY - FOR INFORMATION ONLY		

G-003

Zoning Summary

Zone: Public Land Zone (PL)

Zone Overlay: WB/WP/WR/WQ

Automobile Parking Required:

73 parking spaces - 1 space per 9 students (assume 650 students)

Maximum number of parking spaces may not exceed 125% of the minimum spaces required without an adjustment. (92 spaces)

A parking reduction of up to 25% of the minimum requirement is allowed as a right of development. (55 spaces)

Sites that generate 100+ peak hour vehicular trips in any peak hour need to have a driveway with a minimum 50' stacking area measured from the back of the sidewalk.

Automobile Parking Provided: 92 Spaces

Bicycle Parking Required:

1 per 8 full-time student = 82 parking spaces (assumes 650 students)
25% long term (21) Long term must be covered and secure.
75% short term (61)

**Bicycle Parking Provided: Long term: 22 Spaces
Short Term: 110 Spaces**

Landscaping:

Parking area landscaping along a street: L-2 low screen
Parking area entrance driveway landscaping: L-2 low screen
Parking areas and loading areas adjacent to property not zones residential: L-2 low screen

Recycling and garbage areas within or adjacent to vehicular use areas: L-6 full screen fence

1 tree for every 3,000 sf of paved vehicular use area
Minimum interior parking landscape area of 15 sf per parking space = 1,095 sf

Height:

Building height within 50' of the boundary of an abutting residential zone is limited to the height allowed in the abutting residential zone

Adjacent R-1 residential zone height: 30' for main building; 20' for accessory building

No restriction beyond 50'

Minimum Building Setback: 10' Front yard setback
10' Interior yard setback

Wetland Buffer: 60' setback from Amazon Channel
25' setback from Wetland AMA-10

FIRE CODE ANALYSIS

Based upon the 2014 Oregon Fire Code (OFC).

Fire Access Lane:

20' fire access lane within 150' of all parts of the building
Building over 30' in height require aerial access (26' fire access lane within 15-30' from edge of building)

150' maximum dead end without requiring a hammerhead.

Fire Sprinklers:

Buildings 1 & 2 are fully sprinklered.
Building 3 (Bicycle shelters) are not sprinklered.

BUILDING CODE ANALYSIS

Based upon the 2014 Oregon Structural Specialty Code (OSSC).

BUILDINGS 1 & 2

Occupancy Groups (Chapter 3): Group E Educational

Construction Type (Chapter 6): Type IIIB

ALLOWABLE HEIGHT & AREA (Chapter 5 and Table 503):

Information listed below applies to an E occupancy and Type IIIB construction:

Base Allowable Height: (2) story - see item below for increase to (3) story
55 feet - see item below for increase to 75'

Allowable Height Increases:

Providing an automatic sprinkler system (NFPA 13) can increase building height by 20 feet and one story (504.2)

Equipment Platforms:

The mechanical rooms above the 2nd floor classroom wing, above the locker rooms, above the kitchen and above the science wing hall are all considered Equipment Platforms and as such can not be occupied or used for storage. They can only house mechanical equipment. The size of these areas are limited to 2/3 of the adjacent area (OSSC 505.3.1) they are associated with. Refer to Diagrams on Sheet G-113 for locations and associated adjacent areas. They are allowed to be closed to these associated rooms per OSSC 505.2.3 exception 5 similar to mezzanines. Note that equipment platforms do not contribute to the building area or number of stories as regulated by Section 503.1.

Base Allowable Area (A1):

14,500 sf per story. Note that due to the size of the building it will be necessary to divide the structure with a fire wall into two buildings. Building 1 is a three story structure including the core classroom spaces, administration and library all located north of gridline "D". Building 2 is one story and includes every portion of the building south of gridline "D"

Allowable Area Increases:

Allowable area (A_o), per floor, can be increased by frontage and use of sprinklers: A_o = [A] + [A] x [F] + [A] x [S]

Frontage Increase:
Increasing frontages provides allowable increases in building area, based upon the equation:
 $I_f = [F / P - 0.25] W / 30$ (506.2)

Total building perimeter (P) = 1
Frontage perimeter (F) = 1 (assume entire perimeter is frontage)
Frontage (W) = greater than 30'

Given assumed minimum separation on all four sides will be more than 30' to property lines, a maximum allowed increase due to frontage would be increase of I_f = 0.75. In both Building 1 and Building 2 the frontage increase I_f = 0.60

Sprinkler Increase:

Providing an automatic sprinkler system can increase building area (per story) allowed by an additional 200 percent (I_s = 2) for buildings with more than one story above grade and an additional 300 percent (I_s = 3) for buildings no more than one story above grade. (506.3)

Allowable Area per Story Building 1:

(base area)+(frontage increase)+(sprinkler increase) =
(North Classroom - 2 story) 14,500 + (14,500 x .60) + (14,500 x 2) = 52,200 sf

Actual First Floor Area of Building 1: 25,736 sf
Actual Second Floor Area of Bld'g 1: 21,810 sf

Allowable Area per Story Building 2:

(base area)+(frontage increase)+(sprinkler increase) =
(Gym and south wing - 1 story) 14,500 + (14,500 x .60) + (14,500 x 3) = 66,700 sf

Actual First Floor Area of Building 2: 49,754 sf

Total Combined Areas of all Floors of Building 1 & 2 (excluding Equipment Platforms): 97,300 sf

RATED CONSTRUCTION (Tables 601 and 602):

Information listed below applies to an E occupancy Type IIIB:

Building Element Fire Resistive Rating

Structural Frame:	0
Bearing Walls, Exterior:	2
Bearing Walls, Interior:	0
Non-Bearing Walls, Exterior:	0
Fire Separation < 30'	1
Fire Separation ≥ 30'	0
Non-Bearing Walls, Interior:	0
Floor Construction:	0
Roof Construction:	0

Note: All exterior walls to be non-combustible materials (OSSC 602.3)

EXTERIOR WALL OPENING PROTECTION (Table 705.8):

Note: Opening percentage per story. Values listed assume a sprinklered building, meeting NFPA 13.

Distance Allowable Area

0-3 Feet:	Not Permitted
3(+)-5 Feet:	15%
5(+)-10 Feet:	25%
10(+)-15 Feet:	45%
15(+)-20 Feet:	75%
20(+)-Feet:	No Limit

INTERIOR FINISHES Chapter 8:

Interior Wall & Ceiling Finishes: Class C

EXITING Chapter 10:

Exit Width:	.15 inches per occupant
	.2 inches per occupant at stairs
Maximum Exit Distance:	250 feet
Dead End Corridors:	50 feet maximum
Common Path of Travel:	75 feet
Areas with One Exit:	Up to 49 occupants

ENERGY CONSERVATION

Based upon the 2014 Oregon Energy Efficiency Specialty Code (OEESC).

	Provided	Code Required
Roofs (attic):	R-30 ci	R-20 ci
Walls, above grade (metal framed):	R-19 + R-7.5ci	R-13 + R-7.5ci
Walls, above grade (mass):	U-0.092	U-0.150
Walls, below grade:	NA	R-7.5ci
Floors, framed:	NA	R-30
Slab-on-grade (unheated no requirement)		
Slab-on-grade (heated):	R-15 for 24" below	R-15 for 24" below
Opaque Doors, swinging:	U - 0.70	U - 0.70
Vertical Fenestration Allowed:	25% of wall area	30% of wall area maximum
Curtain wall/storefront:	U - 0.45	U - 0.45
Entrance door:	U - 0.80	U - 0.80
All other fenestration*:	U - 0.46	U - 0.46
Skylights (3% max area):	U - 0.60 (Under 1% of area)	U - 0.60
Solar Heat Gain Coefficient	0.40	0.40

*All others fenestration include operable windows and non-entrance doors with greater than 50% glazing

BUILDING 3 - Bike Shelter

Occupancy Groups (Chapter 3): Group S2 storage
Construction Type (Chapter 6): Type VB
Allowable Area per Floor: 13,500 sf
Actual Area: 1,231 sf

Plumbing Fixture Count

Group	Occupants Calc	Occupants #	Fixture Calc	WC	Lav
Boys Education	28,380sf / 20sf / 2	709.5	1/wc per 50	14.19	14.19
Girls Education	28,380sf / 20sf / 2	709.5	1/wc per 50	14.19	14.19
Boys Vocation	4,100sf / 50sf / 2	41	1/wc per 50	0.82	0.82
Girls Vocation	4,100sf / 50sf / 2	41	1/wc per 50	0.82	0.82
Subtotal		1501			
Staff/Men	4,600sf / 100sf / 2	23	1/wc per 50	0.46	0.46
Staff/Women	4,600sf / 100sf / 2	23	1/wc per 50	0.46	0.46
Kitchen Staff	1729sf / 200	8.6	1/wc per 50	0.17	0.17
A-3 Lg Gym Men	6140sf / 7sf / 2	438	1 per 125 occ	3.5	2.2
A-3 Lg Gym Women	6140sf / 7sf / 2	438	1 per 65 occ	6.7	3
A-3 Sm Gym Men	6000sf / 50sf / 2	60	1 per 125 occ	0.48	0.3
A-3 Sm Gym Women	6000sf / 50sf / 2	60	1 per 65 occ	0.9	0.3
A-3 Commons Men	4440sf / 15sf / 2	148	1 per 125 occ	1.2	0.74
A-3 Commons Women	4440sf / 15sf / 2	148	1 per 65 occ	2.3	0.74
Subtotal		1292			
Total Required				46.19	38.39
Total Provided				50	40



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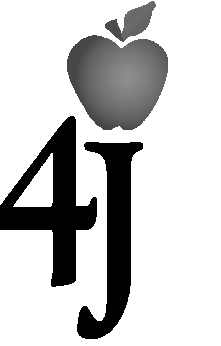
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132 East Broadway, Suite 540
Eugene, Oregon 97401
P (541) 342-8077
F (541) 345-4302



EUGENE SCHOOL DISTRICT 4J



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1 2-27-2015 ADDENDUM 1

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ISSUE: CONSTRUCTION DOCUMENTS

VOLUME: PACKAGE 1

PROJECT NO: 2013912.00

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CHECKED BY: DG

CODE SUMMARY

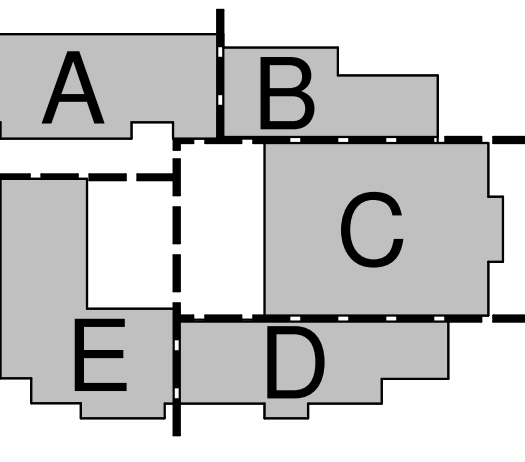
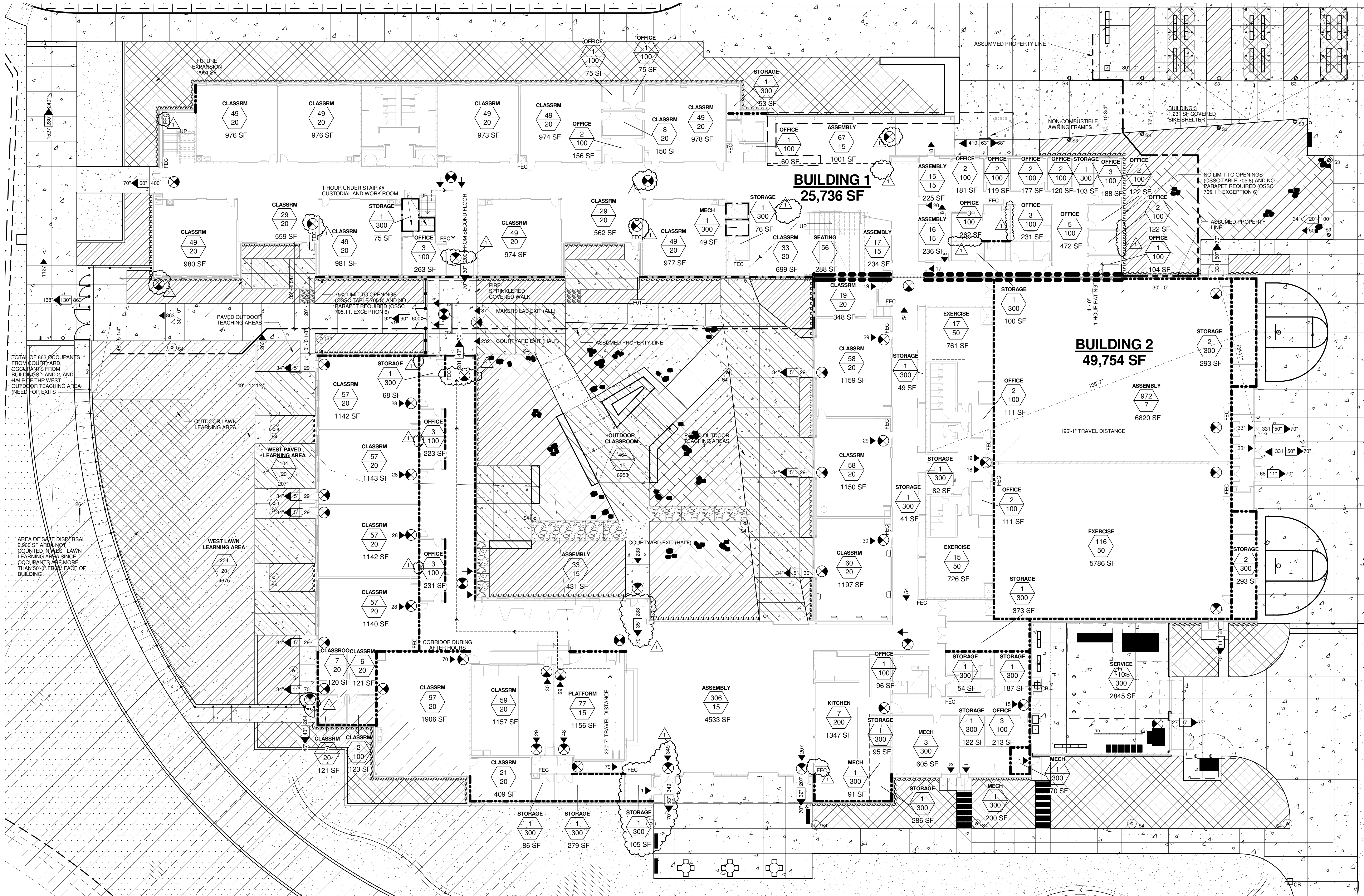
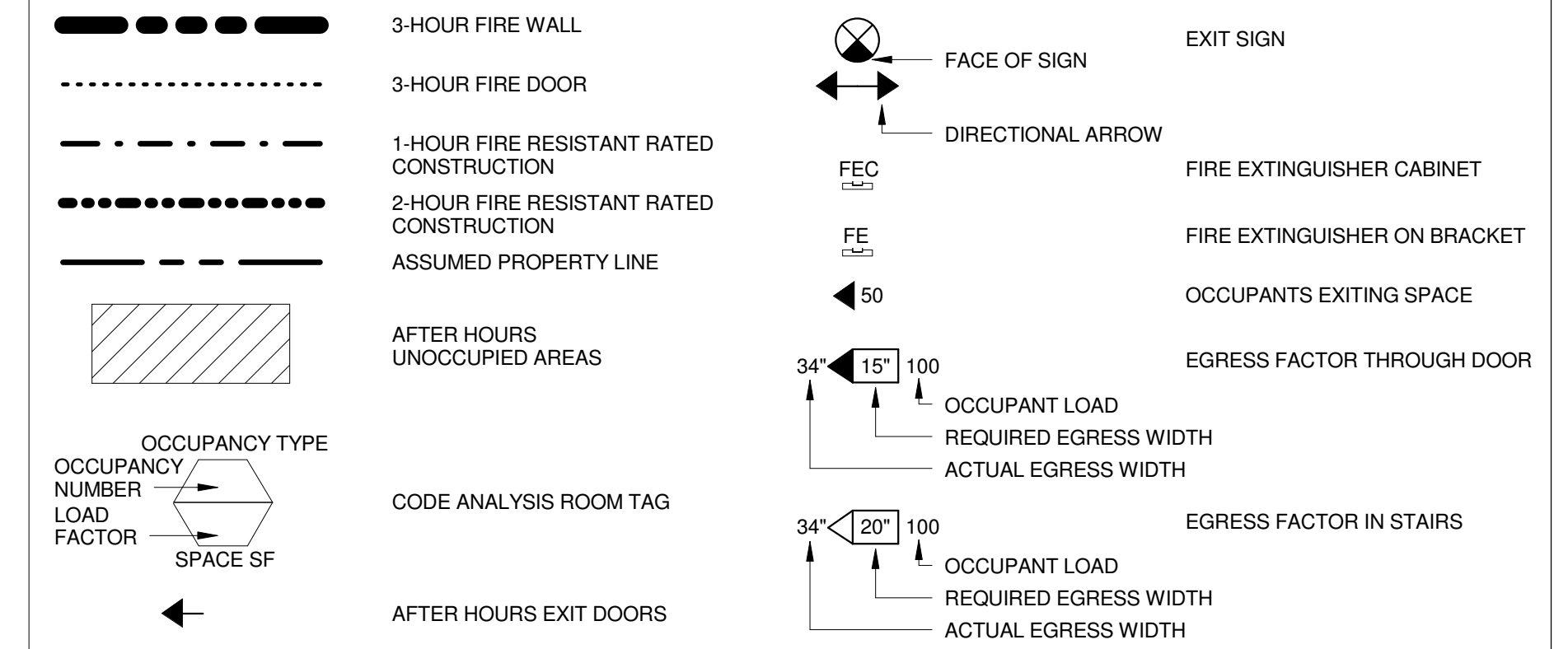


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NOTES

1) REFER TO DOOR SCHEDULE FOR FIRE RATING AT DOORS

PLAN SYMBOL LEGEND



MARK	DATE	DESCRIPTION
2	2-27-2015	ADDENDUM 1
1	2-19-2015	SUPPLEMENTAL INFO 1

ISSUE DATE: FEBRUARY 18, 2015
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FIRST FLOOR PLAN FIRE AND LIFE SAFETY

A1 FIRST FLOOR PLAN - CODE ANALYSIS
1/16" = 1'-0"

NOTES

1) REFER TO DOOR SCHEDULE FOR FIRE RATING AT DOORS

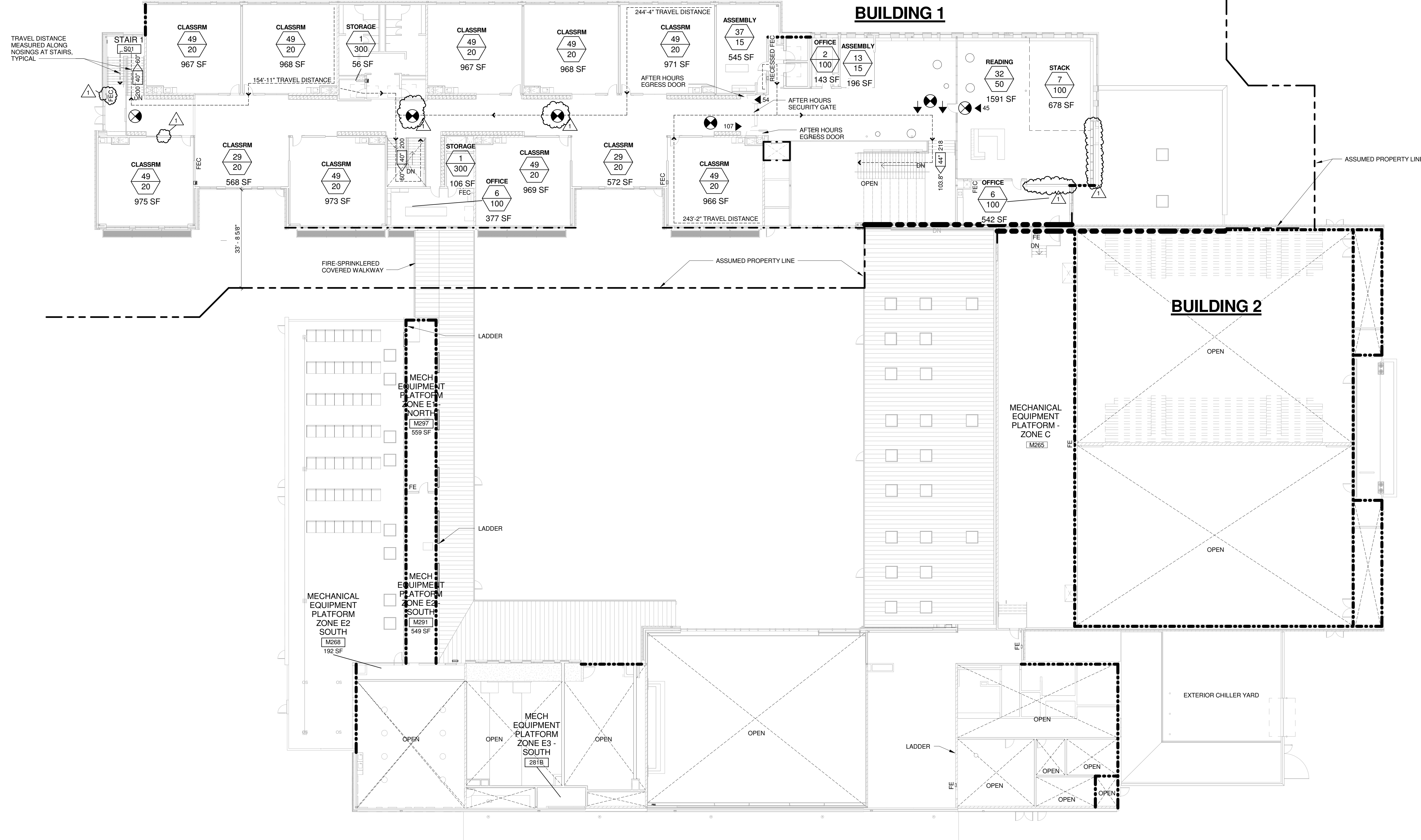
PLAN SYMBOL LEGEND

	3-HOUR FIRE WALL		FACE OF SIGN		EXIT SIGN
	3-HOUR FIRE DOOR		DIRECTIONAL ARROW		FIRE EXTINGUISHER CABINET
	1-HOUR FIRE RESISTANT RATED CONSTRUCTION		FIRE EXTINGUISHER ON BRACKET		OCCUPANTS EXITING SPACE
	2-HOUR FIRE RESISTANT RATED CONSTRUCTION		EGRESS FACTOR THROUGH DOOR		EGRESS FACTOR IN STAIRS
	ASSUMED PROPERTY LINE		OCCUPANT LOAD REQUIRED EGRESS WIDTH		OCCUPANT LOAD REQUIRED EGRESS WIDTH
	AFTER HOURS UNOCCUPIED AREAS		ACTUAL EGRESS WIDTH		ACTUAL EGRESS WIDTH
	OCCUPANCY TYPE		EGRESS FACTOR IN STAIRS		EGRESS FACTOR IN STAIRS
	OCCUPANCY NUMBER		OCCUPANT LOAD REQUIRED EGRESS WIDTH		OCCUPANT LOAD REQUIRED EGRESS WIDTH
	LOAD FACTOR		ACTUAL EGRESS WIDTH		ACTUAL EGRESS WIDTH
	SPACE SF		OCCUPANT LOAD REQUIRED EGRESS WIDTH		OCCUPANT LOAD REQUIRED EGRESS WIDTH
	CODE ANALYSIS ROOM TAG		ACTUAL EGRESS WIDTH		ACTUAL EGRESS WIDTH
	AFTER HOURS EXIT DOORS		OCCUPANT LOAD REQUIRED EGRESS WIDTH		OCCUPANT LOAD REQUIRED EGRESS WIDTH
	AFTER HOURS EXIT DOORS		ACTUAL EGRESS WIDTH		ACTUAL EGRESS WIDTH

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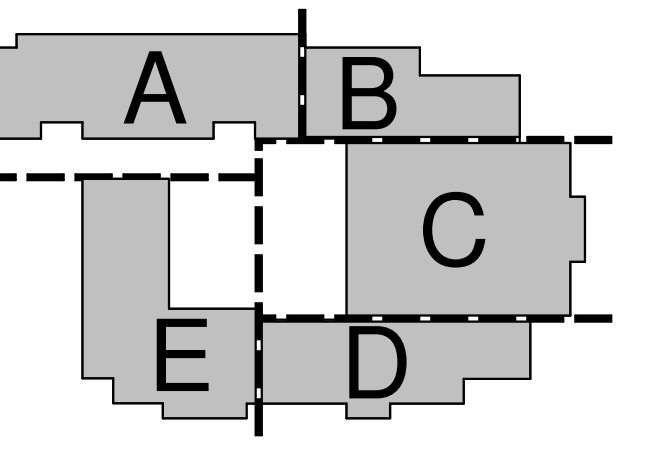


A1 SECOND FLOOR PLAN - CODE ANALYSIS
 1/16" = 1'-0"

EUGENE SCHOOL DISTRICT 4J

4J

REPLACEMENT ROOSEVELT
 MIDDLE SCHOOL
 CIP NUMBER 410.566.001
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MARK	DATE	DESCRIPTION
2	2-27-2015	ADDENDUM 1
1	2-18-2015	SUPPLEMENTAL INFO 1

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SECOND FLOOR PLAN FIRE AND LIFE SAFETY

G-112

NOTES

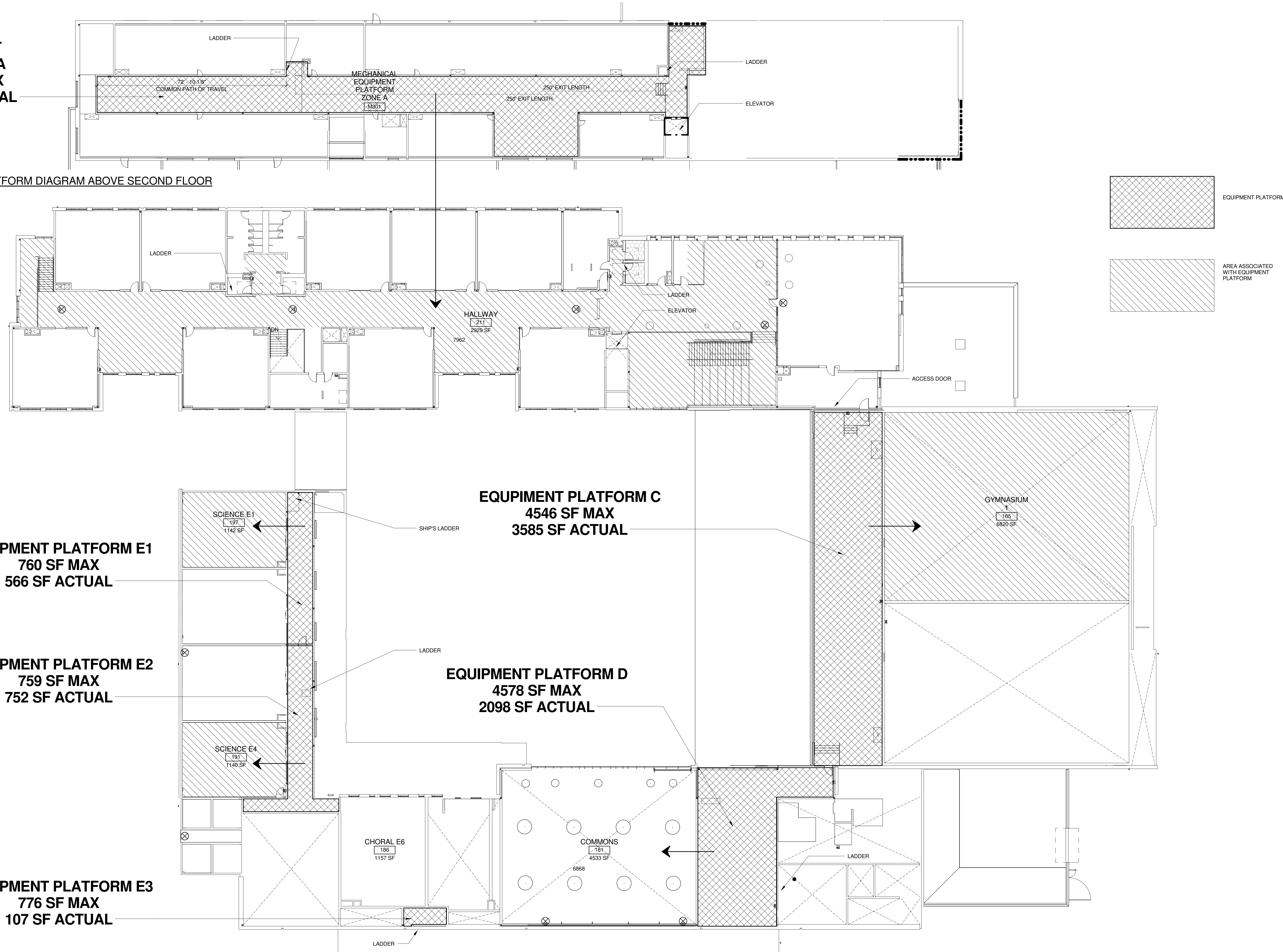
1) REFER TO DOOR SCHEDULE FOR FIRE RATING AT DOORS

PLAN SYMBOL LEGEND

	3-HOUR FIRE WALL		EXIT SIGN
	3-HOUR FIRE DOOR		DIRECTIONAL ARROW
	1-HOUR FIRE RESISTANT RATED CONSTRUCTION		FIRE EXTINGUISHER CABINET
	2-HOUR FIRE RESISTANT RATED CONSTRUCTION		FIRE EXTINGUISHER ON BRACKET
	ASSUMED PROPERTY LINE		OCCUPANTS EXITING SPACE
	AFTER HOURS UNOCCUPIED AREAS		EGRESS FACTOR THROUGH DOOR
	OCCUPANCY TYPE		OCCUPANT LOAD
	CODE ANALYSIS ROOM TAG		REQUIRED EGRESS WIDTH
	AFTER HOURS EXIT DOORS		ACTUAL EGRESS WIDTH

EQUIPMENT PLATFORM A
5308 SF MAX
4090 SF ACTUAL

EQUIPMENT PLATFORM DIAGRAM ABOVE SECOND FLOOR



EQUIPMENT PLATFORM C
4546 SF MAX
3585 SF ACTUAL

EQUIPMENT PLATFORM D
4578 SF MAX
2098 SF ACTUAL

EQUIPMENT PLATFORM E1
760 SF MAX
566 SF ACTUAL

EQUIPMENT PLATFORM E2
759 SF MAX
752 SF ACTUAL

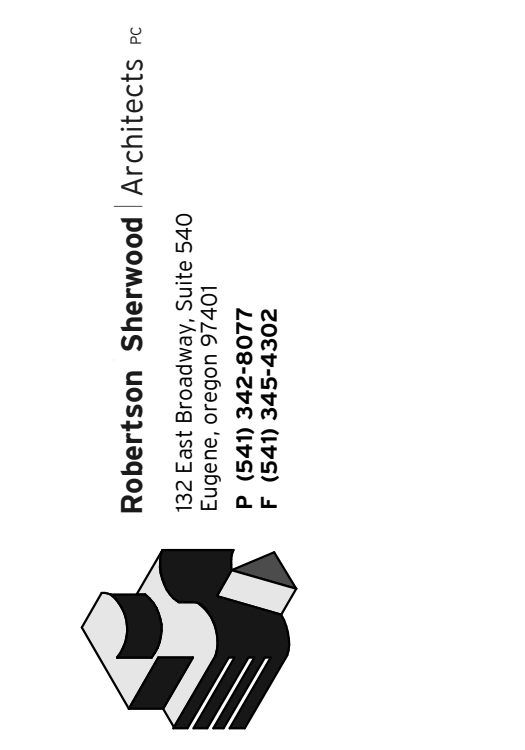
EQUIPMENT PLATFORM E3
776 SF MAX
107 SF ACTUAL

A1 EQUIPMENT PLATFORM DIAGRAM
1/16" = 1'-0"

