

**STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS**

**ADDENDUM NO. 3
FOR
MKK TERMINAL BUILDING ROOF REPLACEMENT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII
STATE PROJECT NO. CM2521-33**

June 10, 2026

This Addendum shall make the following amendment(s) to the Solicitation:

A. NOTICE TO BIDDERS

1. Prospective bidders are **hereby notified** that receiving of bids, scheduled for June 10, 2026, at 2:00 p.m., Hawaii Standard Time (HST), is **HEREBY POSTPONED** until **June 17, 2026, at 2:00 p.m., HST**.

The attached **NOTICE TO BIDDERS** dated r06/10/26, shall be incorporated and made a part of the **NOTICE TO BIDDERS**.

B. TABLE OF CONTENTS

1. Delete **TABLE OF CONTENTS** in its entirety and replace it with attached **TABLE OF CONTENTS**, dated r06/10/26.

C. SPECIFICATIONS

1. Delete **SECTION 05400 – COLD-FORMED METAL FRAMING** in its entirety and replace it with attached **SECTION 05400 – COLD-FORMED METAL FRAMING**, dated r06/10/26.
2. Add and make a part of the specifications the attached **SECTION 07410 – PREFORMED METAL STANDING SEAM ROOFING**, dated r06/10/26.
3. Add and make a part of the specifications the attached **SECTION 07411 – PREFORMED METAL SIDING**, dated r06/10/26.

4. Add and make a part of the specifications the attached **SECTION 07600 – FLASHING AND SHEET METAL**, dated r06/10/26.
5. Delete **SECTION 09911 - EXTERIOR PAINTING** in its entirety and replace it with attached **SECTION 09911 - EXTERIOR PAINTING**, dated r06/10/26.
6. Add and make a part of the specifications the attached **SECTION 09960 – HIGH PERFORMANCE COATINGS**, dated r06/10/26.
7. Delete **SECTION 13120 – METAL BUILDING SYSTEMS** in its entirety.

D. PROPOSAL SCHEDULE

1. Delete **PROPOSAL SCHEDULE** pages P-7 to P-8 and replace it with attached **PROPOSAL SCHEDULE** P-7 to P-8, dated r06/10/26.

E. PLANS

1. Delete **PLANS**, dated 12/19/25, in their entirety and replace them with attached **PLANS**, dated r06/10/26.

The following is provided for information.

F. RESPONSES TO REQUESTS FOR INFORMATION (RFI'S/QUESTIONS)

1. The attached **RESPONSES TO REQUESTS FOR INFORMATION** are provided for information.

Please acknowledge receipt of this **ADDENDUM NO. 3** by recording the date of its receipt in the space provided on the **PAGE P-4** of the Proposal.



CURT T. OTAGURO
Deputy Director of Transportation for Airports

NOTICE TO BIDDERS
Hawaii Revised Statutes (HRS),
Chapter 103D

The receiving of bids for **MKK TERMINAL BUILDING ROOF REPLACEMENT, MOLOKAI AIRPORT, HOOLEHUA, MOLOKAI, HAWAII, STATE PROJECT NO. CM2521-33**, will begin as of the HiePRO Release Date. Bidders shall register and submit complete bids through HiePRO only. Refer to the following HiePRO link for important information on Vendor Registration: <https://hiepro.hawaii.gov/welcome.html>.

The solicitation plans, specifications, proposal, and additional documents designated or incorporated by reference shall be available in HiePRO.

HiePRO OFFER DUE DATE AND TIME scheduled for June 10, 2026, at 2:00 p.m., Hawaii Standard Time (HST) is **HEREBY POSTPONED** until **June 17, 2026**, at 2:00 p.m., HST. Bidders shall submit and **upload the complete proposal to HiePRO** prior to the offer due date and time. Proposals received after said due date and time shall not be considered. Any additional support documents explicitly designated as **confidential and/or proprietary** shall be uploaded as a **separate file** to HiePRO. Bidders shall not include confidential and/or proprietary documents as part of their proposal. The record of each bidder and their respective proposal shall be open to public inspection. **FAILURE TO UPLOAD THE PROPOSAL TO HiePRO SHALL BE GROUNDS FOR REJECTION.**



CURT T. OTAGURO
Deputy Director of Transportation for Airports

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SECTION 05400 – COLD-FORMED METAL FRAMING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. The General Provisions for Construction Projects (2016), Special Provisions and General Requirements of the Specifications, apply to the work specified in this Section.

