ADDENDUM
NO. 1

June 10, 2024

PORTER COUNTY SHERIFF'S OFFICE AND JAIL FACILITY ROOF AND EXTERIOR IMPROVEMENTS

TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications, and the Drawings dated May 22, 2024 by DLZ. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

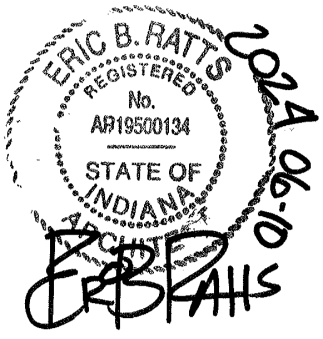
This Addendum consists of Page ADD 1-1 and attached Addendum No. 1 from DLZ dated June 10, 2024 and consisting of 2 pages, revised Specifications Section 07 41 13.16 – STANDING-SEAM METAL ROOF PANELS, Questions and Clarifications page, and 3 drawings.

ADDENDUM NO. 1

PROJECT:	**PORTER COUNTY SHERIFF'S OFFICE AND JAIL FACILITY ROOF AND EXTERIOR IMPROVEMENTS** 2755 State Road 49 Valparaiso, IN 46383
TO:	All Prospective Bidders and others to whom Plans and Specifications for the above referenced Project have been issued.
OWNER:	**PORTER COUNTY BOARD OF COMMISSIONERS** 155 Indiana Avenue Valparaiso, IN 46383
ARCHITECT	**DLZ INDIANA, LLC** 138 N. Delaware Street Indianapolis, Indiana 46204
DATE:	June 10, 2024

The items included in this Addendum are to become a part of the original Contract Documents including Drawings and Project Manual dated May 22, 2024, as if included herein. Only these items are to be altered. The remainder of the original Drawings and Project Manual remain valid in their entirety. Bidders must acknowledge receipt of this Addendum in the space provided on the Proposal Form. Failure to do so may subject the Bidder to disqualification.

CERTIFIED BY:



_____

Eric B. Ratts, AIA
Vice President
State of Indiana No. 19500134

PORTER COUNTY SHERIFF'S OFFICE AND 2363-1104-90
JAIL FACILITY ROOF AND EXTERIOR IMPROVEMENTS

PROJECT MANUAL

ITEM NO. 1. SECTION 074113.16 - STANDING-SEAM METAL ROOF PANELS

a. 2.1 STANDING-SEAM METAL ROOF PANELS

A - 1 Panel Seam Type: Double-lock flat rib profile; requiring field seaming.

b. 2.2 ROOF PANELS AND SHEET METAL FABRICATIONS

A – 5 Add DMI (Dimensional Metals, Inc.) to the list of approved manufacturers.

B – 5 Seam Profile: Double-lock flat rib profile.

DRAWINGS

ITEM NO. 2. A4.1 – ROOF PLAN

a. Updated keynotes 086300A, 086300B, 086300C, & 221106.
b. Updated Roof Plan Legend

ITEM NO. 3. A4.2 – ROOF DETAILS

a. Updated detail #1 – SKYLIGHT PROTECTION SCREEN
b. Updated detail #7 - DRAIN - ROOF AND OVERFLOW - DETAIL.

ITEM NO. 4. A6-2 - MEZZANINE - GLAZING REPLACEMENT PLANS AND ELEVATIONS - ALTERNATE BID

a. Updated the door numbers and glazing type for doors B3A & C6A.

ATTACHMENTS:

PROJECT MANUAL

1. 074113.16 - STANDING-SEAM METAL ROOF PANELS
2. Questions and Clarifications

DRAWINGS

1. A4.1 – ROOF PLAN
2. A4.2 – ROOF DETAILS
3. A6-2 - MEZZANINE - GLAZING REPLACEMENT PLANS AND ELEVATIONS - ALTERNATE BID

END OF ADDENDUM No. 1

SECTION 074113.16 - STANDING-SEAM METAL ROOF PANELS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Standing-Seam metal panel roofing system, including:

   a. Roofing manufacturer's requirements for the specified warranty.
   b. Preparation of existing concrete/wood nailers roofing substrates.
   c. Wood nailers for roofing attachment. (Existing to Remain)
   d. Roof insulation. (Existing to Remain)
   e. Coverboard.
   f. Self-adhering underlayment.
   g. Metal roof edging and fascia.
   h. Flashings.
   i. Other roofing-related items specified or indicated on the drawings or otherwise necessary to provide a complete roofing system.

B. Related Sections:

1. Section 012300 "Alternates" for a thirty (30) year warranty.
2. Section 061053 "Miscellaneous Rough Carpentry" for perimeter wood members attachment of edge trim and wood nailers associated with roof insulation.
4. Section 076200 "Sheet Metal Flashing and Trim" formed metal flashing and trim items associated with non-metal roofing.
5. Section 077100 "Roof Specialties" for roof-edge drainage systems.
6. Section 077253 "Snow Retention Bars" for prefabricated devices designed to hold snow on the roof surface, allowing it to melt and drain off slowly.

1.3 REFERENCES

A. Referenced Standards: These standards form part of this specification only to the extent they are referenced as specification requirements.

1. ASCE 7 - Minimum Design Loads for Buildings and Other Structures; American Society of Civil Engineers; 2011.

2. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2011.
3. ASTM C1177/C1177M - Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing; 2008.
4. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board; 2013.
7. ASTM D1970/D1970M - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection; 2013.
8. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2013a.
9. ASTM E108 - Standard Test Methods for Fire Tests of Roof Coverings; American Society for Testing and Materials; 2011.
10. ASTM E136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace At 750 Degrees C; 2012.
11. ASTM E1592 - Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference; American Society for Testing and Materials; 2005 (Reapproved 2012)
12. ASTM E1646 - Standard Test Method for Water Penetration of Exterior Metal Roof Panel Systems by Uniform Static Air Pressure Difference; American Society for Testing and Materials; 1995 (Reapproved 2011).
13. ASTM E1680 - Standard Test Method for Rate of Air Leakage Through Exterior Metal Roof Panel Systems; American Society for Testing and Materials; 2011.
14. MBMA - Metal Roofing Systems Design Manual; Metal Building Manufacturers Association; 2012.
15. PS 1 - Construction and Industrial Plywood; 2009.
16. PS 20 - American Softwood Lumber Standard; 2010.
17. UL 580 - Standard for Tests for Uplift Resistance of Roof Assemblies; Underwriters Laboratories Inc.; Current Edition, Including All Revisions.
18. UL 2218 - Standard for Impact Resistance of Prepared Roof Covering Materials; Underwriters Laboratories Inc.; Current Edition, Including All Revisions.

1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1. Meet with Owner, Construction Manage, Architect, Owner's insurer if applicable, metal panel Installer, metal panel manufacturer's representative and installers whose work interfaces with or affects metal panels, including installers of roof accessories and roof-mounted equipment.
2. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment and facilities needed to make progress and avoid delays.
3. Review methods and procedures related to the existing metal roof panel removal and installation, including manufacturer's written instructions of the new roof system.
4. Examine support conditions for compliance with requirements, including alignment between and attachment to structural members.

5. Review structural loading limitations of deck during and after roofing.
6. Review flashings, special details, drainage, penetrations, equipment curbs and condition of other construction that affect metal panels.
7. Review governing regulations and requirements for insurance, certificates and tests and inspections if applicable.
8. Review temporary protection requirements for metal panel systems during and after installation.
9. Review procedures for repair of metal panels damaged after installation.
10. Document proceedings, including corrective measures and actions required and furnish copy of record to each participant.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles and finishes for each type of panel and accessory.
2. Installation Instructions: Provide manufacturer's instructions to installer, marked up to show exactly how all components will be installed; where instructions allow installation options, clearly indicate which option will be used.

B. Shop Drawings:

1. Include fabrication and installation layouts of metal panels; details of edge conditions, joints, panel profiles, corners, anchorages, attachment system, trim, flashings, closures and accessories; and special details. Distinguish between factory and field-assembled work.
2. Accessories: Include details of the flashing, trim and anchorage systems, at a scale of not less than 1-1/2-inches per 12-inches (1:10).

a. Flashing, fascia and trim.
b. Coverboard panel.
c. Roof curbs.
d. Snow retention.
e. Ridge/Hip cap.
f. Roof penetrations.

C. Manufacturer's Installation Inspection Reports: Manufacturer may, at its option, inspect the installation at any time to appraise the installing contactor of their compliance with manufacturer's requirements. Typical inspections will include:

1. Prior to the installation of the metal roofing panels to inspect the underlayments. The roofing contractor is responsible for assuring that the substrate is in suitable condition for the installation of the metal roofing components to the substrate.
2. At final completion of all metal roofing system work.
3. Submit to Owner, for the project record, a copy of each report of inspection made.

D. Samples for Initial Selection: For each type of metal panel indicated with factory-applied color finishes.

1. Include similar Samples of trim and accessories involving color selection.

E. Samples for Verification: For each type of exposed finish required, prepared on Samples of size indicated below.

1. Metal Panels: 12-inches long by actual panel width. Include clips, fasteners, closures and other metal panel accessories.
2. Trim and Closures: 12-inches long. Include fasteners and other exposed accessories.
3. Accessories: 12-inch-long samples for each type of accessory.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Product Test Reports: For each product, for tests performed by a qualified testing agency.

C. Field quality-control reports.

D. Sample Warranties: For special warranties.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For metal panels to include in maintenance manuals.

1.7 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

B. UL-Certified, Portable Roll-Forming Equipment: UL-certified, portable roll-forming equipment capable of producing metal panels warranted by manufacturer to be the same as factory-formed products. Maintain UL certification of portable roll-forming equipment for duration of work.

C. Mockups: Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for fabrication and installation.

1. Build mockups for typical roof area only, including accessories.

a. Size: Nor less than 12 feet long by 6 feet.

2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.

3. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.8 DELIVERY, STORAGE AND HANDLING

A. Deliver components, metal panels and other manufactured items so as not to be damaged or deformed. Package metal panels for protection during transportation and handling.

B. Unload, store and erect metal panels in a manner to prevent bending, warping, twisting and surface damage.

C. Stack metal panels horizontally on platforms or pallets, covered with suitable weathertight and ventilated covering. Store metal panels to ensure dryness, with positive slope for drainage of water. Do not store metal panels in contact with other materials that might cause staining, denting or other surface damage.