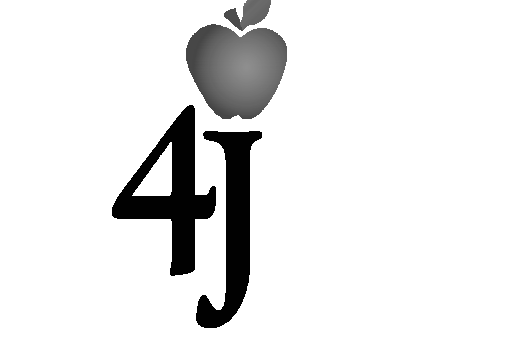


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1 2-27-2015 ADDENDUM 1

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MECHANICAL PLATFORM PLAN

FIRE AND LIFE SAFETY



NOTES

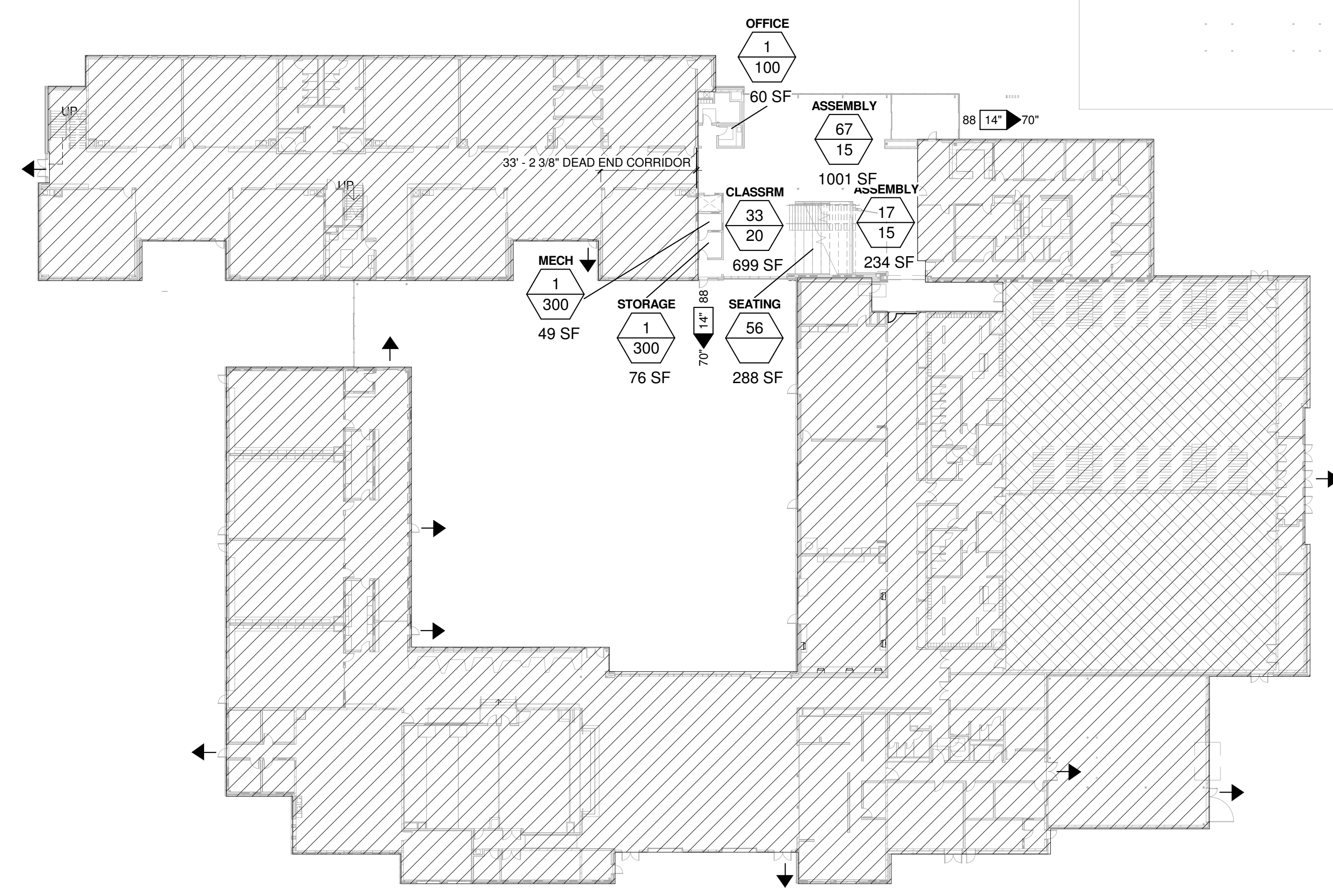
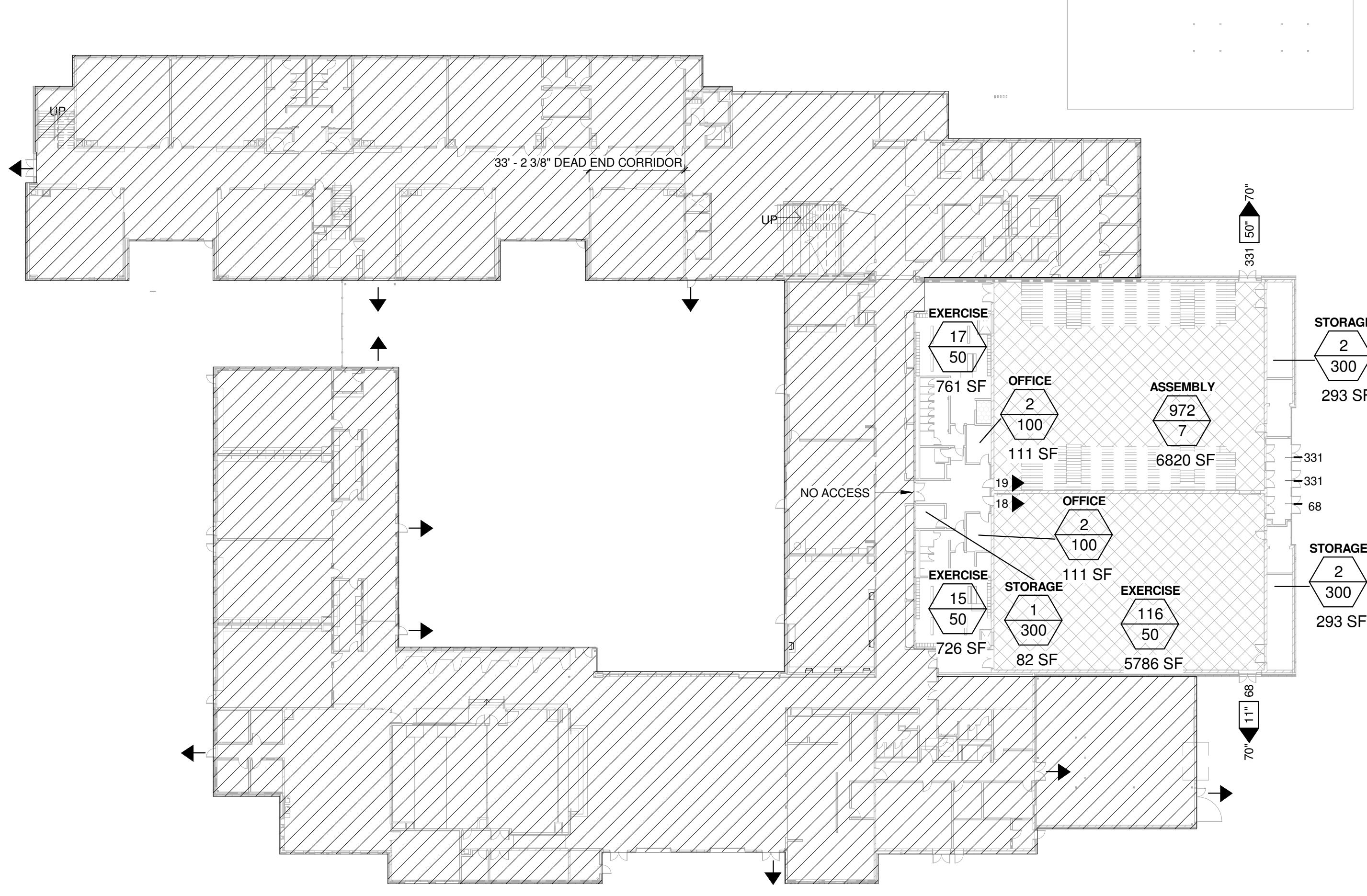
- 1) REFER TO DOOR SCHEDULE FOR FIRE RATING AT DOORS
- 2) THE SCHOOL ANTICIPATES OPENING PORTIONS OF THE SCHOOL FOR AFTER HOURS EVENTS. THESE EVENTS WILL OCCUR AT THE GYM, COMMONS AND/OR SECOND FLOOR MEDIA CENTER. OTHER AREAS OF THE SCHOOL WILL BE CLOSED DURING THESE EVENTS HOWEVER IT IS LIKELY SCHOOL STAFF WILL OCCASIONALLY ENTER THESE CLOSED AREAS DURING EVENTS. THE EXIT DIAGRAMS ON THIS SHEET EXPLAIN HOW EXITING IS ACCOMMODATED DURING THESE AFTER HOURS EVENTS. THE AREAS SHOWN HATCHED ON THE DIAGRAMS WILL BE CLOSED OFF TO THE PUBLIC BUT WILL STILL ALLOW STAFF EGRESS IF REQUIRED.

PLAN SYMBOL LEGEND

	3-HOUR FIRE WALL		FACE OF SIGN
	3-HOUR FIRE DOOR		DIRECTIONAL ARROW
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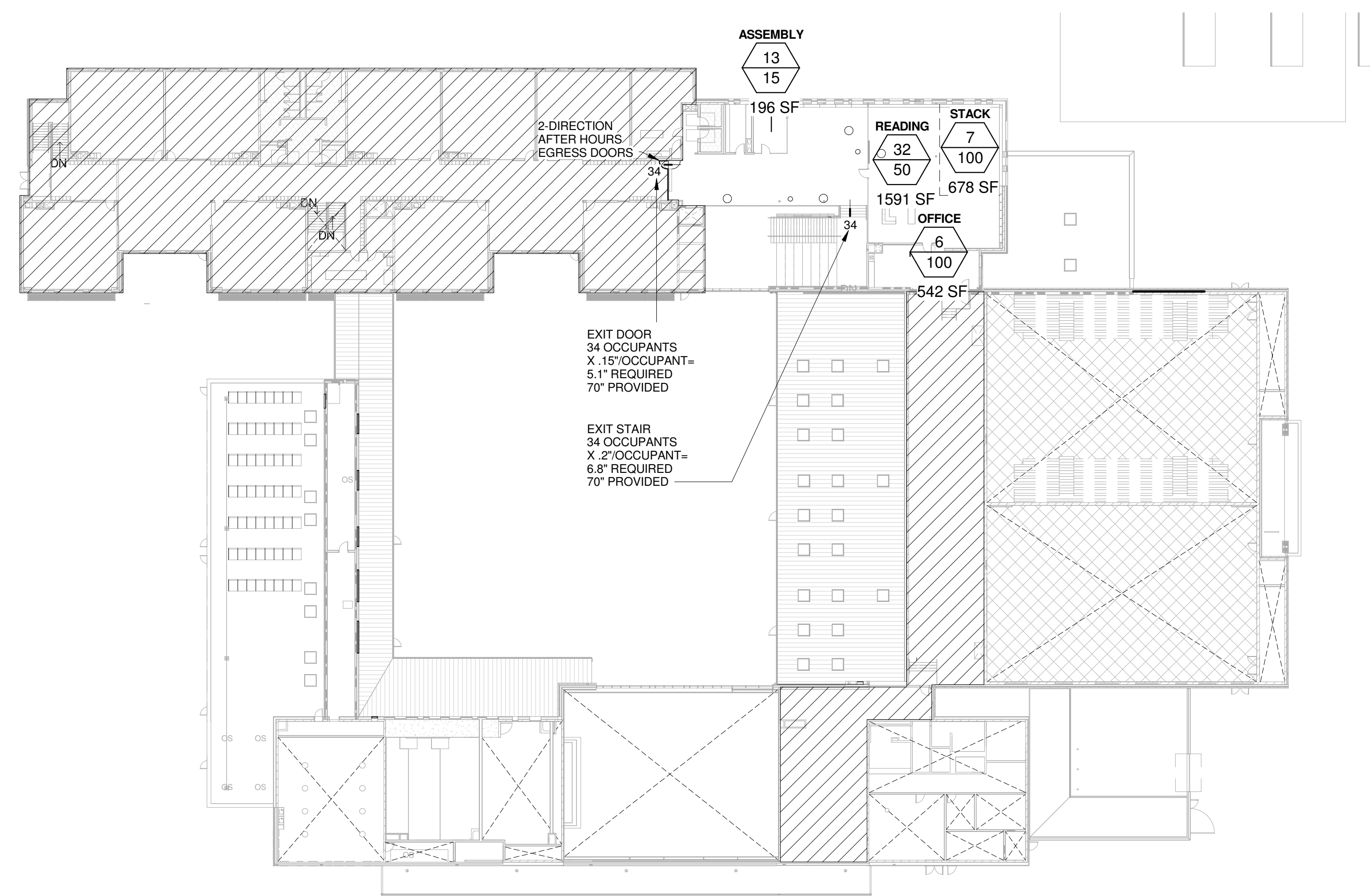
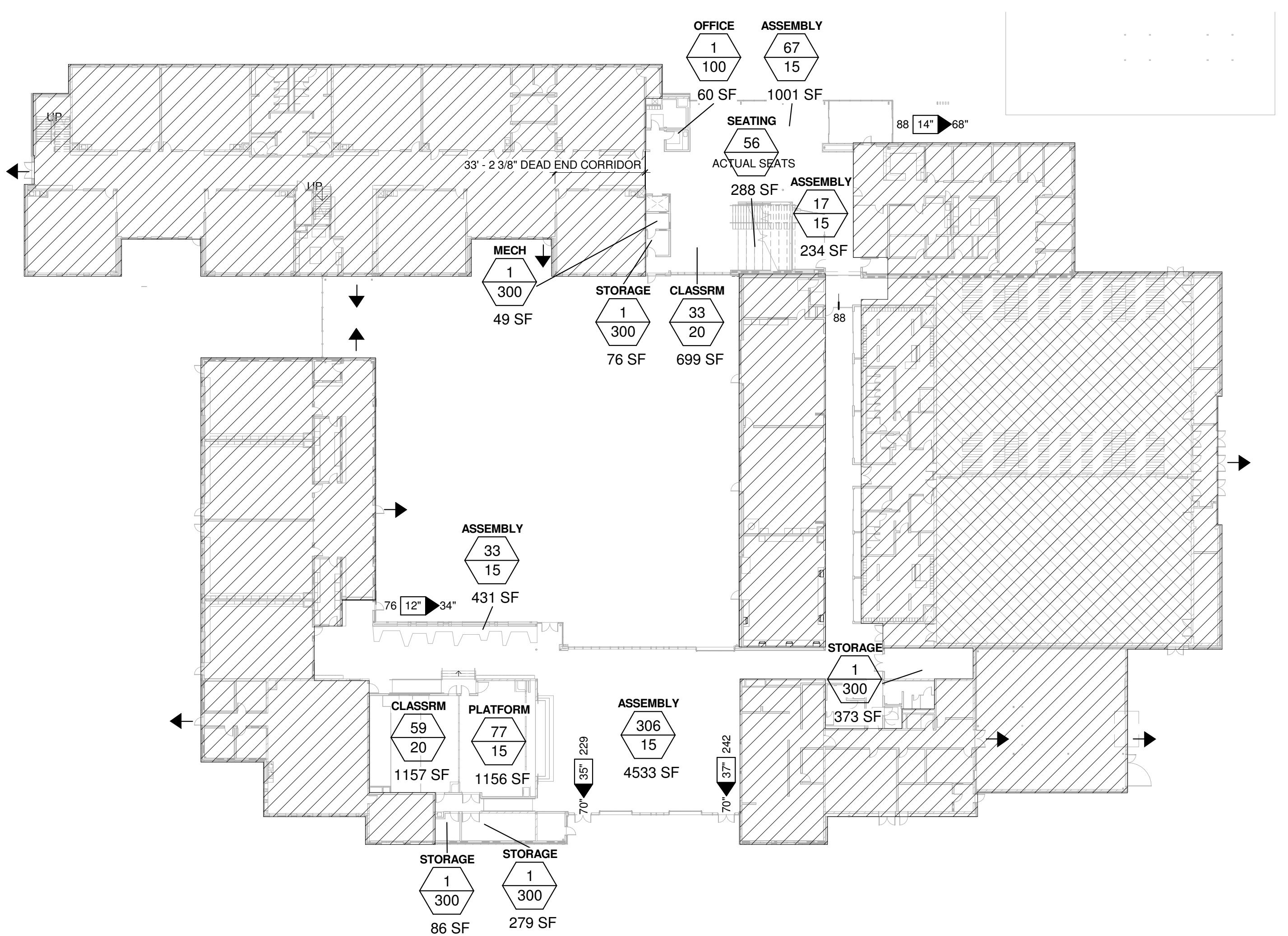
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C1 AFTER HOURS FIRST FLOOR GYM PLAN - CODE ANALYSIS
1/32" = 1'-0"

C4 AFTER HOURS MEDIA FIRST FLOOR PLAN - CODE ANALYSIS
1/32" = 1'-0"



A1 AFTER HOURS COMMONS FIRST FLOOR PLAN - CODE ANALYSIS
1/32" = 1'-0"

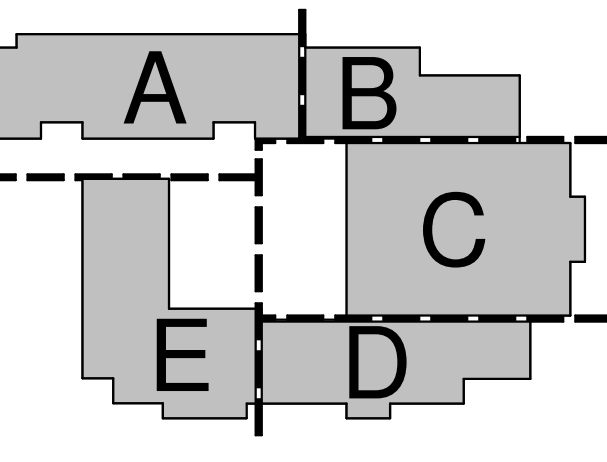
A4 AFTER HOURS MEDIA & COMMONS SECOND FLOOR PLAN - CODE ANALYSIS
1/32" = 1'-0"

REGISTERED ARCHITECT
5594
LEROY A. LANDERS
EUGENE, OREGON

EUGENE SCHOOL DISTRICT 4J

4J

REPLACEMENT ROOSEVELT
MIDDLE SCHOOL
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AFTER HOURS FIRE AND LIFE SAFETY PLANS

PLAN GENERAL NOTES

- A. CONTRACTOR TO VERIFY ALL CONDITIONS AND DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO ANY WORK.
- B. UNLESS OTHERWISE NOTED, PLAN DIMENSIONS SHOWN ARE:
 - AT INTERIOR PARTITIONS: TO THE FACE OF STUD
 - AT COLUMNS: TO THE CENTERLINE OF COLUMNS, IF WALL AT COLUMN CENTER WALL ON COLUMN
 - AT CONCRETE: TO THE FACE OF CONCRETE
 - AT EXTERIOR WALLS: TO THE FACE OF STUD (TO THE EDGE OF SLAB) (TO THE FACE OF FOUNDATION WALL)
 - CMU WALLS ARE CENTERED ON GRID & DIMENSIONED TO INDICATE FULL BLOCK
 CLR = CLEAR DIMENSIONS ARE TO FACE OF FINISHED MATERIAL
 FOR WALLS AT GRIDLINES, CENTERLINE OF STUDS ARE AT CENTERLINE OF GRID / COLUMN UNLESS DIMENSIONED OTHERWISE.
- C. REFER TO ENLARGED PLANS OR DETAILS FOR ANY DIMENSIONS NOT INDICATED ON THESE PLANS.
- D. EXTERIOR DOOR AND WINDOW OPENING DIMENSIONS ARE TO FOM OR FACE OF STUD FRAMING (EDGE OF OPENING - NOT INCLUDING SEALANT JOINTS) UNLESS OTHERWISE NOTED.
- E. PROVIDE BACKING AS REQUIRED TO SUPPORT WALL AND CEILING MOUNTED CASEWORK, GRAB BARS, HANDRAILS, MIRRORS, EQUIPMENT AND OTHER ACCESSORIES THAT REQUIRE SUPPORT. VERIFY LOCATIONS PRIOR TO INSTALLATION OF GYPSUM BOARD. COORDINATE REQUIREMENTS FOR INCREASED STUD SIZES.
- F. SEE SHEET A-601 FOR EXTERIOR WALL ASSEMBLIES, A-602 FOR INTERIOR WALL ASSEMBLIES, AND A-603 FOR HORIZONTAL ASSEMBLIES.
- G. MULTIPLE LAYERS GWB WALLS TO HAVE MULTIPLE LAYERS ON SAME FACE AS WALL TAG UNLESS OTHERWISE NOTED. ALIGN FACE OF FINISHES AT ALL ADJACENT WALL TYPES U.N.O.
- H. CONTRACTOR TO VERIFY ALL INDICATED RECESS SLAB DEPTH WITH FINISH PRODUCT MANUFACTURER.
- I. ALL DOORS SHALL BE 6" FROM FACE OF STUD TO EDGE OF DOOR OPENING UNLESS OTHERWISE NOTED.
- J. SEE FINISH SCHEDULE FOR FLOOR FINISH INFORMATION.
- K. EXTERIOR STUD WALLS TO HAVE (1) LAYER OF GWB ON THE INTERIOR SIDE U.N.O.

- M. ASSEMBLIES FOR FIRE RATED WALLS AND COLUMNS SHALL EXTEND FROM STRUCTURAL FLOOR TO UNDERSIDE OF FLOOR DECK OR ROOF ABOVE, UNLESS SPECIFICALLY NOTED OTHERWISE. ALL OPENINGS AND JOINTS SHALL BE PROTECTED AS REQUIRED BY CODE.
- N. MAINTAIN FIRE RESISTANCE RATING FOR ALL CONSTRUCTION INDICATED AT THROUGH-WALL PENETRATIONS, BUILT-IN WALL FIXTURES, ACCESSORIES, AND BEHIND MAILBOXES, FIRE EXTINGUISHER CABINETS, PLUMBING FIXTURES, ELECTRIC PANELS AND SIMILAR ITEMS, IN COMPLIANCE WITH REQUIREMENTS OF APPLICABLE CODES. COORDINATE CONSTRUCTION OF FIRE-RATED ASSEMBLIES WITH DESIGNATED DESIGN NUMBER.
- O. COMPLETELY SEAL AROUND PENETRATIONS THROUGH ACOUSTICAL WALLS. FILL DEPTH OF GAPS AROUND CUT-OUTS FOR ELECTRICAL BOXES, PIPES AND PLUMBING, AND OTHER PENETRATIONS. PROVIDE INSULATION BETWEEN THE CONCEALED FACE OF FINISH MATERIALS (WITHIN THE STUD OR JOIST CAVITY) AND PIPES, PLUMBING, THE BACK OF BOXES, OR OTHER RECESSED FIXTURES.
- P. FRAME AND FINISH OPENINGS FOR MECHANICAL AND ELECTRICAL SYSTEMS AS REQUIRED BY MECHANICAL/ELECTRICAL DOCUMENTS.
- Q. COORDINATE WITH STRUCTURAL DRAWINGS FOR REQUIRED SHEARWALL SHEATHING PROVIDE IN ADDITION TO COMPONENTS INDICATED ON WALL TYPE DETAILS AS REQUIRED.

KEYNOTES 01

Key Value	Keynote Text
P03	05 51 33 SHIPS LADDER
P10	08 33 28 OVERHEAD COILING GRILLS/DEPLOYABLE EXIT DOORS
P12	10 51 00 HALLWAY LOCKERS
P13	10 51 00 LOCKER ROOM LOCKERS
P25	PROVIDE BLOCKING FOR MOP HOLDERS
P36	DIV 22 WATER FOUNTAIN
P54	FULLY RECESSED FIRE EXTINGUISHER CABINET
R01	DOWNSPOUT

PLAN SYMBOL LEGEND

- NON RATED WALL
- 1-HOUR RATED WALL
- 2-HOUR RATED WALL
- 3-HOUR RATED WALL
- ROUGH OPENING
- MASONRY OPENING

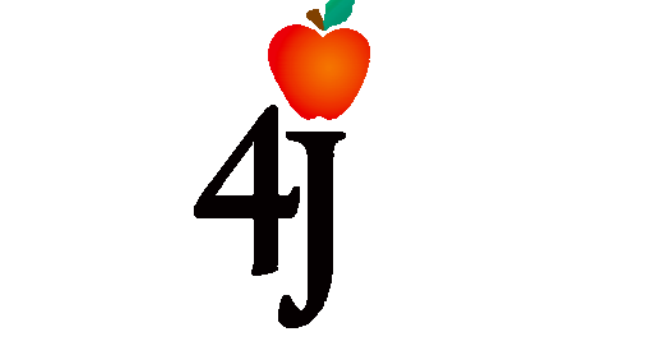
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 132 EAST BROADWAY, SUITE 540
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 1231 NW HOYT, SUITE 102
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 503-224-4032

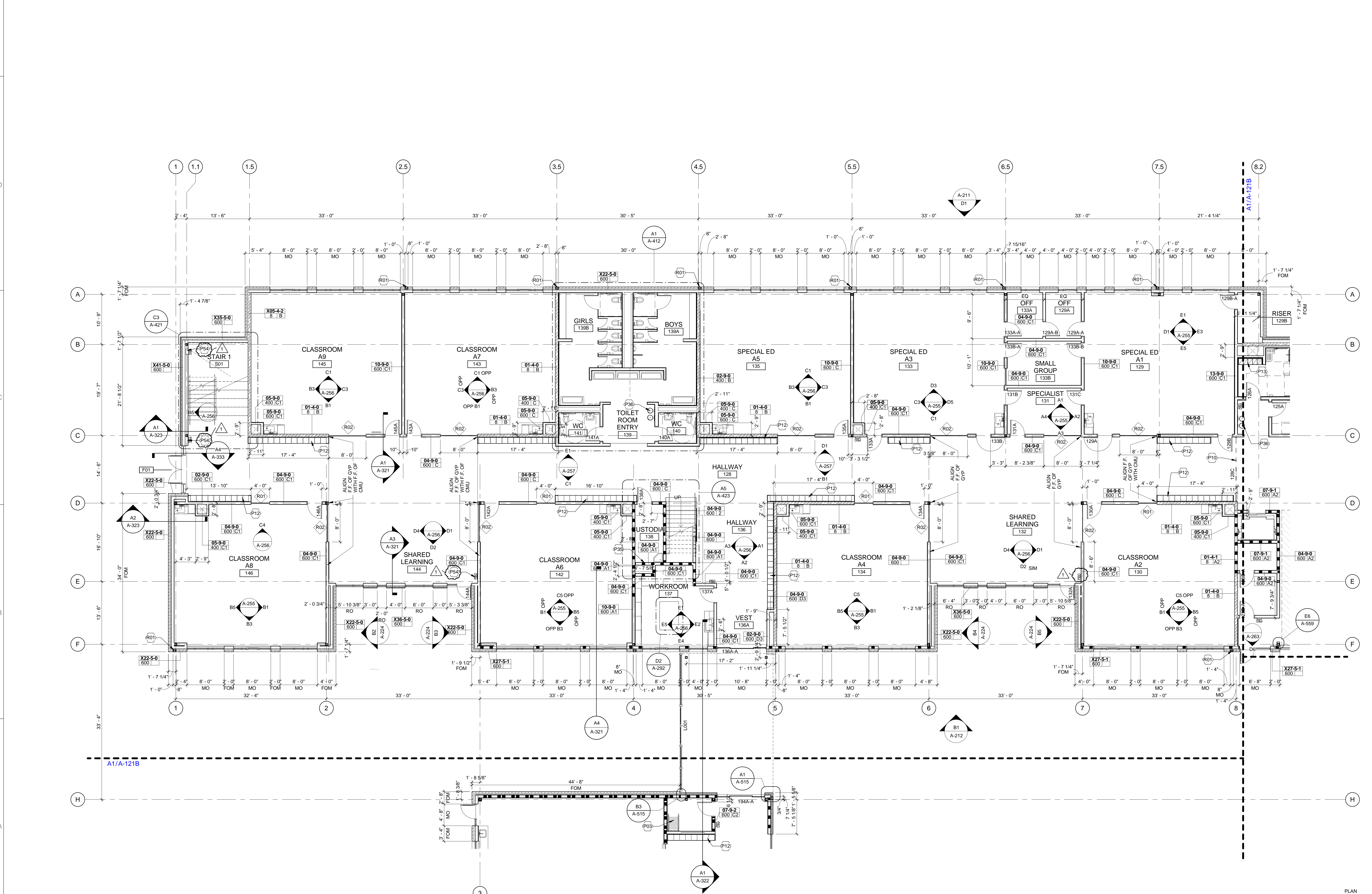
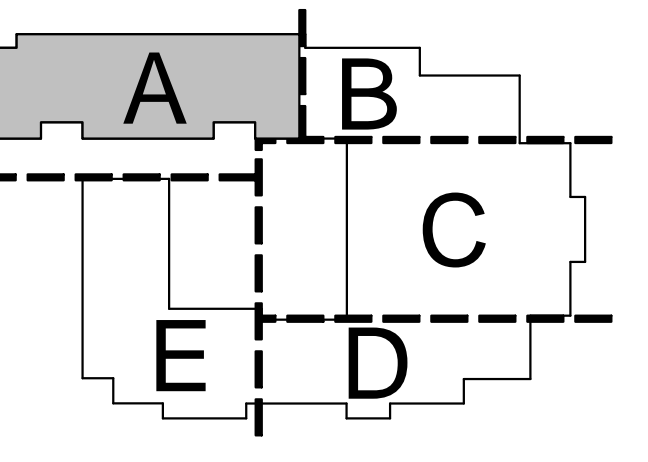
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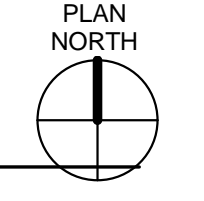
EUGENE SCHOOL DISTRICT 4J



REPLACEMENT ROOSEVELT MIDDLE SCHOOL
 CIP NUMBER 410,566.001
 680 EAST 24TH AVENUE
 EUGENE, OREGON 97405



A1 FIRST FLOOR PLAN - ZONE A
 1/8" = 1'-0"



MARK	DATE	DESCRIPTION
1	2-27-2015	ADDENDUM 1

ISSUE DATE: FEBRUARY 18, 2015
 ISSUE: CONSTRUCTION DOCUMENTS
 VOLUME: PACKAGE 2 VOLUME 1

PROJECT NO: 2013912.00
 DRAWN BY: AC
 CHECKED BY: DE
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FIRST FLOOR PLAN - ZONE A

A-121A

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PLAN GENERAL NOTES

- A. CONTRACTOR TO VERIFY ALL CONDITIONS AND DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO ANY WORK.
- B. UNLESS OTHERWISE NOTED, PLAN DIMENSIONS SHOWN ARE:
 -AT INTERIOR PARTITIONS: TO THE FACE OF STUD
 -AT COLUMNS: TO THE CENTERLINE OF COLUMNS; IF WALL AT COLUMN CENTER WALL ON COLUMN
 -AT CONCRETE: TO THE FACE OF CONCRETE
 -AT EXTERIOR WALLS: TO THE FACE OF STUD (TO THE EDGE OF SLAB) (TO THE FACE OF FOUNDATION WALL)
 -CMU WALLS ARE CENTERED ON GRID & DIMENSIONED TO INDICATE FULL BLOCK CLR = CLEAR DIMENSIONS ARE TO FACE OF FINISHED MATERIAL.
 FOR WALLS AT GRIDLINES, CENTERLINE OF STUDS ARE AT CENTERLINE OF GRID / COLUMN UNLESS DIMENSIONED OTHERWISE.
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- F. SEE SHEET A-601 FOR EXTERIOR WALL ASSEMBLIES, A-602 FOR INTERIOR WALL ASSEMBLIES, AND A-603 FOR HORIZONTAL ASSEMBLIES.
- G. MULTIPLE LAYERS GWB WALLS TO HAVE MULTIPLE LAYERS ON SAME FACE AS WALL TAG UNLESS OTHERWISE NOTED. ALIGN FACE OF FINISHES AT ALL ADJACENT WALL TYPES U.N.O.
- H. CONTRACTOR TO VERIFY ALL INDICATED RECESS SLAB DEPTH WITH FINISH PRODUCT MANUFACTURER.
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- J. SEE FINISH SCHEDULE FOR FLOOR FINISH INFORMATION.
- K. EXTERIOR STUD WALLS TO HAVE (1) LAYER OF GWB ON THE INTERIOR SIDE U.N.O.
- M. ASSEMBLIES FOR FIRE RATED WALLS AND COLUMNS SHALL EXTEND FROM STRUCTURAL FLOOR TO UNDERSIDE OF FLOOR DECK OR ROOF ABOVE, UNLESS SPECIFICALLY NOTED OTHERWISE. ALL OPENINGS AND JOINTS SHALL BE PROTECTED AS REQUIRED BY CODE.
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- O. COMPLETELY SEAL AROUND PENETRATIONS THROUGH ACOUSTICAL WALLS. FILL DEPTH OF GAPS AROUND CUT-OUTS FOR ELECTRICAL BOXES, PIPES AND PLUMBING, AND OTHER PENETRATIONS. PROVIDE INSULATION BETWEEN THE CONCEALED FACE OF FINISH MATERIALS (WITHIN THE STUD OR JOIST CAVITY) AND PIPES, PLUMBING, THE BACK OF BOXES, OR OTHER RECESSED FIXTURES.
- P. FRAME AND FINISH OPENINGS FOR MECHANICAL AND ELECTRICAL SYSTEMS AS REQUIRED BY MECHANICAL/ELECTRICAL DOCUMENTS.
- Q. COORDINATE WITH STRUCTURAL DRAWINGS FOR REQUIRED SHEARWALL SHEATHING. PROVIDE IN ADDITION TO COMPONENTS INDICATED ON WALL TYPE DETAILS AS REQUIRED.