1.02 REFERENCES

- A. American Iron and Steel Institute (AISI) S100-16 – North American Specification for the Design of Cold-Formed Steel Structural Members.
- B. American Society of Civil Engineers (ASCE) 7-16 – Minimum Design Loads and Associated Criteria for Buildings and Other Structures.
- C. American Welding Society (AWS) D1.3/D1.3M – Structural Welding Code – Sheet Steel.
- D. ASTM International (ASTM):
 - 1. A653/A653M – Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process.
 - 2. A780 – Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings.
 - 3. A1003/A1003M – Standard Specification for Steel Sheet, Carbon, Metallic- and Nonmetallic-Coated for Cold-Formed Framing Members.
 - 4. C955 – Standard Specification for Load-Bearing (Transverse and Axial) Steel Studs, Runners (Tracks), and Bracing or Bridging for Screw Application of Gypsum Board and Metal Plaster Bases.
 - 5. C1007 – Standard Specification for Installation of Load Bearing (Transverse and Axial) Steel Studs and Related Accessories.
 - 6. C1513 – Standard Specification for Steel Tapping Screws for Cold-Formed Steel Framing Connections.
- E. Steel Stud Manufacturer's Association (SSMA) – Member Directory
- F. Steel Framing Industry Association (SFIA) – Provider Directory
- G. Society for Protective Coatings (SSPC) – Painting Manual

1.03 SUBMITTALS

- A. Submit in accordance with Section 01300 – SUBMITTALS.
- B. Submittals for Review:
 - 1. Shop Drawings: Indicate framing layout, components, connections, fastenings, and pertinent details.
 - 2. Product Data: Indicate framing components, sizes, materials, finishes, and accessories.
- C. Quality Control Submittals: Welder Certifications: As required by AWS D1.3/D1.3M.
- D. Delegated-Design Submittal: For cold-formed steel framing, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.”

1.04 QUALITY ASSURANCE

- A. Manufacturer: Current member of SSMA or SFIA.
- B. Installer Qualifications: Minimum 5 years documented experience in work of this Section.
- C. Welder Qualifications: AWS D1.3/D1.3M.
- D. Code Compliance Certification of Studs and Tracks: Provide documentation that framing members are certified according to the product-certification program the Steel Stud Manufacturers Association.
- E. Comply with AISI’s “Specification for the Design of Cold-formed Steel Structural Members”.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. In accordance with ASTM C1007.

PART 2 - PRODUCTS

2.01 PERFORMANCE REQUIREMENTS

- A. Cold-Formed Steel Framing Standards: Unless more stringent requirements are indicated, framing shall comply with AISI S100, AISI S200.

- B. Delegated Design Responsibility: Provide structural design of complete system, including all components. Engineer licensed in State of Hawaii shall perform engineering analysis.
1. Structural Performance: Provide cold-formed steel framing capable of withstanding design loads within limits and under conditions indicated.
 1. Design Loads: As indicated on Structural Drawings.
 2. Deflection Limits: Design framing systems to withstand design loads without deflections greater than the following:
 - a. Exterior Non-Load-Bearing Framing: Horizontal deflection of $1/360$ of the wall height.
 - b. Ceiling Joist Framing: Vertical deflection of $1/360$ of the span for live loads and $1/240$ for total loads of the span.
 3. Design framing systems to provide for movement of framing members located outside the insulated building envelope without damage or overstressing, sheathing failure, connection failure, undue strain on fasteners and anchors, or other detrimental effects when subject to a maximum ambient temperature change of 120 deg F.
 4. Design framing system to maintain clearances at openings, to allow for construction tolerances, and to accommodate live load deflection of primary building structure as follows:
 - a. Upward and downward movement of 1 inch inches.
 - b. Design exterior non-load-bearing wall framing to accommodate horizontal deflection without regard for contribution of sheathing materials.
 2. Cold-Formed Steel Framing Standards: Unless more stringent requirements are indicated, framing shall comply with AISI S100, AISI S200, and the following:
 1. Wall Studs: AISI S211.
 2. Headers: AISI S212.
 3. Lateral Design: AISI S213.”