D. Retain strippable protective covering on metal panels during installation.

1.9 FIELD CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit assembly of metal panels to be performed according to manufacturers' written instructions and warranty requirements.

B. Field Measurements: Verify actual dimensions of construction contiguous with metal roof panels by field measurements before fabrication.

1.10 COORDINATION

A. Coordinate sizes and locations of roof curbs, equipment supports and roof penetrations with actual equipment provided.

B. Coordinate metal roof panel installation with rain drainage work, flashing, trim, construction of soffits and other adjoining work to provide a leakproof, secure and noncorrosive installation.

1.11 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of metal panel systems, flashings, edges, soffits and trims that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Structural failures including rupturing, cracking or puncturing.
b. Deterioration of metals and other materials beyond normal weathering.

2. Warranty Period: Five (5) years from date of Substantial Completion.

B. Special Warranty on Panel Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace metal panels that show evidence of deterioration of factory-applied finishes within specified warranty period.

1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:

a. Color fading more than 5 Hunter units when tested according to ASTM D2244.
b. Chalking in excess of a No. 8 rating when tested according to ASTM D4214.
c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.

2. Finish Warranty Period: Twenty (20) years from date of Substantial Completion.

C. Special Weathertightness Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace standing-seam metal roof panel assemblies that fail to remain weathertight, including leaks, within specified warranty period.

1. Warranty Period: Twenty (20) years from date of Substantial Completion. (Base Bid)
2. Warranty Period: Thirty (30) years from date of Substantial Completion. (Alternate Bid)

PART 2 - PRODUCTS

2.1 STANDING-SEAM METAL ROOF PANELS

A. General: Standing seam metal roof panels and other components, together forming a watertight assembly having the following characteristics:

1. Panel Seam Type: Double-lock flat rib profile; requiring field seaming.
2. Panel Material: Aluminum 0.040-inch with fluoropolymer coating.
3. Design Loads: In accordance with ASCE 7, current edition.

a. Design Snow Load: Not less than 20 psf.
b. Maximum Deflection Under Snow Load: Not more than L/180 or as recommended by ASCE 7, whichever is less.
c. Wind Uplift Resistance: Class 90minimum, when tested in accordance with UL580.
d. Wind Pull-Off resistance: No failure of roof panel or fasteners when tested in accordance with ASTM E1592 for negative loading equal to negative design wind load for assemblies not tested, capacity for gage, span or loading may be determined by interpolating between test values only.

4. Impact Resistance: Minimum of Class 4, when tested in accordance with UL 2218.
5. Thermal Effects: Design roof panels and their attachment to allow free movement in response to expansion and contraction forces resulting from temperature variation, as specified in the MBMA Metal Roofing Systems Design Manual.

6. External Fire Resistance: Class A, B, C, when tested in accordance with ASTM E108 or UL 790.
7. Provide all necessary members and connections, whether indicated in the manufacturer's standard detail drawings or not.
8. Accessories and Fasteners: Capable of resisting the specified design wind uplift forces and allowing for thermal movement of the roof panel system, not restricting free movement of the roof panel system resulting from thermal forces except at designed points of roof panel fixity.

B. Roof System Components: In order from the top down:

1. Standing-seam metal roofing panels and trim.
2. Underlayment: Self-adhering, high temperature underlayment over entire roof; material as specified.
3. Roof Insulation/Nailers: Existing to Remain.
4. Existing concrete deck.

2.2 ROOF PANELS AND SHEET METAL FABRICATIONS

A. Basis-of-Design Product Roof Panels: Subject to compliance with requirements provide "UNA-CLAD UC-3" Standing-Seam Metal Roofing as manufactured by Holcim Elevate building products or a comparable product by one of the following:

1. Atas International.
2. Berridge Manufacturing Co.
3. Pac-Clad Petersen/Carlisle Company.
4. McElroy Metal.
5. DMI (Dimensional Metals, Inc.)

B. Roof Panels: Roll formed aluminum roofing panels produced in a permanent factory environment with fixed-base roll-forming equipment.

1. Type: Self-locking
2. Seam Height: 1 1/2-inches
3. Seam Spacing: 12-inhes.
4. Panel Width: 12-inches.
5. Seam Profile: Double-lock flat rib profile.
6. Texture: Smooth.
7. Roof Slope: 3:12.
8. Provide factory applied integral seam sealant in leg of panel.
9. Form roofing panels in longest practical lengths, true to shape, accurate in size, square and free from distribution or manufacturing defects.

C. Aluminum Sheet for Painted and Mill Finish: ASTM B209, alloy 3003-H14/3105-H14.

D. Fluoropolymer Coating: 70 percent full strength Kynar 500/Hylar 5000.

1. Exposed Surface: 1.0 mil plus/minus 0.1 mil total dry film thickness.

2. Concealed Surface: 0.2 to 0.3 mils total dry film thickness.
3. Color: Match McElroy "Colonial Red".

E. Technical Information:

1. Uplift Resistance: UL 580 Class 90.
2. Air Infiltration: ASTM E283 & E1680.
3. Structural Performance: ASTM E330 & E1592.
4. Water Penetration: ASTM E331 & E1646-95.
5. Fire Rating: UL Class A Rated Assemblies, UL 263 & UL 790.

F. Sheet Metal Components Associated with Metal Roof Panels: Made by same manufacturer and compatible with roof panels; of not less than minimum thickness required by roof panel manufacturer.

1. Fabricate trim, fascia, flashing and accessories to roofing manufacturer's specified or approved profiles.
2. Exposed metal components of same finish as panels.
3. Color: Same as panels.
4. Provide the following formed sheet metal components:

a. Eave.
b. Ridge.
c. Valleys
d. Rake edge.
e. Fascia.
f. Pipe and other penetration flashings, for penetrations over 8-inches.
g. Flashings at interface to other roofing types.
h. Other flashings.

2.3 ACCESSORY MATERIALS

A. Self-Adhered Underlayment: Rubberized sheet waterproof membrane complying with ASTM D 1970/D1970M, self-adhering.

1. Basis-of-Design Product: Subject to compliance with requirements provide "Clad-Gard SA" non-reinforced, rubberized asphalt waterproofing membrane as manufactured by Holcim Elevate or an approved product approved by the roof manufacturer.
2. Resistance to Direct Exposure: At least 60 days.
3. Minimum High Temperature Resistance: 230 degrees F.
4. Water Vapor Permeance: 0.1 perm, maximum.

B. Glass-Mat Gypsum Cover Board: ASTM C 1177/C 1177M, glass-mat, water-resistant gypsum substrate.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Certainteed; SAINT-GOBAIN.
b. Georgia-Pacific Gypsum LLC.
c. Gold Bond Building Products, LLC provided by National Gypsum Company.
d. USG Corporation.

2. Thickness: 1/2-inch.
3. Surface Finish: Unprimed.

C. Fasteners: In strict accordance with metal roof panel manufacturer's requirements; minimize exposed fasteners.

1. Fasteners Exposed to Weather: Sealed or with sealed washers on exterior side of covering to waterproof fastener penetration; washer material compatible with screw head; minimum 3/8-inch diameter washer for structural connections; gasket portion of fasteners or washers made of EPDM, neoprene, or other equally durable elastomeric material.
2. Fasteners Exposed to View: Head of color matching panel or component in which installed.

D. Panel Accessories: Provide components required for a complete, weathertight panel system including trim, copings, fasciae, mullions, sills, corner units, clips, flashings, sealants, gaskets, fillers, closure strips and similar items. Match material and finish of metal panels unless otherwise indicated.

1. Closures: Provide closures at eaves and ridges, fabricated of same metal as metal panels.
2. Backing Plates: Provide metal backing plates at panel end splices, fabricated from material recommended by manufacturer.
3. Closure Strips: Closed-cell, expanded, cellular, rubber or crosslinked, polyolefin-foam or closed-cell laminated polyethylene; minimum 1-inch-thick, flexible closure strips; cut or premolded to match metal panel profile. Provide closure strips where indicated or necessary to ensure weathertight construction.
4. Clips: Galvanized steel manufacturer's standard.
5. Expansion Clips: Stainless-steel manufacturer's standard.
6. Bearing Plate: Galvanized steel manufacturer's standard.

E. Flashing, Fascia and Trim: Provide flashing and trim formed from same material as metal panels as required to seal against weather and to provide finished appearance. Locations include, but are not limited to, eaves, rakes, corners, bases, framed openings, ridges, fasciae and fillers. Finish flashing and trim with same finish system as adjacent metal panels.

F. Insulate roof curb with 1-inch- thick, rigid insulation.

G. Panel Fasteners: Self-tapping screws designed to withstand design loads.

H. Panel Sealants: Provide sealant type recommended by manufacturer that are compatible with panel materials, are nonstaining and do not damage panel finish.

1. Sealant Tape: Pressure-sensitive, 100 percent solids, gray polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2-inch wide and 1/8-inch thick.
2. Joint Sealant: ASTM C920; elastomeric polyurethane or silicone sealant; of type, grade, class and use classifications required to seal joints in metal panels and remain weathertight; and as recommended in writing by metal panel manufacturer.
3. Butyl-Rubber-Based, Solvent-Release Sealant: ASTM C1311.

2.5 FABRICATION

A. General: Fabricate and finish metal panels and accessories at the factory, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.

B. Provide panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of panel.

C. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's recommendations and recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal and other characteristics of item indicated.

1. Form exposed sheet metal accessories that are without excessive oil canning, buckling and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.
2. Seams for Aluminum: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with epoxy seam sealer. Rivet joints for additional strength.
3. Seams for Other Than Aluminum: Fabricate nonmoving seams in accessories with flat-lock seams. Tin edges to be seamed, form seams and solder.
4. Sealed Joints: Form nonexpansion, but movable, joints in metal to accommodate sealant and to comply with SMACNA standards.
5. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces of accessories exposed to view.
6. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal recommended in writing by metal panel manufacturer.

    a. Size: As recommended by SMACNA's "Architectural Sheet Metal Manual" or metal panel manufacturer for application, but not less than thickness of metal being secured.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas and conditions, with Installer present, for compliance with requirements for installation tolerances, metal panel supports and other conditions affecting performance of the Work.

1. Examine existing wood nailers to verify that installation is within flatness tolerances required by metal roof panel manufacturer.