KEYNOTES

A- KEYNOTES FLOOR PLAN	
Key Value	Keynote Text
P04	05 51 33 WALL LADDER WITH EXTENSIONS
P10	09 33 28 OVERHEAD COILING GRILLS/ DEPLOYABLE EXIT DOORS
P12	10 51 00 HALLWAY LOCKERS
P33	05 52 13 PIPE AND TUBE RAILINGS
P96	DIW 22 WATER FOUNTAIN
P42	OCFI REFRIGERATOR
P54	FULLY RECESSED FIRE EXTINGUISHER CABINET
R01	DOWNPOUT

PLAN SYMBOL LEGEND

- NON RATED WALL
- 1-HOUR RATED WALL
- 2-HOUR RATED WALL
- 3-HOUR RATED WALL
- ROUGH OPENING
- MASONRY OPENING

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ROBERTSON/SHERWOOD/ARCHITECTS PC
 1321 EAST BROADWAY, SUITE 540
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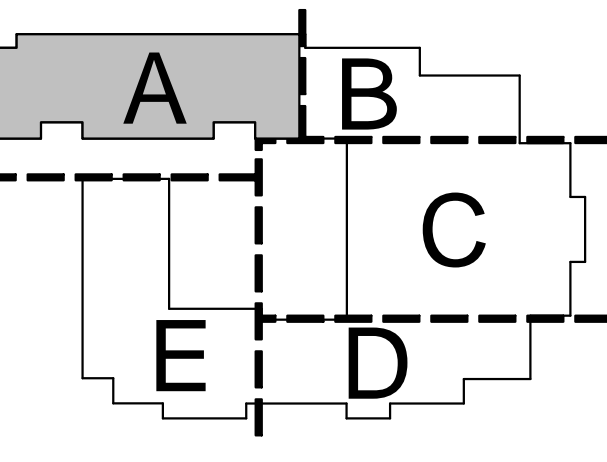
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REGISTERED ARCHITECT
 LEROY LANDERS
 ARCHITECT
 STATE OF OREGON

EUGENE SCHOOL DISTRICT 4J

4J

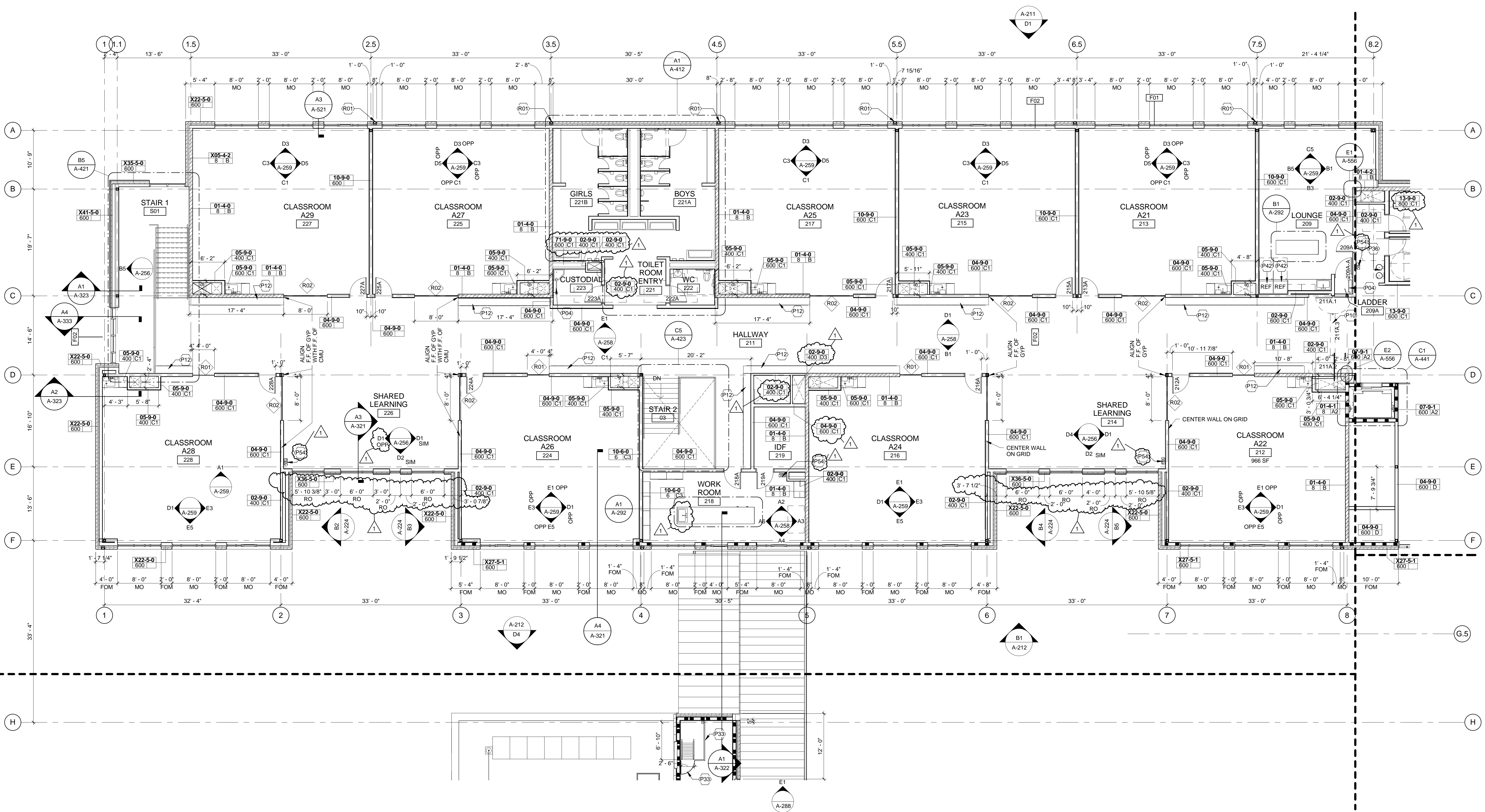
REPLACEMENT ROOSEVELT
 MIDDLE SCHOOL
 CIP NUMBER 410.566.001
 680 EAST 24TH AVENUE
 EUGENE, OREGON 97405



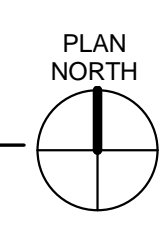
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ISSUE DATE:	FEBRUARY 18, 2015	
ISSUE:	CONSTRUCTION DOCUMENTS	
VOLUME:	PACKAGE 2 VOLUME 1	
PROJECT NO.:	2013912.00	
DRAWN BY:	AC	
CHECKED BY:	DE	

SECOND FLOOR PLAN - ZONE A

A-122A



A1 SECOND FLOOR PLAN - ZONE A
 1/8" = 1'-0"



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PLAN GENERAL NOTES

- A. CONTRACTOR TO VERIFY ALL CONDITIONS AND DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO ANY WORK.
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 -AT COLUMNS: TO THE CENTERLINE OF COLUMNS; IF WALL AT COLUMN CENTER WALL ON COLUMN
 -AT CONCRETE: TO THE FACE OF CONCRETE
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- Q. COORDINATE WITH STRUCTURAL DRAWINGS FOR REQUIRED SHEARWALL SHEATHING. PROVIDE IN ADDITION TO COMPONENTS INDICATED ON WALL TYPE DETAILS AS REQUIRED.

KEYNOTES

A- KEYNOTES FLOOR PLAN	
Key Value	Keynote Text
P03	05 51 33 SHIPS LADDER
P04	05 51 33 WALL LADDER WITH EXTENSIONS
P07	08 31 00 ACCESS DOOR
P33	05 52 13 PIPE AND TUBE RAILINGS
P57	SURFACE MOUNT FIRE EXTINGUISHER BRACKET
R18	FALL PROTECTION ANCHOR

PLAN SYMBOL LEGEND

- NON RATED WALL
- 1-HOUR RATED WALL
- 2-HOUR RATED WALL
- 3-HOUR RATED WALL
- ROUGH OPENING
- MASONRY OPENING

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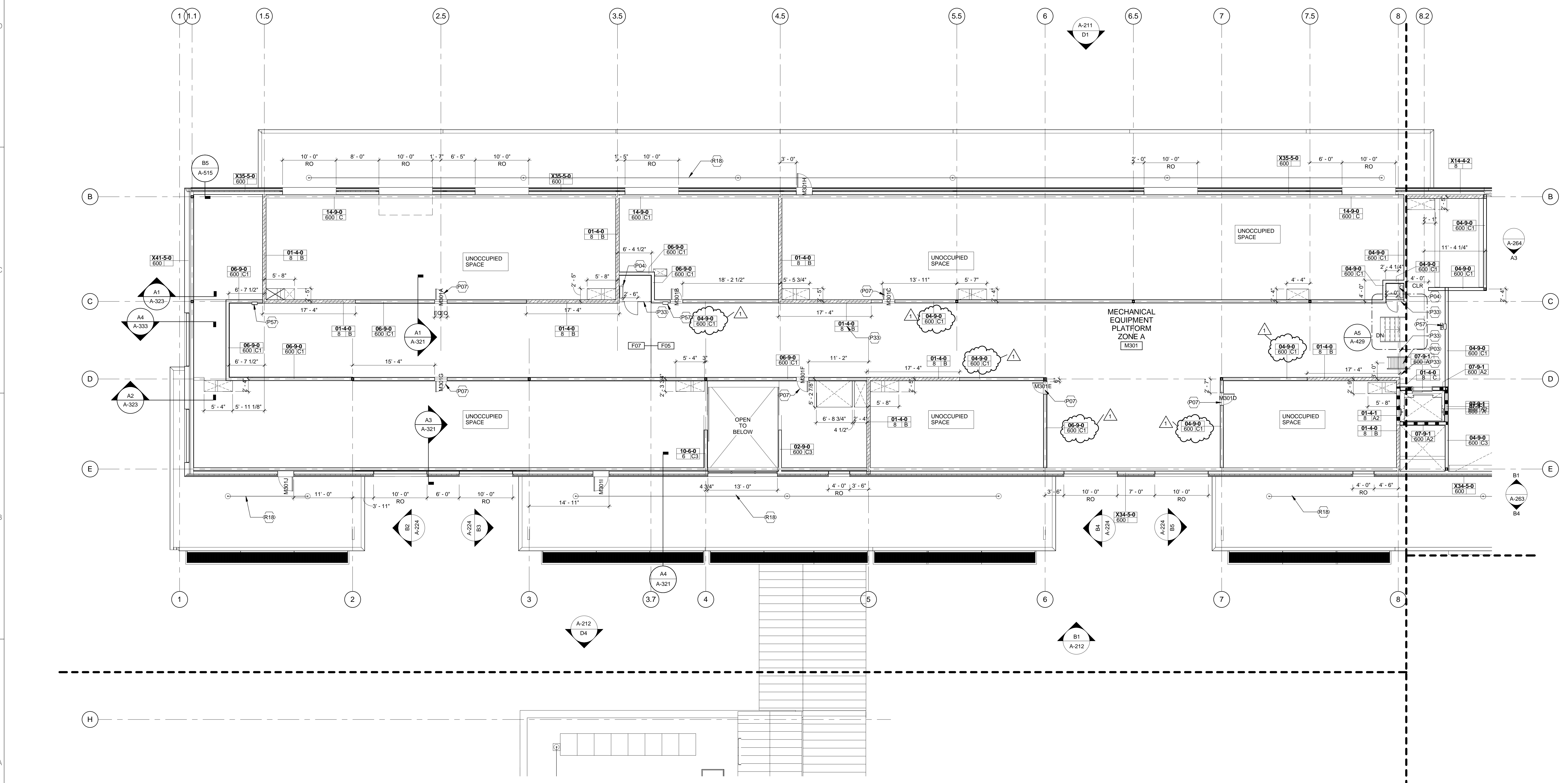
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REGISTERED ARCHITECT
 5584
 LEROY LUNDERS
 SEATTLE, WASHINGTON
 STATE OF OREGON

EUGENE SCHOOL DISTRICT 4J

4J

REPLACEMENT ROOSEVELT
 MIDDLE SCHOOL
 CIP NUMBER 410.566.001
 680 EAST 24TH AVENUE
 EUGENE, OREGON 97405

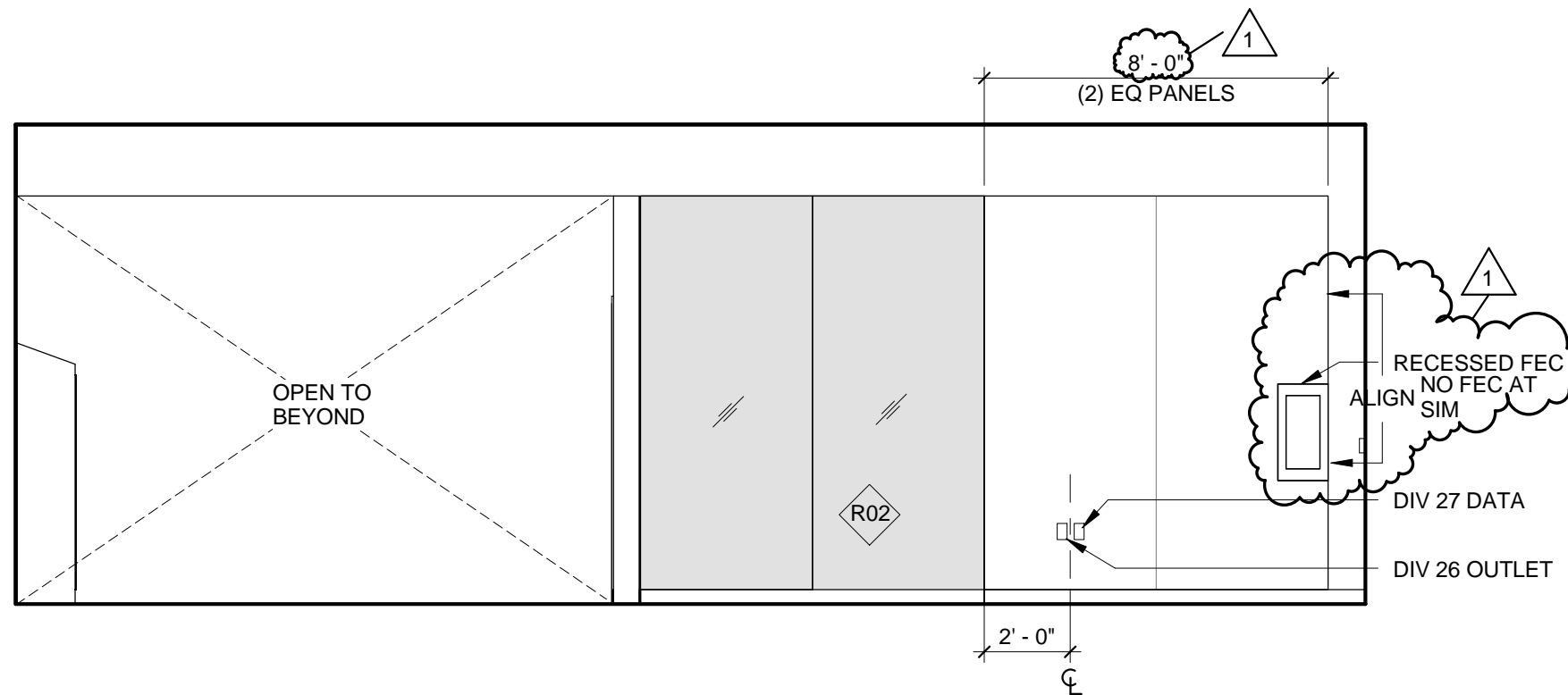


MECHANICAL EQUIPMENT PLATFORM PLAN - ZONE A
 A1
 1/8" = 1'-0"

MARK	DATE	DESCRIPTION
1	2-27-2015	ADDENDUM 1
ISSUE DATE: FEBRUARY 18, 2015		
ISSUE: CONSTRUCTION DOCUMENTS		
VOLUME: PACKAGE 2 VOLUME 1		
PROJECT NO: 2013912.00		
DRAWN BY: AC		
CHECKED BY: DE		
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MECHANICAL EQUIPMENT PLATFORM PLAN - ZONE A

A-131A



D1 132 / 144 / 214 / 226 SHARED LEARNING - EAST
 1/4" = 1'-0"



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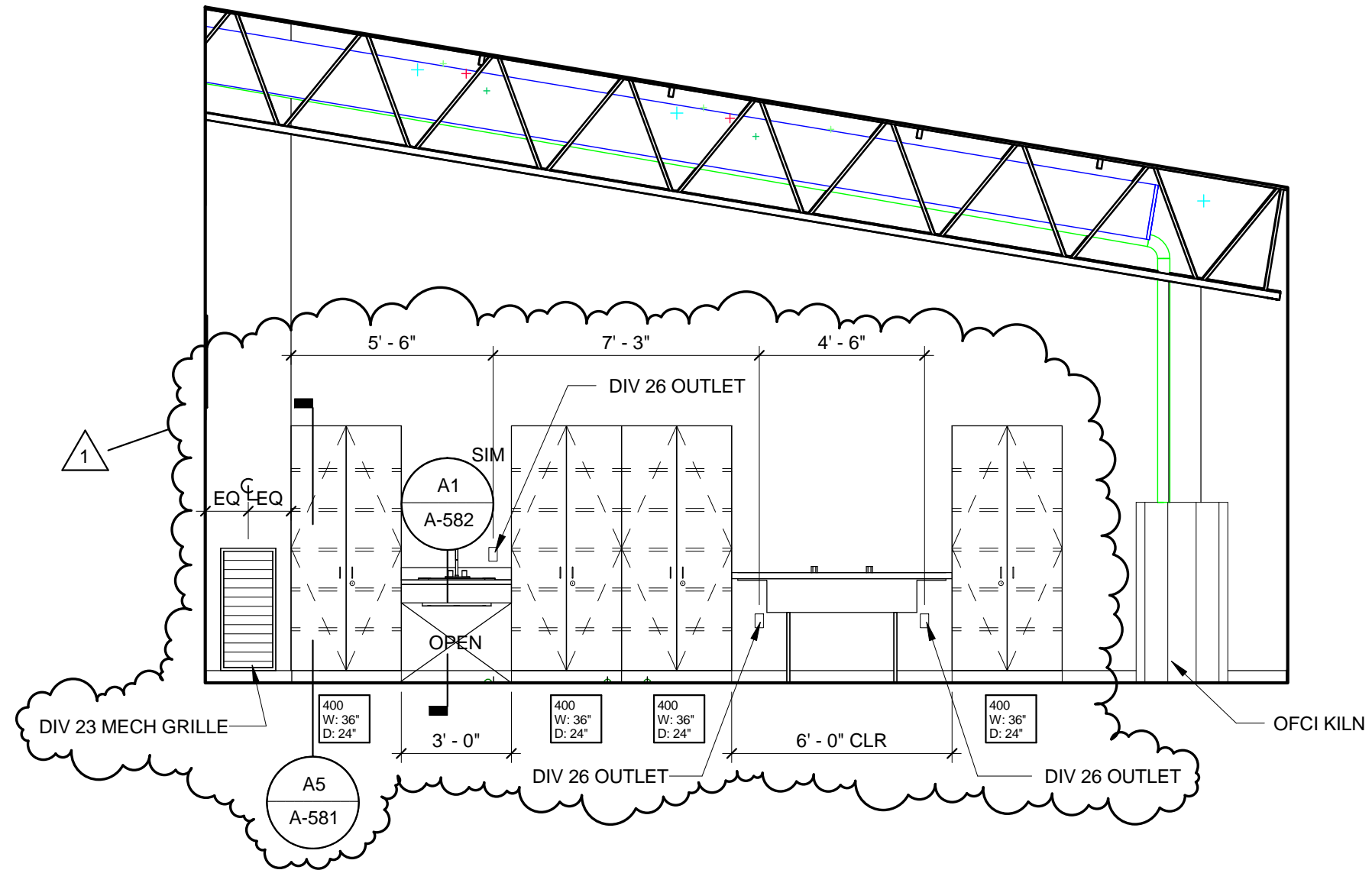
REPLACEMENT ROOSEVELT MIDDLE SCHOOL
 CIP NUMBER 410.566.001
 680 EAST 24TH AVENUE
 EUGENE, OREGON 97405
 EUGENE SCHOOL DISTRICT 4J

DETL/SHT: **D1/A-256**
 REF: **ADDENDUM 1**

PROJECT NO: **2013912.00**
 DATE: **2/27/15**
ASK-A-256-01

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B1 153 DIRTY LAB C2 - SOUTH
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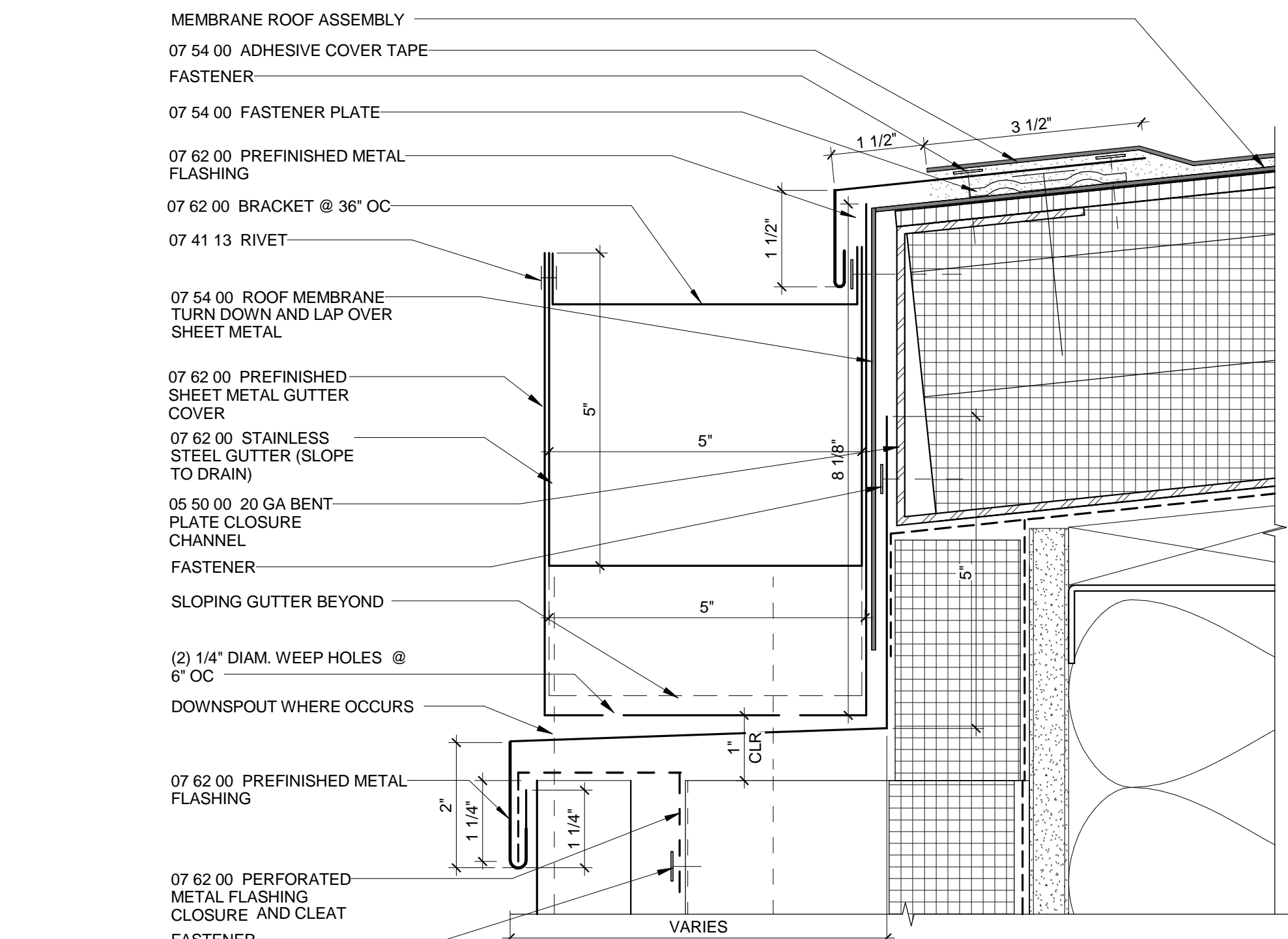


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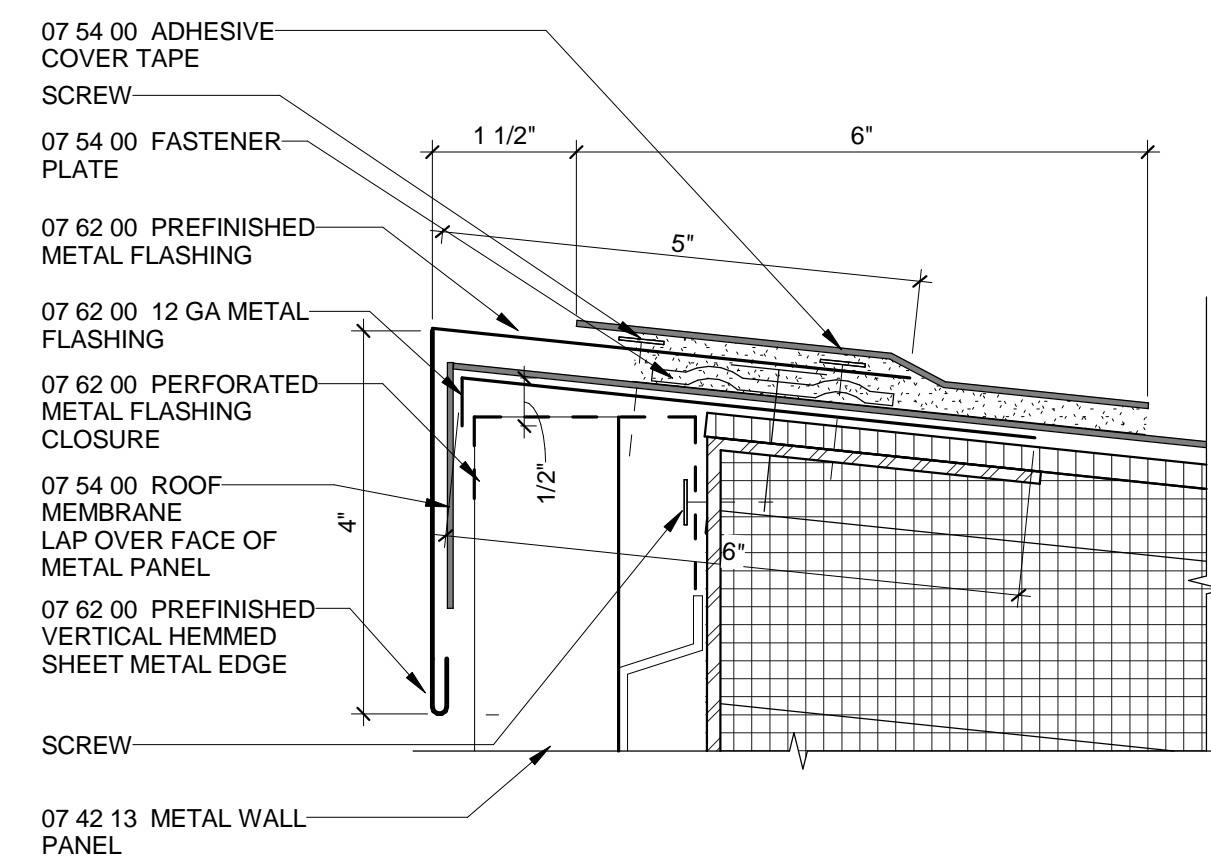
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 CIP NUMBER 410.566.001
 680 EAST 24TH AVENUE
 EUGENE, OREGON 97405
 EUGENE SCHOOL DISTRICT 4J

DETL/SHT: **B1/A-270**
 REF: **ADDENDUM 1**

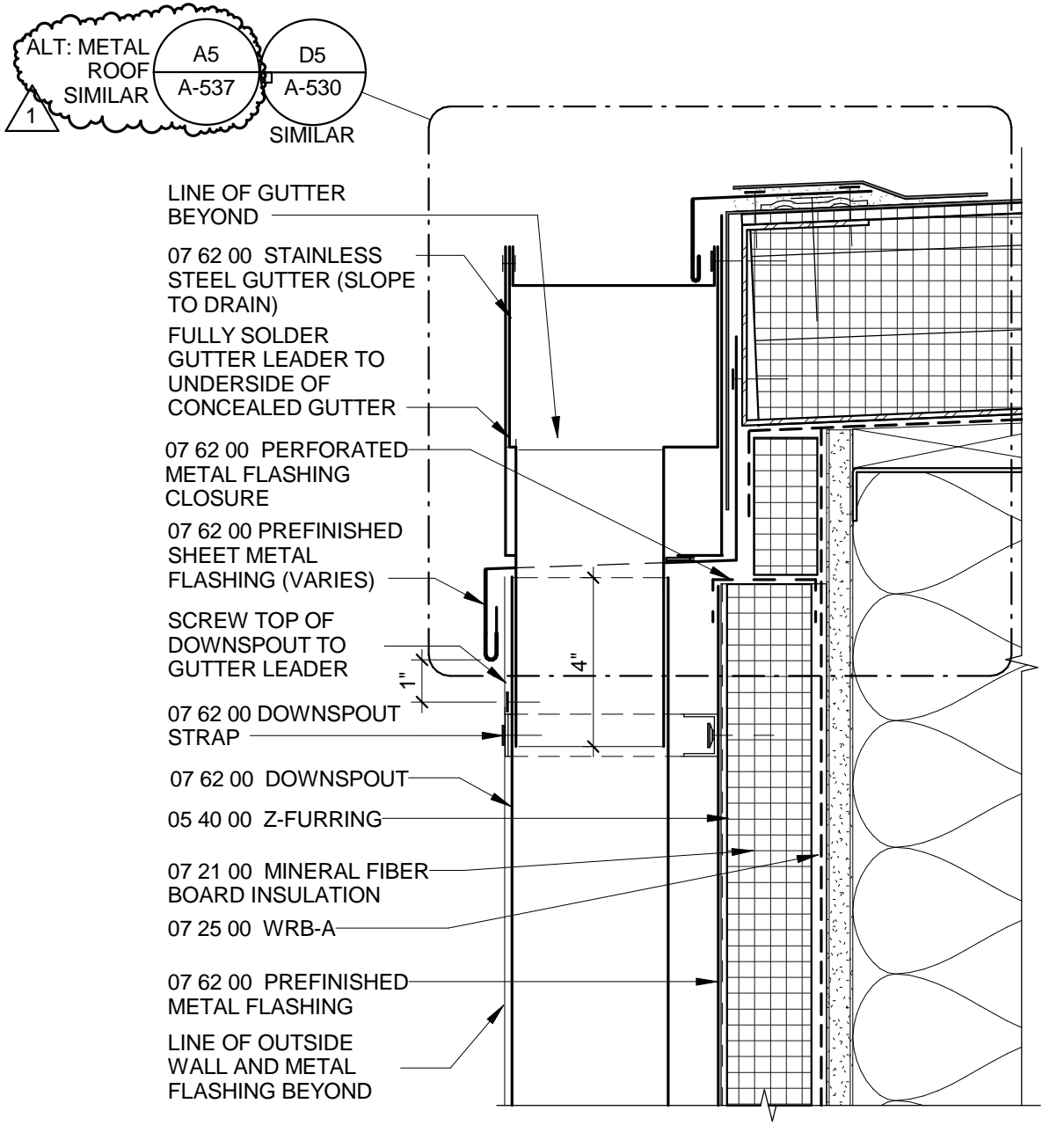
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 DATE: **02/27/15**
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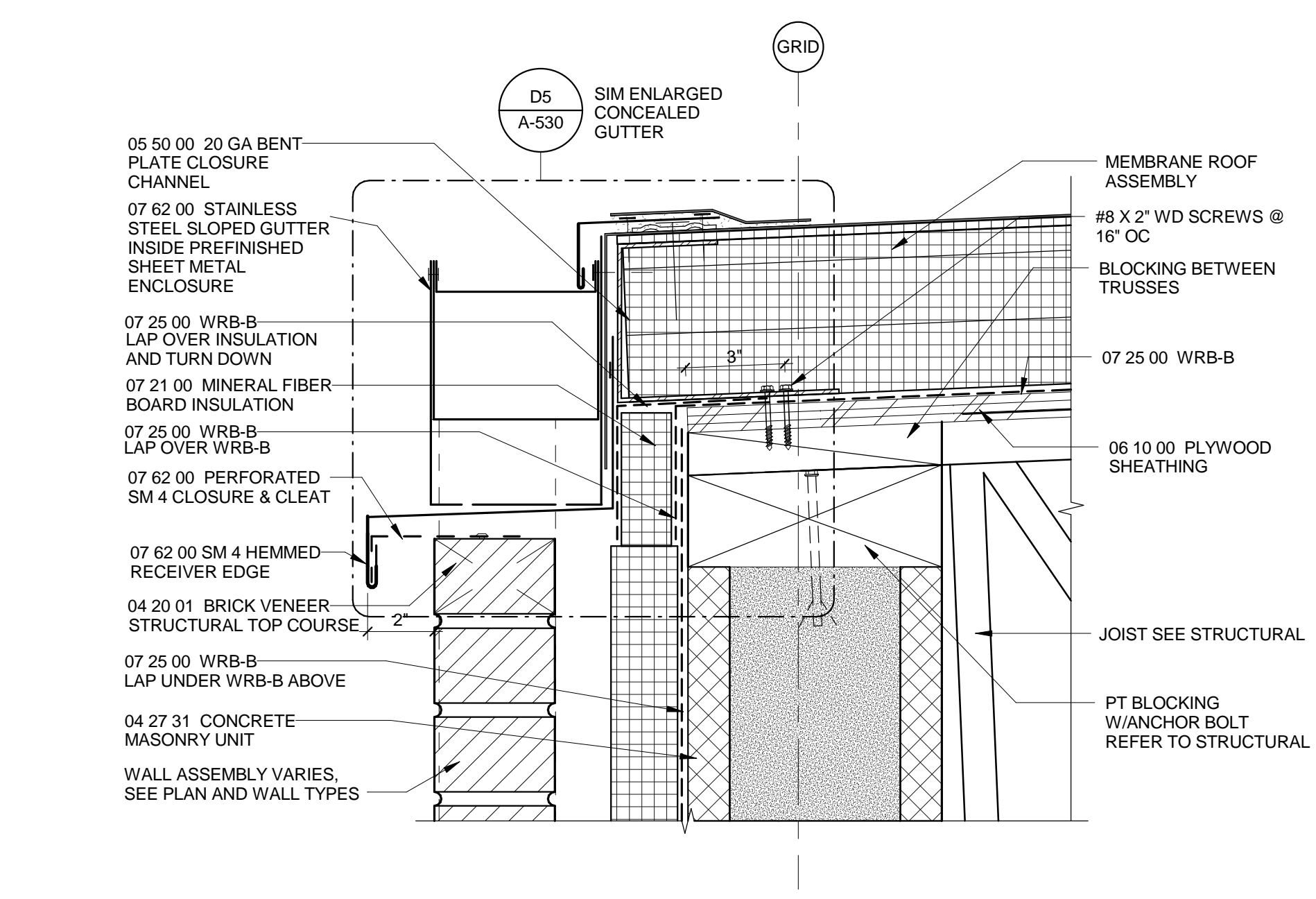
D5 TYPICAL ENLARGED CONCEALED GUTTER
3" = 1'-0"



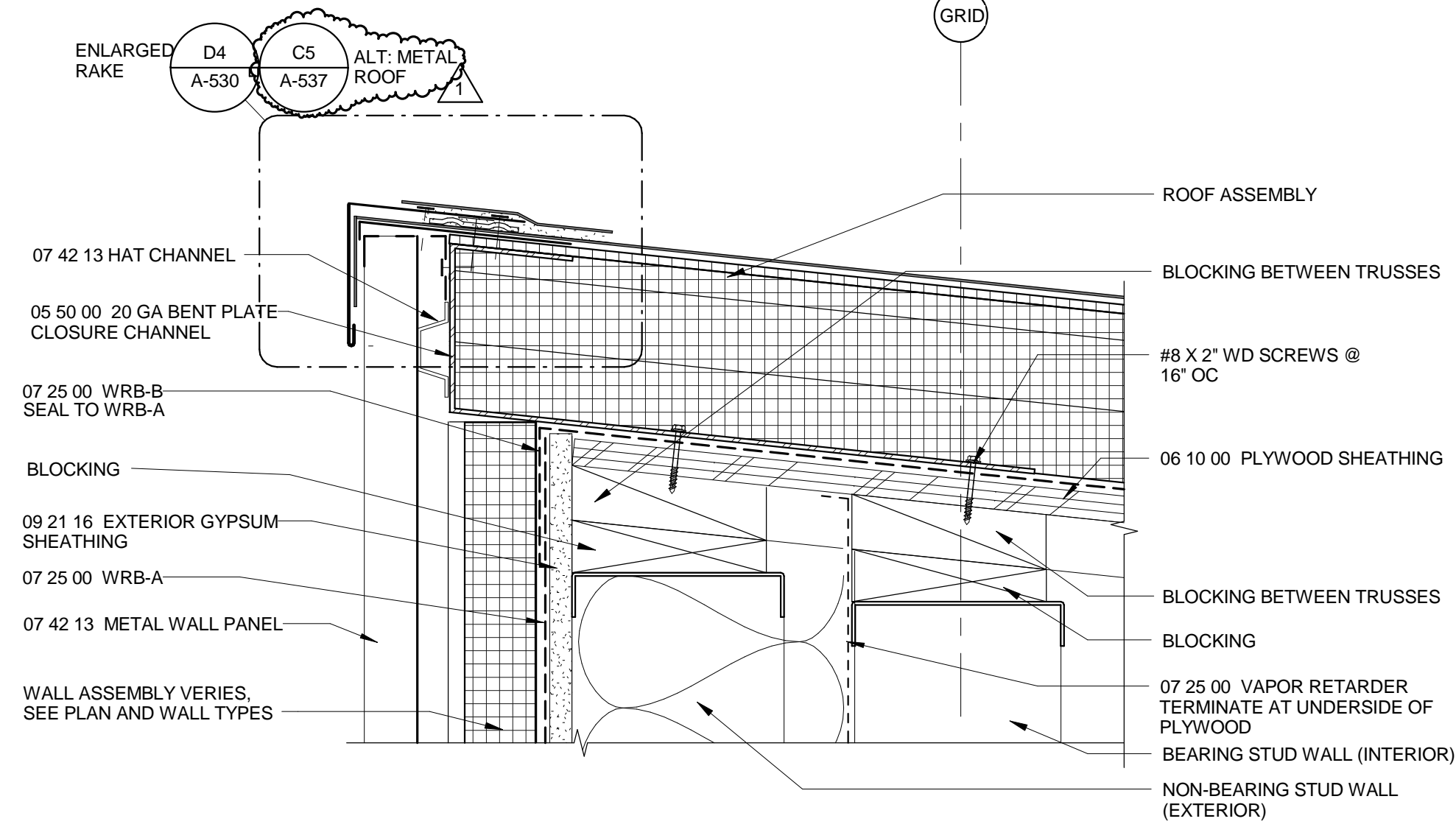
D4 ENLARGED TYPICAL SHEET METAL RAKE
6" = 1'-0"



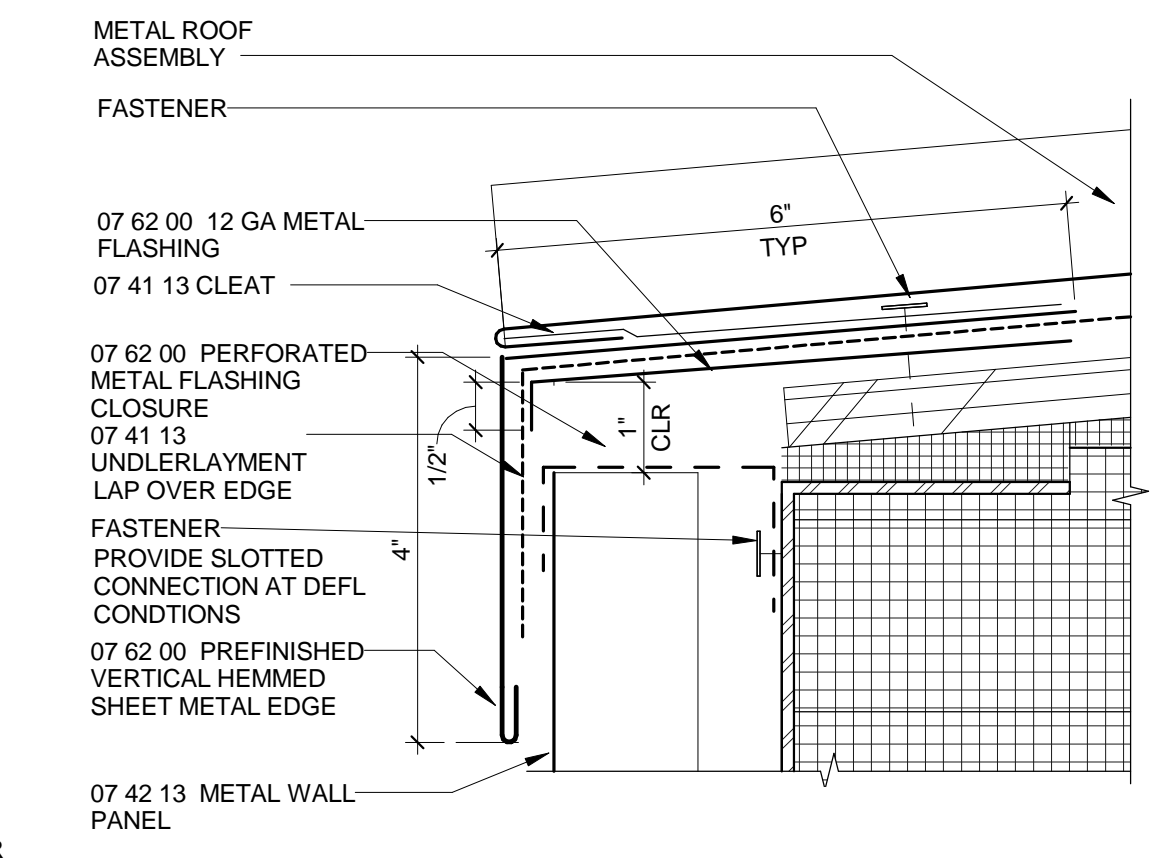
D3 TYPICAL LEADER/GUTTER AT DOWNSPOUT
3" = 1'-0"



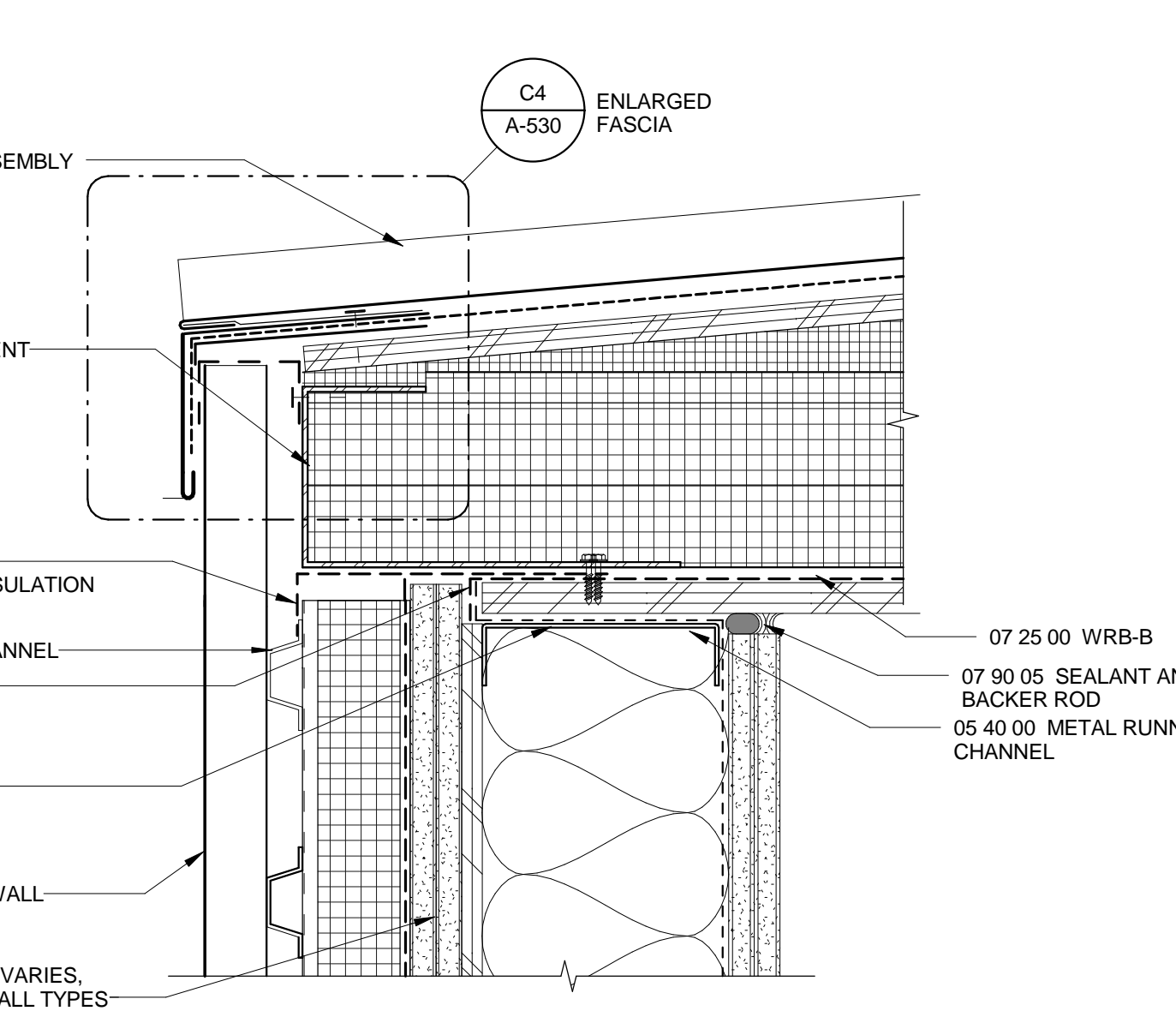
D1 GUTTER AT BRICK WALL (LB)
3" = 1'-0"



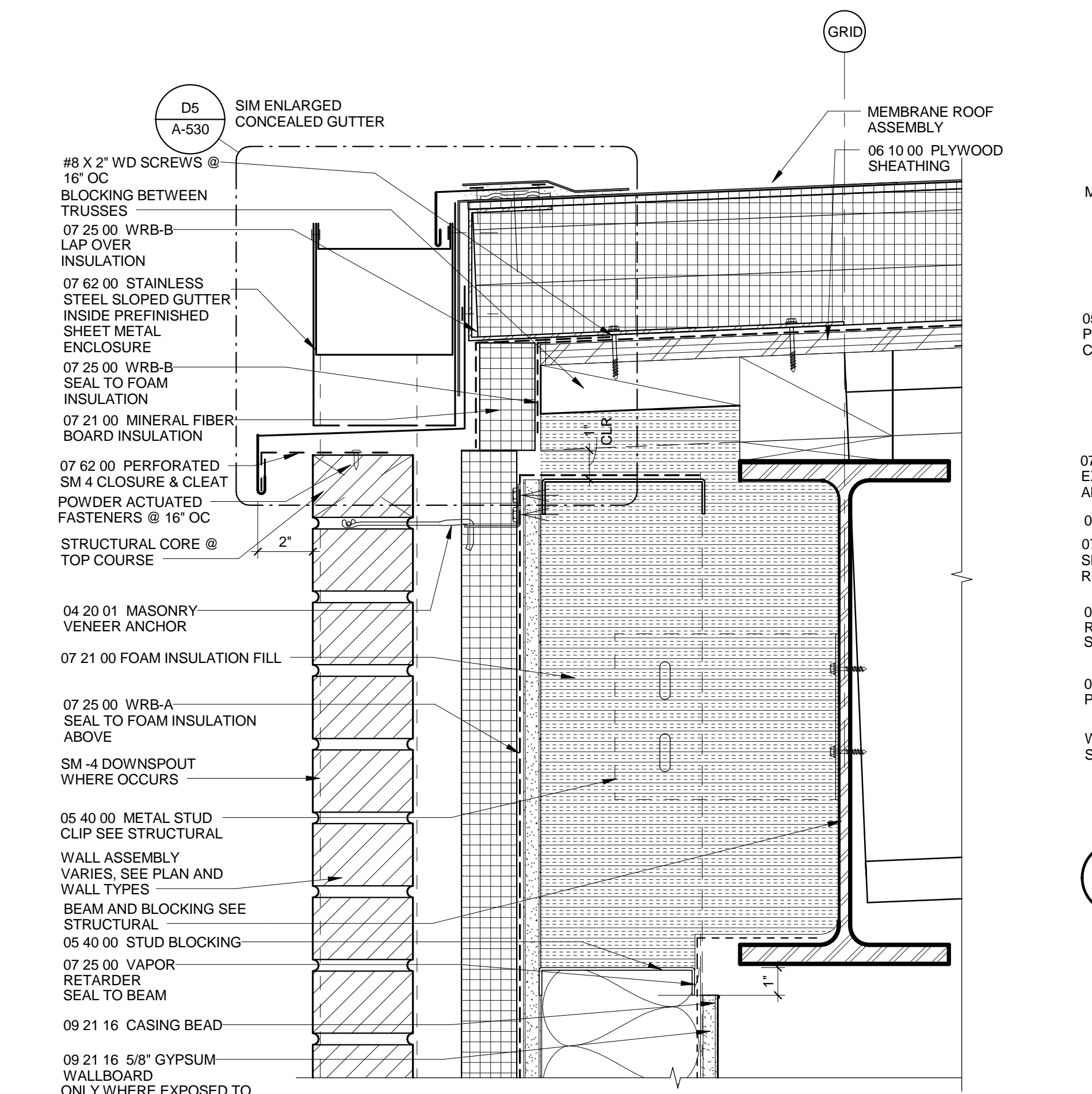
C5 HIGH EAVE AT MEMBRANE ROOF & METAL WALL PANEL (LB)
3" = 1'-0"



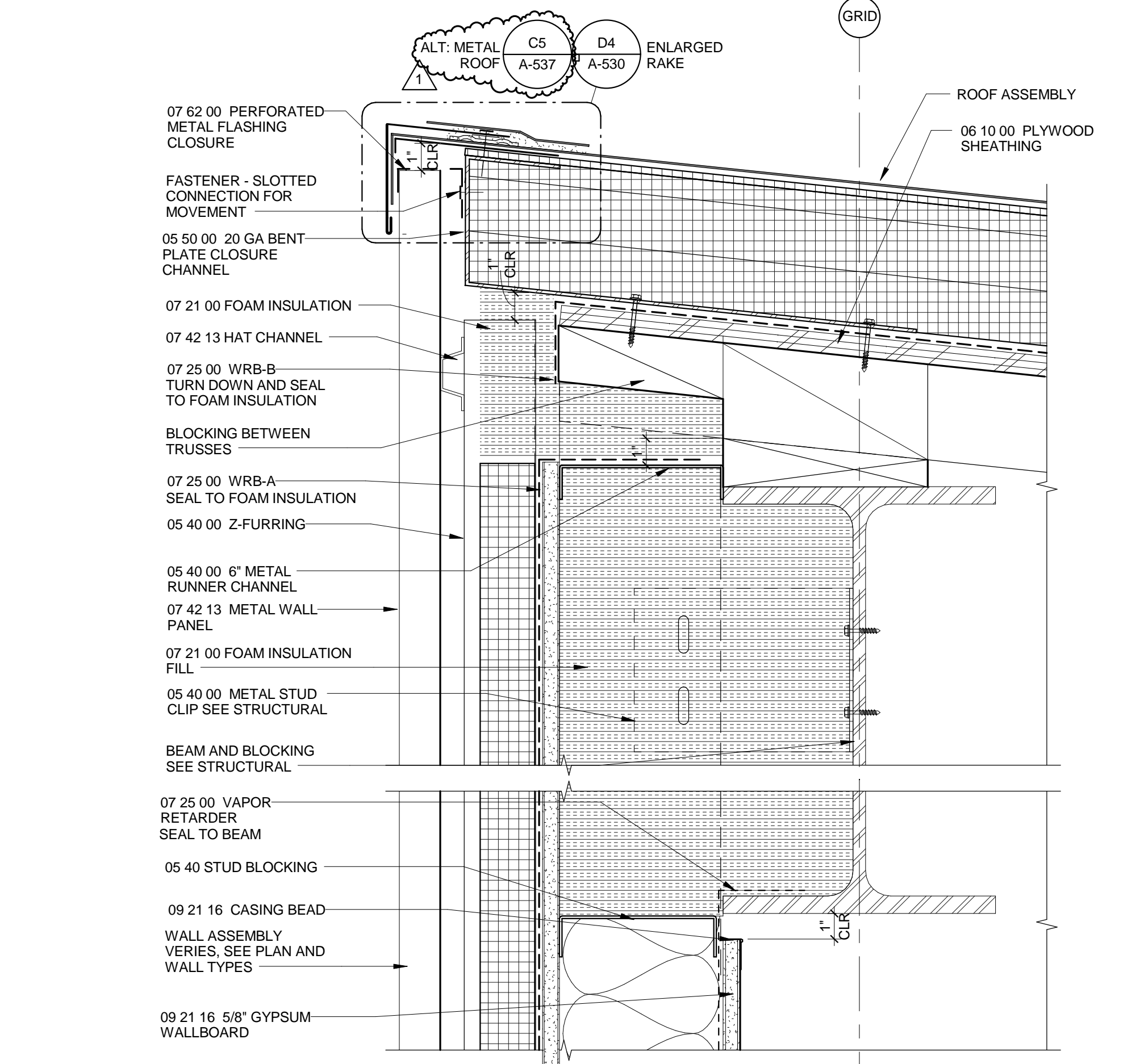
C4 ENLARGED FASCIA AT METAL ROOF
6" = 1'-0"



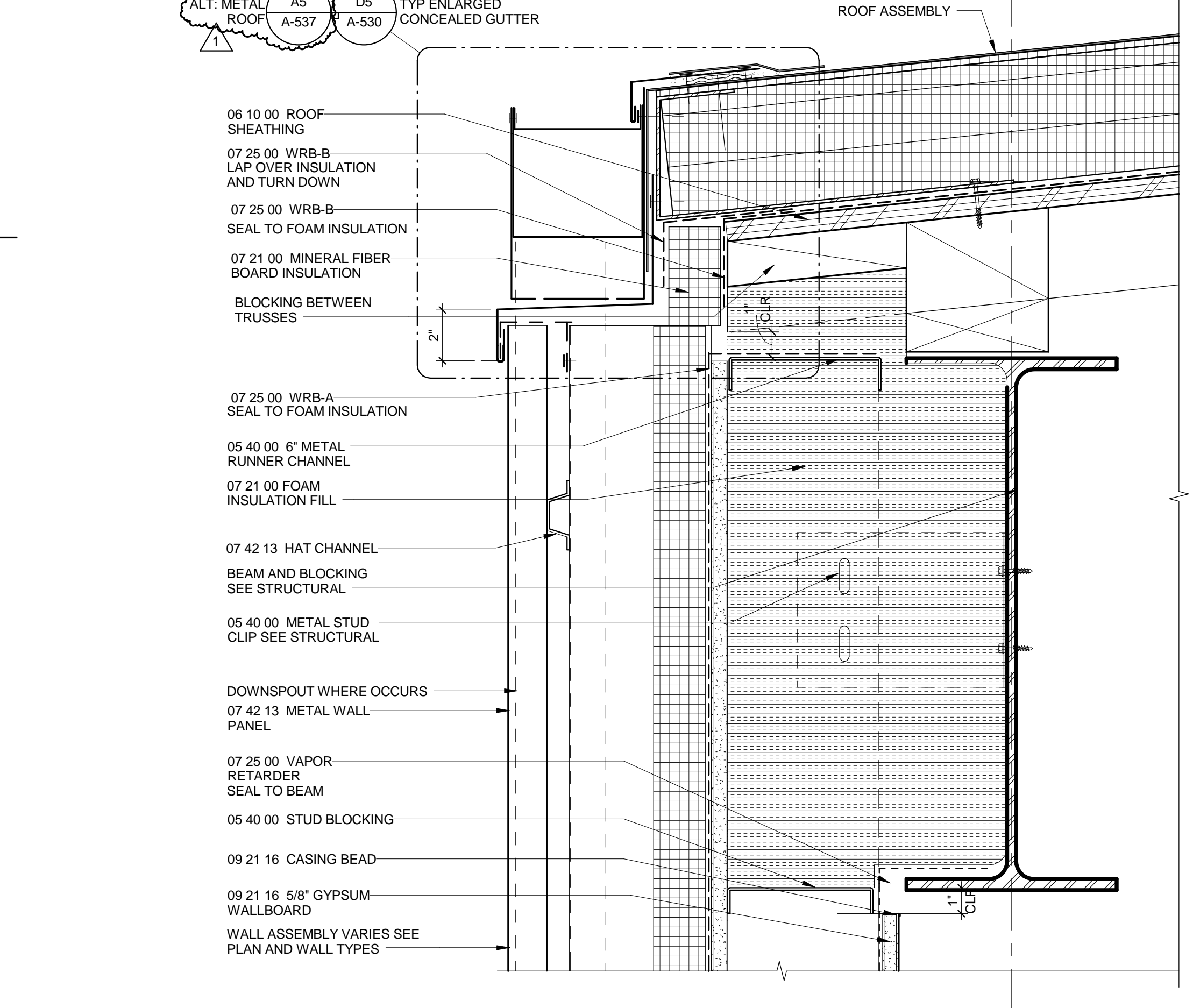
C2 ROOF EDGE @ METAL ROOF AND METAL WALL PANEL NO GUTTER (LB)
3" = 1'-0"



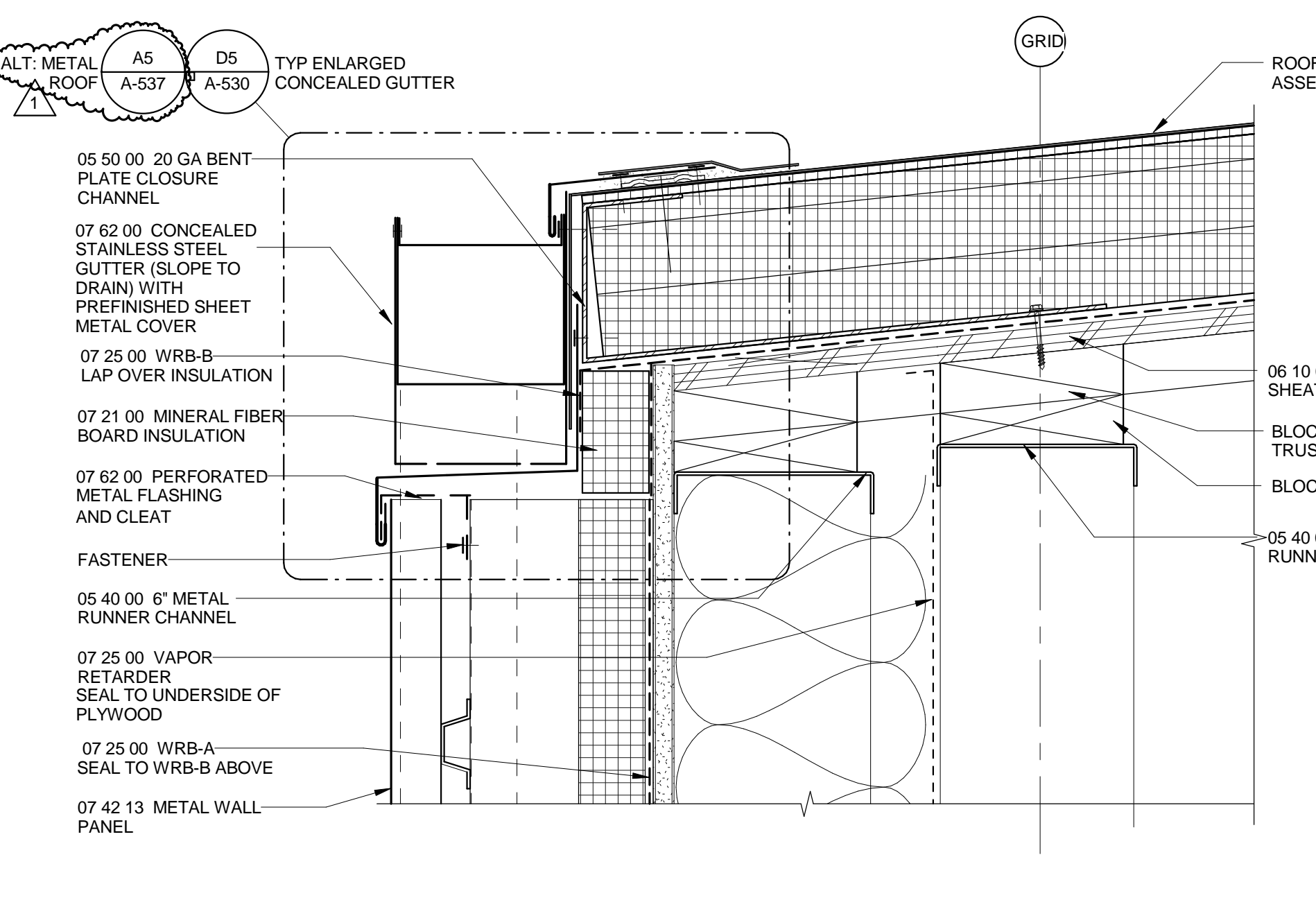
B1 ROOF EDGE AT MEMBRANE ROOF AND BRICK W/ CONCEALED GUTTER (DEFL)
3" = 1'-0"



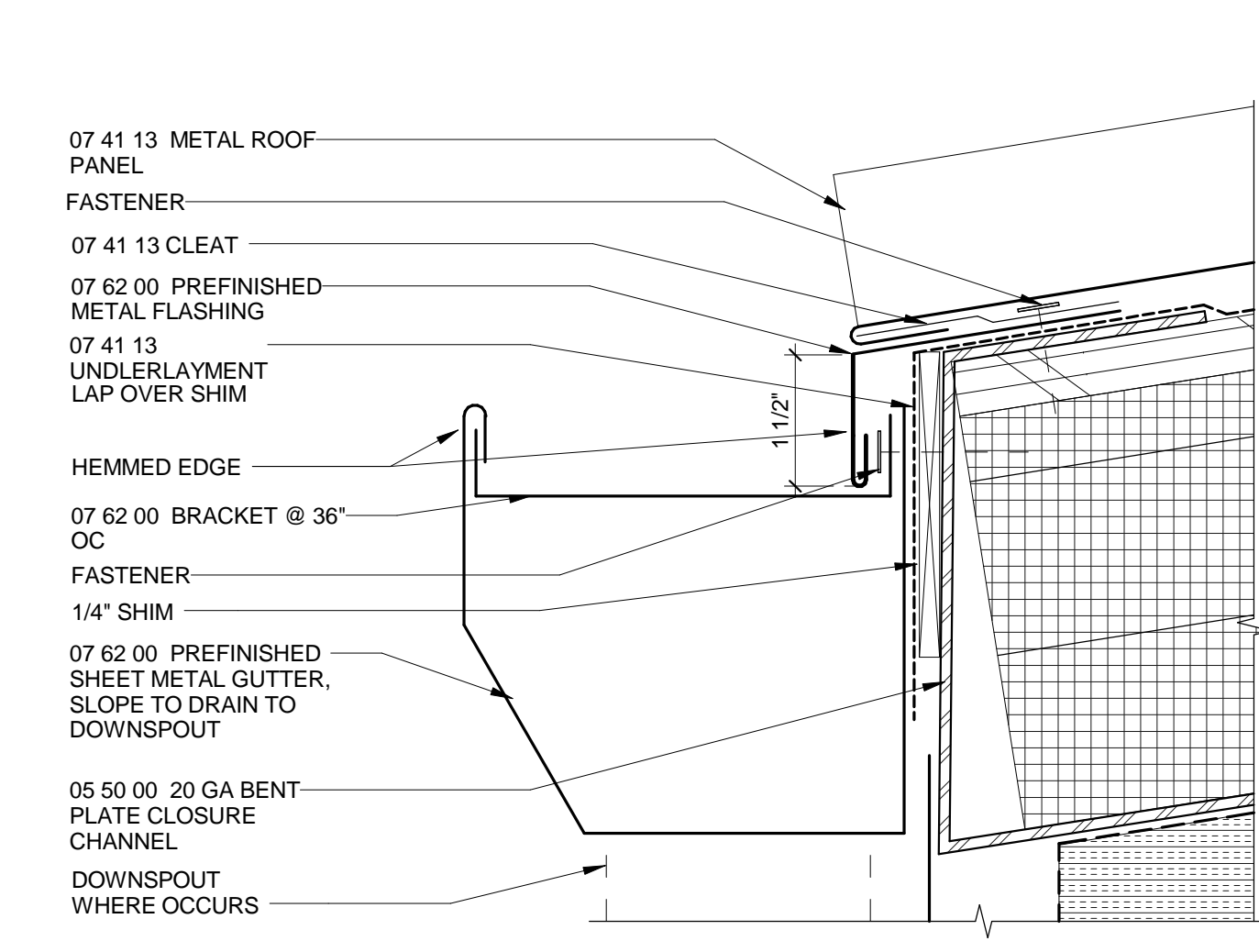
A5 HIGH EAVE AT MEMBRANE ROOF & METAL PANEL (DEFL)
3" = 1'-0"