B. Examine roughing-in for components and systems penetrating metal roof panels to verify actual locations of penetrations relative to seam locations of metal panels before installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 UNDERLAYMENT INSTALLATION

A. Self-Adhering Sheet Underlayment: Apply primer if required by manufacturer. Comply with temperature restrictions of underlayment manufacturer for installation. Apply at locations indicated below, wrinkle free, in shingle fashion to shed water and with end laps of not less than 6-inches staggered 24-inches between courses. Overlap side edges not less than 3-1/2-inches**.** Roll laps with roller. Cover underlayment within 14 days.

1. Apply over the entire roof surface.

B. Flashings: Install flashings to cover underlayment to comply with requirements specified in Section 076200 "Sheet Metal Flashing and Trim."

3.3 METAL ROOF PANEL INSTALLATION

A. General: Install metal roof panels according to manufacturer's written instructions in orientation, sizes and locations indicated. Install panels perpendicular to supports unless otherwise indicated. Anchor metal panels and other components of the Work securely in place, with provisions for thermal and structural movement.

1. Shim or otherwise plumb substrates receiving metal panels.
2. Flash and seal metal panels at perimeter of all openings. Fasten with self-tapping screws. Do not begin installation until air- or water-resistive barriers and flashings that will be concealed by metal panels are installed.
3. Install screw fasteners in predrilled holes.
4. Locate and space fastenings in uniform vertical and horizontal alignment.
5. Install flashing and trim as metal panel work proceeds.
6. Locate panel splices over, but not attached to, structural supports. Stagger panel splices and end laps to avoid a four-panel lap splice condition.

7. Align bottoms of metal panels and fasten with blind rivets, bolts, or self-tapping screws. Fasten flashings and trim around openings and similar elements with self-tapping screws.
8. Provide weathertight escutcheons for pipe- and conduit-penetrating panels.

B. Fasteners:

1. Aluminum Panels: Use aluminum or stainless-steel fasteners for surfaces exposed to the exterior; use aluminum or galvanized-steel fasteners for surfaces exposed to the interior.

C. Anchor Clips: Anchor metal roof panels and other components of the Work securely in place, using manufacturer's approved fasteners according to manufacturers' written instructions.

D. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action as recommended in writing by metal panel manufacturer.

E. Standing-Seam Metal Roof Panel Installation: Fasten metal roof panels to supports with concealed clips at each standing-seam joint at location, spacing and with fasteners recommended in writing by manufacturer.

1. Install clips to supports with self-tapping fasteners.
2. Install pressure plates at locations indicated in manufacturer's written installation instructions.
3. Snap Joint: Nest standing seams and fasten together by interlocking and completely engaging factory-applied sealant.
4. Seamed Joint: Crimp standing seams with manufacturer-approved, motorized seamer tool so clip, metal roof panel and factory-applied sealant are completely engaged.
5. Watertight Installation:

    a. Apply a continuous ribbon of sealant or tape to seal joints of metal panels, using sealant or tape as recommend in writing by manufacturer as needed to make panels watertight.
    b. Provide sealant or tape between panels and protruding equipment, vents and accessories.
    c. At panel splices, nest panels with minimum 6-inch end lap, sealed with sealant and fastened together by interlocking clamping plates.

F. Accessory Installation: Install accessories with positive anchorage to building and weathertight mounting and provide for thermal expansion. Coordinate installation with flashings and other components.

1. Install components required for a complete metal panel system including trim, copings, corners, seam covers, flashings, sealants, gaskets, fillers, closure strips and similar items. Provide types indicated by metal roof panel manufacturers; or, if not indicated, types recommended by metal roof panel manufacturer.

G. Flashing, Fascia and Trim: Comply with performance requirements, manufacturer's written installation instructions and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible and set units true to line and level as indicated. Install work with laps, joints and seams that will be permanently watertight and weather resistant.

1. Install exposed flashing, fascia and trim that is without buckling and tool marks and that is true to line and levels indicated, with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and achieve waterproof and weather-resistant performance.
2. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet with no joints allowed within 24-inches of corner or intersection. Where lapped expansion provisions cannot be used or would not be sufficiently weather resistant and waterproof, form expansion joints of intermeshing hooked flanges, not less than 1-inch deep, filled with mastic sealant (concealed within joints).

H. Roof Curbs: Install flashing around bases where they meet metal roof panels.

I. Pipe Flashing: Form flashing around pipe penetration and metal roof panels. Fasten and seal to metal roof panels as recommended by manufacturer.

3.5 ERECTION TOLERANCES

A. Installation Tolerances: Shim and align metal panel units within installed tolerance of 1/4-inch in 20 feet on slope and location lines as indicated and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.

3.6 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Engage a factory-authorized service representative to test and inspect metal roof panel installation, including accessories. Report results in writing.

B. Remove and replace applications of metal roof panels where tests and inspections indicate that they do not comply with specified requirements.

C. Additional tests and inspections, at Contractor's expense, are performed to determine compliance of replaced or additional work with specified requirements.

D. Prepare test and inspection reports.

3.7 CLEANING AND PROTECTION

A. Remove temporary protective coverings and strippable films, if any, as metal panels are installed, unless otherwise indicated in manufacturer's written installation instructions. On completion of metal panel installation, clean finished surfaces as recommended by metal panel manufacturer. Maintain in a clean condition during construction.

B. Replace metal panels that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 074113.16

Questions and Clarifications

ITEM NO. 1. SECTION 074113.16 - STANDING-SEAM METAL ROOF PANELS

Question: What type of seam is required? A mechanically seamed double lock or a self-locking seam.

Answer: Follow the UNA Clad 3 specifications. Provide seam sealant, double-locked seam panels requiring field seaming.

ITEM NO. 2. SECTION 074113.16 - STANDING-SEAM METAL ROOF PANELS

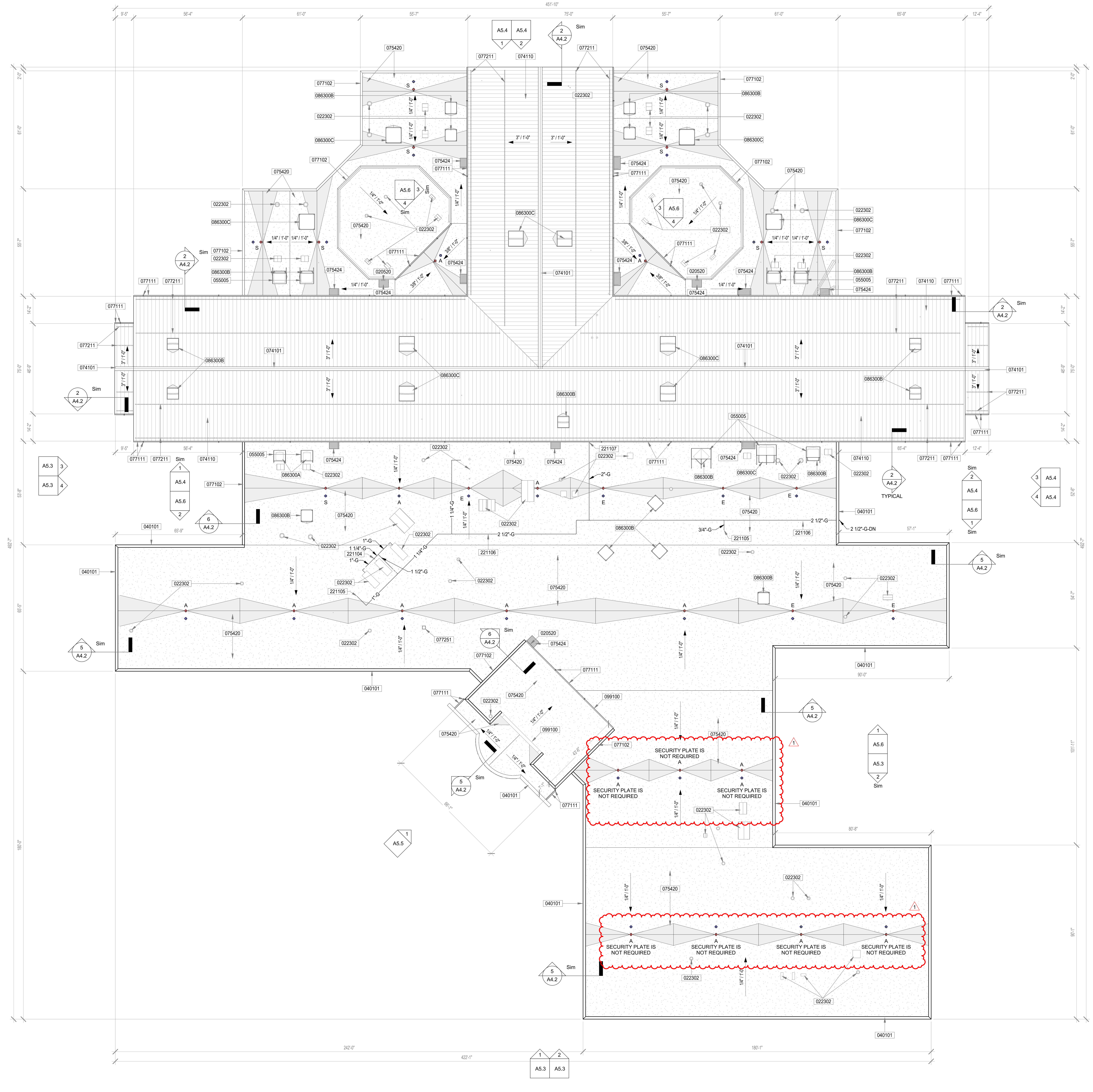
Question: Where does the ½" dens deck coverboard fit into the metal roofing assembly?

Answer: The cover board is required for replacement of any discovered damaged existing cover board and may be required for the Alternate 30-year warranty - verify with manufacturer.

ITEM NO. 3. Fire Rating

Question: What is the UL design number for the roof drain/pre-cast installation?

Answer: Provide fire safing material and or caulking as required to maintain the required rating - full perimeter of all roof and overflow roof penetrations, typical.



1 ROOF PLAN - NEW WORK
SCALE: 1" = 20'-0"
NORTH

ROOF PLAN NOTES:

A. REFER TO G1.1 FOR ADDITIONAL GENERAL NOTES AND INFORMATION.

B. REFER TO EXISTING MECHANICAL AND PLUMBING DRAWINGS FOR ROOF EQUIPMENT AND PENETRATING ITEMS. COORDINATE EXACT LOCATION IN THE FIELD.