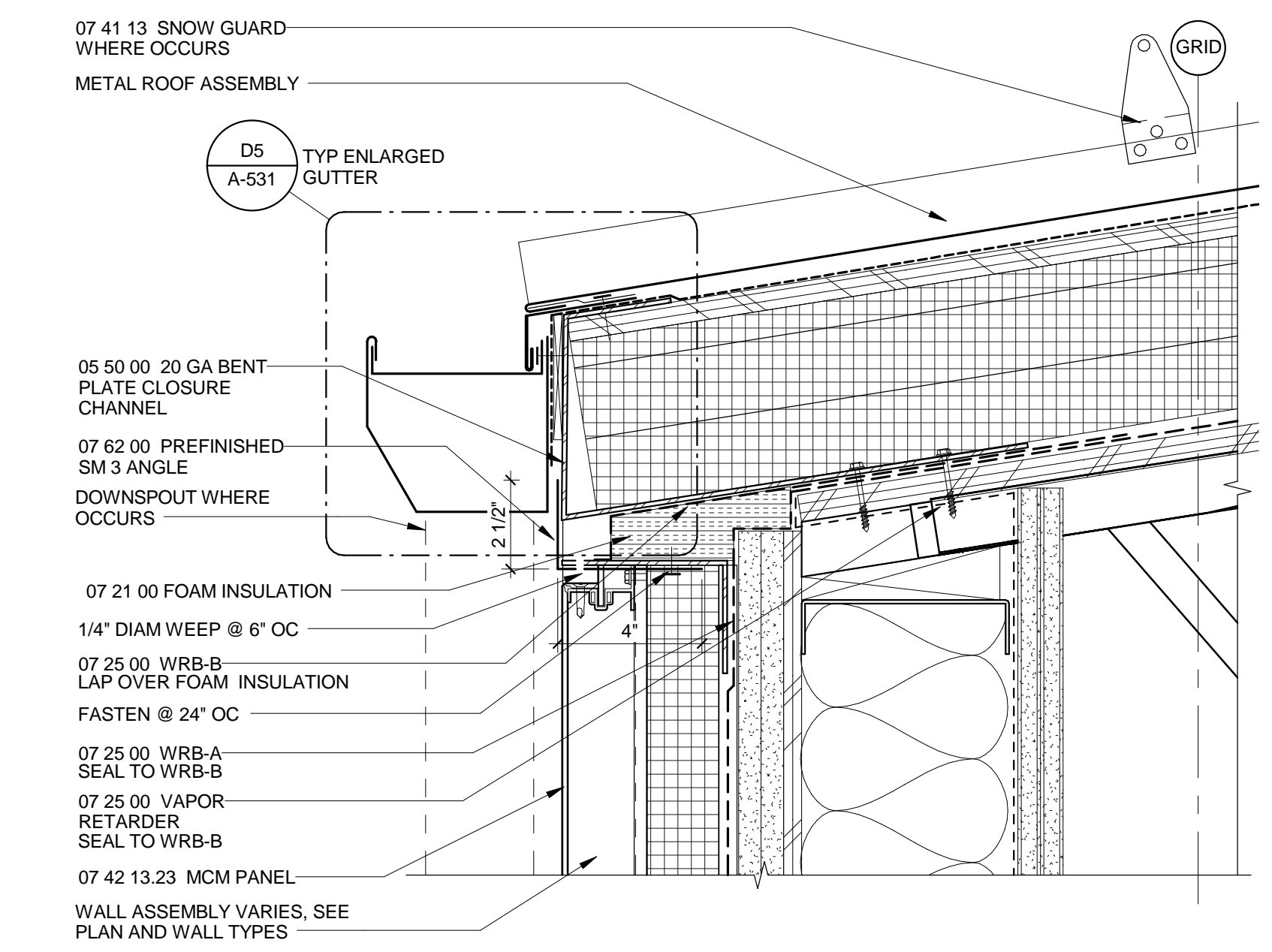
A3 ROOF EDGE AT MEMBRANE ROOF AND METAL WALL PANEL W/ CONCEALED GUTTER (DEFL)
3" = 1'-0"



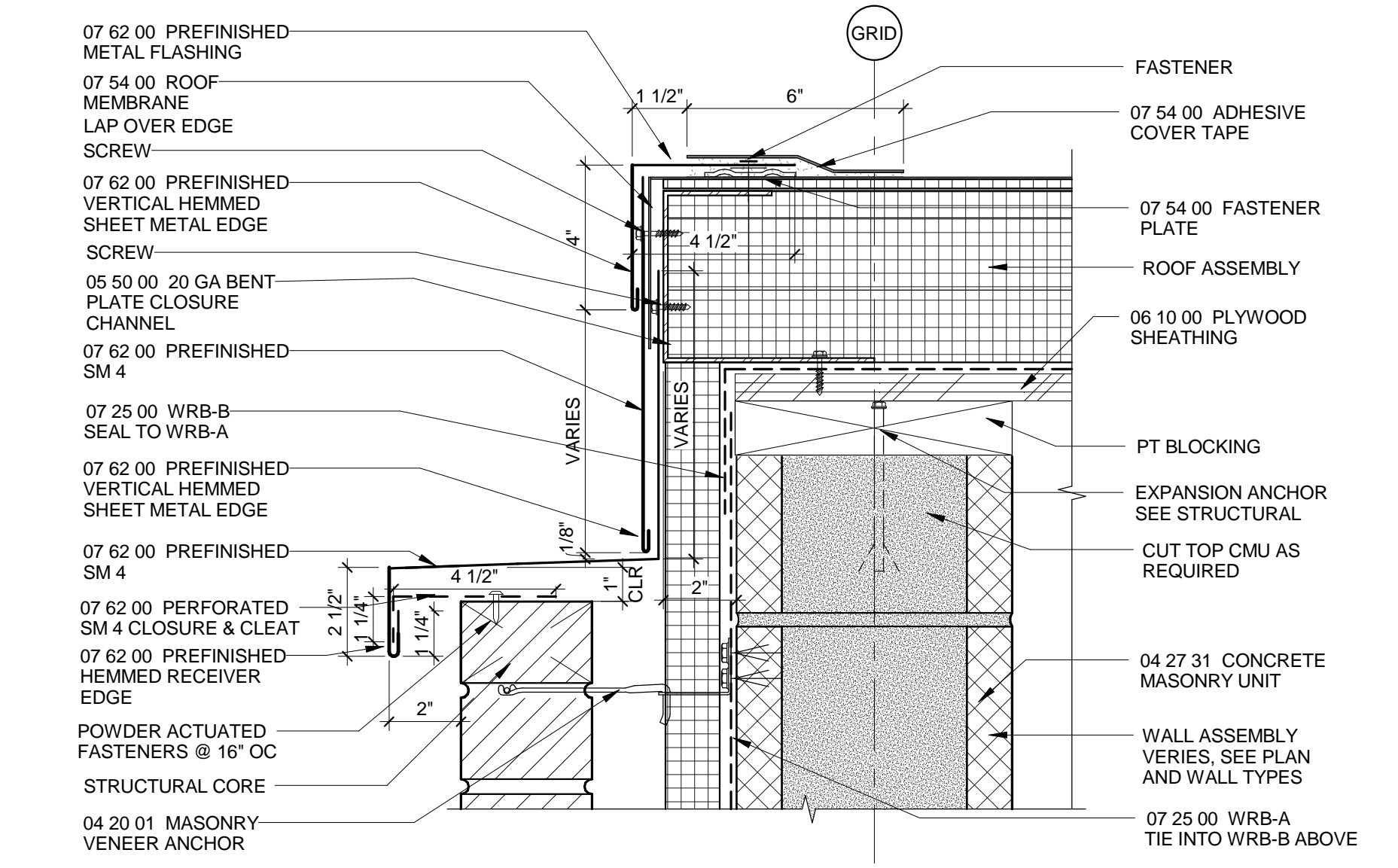
A1 ROOF EDGE AT MEMBRANE ROOF AND METAL WALL PANEL W/ CONCEALED GUTTER (LB)
3" = 1'-0"



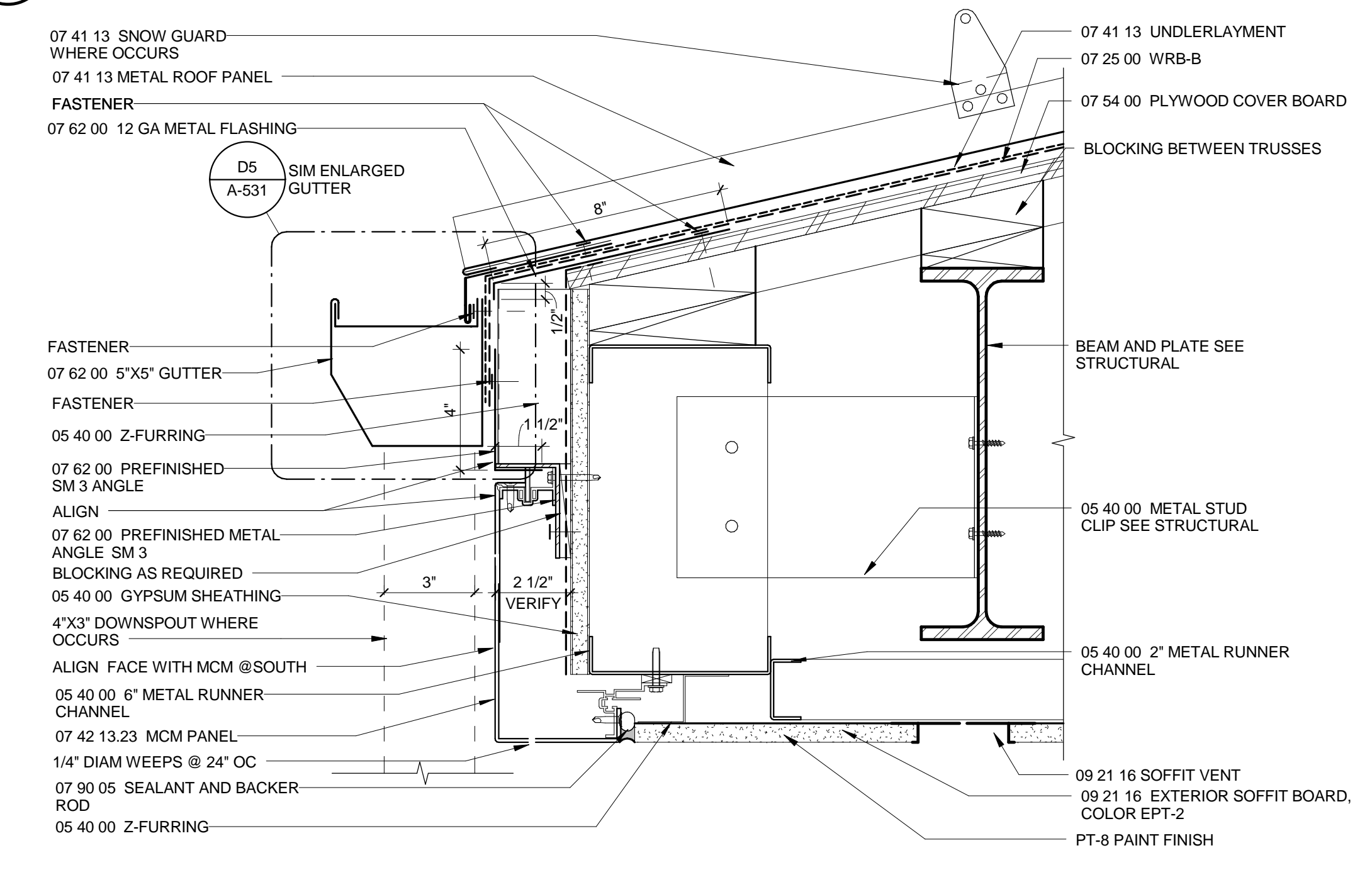
D5 TYPICAL ENLARGED GUTTER
6" = 1'-0"



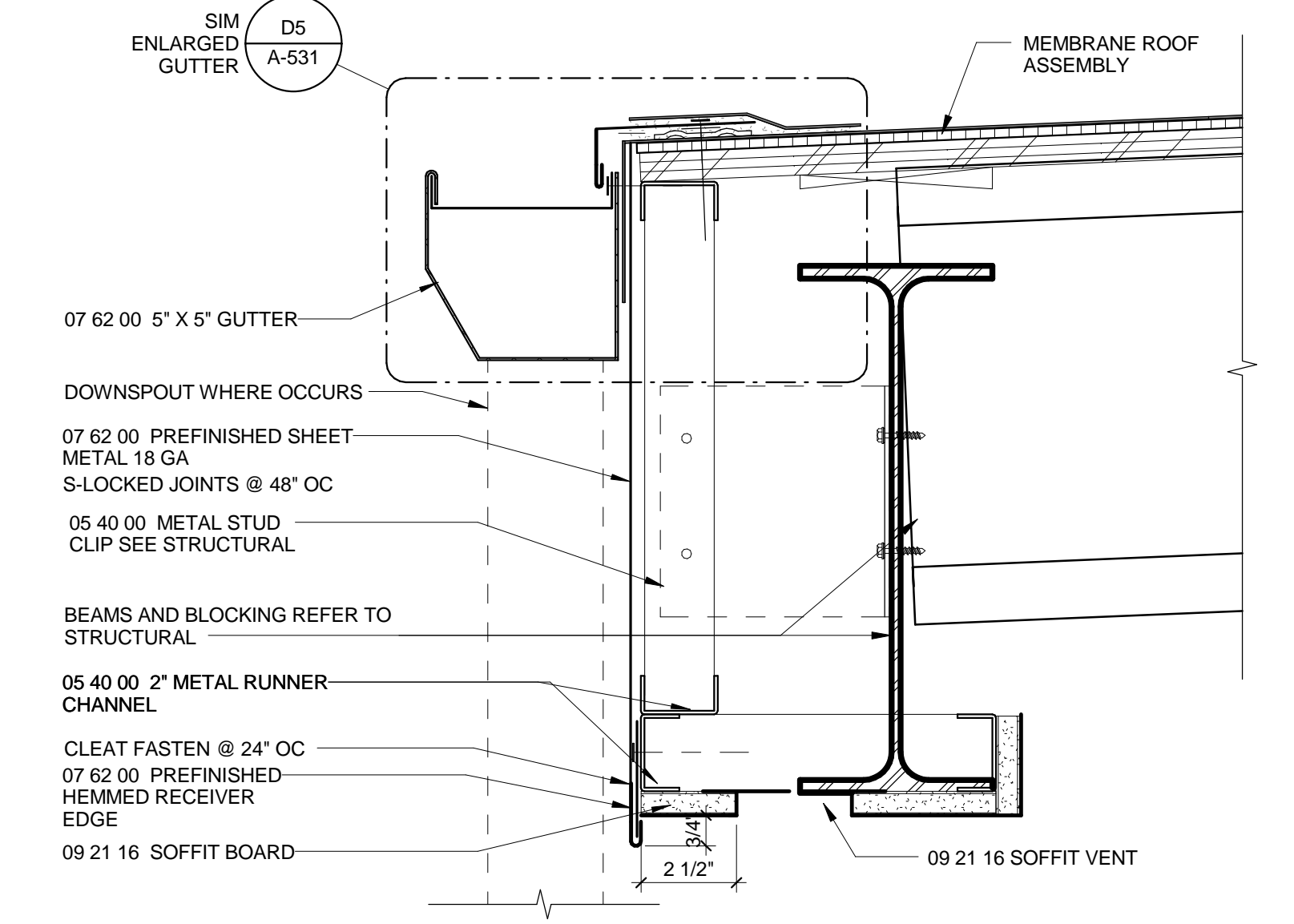
C5 ROOF EDGE @ METAL ROOF AND MCM WALL (LB)
3" = 1'-0"



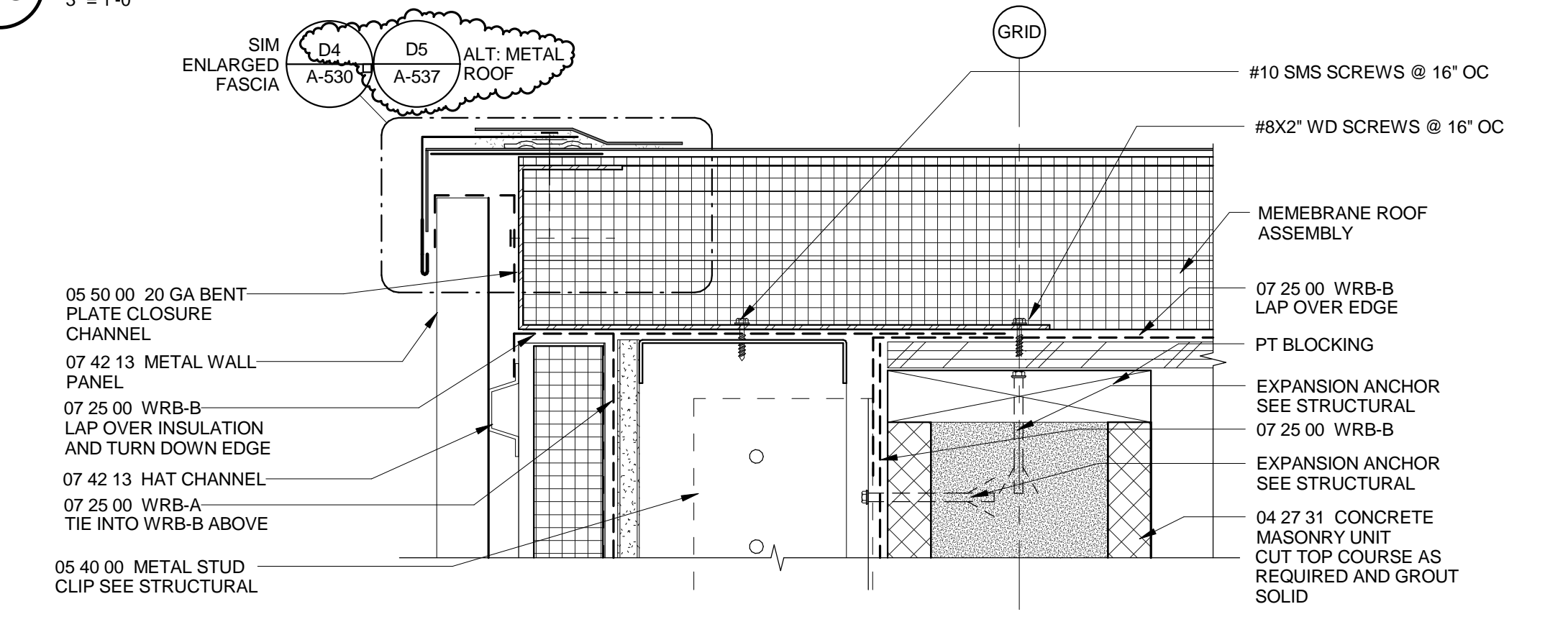
D3 RAKE EDGE @ MEMBRANE ROOF AND BRICK VENEER (LB)
3" = 1'-0"



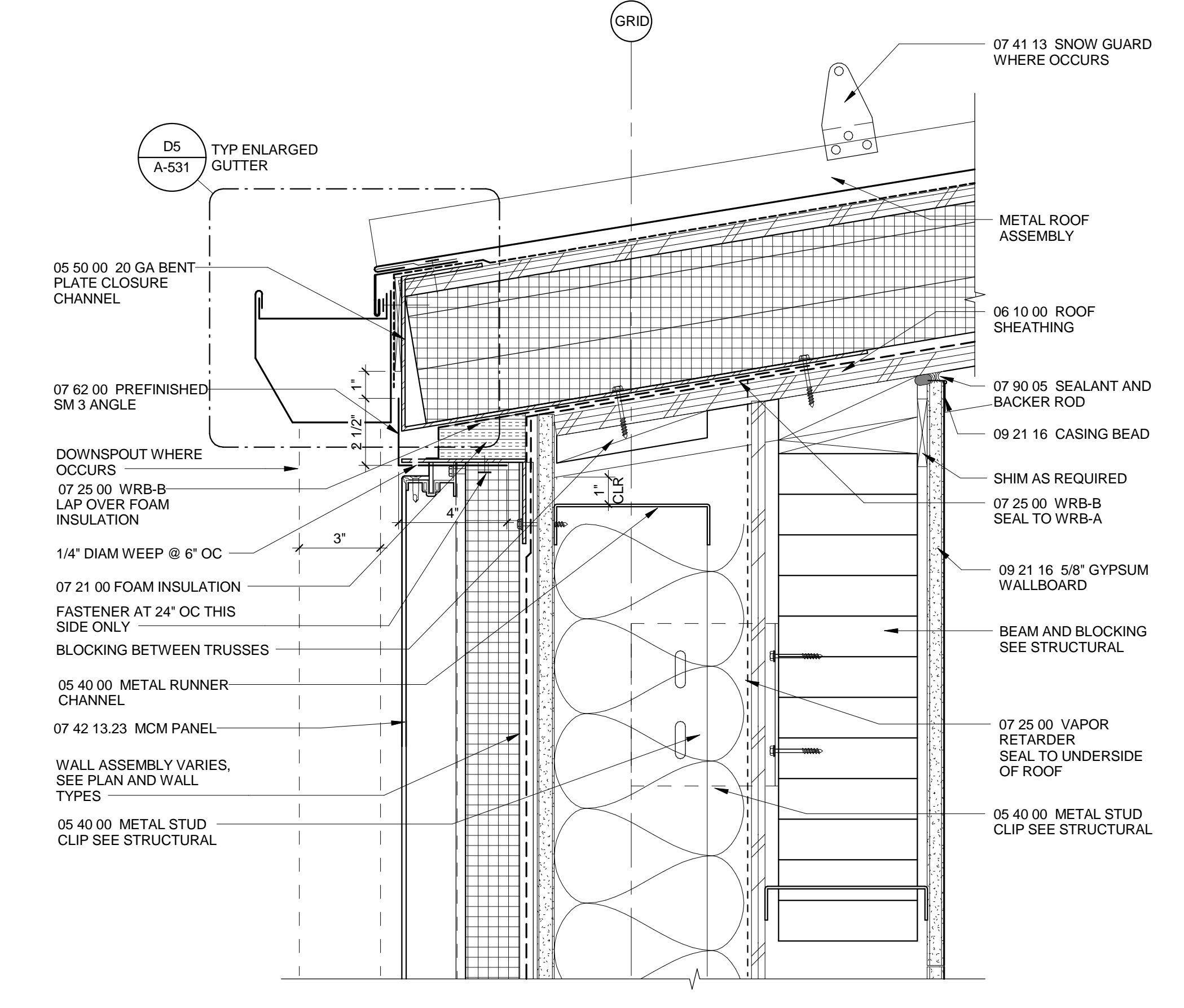
C3 EAVE AT COVERED WALK
3" = 1'-0"



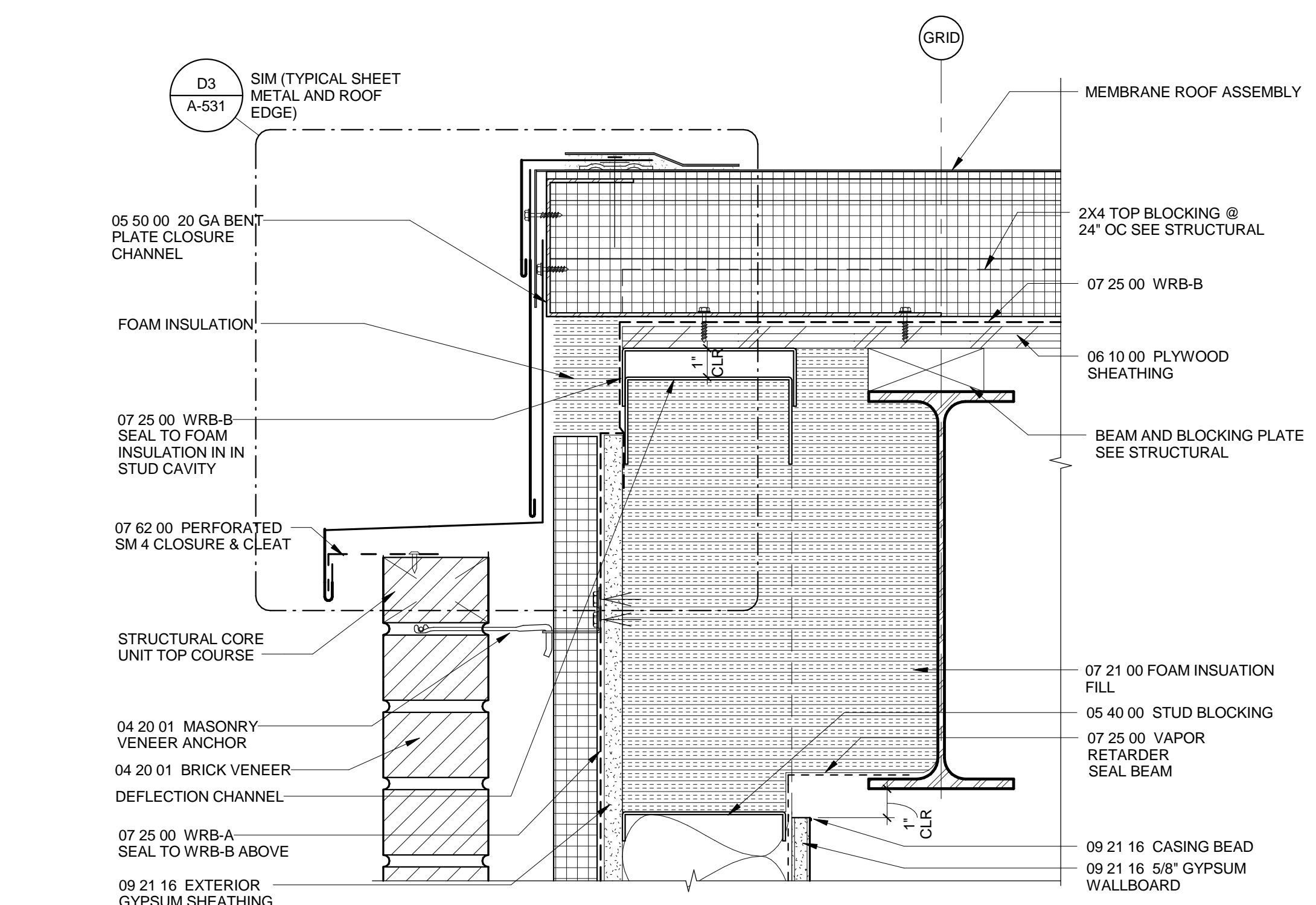
B3 EAVE INSIDE TRASH ENCLOSURE
3" = 1'-0"



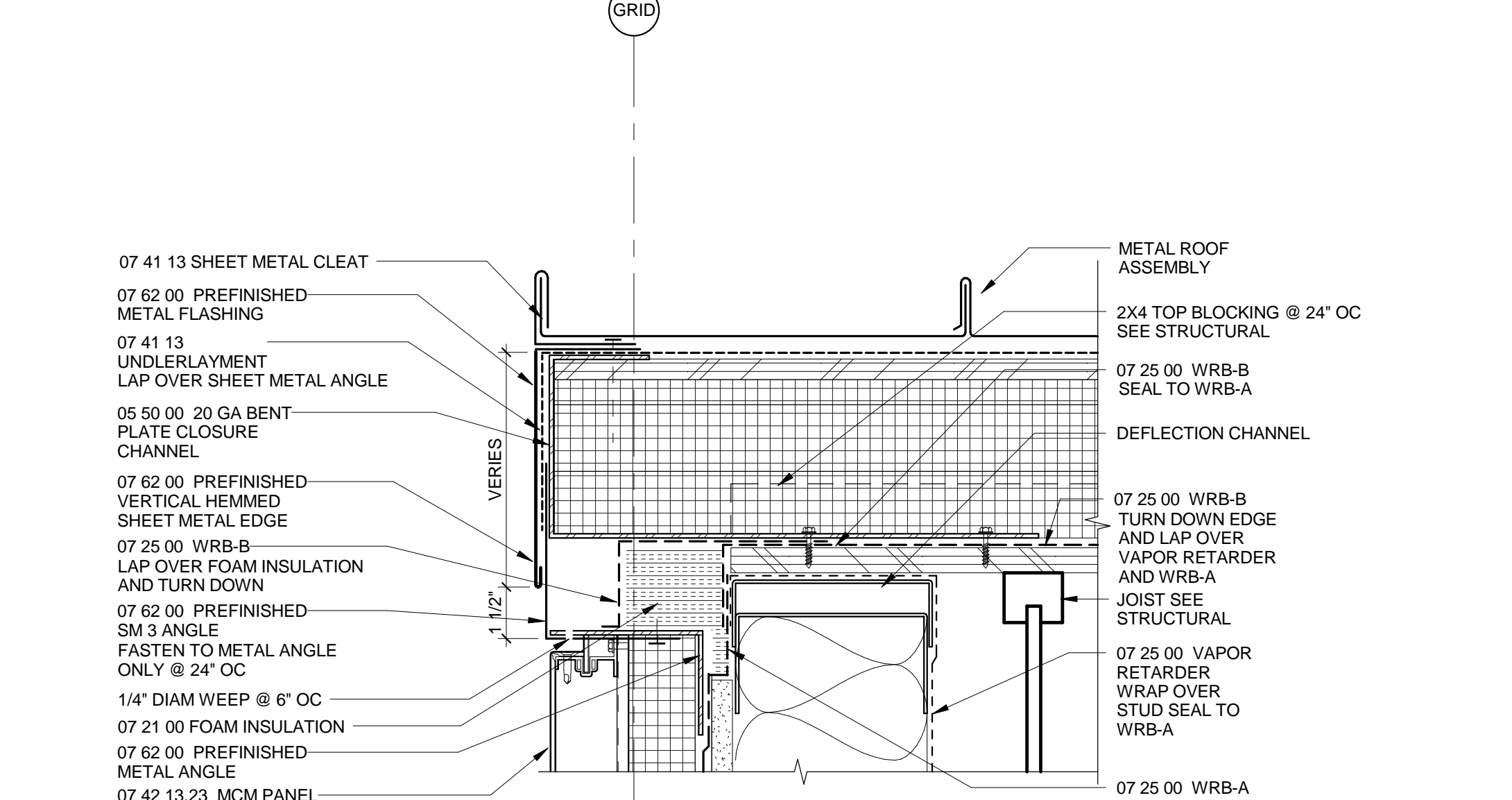
A3 RAKE @ MEMBRANE ROOF AND METAL WALL PANEL (LB)
3" = 1'-0"



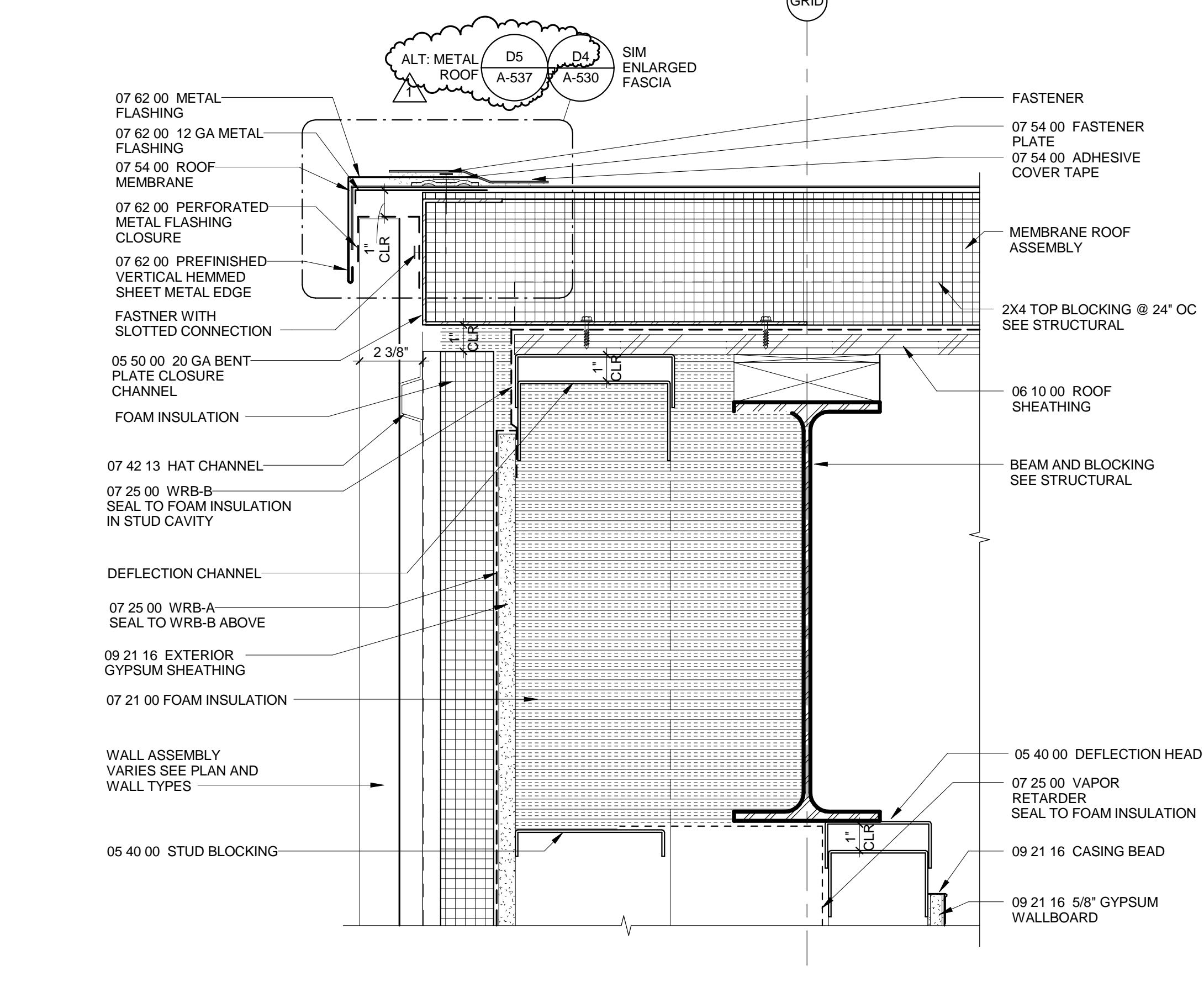
A5 ROOF EDGE @ METAL ROOF & MCM WALL (LB)
3" = 1'-0"