C. PROVIDE/INSTALL CRICKETS, SADDLES, ETC. AT ALL REQUIRED LOCATIONS FOR POSITIVE DRAINAGE - WHETHER GRAPHICALLY INDICATED OR KEYNOTED OR NOT. FIELD VERIFY ALL EXISTING CONDITIONS.

D. ALL KEYNOTES INDICATE ONE GRAPHIC REPRESENTATION TYPICAL. CONTRACTOR SHALL USE THE GRAPHIC REPRESENTATIONS FOR COUNTS AND NOT THE KEYNOTES. THE ABSENCE OF A KEYNOTE DOES NOT ABSOLVE THE CONTRACTOR FROM PROVIDING THE FEATURE GRAPHICALLY SHOWN ON THE DRAWINGS.

E. ALTERNATE STANDING SEAM METAL ROOF 30 YEAR WARRANTY MAY REQUIRE REMOVAL OF NAILERS, WOOD BLOCKING, INSULATION, COVER BOARD, ETC. CONTRACTOR SHALL COORDINATE ROOF MANUFACTURER'S WARRANTY REQUIREMENTS WITH ANY ADDITIONAL DEMOLITION.

KEYNOTES

020520	VERTICAL WALL-MOUNTED ACCESS LADDER - TO REMAIN
022302	MECHANICAL EQUIPMENT AND CURB TO REMAIN. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS - TYPICAL
040101	REINSTALL SALVAGED PRECAST CONCRETE CAP
055005	SKYLIGHT PROTECTION SCREEN - SEE DETAIL #01/A4.2
074101	RIDGE CAP
074110	STANDING-SEAM METAL ROOF PANEL
075420	MEMBRANE ROOFING SYSTEM WITH COVER BOARD AND TAPERED RIGID INSULATION
075424	WALK OFF MAT - 48" DEPTH AND 12" WIDER THAN THE DOOR OR LADDER
077102	PRE-FINISHED METAL COPING - MATCH EXISTING PROFILE
077111	PRE-FINISHED METAL GUTTER AND DOWNSPOUT - FIELD VERIFY SIZE AND MATCH EXISTING PROFILE.
077211	RAIL-TYPE, SEAM-MOUNTED SNOW GUARD
077251	NEW INSULATED ROOF CURB FOR A FUTURE EXHAUST FAN. PROVIDE A WEATHER TIGHT AND INSULATED TEMPORARY CAP.
086300A	4'-0"X4'-0" SKYLIGHT (FIELD VERIFY) - CLEAN THE EXISTING EXTERIOR GLAZING ABOVE THE SECURITY SCREEN BEFORE INSTALLING THE NEW DOME
086300B	6'-0"X6'-0" SKYLIGHT (FIELD VERIFY) - CLEAN THE EXISTING EXTERIOR GLAZING ABOVE THE SECURITY SCREEN BEFORE INSTALLING THE NEW DOME
086300C	8'-0"X8'-0" SKYLIGHT (FIELD VERIFY) - CLEAN THE EXISTING EXTERIOR GLAZING ABOVE THE SECURITY SCREEN BEFORE INSTALLING THE NEW DOME
099100	EXTERIOR PAINTING - EXISTING CMU
221104	PROVIDE SHUTOFF VALVE AT BRANCH CONNECTION TO EACH UNIT.
221105	PROVIDE PENETRATION THRU ROOF. PROVIDE PATE MODEL RPS-3 PIPE SEAL OR EQUIVALENT.
221106	PROVIDE NEW NATURAL GAS PIPE, SUPPORTS, REGULATORS AND VALVES IN KIND. PROVIDE NON-PENETRATING ROOF SUPPORTS SPACED PER MANUFACTURER RECOMMENDATIONS (MIRO OR EQUIVALENT). ROUTE GAS PIPE AT 18" ABOVE ROOF.
221107	CONNECT TO EXISTING PIPING INSIDE BUILDING. PROVIDE NEW LINK SEAL TYPE WALL PENETRATION SYSTEM.

ROOF PLAN LEGEND:

ROOF DRAIN

OVERFLOW ROOF DRAIN

A/E/S — CEILING TYPE UNDER THE ROOF DRAINS:
A - ACOUSTICAL TILE CEILING
E - EXPOSED CONCRETE DECK
S - SECURITY PANEL CEILING

CONTRACTOR TO VERIFY CEILING TYPE BEFORE CONSTRUCTION AND NOTIFY ARCHITECT OF ANY DISCREPANCIES IN CEILING TYPES. CONTRACTOR SHALL REINSTALL AND OR REPAIR CEILING TO ORIGINAL CONDITION.

PROVIDE 12 GAUGE STEEL PLATE AT THE BOTTOM OF THE PRE-CAST DECK AND ROOF DRAIN AS REQUIRED - SEE DETAIL 7/A4.2. PROVIDE PLATES AT ALL ROOF DRAINS UNLESS NOTED OTHERWISE.

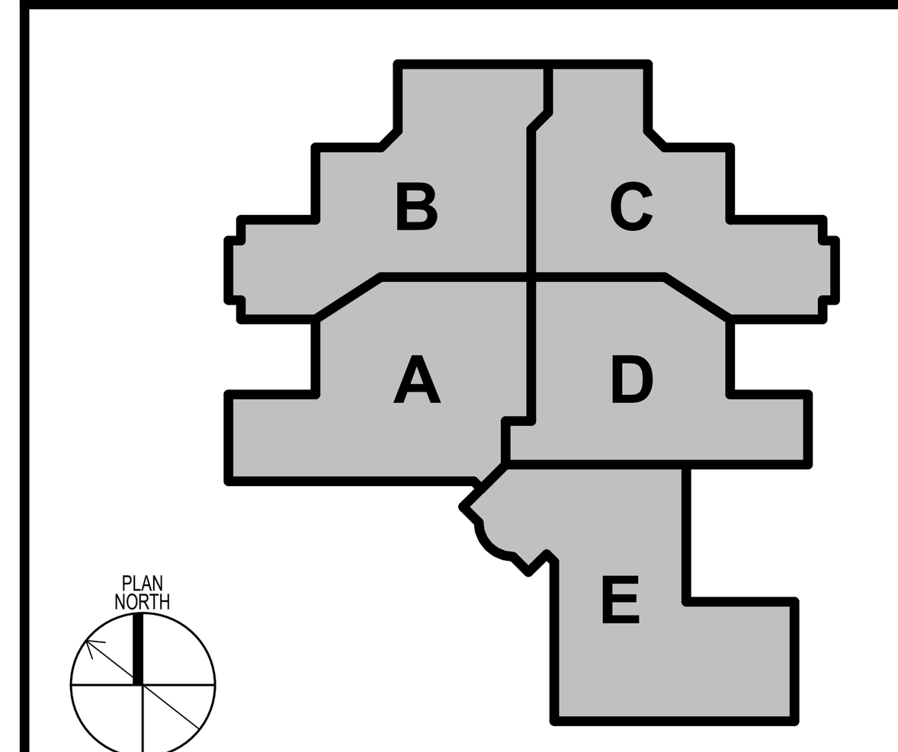
X"/1'-0" ROOF SLOPE ARROW

1/2"/12" MINIMUM SLOPE

EXISTING ROOF EQUIPMENT TO REMAIN

NOTE:
ELEMENTS ON THIS DRAWING ARE IDENTIFIED BY VARIOUS COLORS; IF THIS NOTE IS NOT RED, THIS DRAWING IS NOT IN COLOR AND NEEDS TO BE REPRINTED IN COLOR.

KEYPLAN



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DLZ INDIANA, LLC

NO.	REVISION	DATE
1	Addendum 1	2024/06/10

DRAWN: CAG CHK'D: SAC
DESIGNED: CAG
APPRV'D: EBR/JRA
DATE: MAY 22, 2024
PROJECT NUMBER
2363-1104-90

PORTER COUNTY BOARD OF COMMISSIONERS
PORTER COUNTY SHERIFF'S OFFICE AND JAIL FACILITY ROOF AND EXTERIOR IMPROVEMENTS
2755 State Road 49, Valparaiso, IN 46383

ROOF PLAN

SHEET NUMBER
A4.1
ARCHITECTURE

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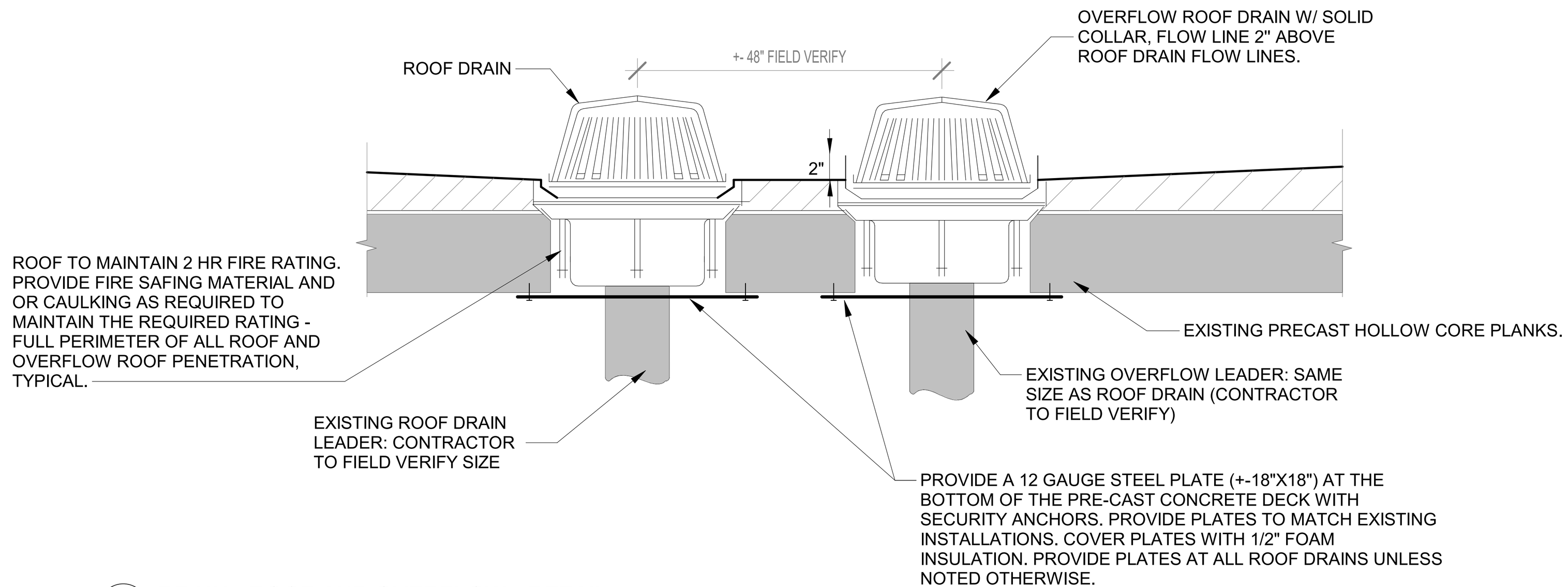
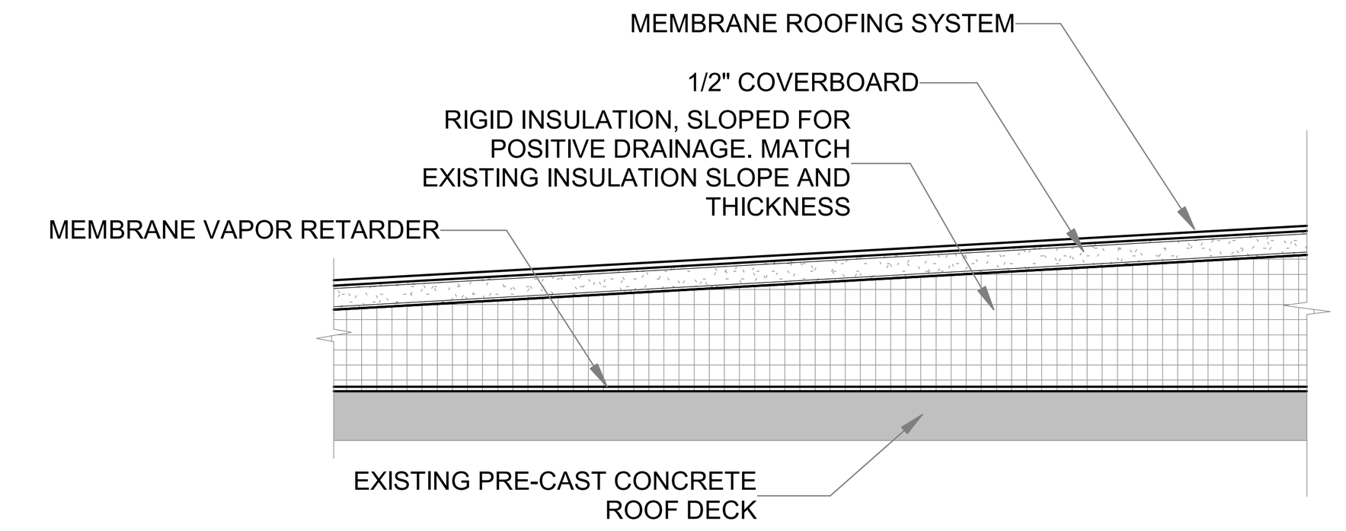
PHOTOGRAPHS OF EXISTING INSTALLATION

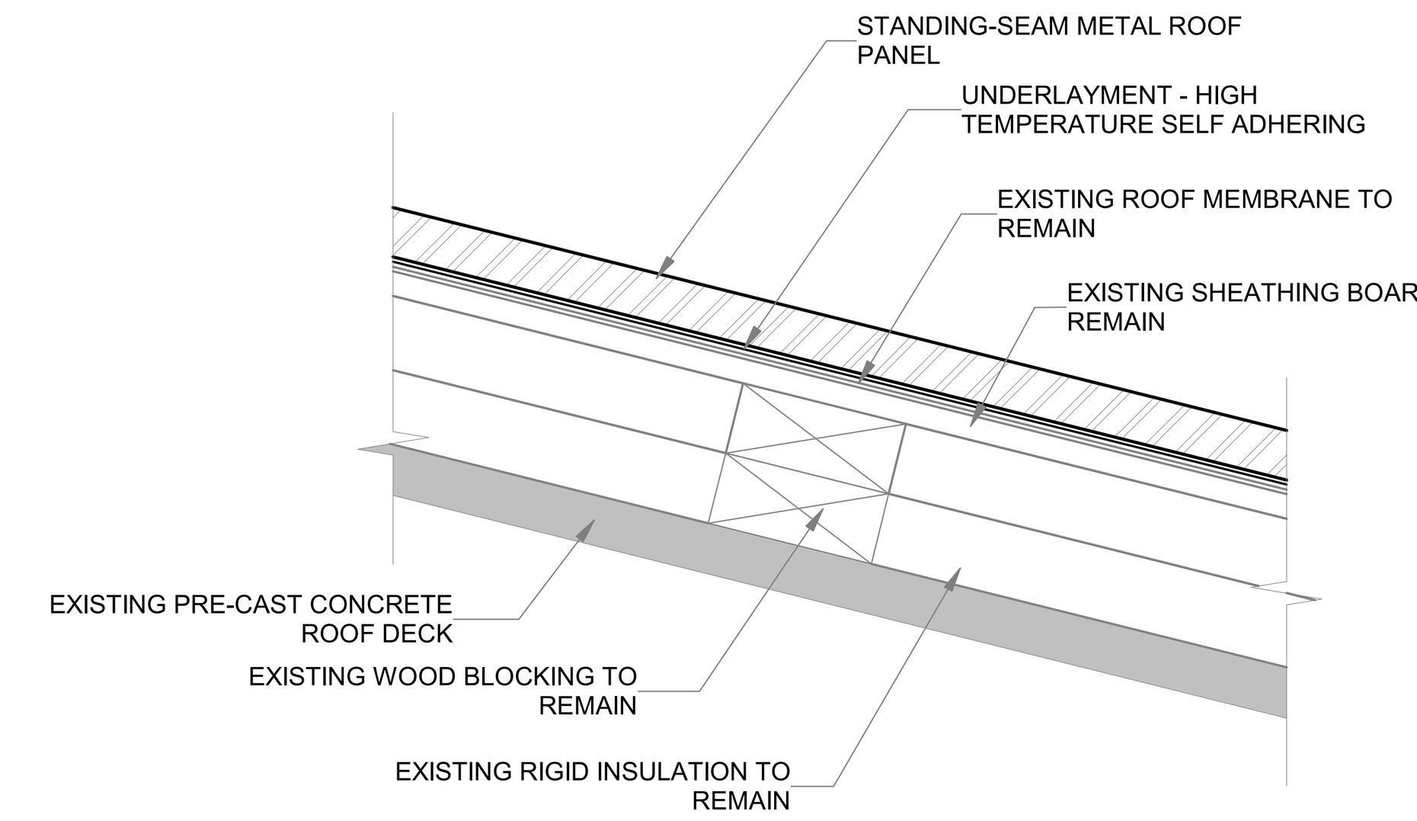
PROVIDE 12 GAUGE STEEL PLATES TO MATCH EXISTING INSTALLATIONS.
CONTRACTOR CAN REUSE EXISTING 12 GAUGE STEEL PLATE IF IN GOOD CONDITION.
CONTRACTOR SHALL PROVIDE ONE COMPLETE MOCK UP FOR REVIEW BY ARCHITECT AND CONSTRUCTION MANAGER BEFORE COMPLETING THE REMAINING INSTALLATIONS .



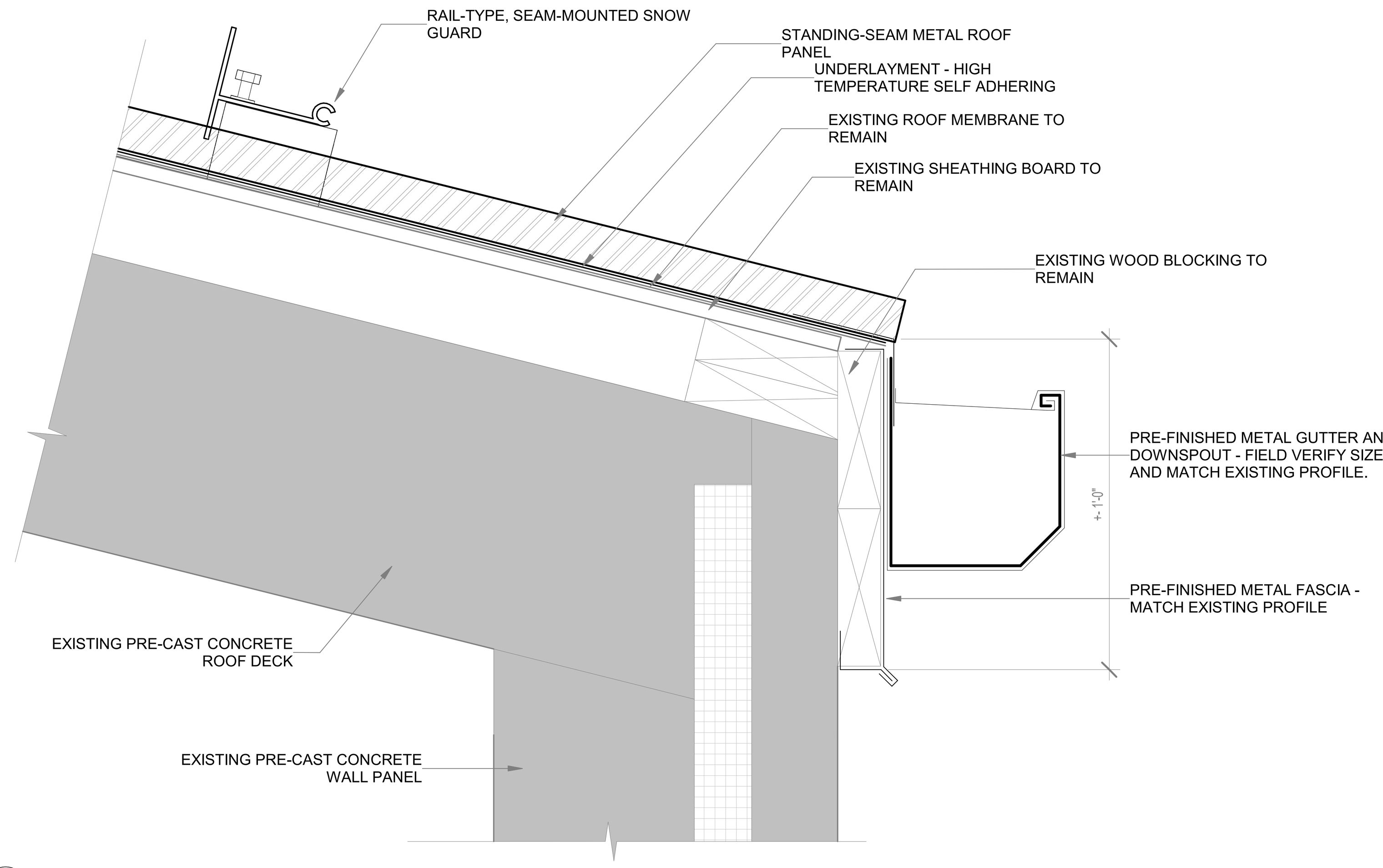
7 **DRAIN - ROOF AND OVERFLOW - DETAIL**
SCALE: N.T.S.