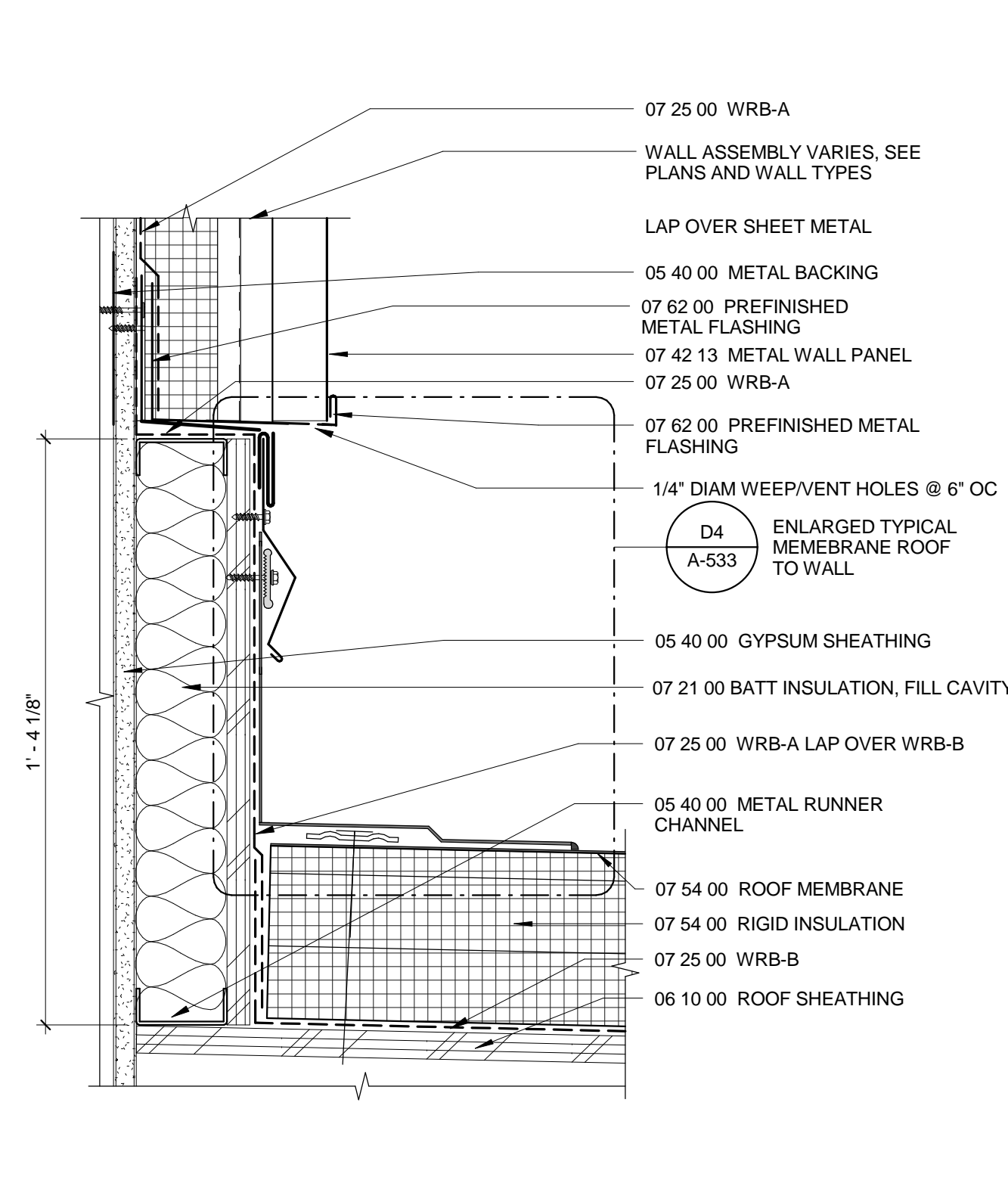
D1 RAKE @ MEMBRANE ROOF & BRICK VENEER (DEFL)
3" = 1'-0"



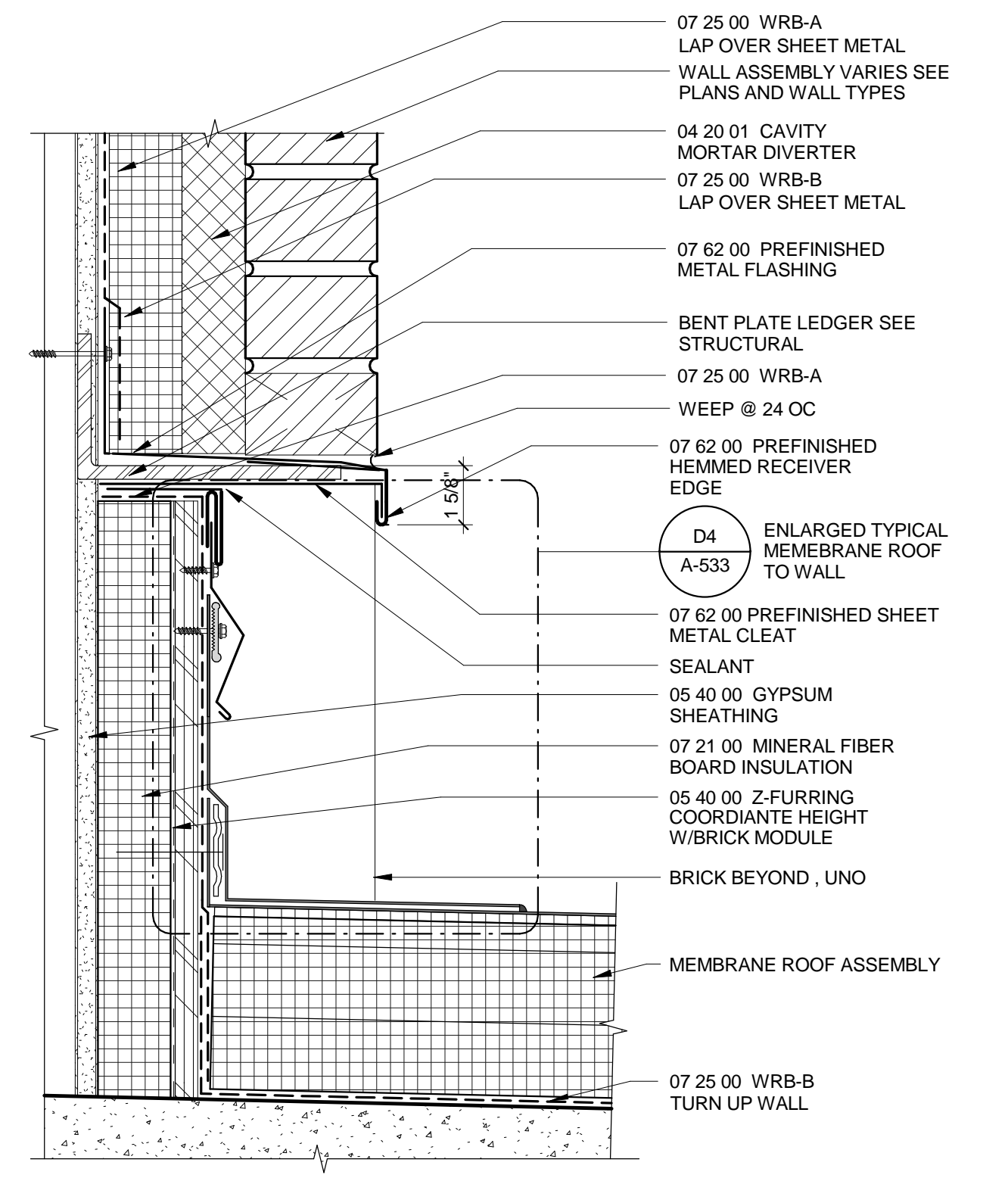
B1 RAKE @ METAL ROOF & MCM WALL (DEFL)
3" = 1'-0"



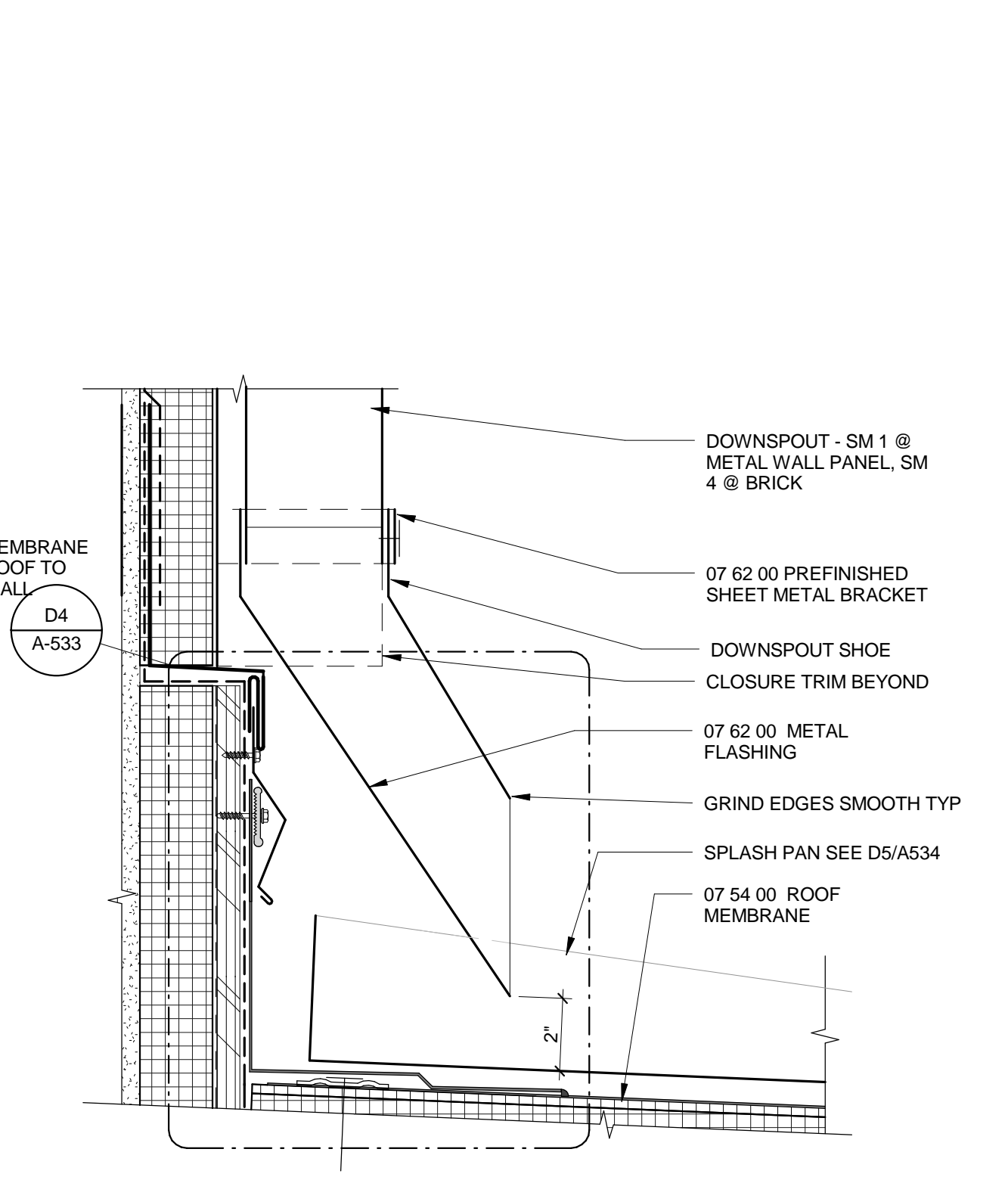
A1 RAKE @ MEMBRANE ROOF & METAL WALL PANEL (DEFL)
3" = 1'-0"



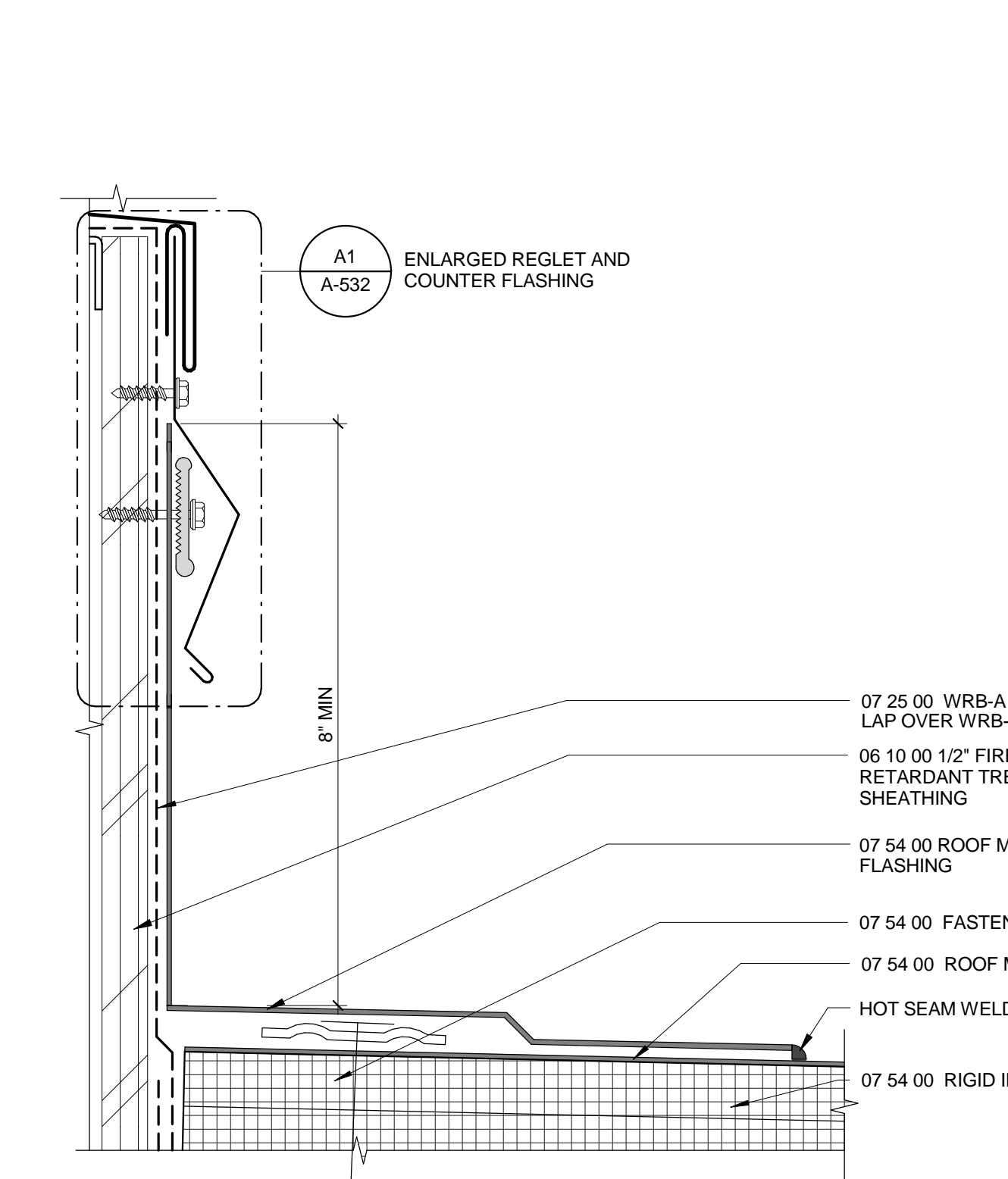
D1 MEMBRANE ROOF TO METAL WALL PANEL
 3" = 1'-0"



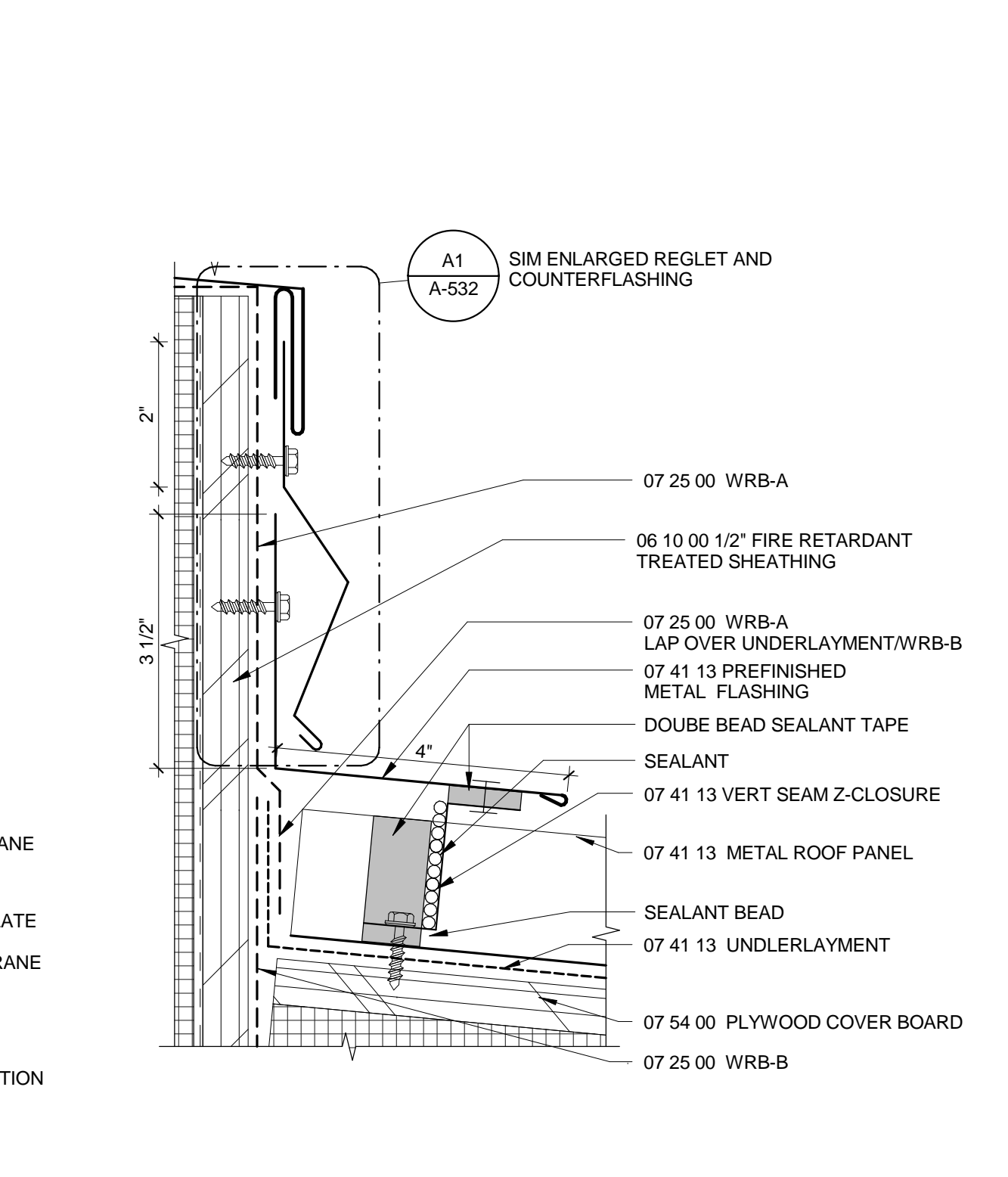
D2 MEMBRANE ROOF TO BRICK VENEER TRANSITION
 3" = 1'-0"



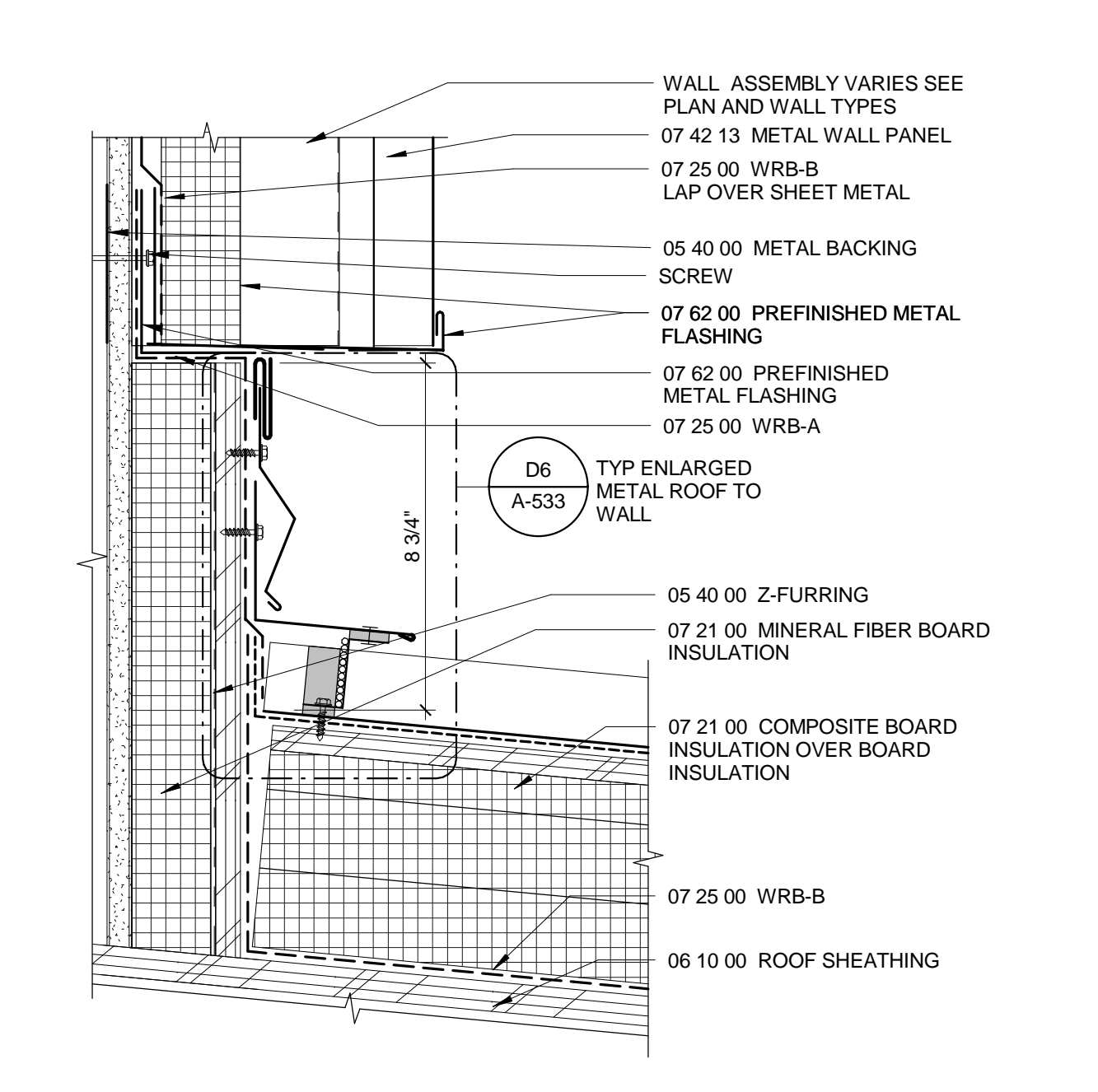
D3 DOWN SPOUT TO ROOF AND SPASH PAN
 3" = 1'-0"



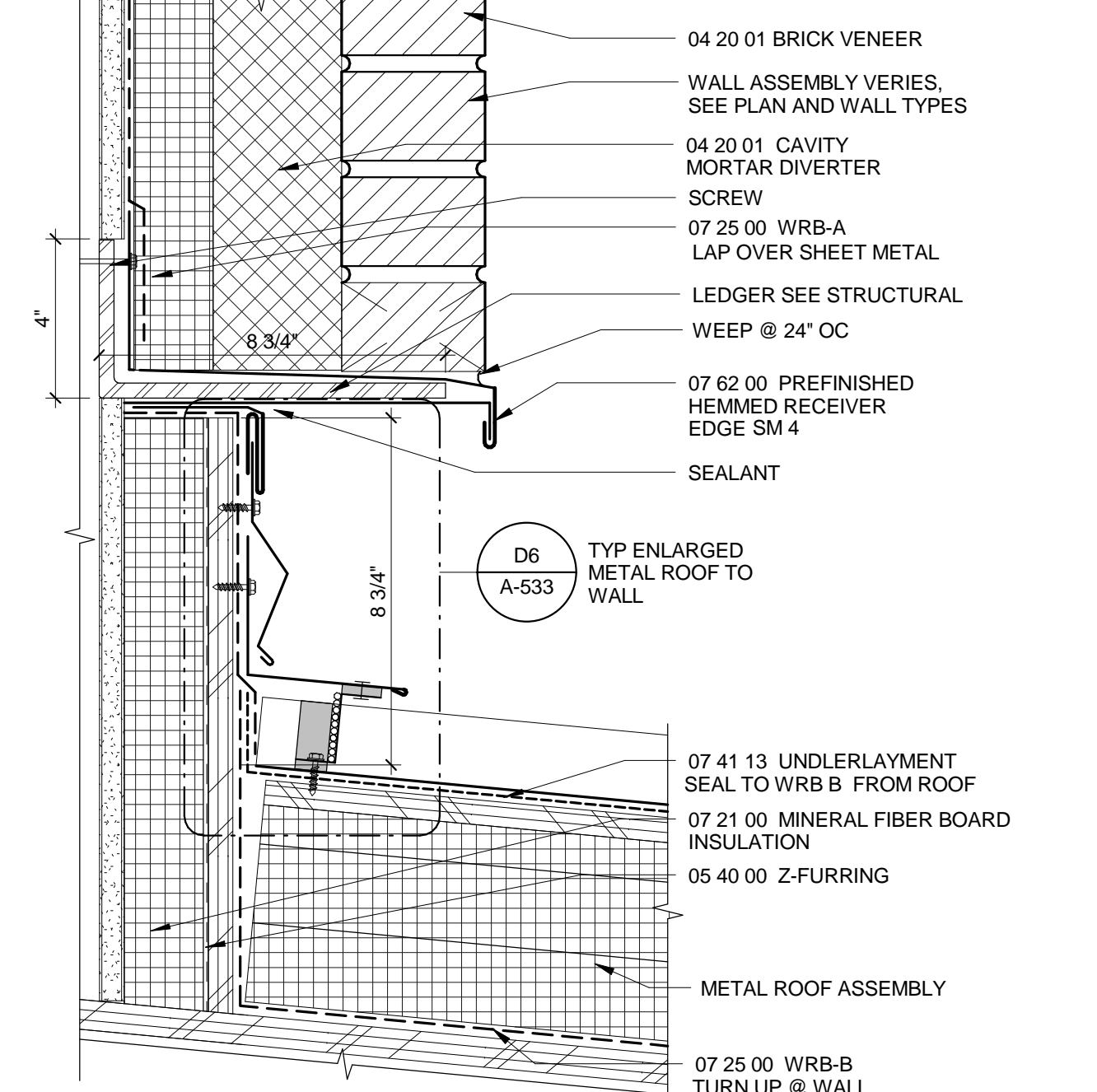
D4 TYPICAL MEMBRANE ROOF TO WALL
 6" = 1'-0"



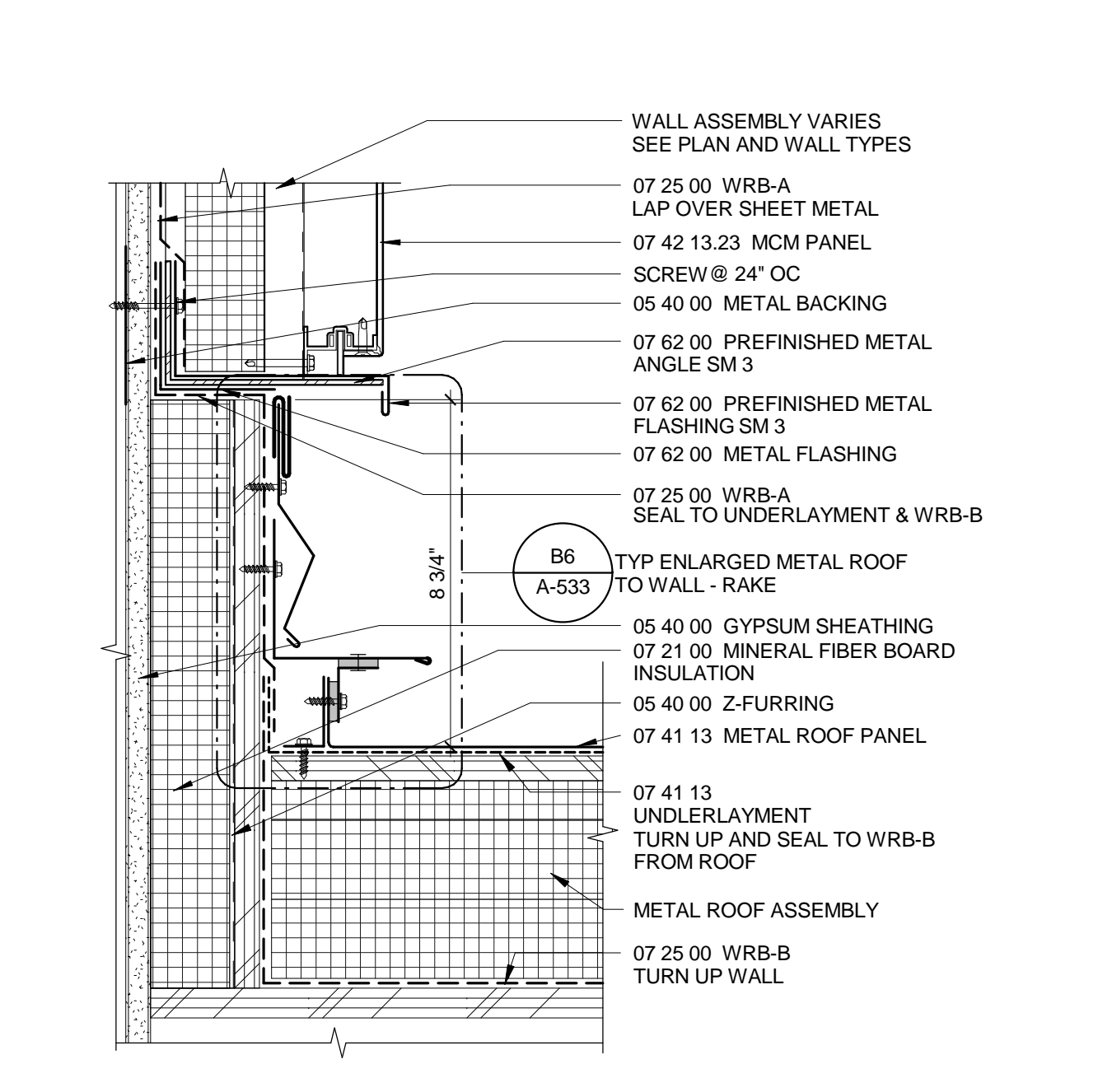
D6 TYPICAL METAL ROOF TO WALL
 6" = 1'-0"



B1 METAL ROOF TO METAL WALL PANEL
 3" = 1'-0"