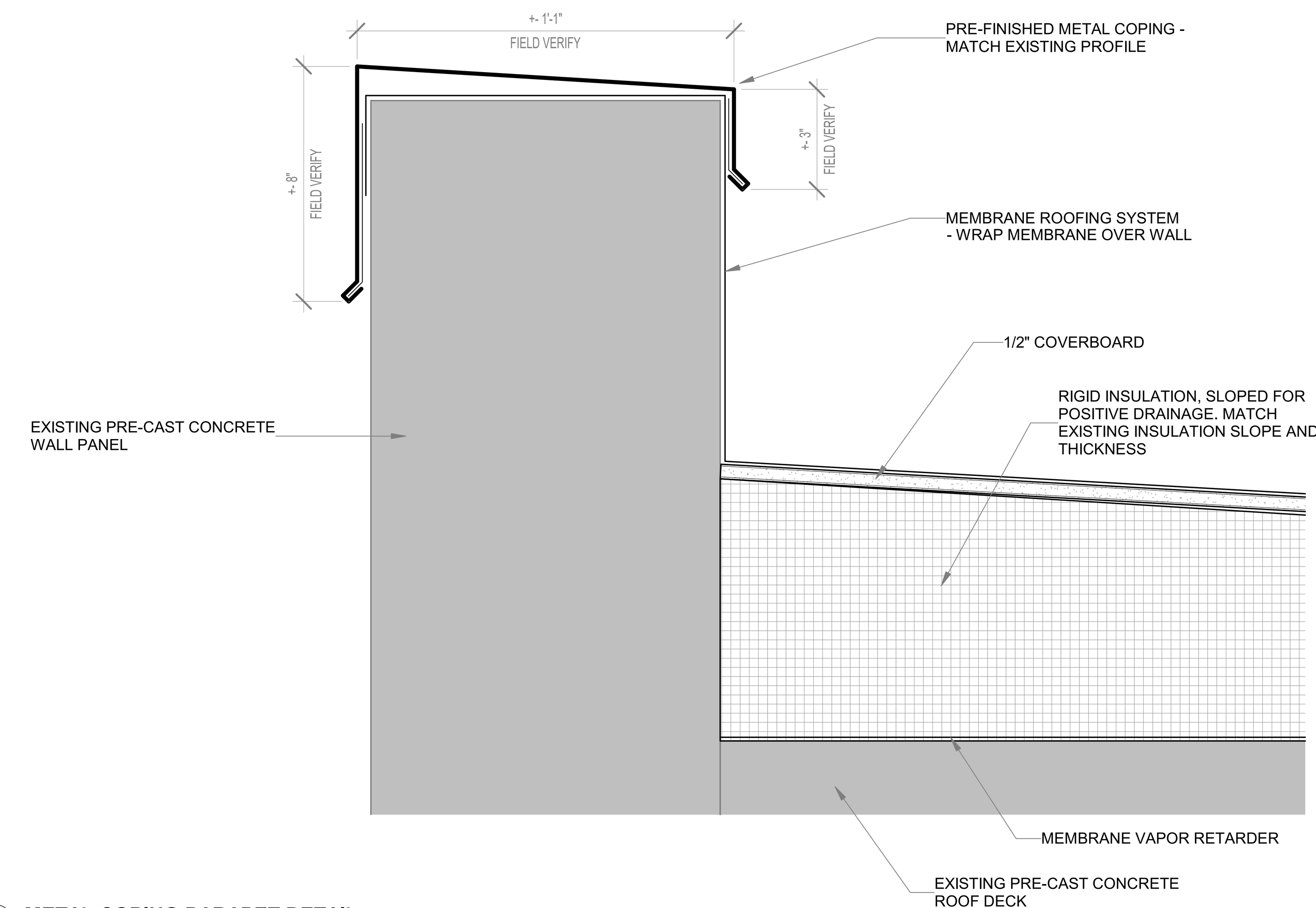
4 **TYPICAL LOW SLOPE ROOF COMPOSITION**
SCALE: 3" = 1'-0"



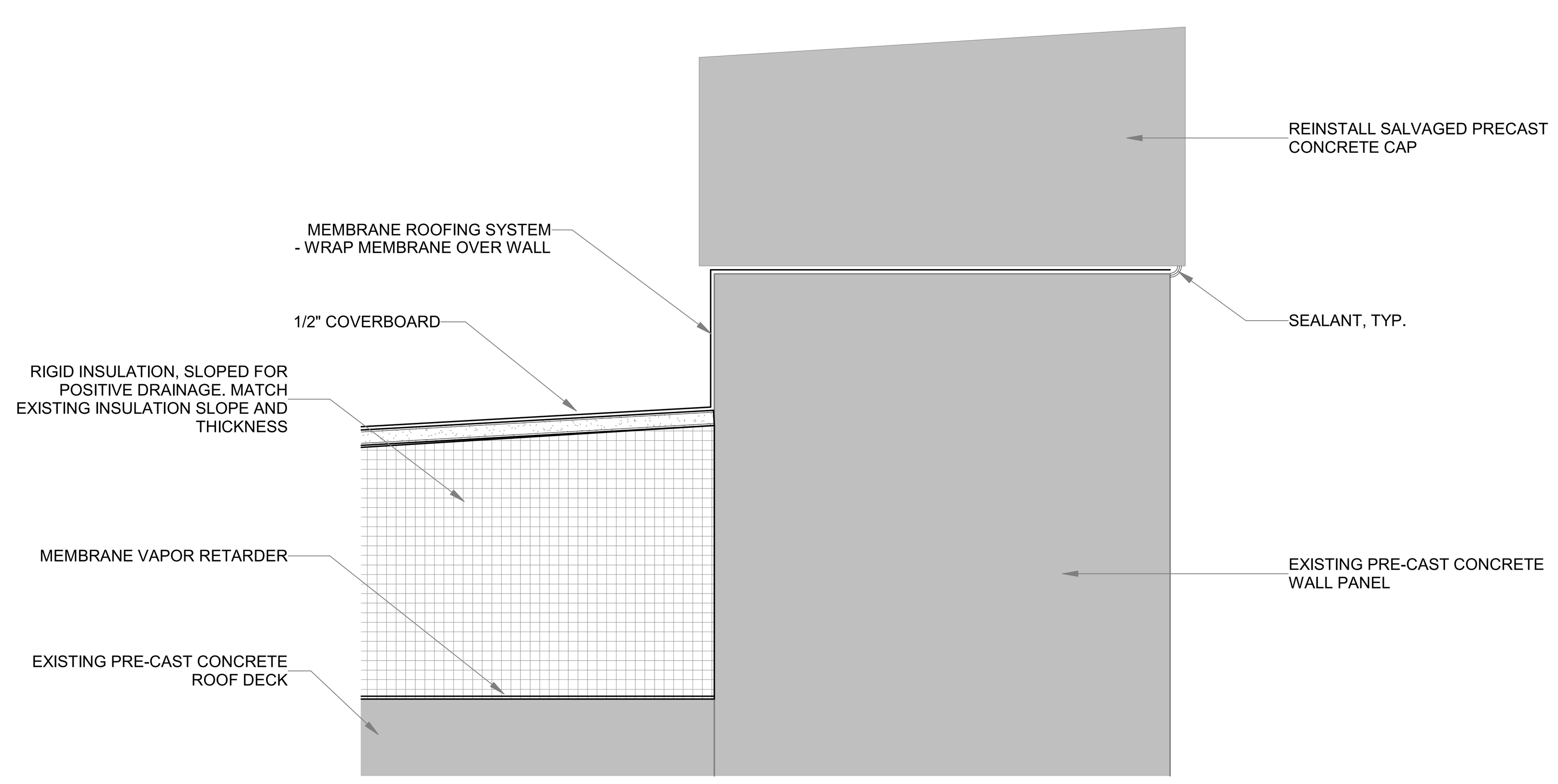
3 **TYPICAL METAL ROOF COMPOSITION**
SCALE: 3" = 1'-0"



2 **NEW FASCIA AND GUTTER SECTION**
SCALE: 3" = 1'-0"