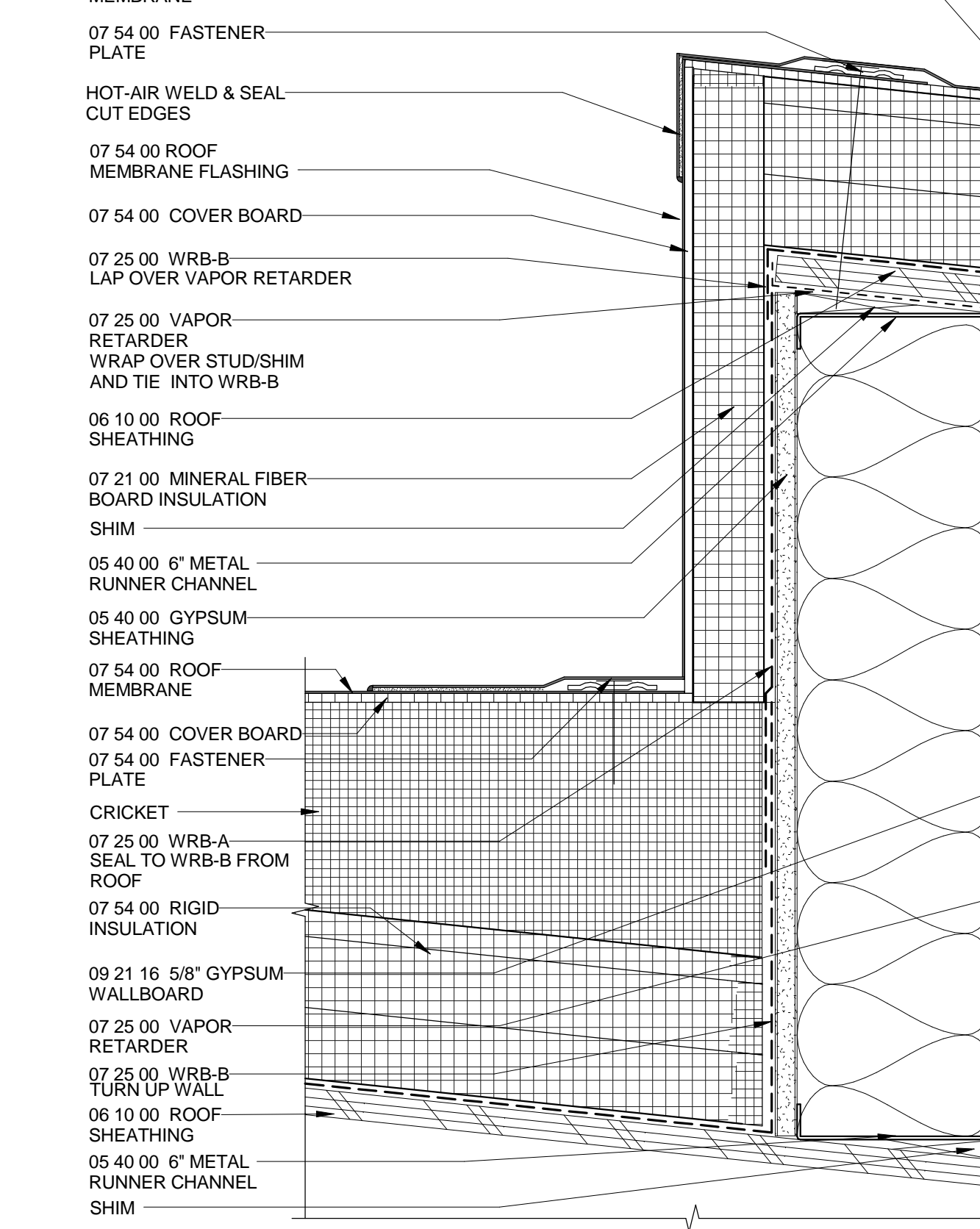
B2 METAL ROOF AT BRICK VENEER
 3" = 1'-0"



B3 METAL ROOF TO MCM
 3" = 1'-0"



B6 TYPICAL METAL ROOF TO WALL - RAKE
 6" = 1'-0"



A1 TYPICAL MEMBRANE ROOF @ PENTHOUSE
 3" = 1'-0"

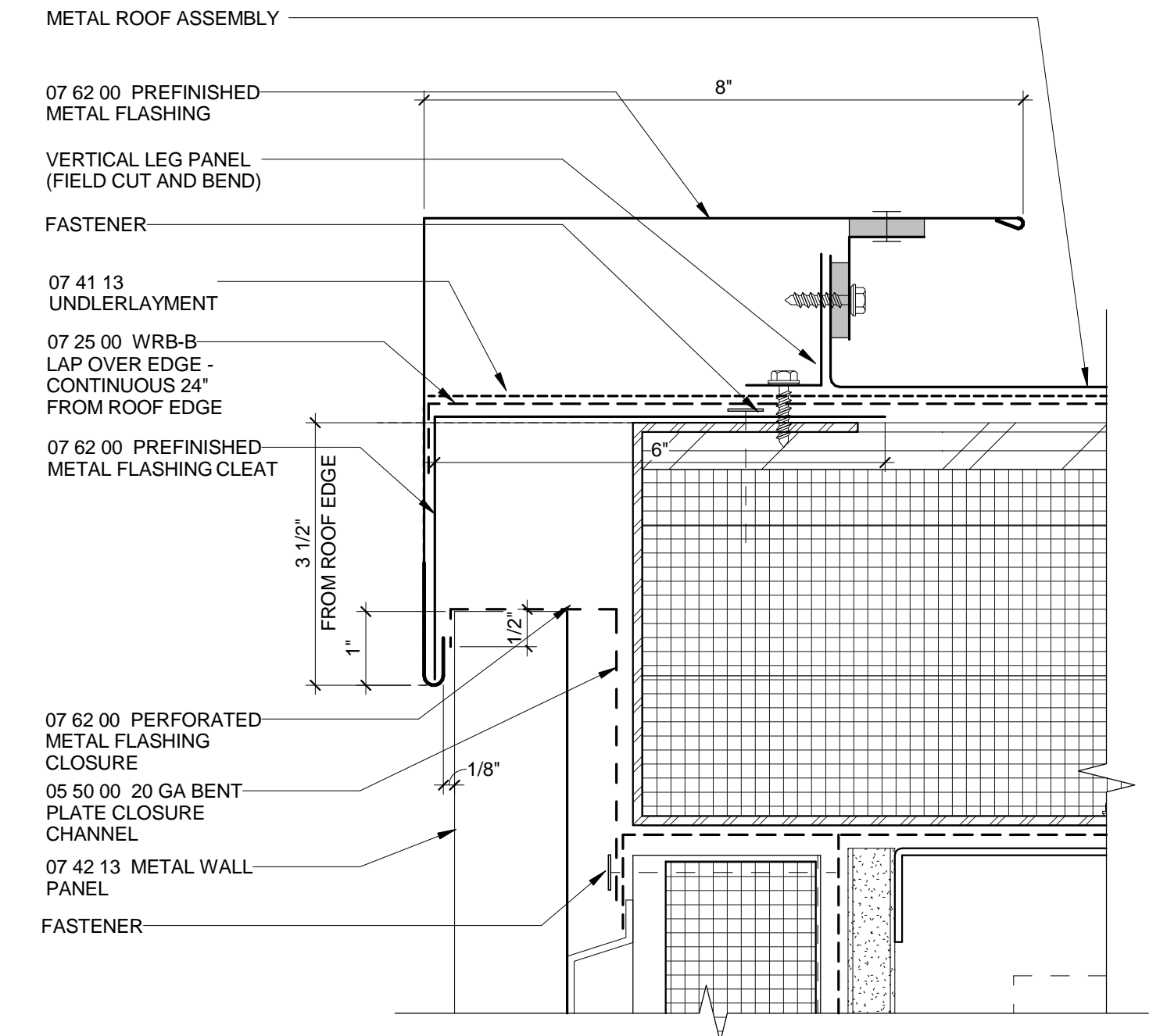
ALT: METAL ROOF
 SEE A3/A-537 FOR JAMB/SILL
 SEE C3/A-537 FOR HEAD

MARK	DATE	DESCRIPTION
1	2-27-2015	ADDENDUM 1

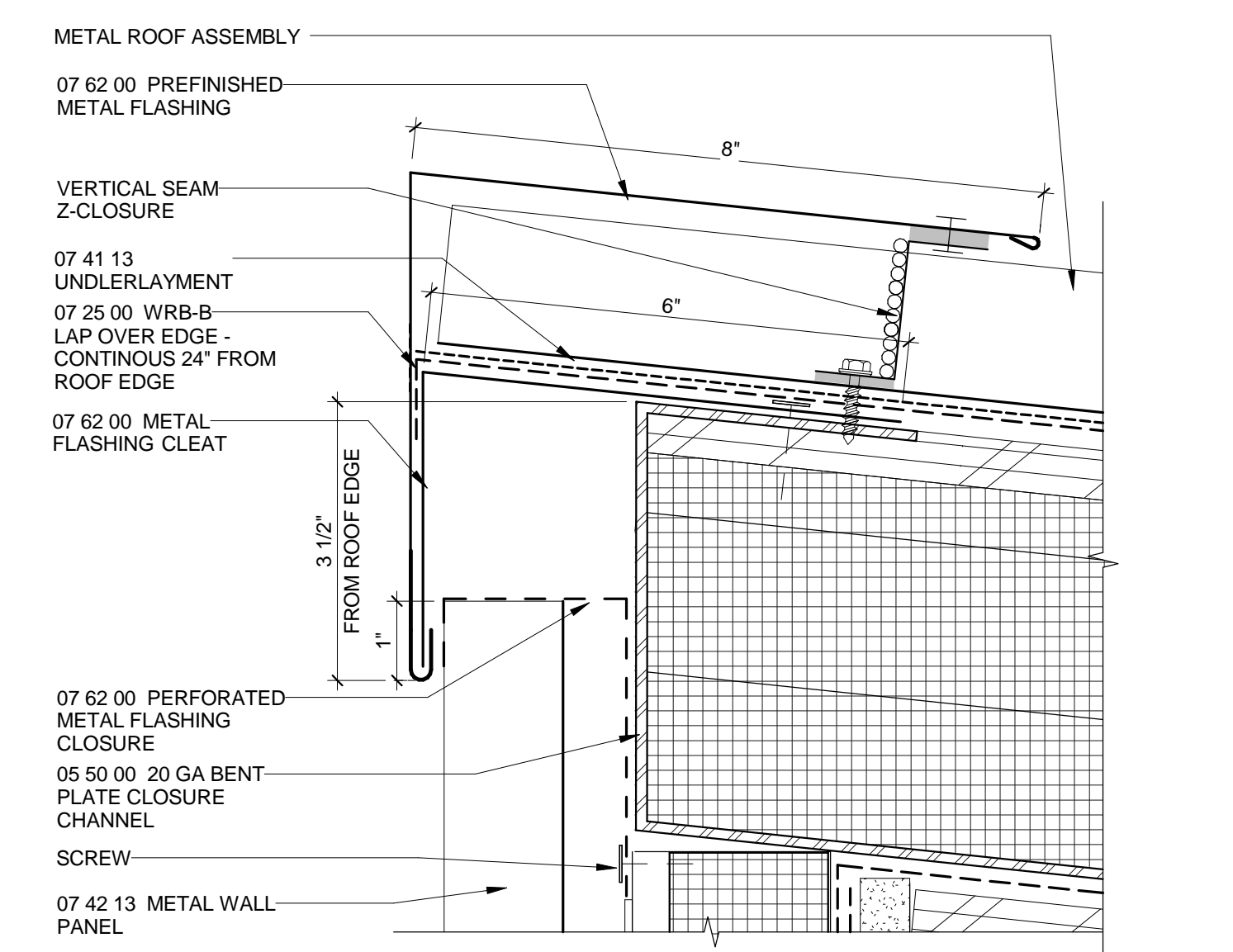
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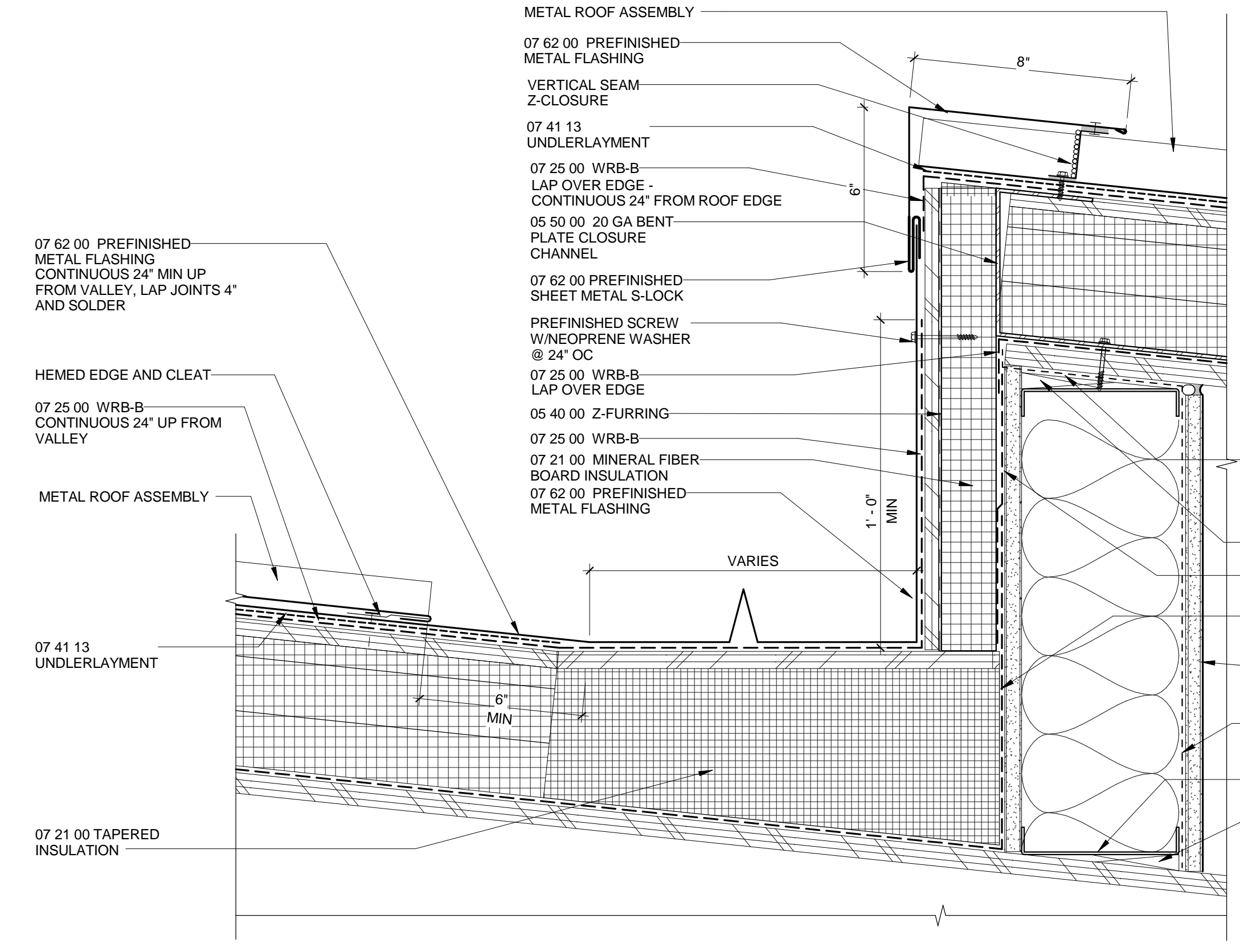
EXTERIOR DETAILS - ROOF



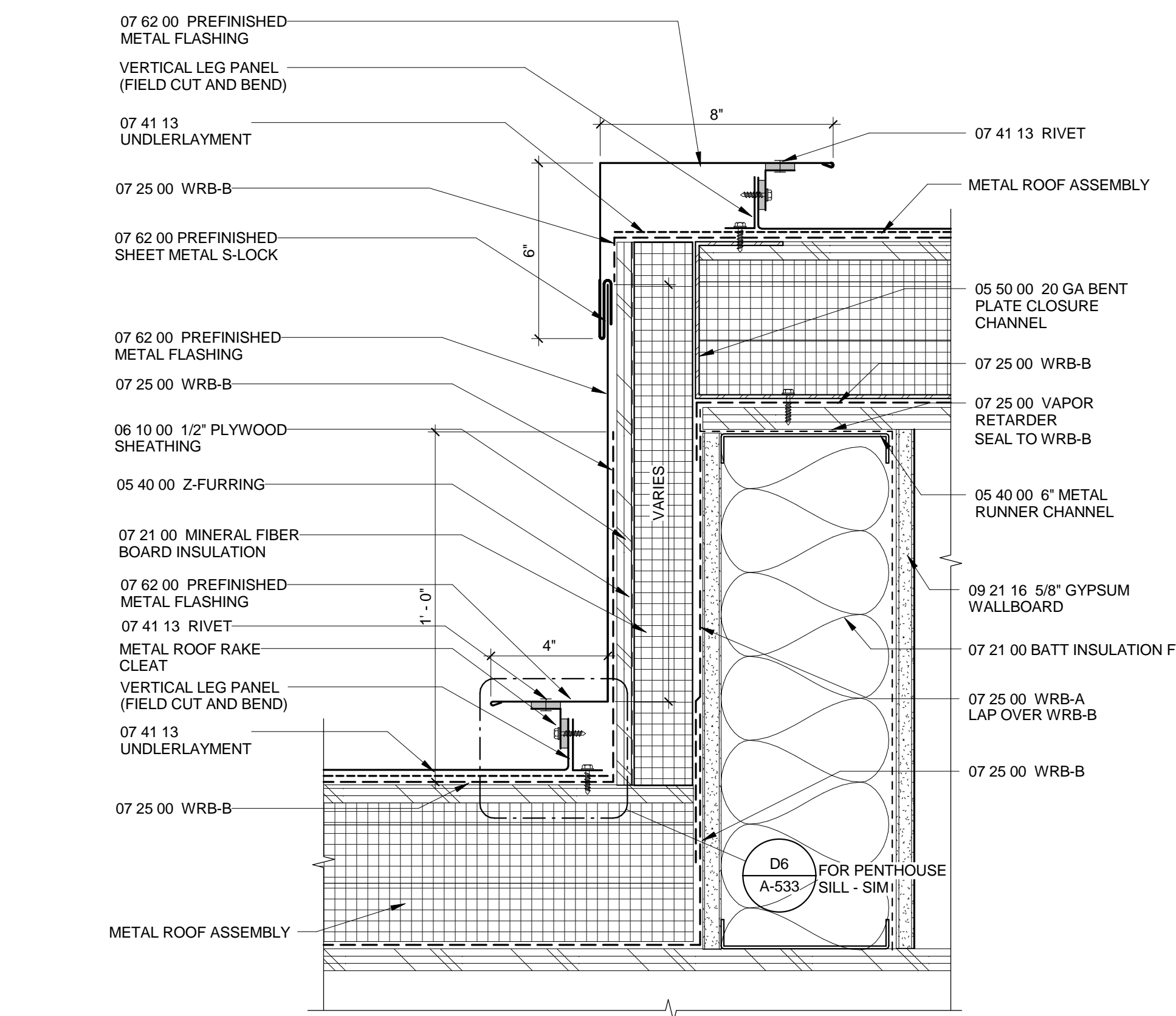
TYPICAL RAKE @ METAL ROOF
 D5 6" = 1'-0"



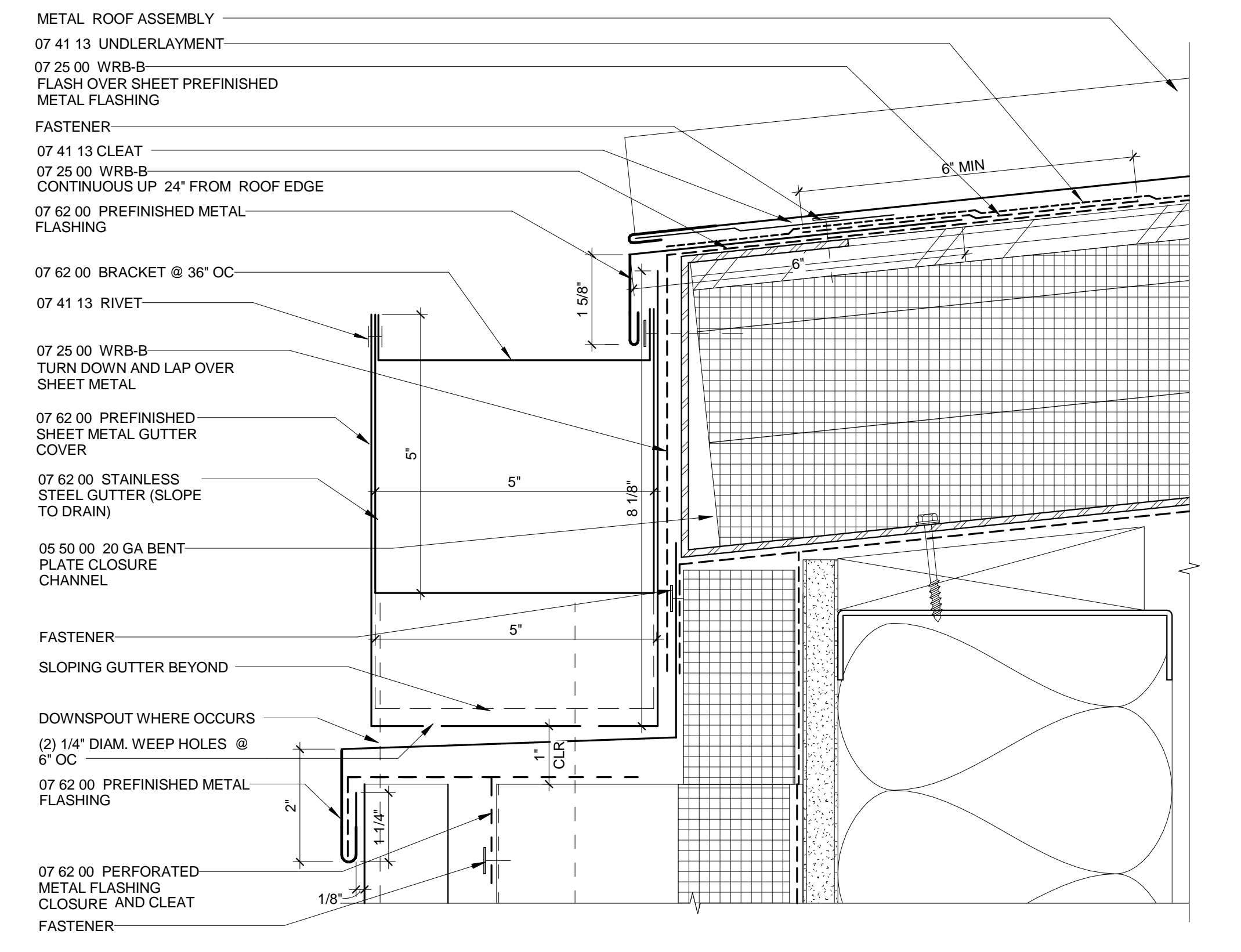
TYPICAL HIGH EAVE AT METAL ROOF
 C5 6" = 1'-0"



PENTHOUSE HEAD
 C3 3" = 1'-0"



PENTHOUSE JAMB - SILL SIM
 A3 3" = 1'-0"



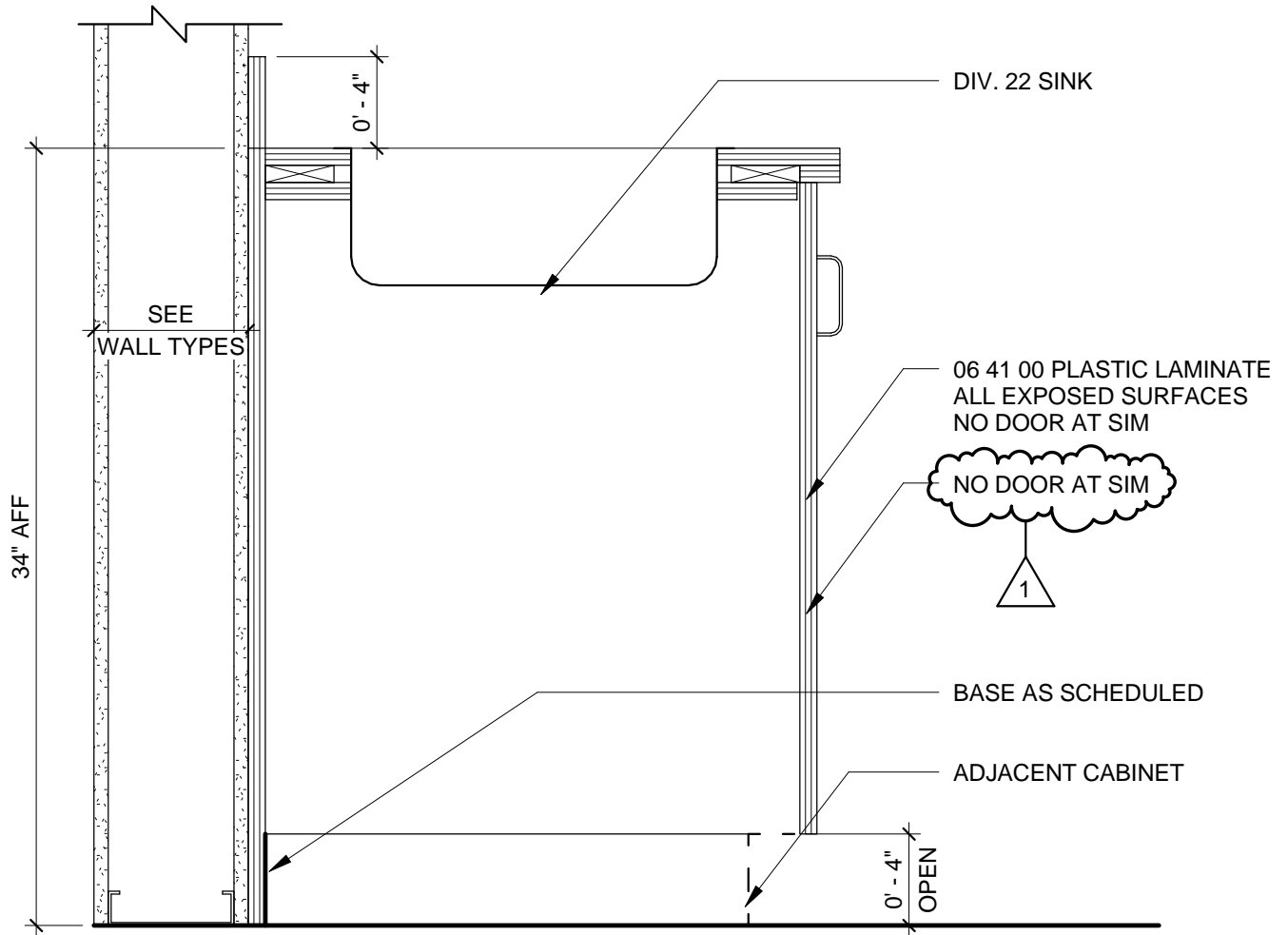
TYPICAL CONCEALED GUTTER AT METAL ROOF
 A5 6" = 1'-0"

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EXTERIOR DETAILS - ROOF ALTERNATE

A-537



A1 BASE CABINET AT SINK

1 1/2" = 1'-0"



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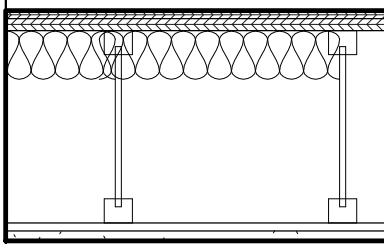
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REPLACEMENT ROOSEVELT MIDDLE SCHOOL
 CIP NUMBER 410.566.001
 680 EAST 24TH AVENUE
 EUGENE, OREGON 97405
 EUGENE SCHOOL DISTRICT 4J

DETL/SHT: **A1/A-582**
 REF: **ADDENDUM 1**

PROJECT NO: **2013912.00**
 DATE: **2/27/15**
ADD-A-582-01

F06		SOURCE:		CC
		STC RATING/SOURCE:		
		06 10 00 1/2" FIRE-RETARDANT TREATED PLYWOOD UNDERLAYMENT 06 10 00 3/4" PLYWOOD SUBFLOOR WOOD JOIST, SEE STRUCT 09 21 16 3" ACOUSTICAL BATT INSULATION 09 21 16 RESILIENT CHANNEL 09 21 16 GYPSUM BD		
MARK		FIRE RESISTANCE/		MARK
F07		SOURCE:		CC
		STC RATING/SOURCE:	STC 55 (MIN) NRCC TL-88-457	



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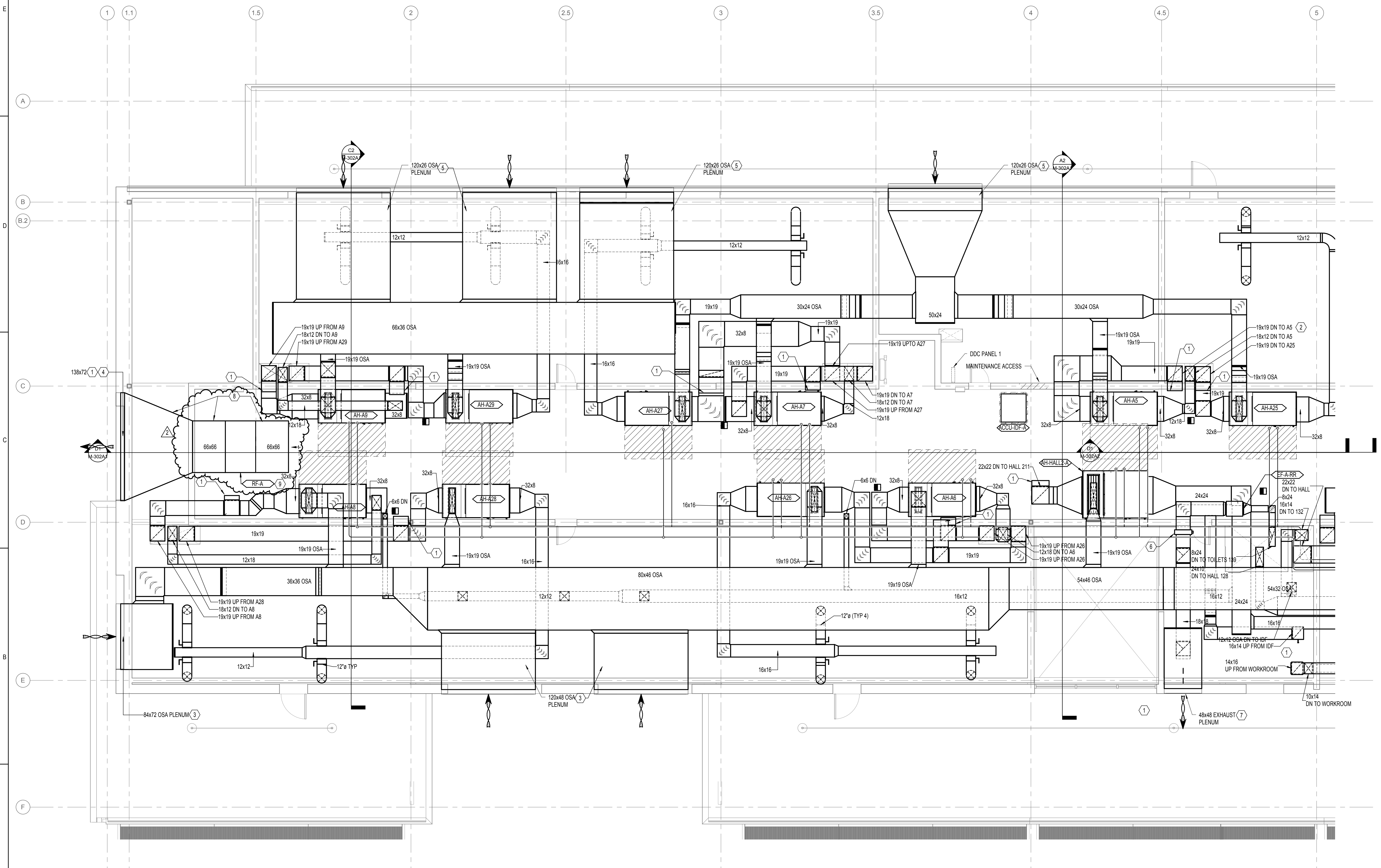
mahlum	REPLACEMENT ROOSEVELT MIDDLE SCHOOL CIP NUMBER 410.566.001 680 EAST 24TH AVENUE EUGENE, OREGON 97405 EUGENE SCHOOL DISTRICT 4J	DETL/SHT: F07/A-603 REF: ADDENDUM 1	PROJECT NO: 2013912.00 DATE: 02/27/15 ADD-A-603-01
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GENERAL NOTES:

- A. PROVIDE VOLUME DAMPER AT EACH BRANCH OUTLET/INLET.
- B. ALL WORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN PIPING AND DUCTS (INCLUDING DIVIDED DUCTS) AND TRANSITIONS AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
- C. VERIFY ALL EQUIPMENT CONNECTIONS WITH MANUFACTURER'S CERTIFIED DRAWINGS. VERIFY AND PROVIDE DUCT TRANSITIONS TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE ALL DIMENSIONS BEFORE FABRICATION.
- D. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF AIR DEVICES.
- E. ALL DETAILS APPLY TO THIS SHEET WHETHER TAGGED OR NOT.
- F. PIPING SHALL BE LARGEST SIZE SHOWN UNTIL SMALLER PIPE SIZE IS INDICATED INCLUDING MAINS AND BRANCH PIPING.
- G. PROVIDE CONDENSATE DRAIN PIPING FROM AIR HANDLERS TO NEAREST FLOOR SINK.

NOTES:

1. PROVIDE AUTOMATIC CONTROL DAMPER AND BDD, SIZE FOR 400 FPM.
2. CONTINUED ON M-122A.
3. OSA LOUVER 18.75 SQ. FT. FREE AREA.
4. RELIEF LOUVER 40 SQ. FT. FREE AREA.
5. OSA LOUVER 10.75 SQ. FT. FREE AREA.
6. AUTOMATIC CONTROL DAMPER AT THIS APPROX LOCATION.
7. EXHAUST LOUVER 3 SQ. FT. FREE AREA.
8. DUCT AND PLENUM TO BE ACOUSTICALLY LINED.
9. RF-A TO BE SPRING ISOLATED AND HUNG FROM CEILING.