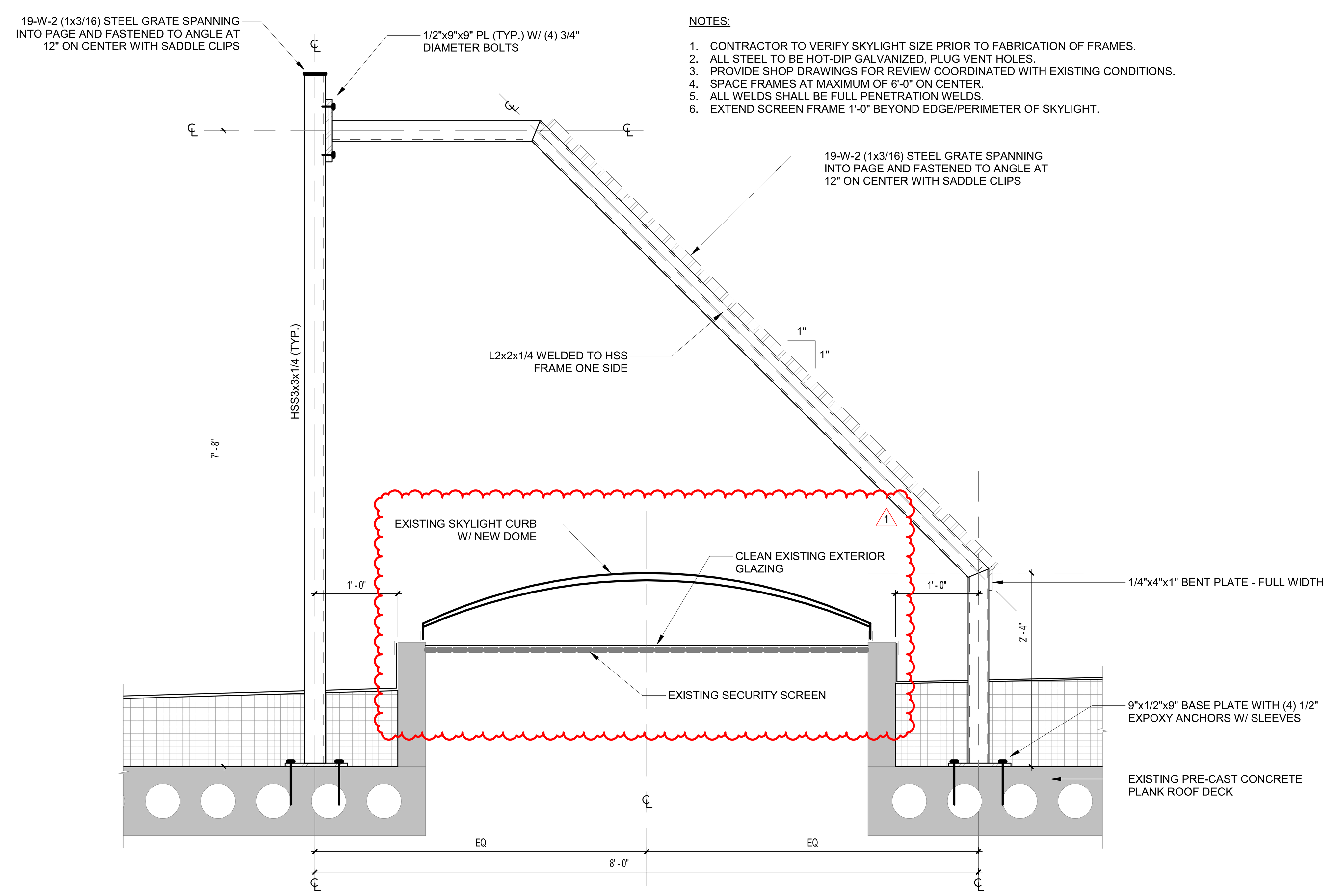
6 **METAL COPING PARAPET DETAIL**
SCALE: 3" = 1'-0"



5 **CONCRETE CAP PARAPET DETAIL**
SCALE: 3" = 1'-0"

NOTES:

1. CONTRACTOR TO VERIFY SKYLIGHT SIZE PRIOR TO FABRICATION OF FRAMES.
2. ALL STEEL TO BE HOT-DIP GALVANIZED, PLUG VENT HOLES.
3. PROVIDE SHOP DRAWINGS FOR REVIEW COORDINATED WITH EXISTING CONDITIONS.
4. SPACE FRAMES AT MAXIMUM OF 6'-0" ON CENTER.
5. ALL WELDS SHALL BE FULL PENETRATION WELDS.
6. EXTEND SCREEN FRAME 1'-0" BEYOND EDGE/PERIMETER OF SKYLIGHT.



1 **SKYLIGHT PROTECTION SCREEN**
SCALE: N.T.S.

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PORTER COUNTY SHERIFF'S OFFICE AND JAIL FACILITY ROOF AND EXTERIOR IMPROVEMENTS
2755 State Road 49, Valparaiso, IN 46383

ROOF DETAILS

SHEET NUMBER
A4.2
ARCHITECTURE

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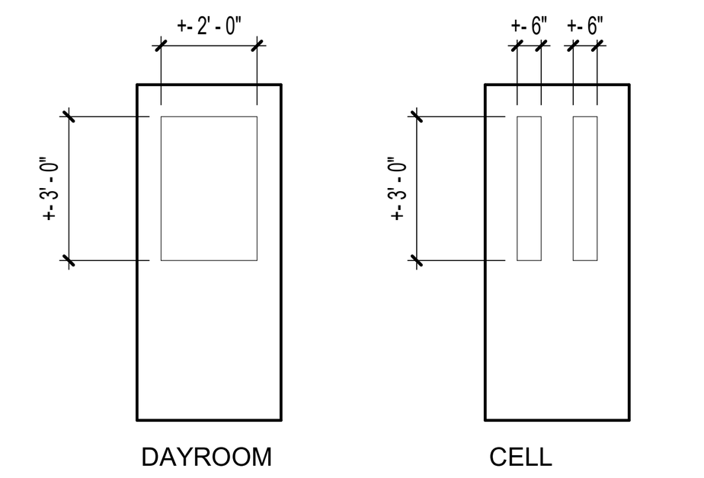
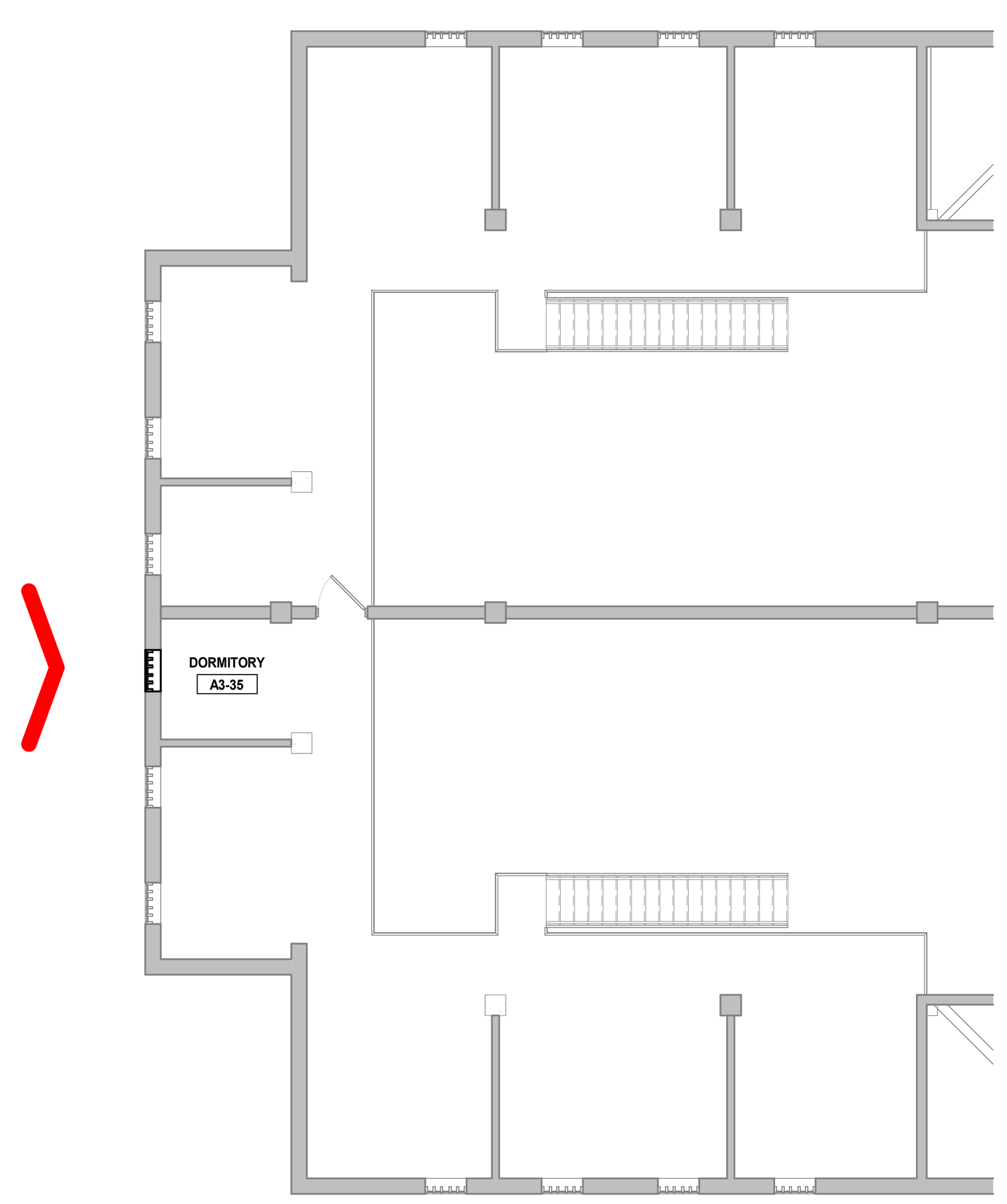
CELL DOOR	GLASS TYPE	DAYROOM DOOR	GLASS TYPE	Exterior Window	GLASS TYPE
A5-12	Secur-Lite 3X	B3A	Secur-Lite 3X	A3-35	Secur-Lite 5X
A5-13	Secur-Lite 3X	C6A	Secur-Lite 3X	A5-15	Secur-Lite 5X
A5-14	Secur-Lite 3X			B4-14	Secur-Lite 5X
B3-16	Secur-Lite 3X			C3-24	Secur-Lite 5X
B4-15	Secur-Lite 3X				
C3-14	Secur-Lite 3X				
C3-23	Secur-Lite 3X				
C4-11	Secur-Lite 3X				
C4-14	Secur-Lite 3X				
C4-21	Secur-Lite 3X				
C5-18	Secur-Lite 3X				



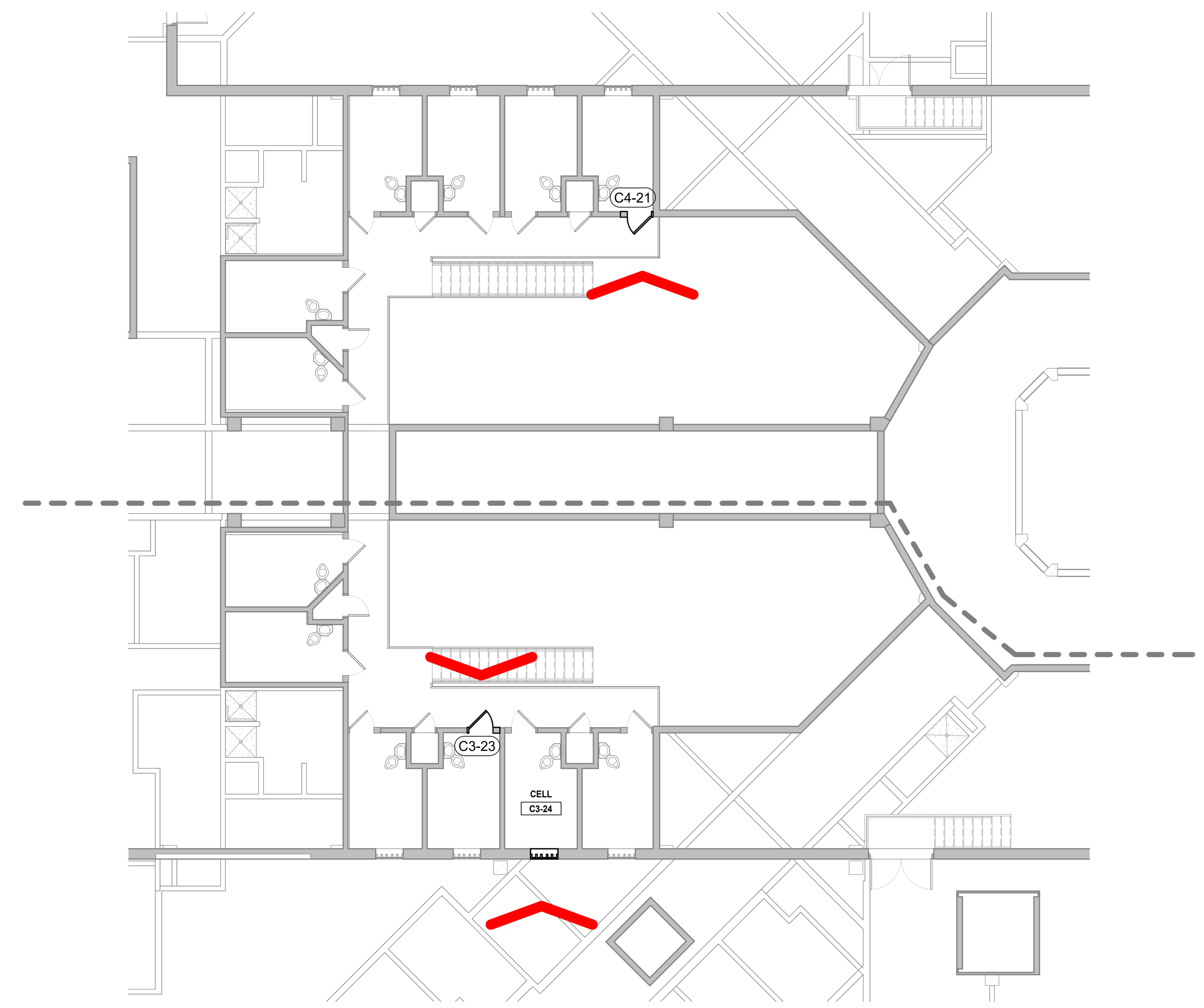
DOOR ELEVATIONS

WINDOW ELEVATION

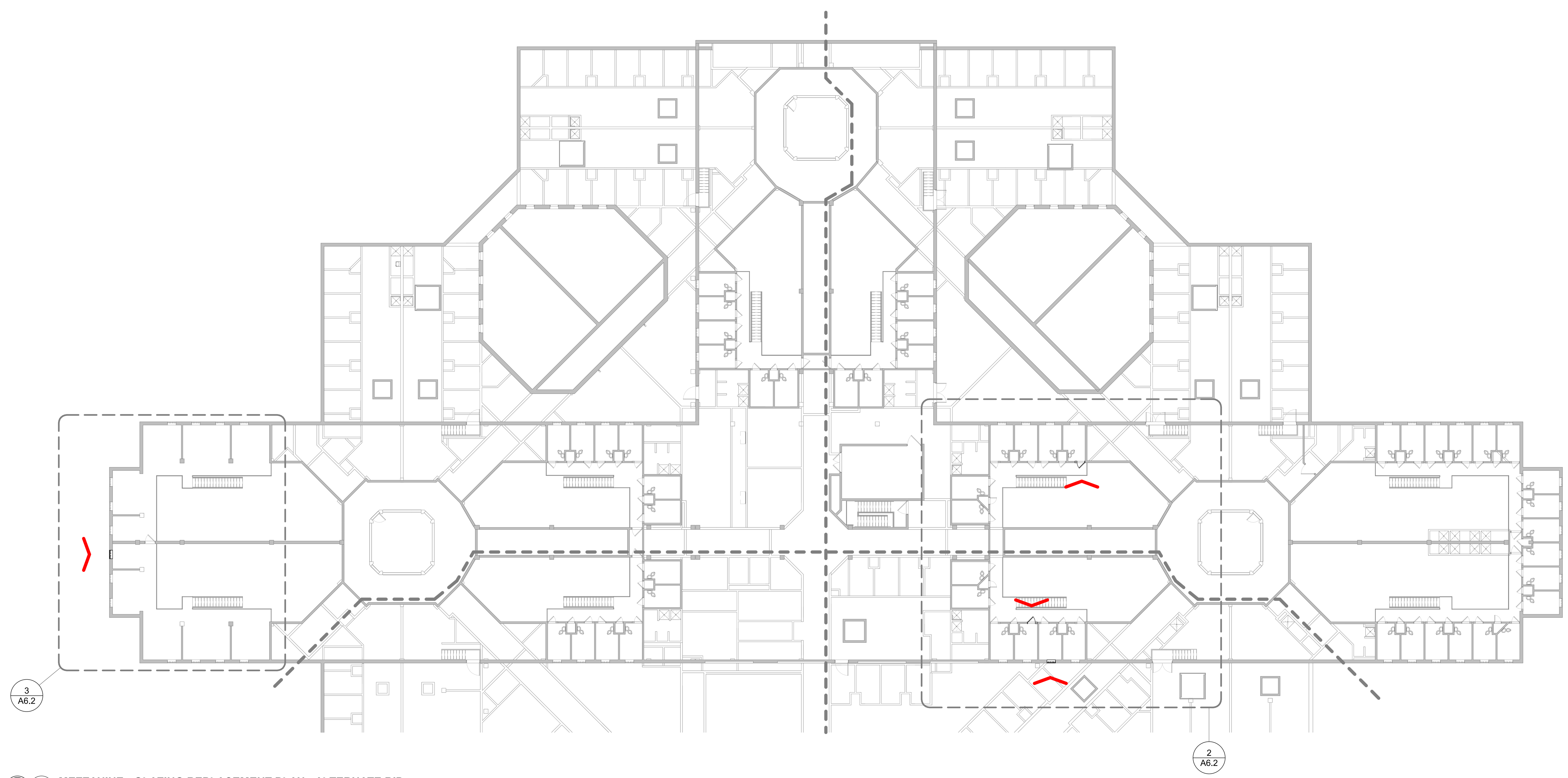
NEW GLAZING SHALL MATCH EXISTING GLAZING BEING REPLACED. FIELD VERIFY GLAZING SIZE AND TYPE AT EACH LOCATION.



3 ENLARGED AREA PLAN
SCALE: 1" = 10'-0"
NORTH



2 ENLARGED AREA PLAN
SCALE: 1" = 10'-0"
NORTH



1 MEZZANINE - GLAZING REPLACEMENT PLAN - ALTERNATE BID
SCALE: 1" = 20'-0"
NORTH

GLAZING NOTES:

A. REFER TO G1.1 FOR ADDITIONAL GENERAL NOTES AND INFORMATION.

B. NEW GLAZING SHALL MATCH EXISTING GLAZING BEING REPLACED. FIELD VERIFY GLAZING SIZE AND TYPE AT EACH LOCATION.

C. REMOVE BROKEN GLAZING, AND GASKETING COMPLETE. REPLACE GLAZING, AND GASKETING AND PROVIDE NEW SECURITY FASTENERS AS REQUIRED.

GLAZING REPLACEMENT LEGEND:

- LOCATION OF DOOR OR WINDOW
- EXISTING TO BE REPLACED
- EXISTING TO REMAIN

NOTE:
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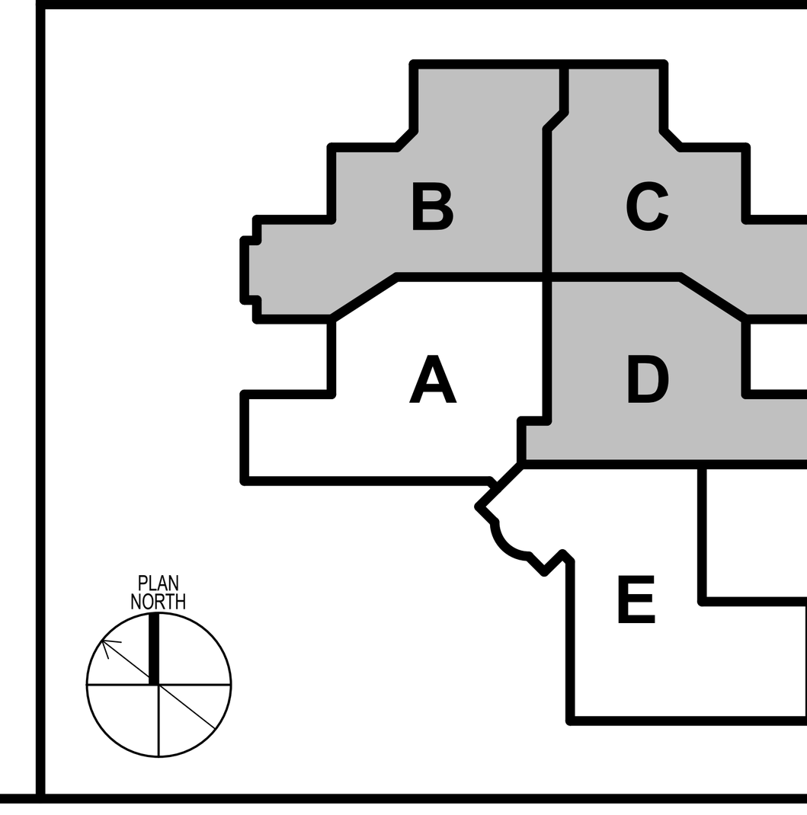
KEYPLAN



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2024.06.10
ERIC B. RATTS
STATE OF INDIANA

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MEZZANINE - GLAZING REPLACEMENT PLANS AND ELEVATIONS - ALTERNATE BID

SHEET NUMBER
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ARCHITECTURE

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