A1 MECHANICAL EQUIPMENT PLATFORM PLAN - ZONE A WEST- MECHANICAL
1/4" = 1'-0"



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GENERAL NOTES:

- A. PROVIDE VOLUME DAMPER AT EACH BRANCH OUTLET/INLET.
- B. ALL WORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN PIPING AND DUCTS (INCLUDING DIVIDED DUCTS) AND TRANSITIONS AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
- C. VERIFY ALL EQUIPMENT CONNECTIONS WITH MANUFACTURER'S CERTIFIED DRAWINGS. VERIFY AND PROVIDE DUCT TRANSITIONS TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE ALL DIMENSIONS BEFORE FABRICATION.
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- E. ALL DETAILS APPLY TO THIS SHEET WHETHER TAGGED OR NOT.
- F. PIPING SHALL BE LARGEST SIZE SHOWN UNTIL SMALLER PIPE SIZE IS INDICATED INCLUDING MAINS AND BRANCH PIPING.

NOTES:

- 1. SIDEWALL GRILL MOUNTED IN CABINET TOE KICK.
- 2. DOWN IN SHAFT. SEE D1A-554 FOR DUCT OPENING BEHIND PERFORATED WOOD WALL PANEL. EXTERIOR AND INTERIOR OF DUCT TO BE PAINTED BLACK. PERFORATED WOOD PANEL TO HAVE 8 SQ. FT. FREE AREA.
- 3. CONTINUED ON M-401-AZ.
- 4. 4 FT. SLOT RETURN WITH TOP INLET PLENUM.



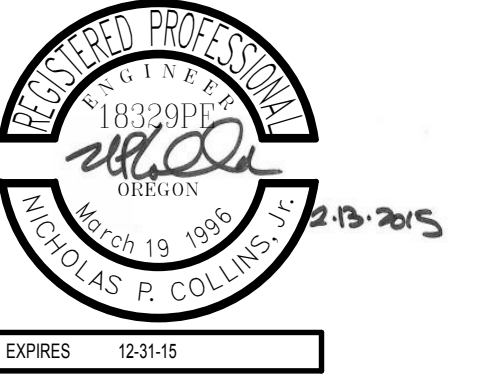
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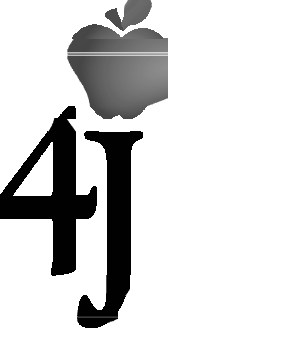
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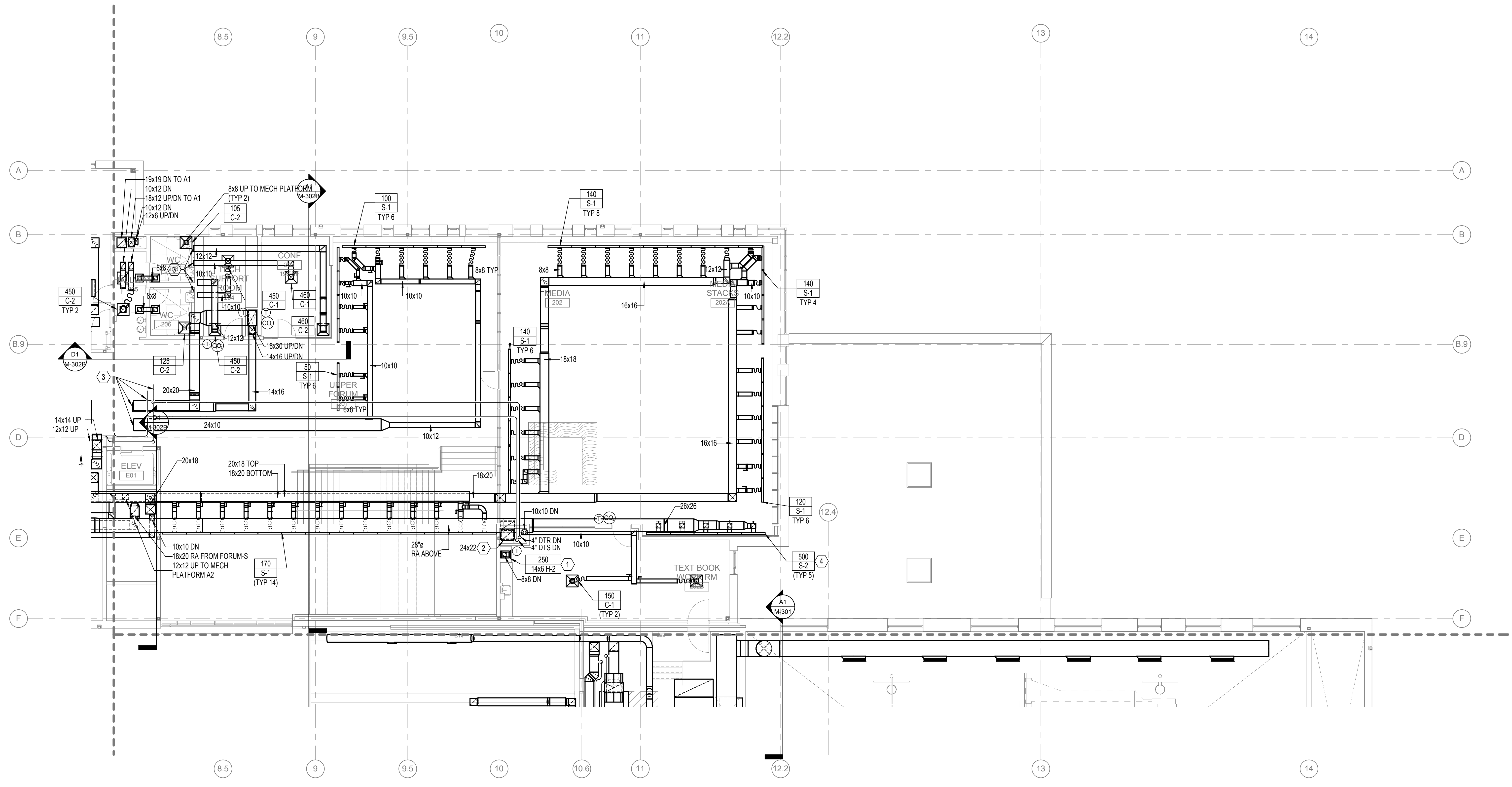
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EUGENE SCHOOL DISTRICT 4J



REPLACEMENT ROOSEVELT
 MIDDLE SCHOOL
 CIP NUMBER 410.566.001
 680 EAST 24TH AVENUE
 EUGENE, OREGON 97405
 CIP NO. 410.566.001



A1 SECOND FLOOR PLAN - ZONE B - MECHANICAL
 1/8" = 1'-0"

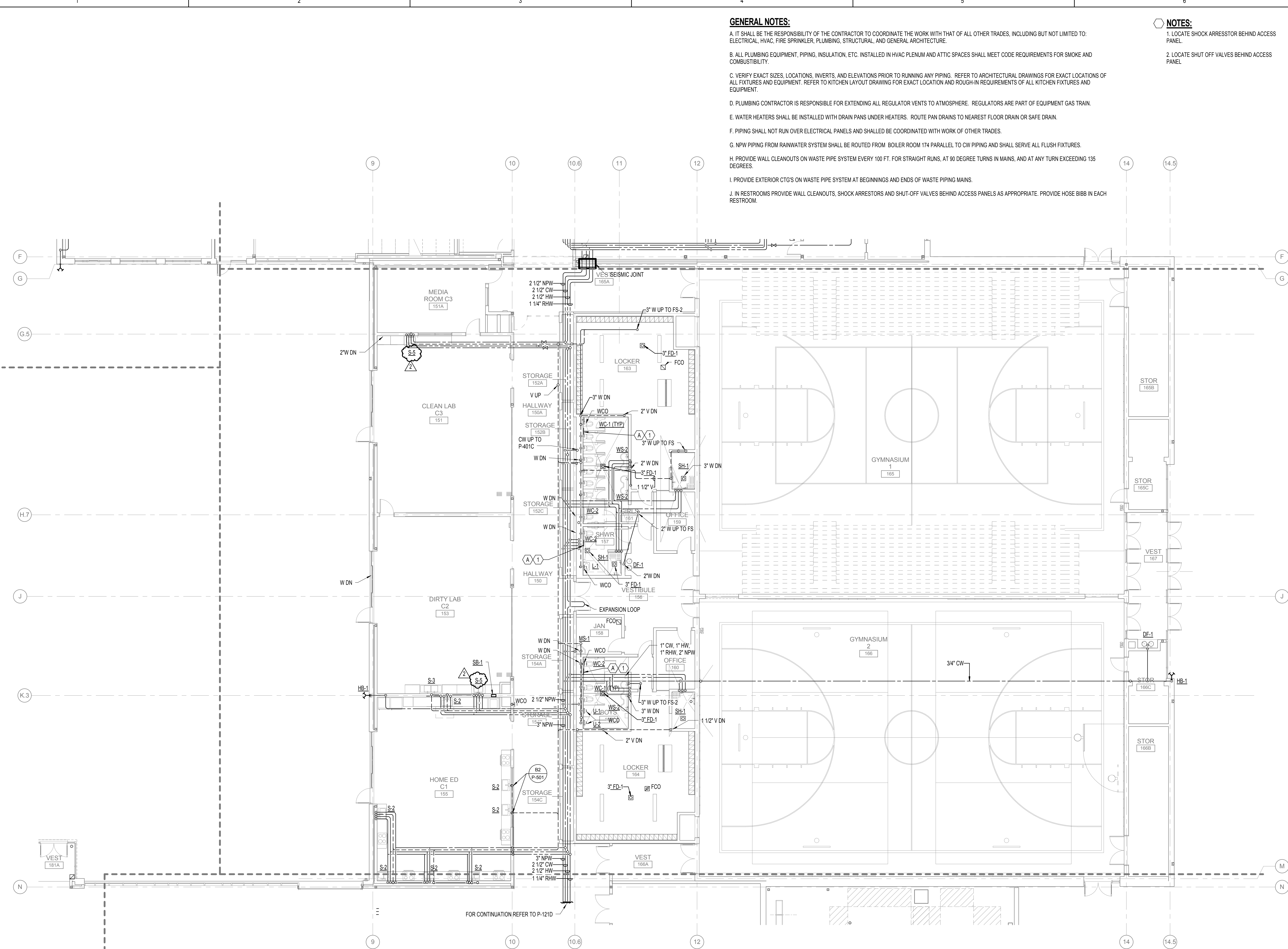


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ISSUE DATE: FEBRUARY 18, 2015
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SECOND FLOOR PLAN - ZONE B - MECHANICAL

M-122B



A1 FIRST FLOOR PLAN - ZONE C - PLUMBING
1/8" = 1'-0"



GENERAL NOTES:

- A. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE WORK WITH THAT OF ALL OTHER TRADES, INCLUDING BUT NOT LIMITED TO: ELECTRICAL, HVAC, FIRE SPRINKLER, PLUMBING, STRUCTURAL, AND GENERAL ARCHITECTURE.
- B. ALL PLUMBING EQUIPMENT, PIPING, INSULATION, ETC. INSTALLED IN HVAC PLENUM AND ATTIC SPACES SHALL MEET CODE REQUIREMENTS FOR SMOKE AND COMBUSTIBILITY.
- C. VERIFY EXACT SIZES, LOCATIONS, INVERTS, AND ELEVATIONS PRIOR TO RUNNING ANY PIPING. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF ALL FIXTURES AND EQUIPMENT. REFER TO KITCHEN LAYOUT DRAWING FOR EXACT LOCATION AND ROUGH-IN REQUIREMENTS OF ALL KITCHEN FIXTURES AND EQUIPMENT.
- D. PLUMBING CONTRACTOR IS RESPONSIBLE FOR EXTENDING ALL REGULATOR VENTS TO ATMOSPHERE. REGULATORS ARE PART OF EQUIPMENT GAS TRAIN.
- E. WATER HEATERS SHALL BE INSTALLED WITH DRAIN PANS UNDER HEATERS. ROUTE PAN DRAINS TO NEAREST FLOOR DRAIN OR SAFE DRAIN.
- F. PIPING SHALL NOT RUN OVER ELECTRICAL PANELS AND SHALL BE COORDINATED WITH WORK OF OTHER TRADES.
- G. NPW PIPING FROM RAINWATER SYSTEM SHALL BE ROUTED FROM BOILER ROOM 174 PARALLEL TO CW PIPING AND SHALL SERVE ALL FLUSH FIXTURES.
- H. PROVIDE WALL CLEANOUTS ON WASTE PIPE SYSTEM EVERY 100 FT. FOR STRAIGHT RUNS, AT 90 DEGREE TURNS IN MAINS, AND AT ANY TURN EXCEEDING 135 DEGREES.
- I. PROVIDE EXTERIOR CTG'S ON WASTE PIPE SYSTEM AT BEGINNINGS AND ENDS OF WASTE PIPING MAINS.
- J. IN RESTROOMS PROVIDE WALL CLEANOUTS, SHOCK ARRESTORS AND SHUT-OFF VALVES BEHIND ACCESS PANELS AS APPROPRIATE. PROVIDE HOSE BIBB IN EACH RESTROOM.

NOTES:

- 1. LOCATE SHOCK ARRESTOR BEHIND ACCESS PANEL.
- 2. LOCATE SHUT OFF VALVES BEHIND ACCESS PANEL.

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Robertson/Sherwood Architects
ROBERTSON/SHERWOOD/ARCHITECTS PC
132 EAST BROADWAY, SUITE 540
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www.robertsonsherwood.com

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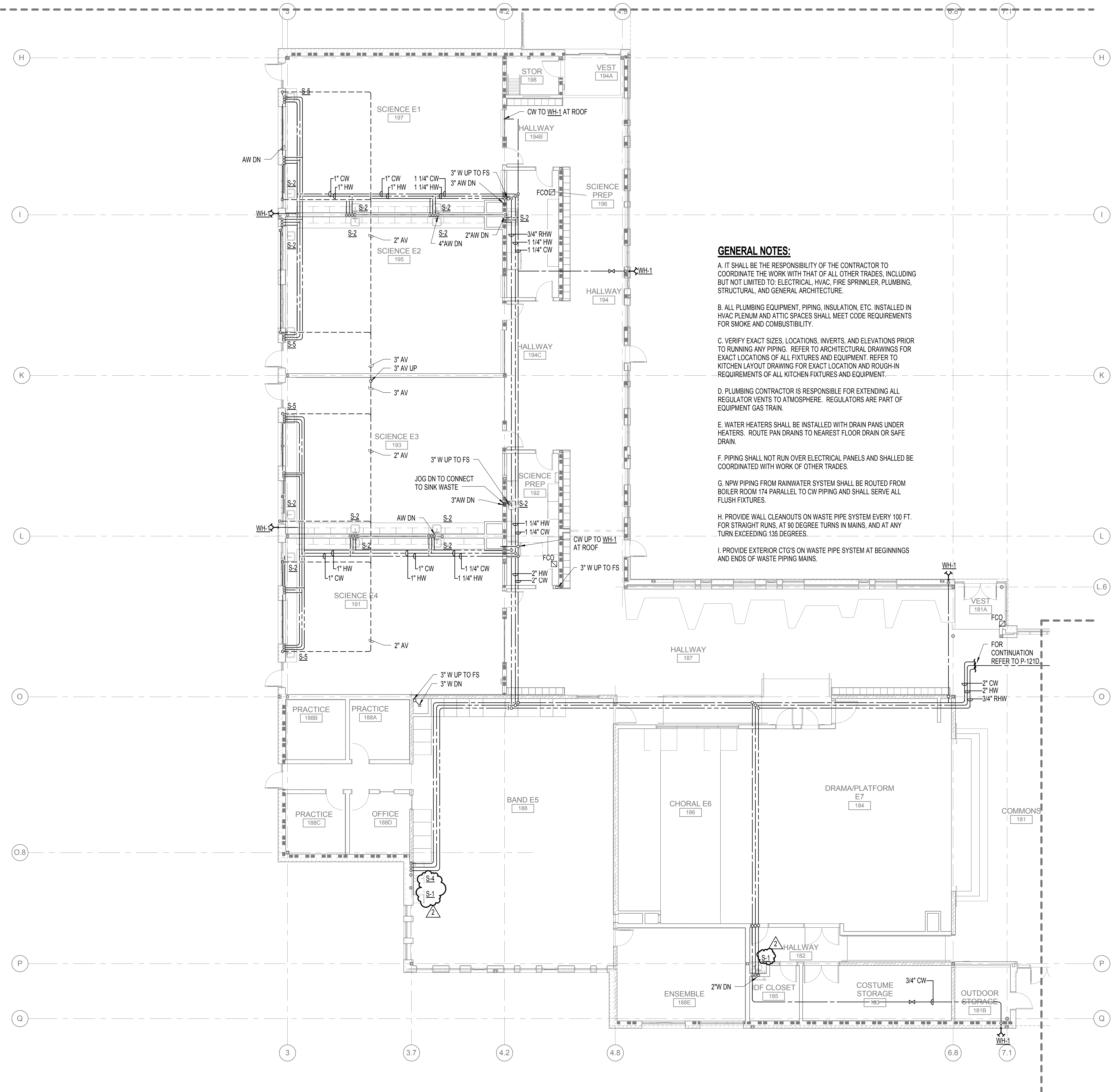
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FIRST FLOOR PLAN - ZONE C - PLUMBING

P-121C

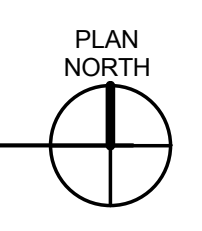
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GENERAL NOTES:

- A. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE WORK WITH THAT OF ALL OTHER TRADES, INCLUDING BUT NOT LIMITED TO: ELECTRICAL, HVAC, FIRE SPRINKLER, PLUMBING, STRUCTURAL, AND GENERAL ARCHITECTURE.
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- E. WATER HEATERS SHALL BE INSTALLED WITH DRAIN PANS UNDER HEATERS. ROUTE PAN DRAINS TO NEAREST FLOOR DRAIN OR SAFE DRAIN.
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- G. NPW PIPING FROM RAINWATER SYSTEM SHALL BE ROUTED FROM BOILER ROOM 174 PARALLEL TO CW PIPING AND SHALL SERVE ALL FLUSH FIXTURES.
- H. PROVIDE WALL CLEANOUTS ON WASTE PIPE SYSTEM EVERY 100 FT. FOR STRAIGHT RUNS, AT 90 DEGREE TURNS IN MAINS, AND AT ANY TURN EXCEEDING 135 DEGREES.
- I. PROVIDE EXTERIOR CTG'S ON WASTE PIPE SYSTEM AT BEGINNINGS AND ENDS OF WASTE PIPING MAINS.

A1 FIRST FLOOR PLAN - ZONE E - PLUMBING
1/8" = 1'-0"



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GENERAL NOTES:

- A. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE WORK WITH THAT OF ALL OTHER TRADES, INCLUDING BUT NOT LIMITED TO: ELECTRICAL, HVAC, FIRE SPRINKLER, PLUMBING, STRUCTURAL, AND GENERAL ARCHITECTURE.
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- J. IN RESTROOMS PROVIDE WALL CLEANOUTS, SHOCK ARRESTORS AND SHUT-OFF VALVES BEHIND ACCESS PANELS AS APPROPRIATE. PROVIDE HOSE BIBB IN EACH RESTROOM.

NOTES:

- 1. THESE ANNOTATIONS ARE TYPICAL FOR ALL "SECTOR A" CLASSROOM SINKS.
- 2. LOCATE SHOCK ARRESTOR BEHIND ACCESS PANEL



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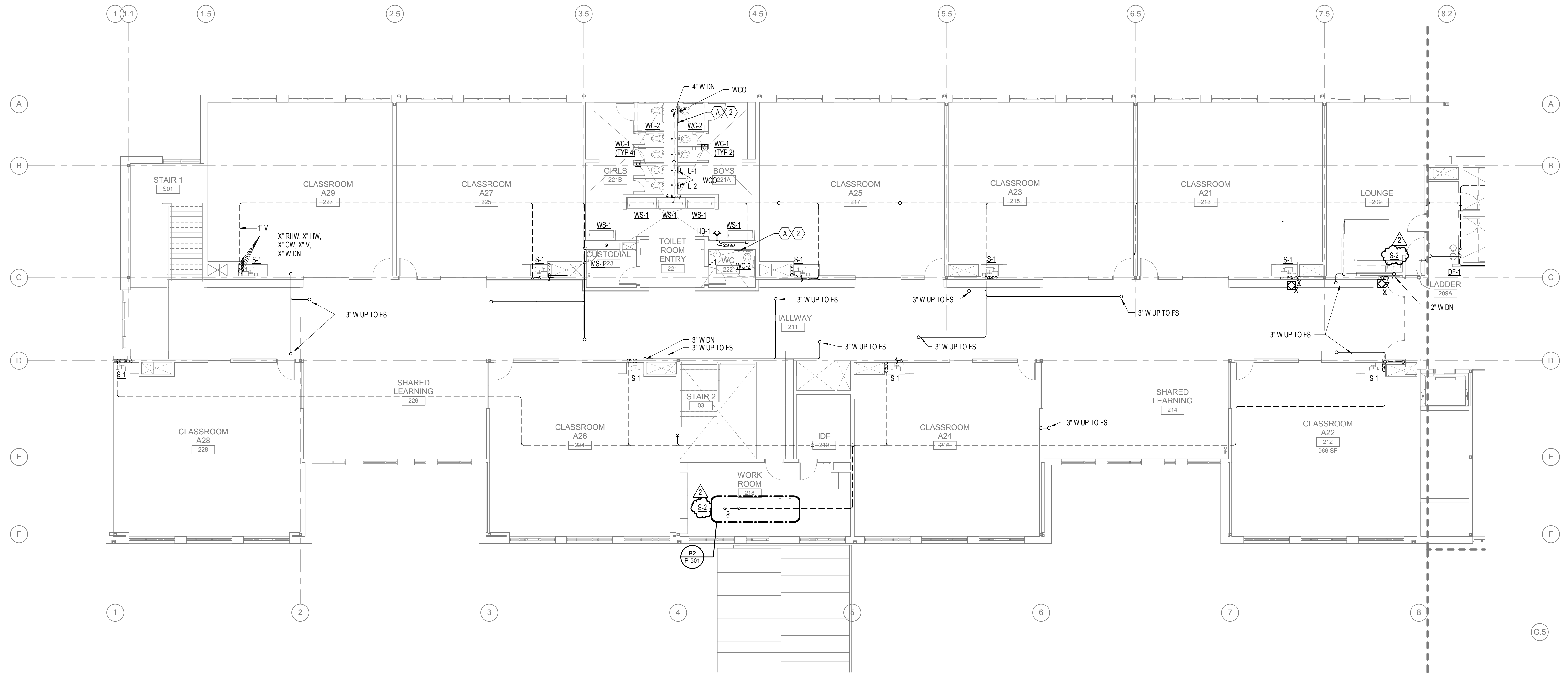
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SECOND FLOOR PLAN - ZONE A - PLUMBING

P-122A



A1 SECOND FLOOR PLAN - ZONE A - PLUMBING
1/8" = 1'-0"



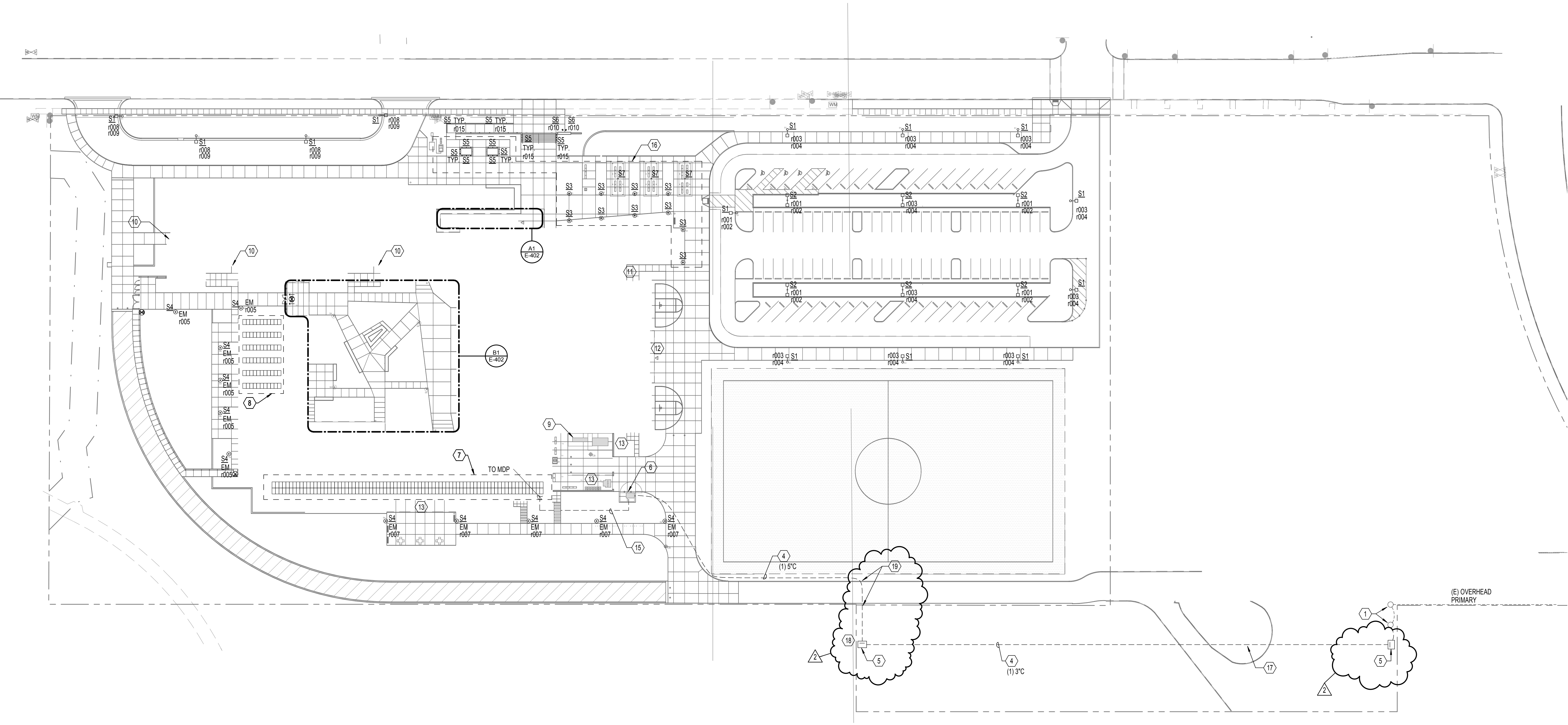
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GENERAL NOTES:

- A. CONTRACTOR SHALL CONTACT EWEB TO VERIFY EASEMENT LOCATIONS AND TO OBTAIN UTILITY DESIGN/INSTALLATION DRAWINGS. EWEB INFRASTRUCTURE SHALL BE INSTALLED PER UTILITY COMPANY REQUIREMENTS. INFRASTRUCTURE SHOWN ON THESE DRAWINGS IS DIAGRAMATIC AND APPROXIMATE, AND SHALL BE VERIFIED WITH EWEB DESIGN DOCUMENTS PRIOR TO INSTALLATION.
- B. SEE THE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL DEVICES. REQUEST CLARIFICATIONS IN WRITING PRIOR TO INSTALLATION. INSTALLED, UNCOORDINATED ELEMENTS SHALL BE RELOCATED PER THE DIRECTION OF THE ARCHITECT WITHOUT ADDITIONAL COST TO THE PROJECT, OWNER OR DESIGN TEAM IF REQUIRED.
- C. EMERGENCY EGRESS LIGHTING WILL BE DESIGNATED BY 'EM' AFTER THE LUMINAIRE TYPE AND WILL BE POWERED THROUGH THE GENERATOR.
- D. LIGHTING CONTROL SHALL BE PROVIDED BY THE DISTRICT AND INSTALLED BY THE CONTRACTOR, UNLESS OTHERWISE NOTED.
- E. SEE SPECIFICATIONS FOR DETAILED SEQUENCE OF OPERATIONS.
- F. PROVIDE UL 924 RELAYS AS REQUIRED TO ALLOW DISCRETE CONTROL OF EACH EMERGENCY RELAY.
- G. SEE ZONED PLANS FOR ADDITIONAL INFORMATION.
- H. REFERENCE THE APPROPRIATE SPECIFICATION SECTION, 26-09-33 AND 26-09-43, FOR WALL STATIONS IN AREAS WITH PRE-SET SCENE CONTROL.
- I. EXIT SIGNS ARE TO BE PROVIDED TO MEET CODE REQUIREMENTS AND SHOULD BE LOCATED PER THE LIFE SAFETY DIAGRAM PROVIDED BY THE ARCHITECT IN QUANTITY TO NOT EXCEED CODE MAXIMUM DISTANCES BETWEEN SIGNS. ALL EXIT SIGNS ARE TO BE ON EMERGENCY POWER.
- J. REFER TO SHEET E804 FOR SCHEDULE OF RELAYS, CONTROL INFORMATION AND CIRCUITING OF LUMINARIES THAT ARE CONTROLLED BY A RELAY PANEL.

NOTES:

- 1. APPROXIMATE LOCATION OF EXISTING JOINT UTILITY POLE. RISE EWEB PRIMARY CONDUIT AT EXISTING POLE PER UTILITY COMPANY REQUIREMENTS.
- 2. APPROXIMATE LOCATION OF EXISTING EWEB PRIMARY CONDUCTORS ROUTED UNDER 24TH AVENUE.
- 3. (NOT USED).
- 4. EWEB PRIMARY SERVICE CONDUIT INFRASTRUCTURE, SEE ONE-LINE DIAGRAM.
- 5. EWEB PRIMARY PULL VAULT PER UTILITY COMPANY REQUIREMENTS. LOCATE CLOSE AS PRACTICAL TO EXISTING PROPERTY LINE. VERIFY EXACT LOCATION WITH EWEB REPRESENTATIVE PRIOR TO INSTALLATION.
- 6. EWEB TRANSFORMER PAD-VAULT PER UTILITY COMPANY REQUIREMENTS. PROVIDE BOLLARD PROTECTION AT TRANSFORMER.
- 7. SOUTH WING PV ARRAY. SEE ONE-LINE DIAGRAM. CONTRACTOR TO COORDINATE ALL PV PANEL LOCATIONS WITH MECHANICAL ROOF PENETRATIONS AND EQUIPMENT LOCATIONS PRIOR TO DOCUMENT SUBMITTAL.
- 8. SCIENCE WING PV ARRAY. SEE ONE-LINE DIAGRAM.
- 9. GENERATOR. SEE ONE-LINE DIAGRAM.
- 10. SEE E-121A FOR BUILDING MOUNTED LIGHTING.
- 11. SEE E-121B FOR BUILDING MOUNTED LIGHTING.
- 12. SEE E-121C FOR BUILDING MOUNTED LIGHTING.
- 13. SEE E-121D FOR BUILDING MOUNTED LIGHTING.
- 14. SEE E-121E FOR BUILDING MOUNTED LIGHTING.
- 15. EWEB SECONDARY SERVICE CONDUIT INFRASTRUCTURE. SEE ONE-LINE DIAGRAM.
- 16. LUMINAIRES TO BE CONTROLLED ON LIGHTING RELAY 1014, UNLESS OTHERWISE NOTED.
- 17. COORDINATE CONDUIT ROUTING IN THIS AREA WITH REMOVAL OF EXISTING TREES. COORDINATE WITH ARCHITECT AND OWNER.
- 18. NEW UTILITY INFRASTRUCTURE SHALL MAINTAIN 5 FEET CLEAR FROM EXISTING DRAIN AND PIPING AT THIS AREA. POTHOLE AND LOCATE TO VERIFY CLEARANCE.
- 19. POTHOLE AND LOCATE EXISTING UNDERGROUND UTILITIES. MAINTAIN MINIMUM REQUIRED PIPING CLEARANCE PER EWEB AND CITY OF EUGENE REQUIREMENTS.



B1 SITE PLAN - UNDERGROUND - ELECTRICAL
1" = 40'-0"

mahlum
Robertson, Sherwood Architects

ROBERTSON/SHERWOOD/ARCHITECTS PC
132 EAST BROADWAY, SUITE 540
EUGENE, OREGON 97401
541-342-8077
www.robertsonsherwood.com

MAHLUM ARCHITECTS INC
1231 NW HOYT, SUITE 102
PORTLAND, OREGON 97209
503-224-4032

71 COLUMBIA, FLOOR 4
SEATTLE, WASHINGTON 98104
206-441-4151
www.mahlum.com

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Portland | San Francisco | Seattle
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REGISTERED PROFESSIONAL
EUGENE, OREGON
2016-15
EXPIRES 12-31-15

EUGENE SCHOOL DISTRICT 4J

4J

REPLACEMENT ROOSEVELT
MIDDLE SCHOOL
CIP NUMBER 410.566.001
680 EAST 24TH AVENUE
EUGENE, OREGON 97405
CIP NO. 410.566.001

MARK	DATE	DESCRIPTION
2	2-27-2015	ADDENDUM 1
ISSUE DATE: FEBRUARY 18, 2015		
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VOLUME: PACKAGE 2 VOLUME 2		
PROJECT NO: 2013912.00		
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CHECKED BY: SPD		
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SITE PLAN - ELECTRICAL