2.01 FRAMING MATERIALS

- A. Purlins: Manufacturer's standard C-shaped and Z-shaped steel sections, of web depths indicated, unpunched with stiffened flanges. Minimum yield strength 55 ksi. G90 Galvanized in accordance with ASTM A653/A653M.

2.02 ACCESSORIES

- A. Bracing, Furring, Bridging and Web Stiffeners: Formed sheet steel, thickness determined by performance requirements specified.
- B. Plates, Gussets, Clips: Formed sheet steel, thickness determined by performance requirements specified.
- C. Fasteners: ASTM C1513; self-drilling, self-tapping screws.
- D. Touch Up Paint: SSPC Paint 20, Type I or II.
- E. Welding Electrodes: Comply with AWS requirements.

2.03 FABRICATION

- A. Framing components may be prefabricated using templates.
- B. Cut members square and with tight fit to adjacent framing.
- C. Assemble components using screw connection, welding, or clinching methods. Welding to conform to AWS D1.3/D1.3M.
- D. Fabricate straight, level, and true, without warp or rack.
- E. Fabrication Tolerances: In accordance with ASTM C955.

PART 3 - EXECUTION

2.02 INSTALLATION – GENERAL

- 1. Install framing components in accordance with ASTM C1007, manufacturer's instructions, and approved Shop Drawings.
- 2. Welding: In accordance with AWS D1.3/D1.3M.
- 3. Make provisions for erection stresses. Provide temporary alignment and bracing.

2.03 JOINT INSTALLATION

1. Install perimeter joist track sized to match joists. Align and securely anchor or fasten track to supporting structure at corners, ends, and spacings indicated on Shop drawings.
2. Install joists bearing on supporting frame, level, straight, and plumb; adjust to final position, brace, and reinforce. Fasten joists to both flanges of joist track.
 1. Install joists over supporting frame with a minimum end bearing of 1-1/2 inches.
 2. Reinforce ends and bearing points of joists with web stiffeners, end clips, joist hangers, steel clip angles, or steel-stud sections.
3. Space joists not more than 2 inches from abutting walls, and as follows:
 1. Joist Spacing: As indicated on Drawings.

2.04 INSTALLATION TOLERANCES

1. In accordance with ASTM C1007.

2.05 FIELD QUALITY CONTROL

1. Testing and Inspection Services: Inspect and test shop and field welds in accordance with AWS D1.3/D1.3M.

2.06 ADJUSTING

1. Clean and touch up galvanized coatings at welded and abraded surfaces in accordance with ASTM A780.

PART 4 - MEASUREMENT & PAYMENT

4.01 BASIS OF MEASUREMENT AND PAYMENT

Work under this Section will not be measured for payment but will be paid for at the contract Lump Sum Price.

END OF SECTION

SECTION 07410 - PREFORMED METAL STANDING SEAM ROOFING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

- A. Extent of preformed roofing is indicated on the drawings and by provisions of this Section. Provide all materials, including all flashings for a complete system.
- B. Type of panels required include formed sheet panels intended for concealed fastener installation which are structurally capable of spanning between supports spaced as indicated.
- C. Related Work Described Elsewhere:
 - 1. Wood battens and nailers are provided under SECTION 06105 – MISCELLANEOUS ROUGH CARPENTRY.
 - 2. Furnish matching prefinished sheet metal matching roof material for indicated prefinished related flashings specified in SECTION 07620 - SHEET METAL FLASHING AND TRIM.
 - 3. Sealants are specified under SECTION 07920 – JOINT SEALANTS.

1.03 SUBMITTALS

- A. Submit in accordance with Section 01300 "Submittals."
- B. Manufacturer's Data: Submit manufacturer's product specifications, standard details, installation instructions, and general recommendations, as applicable to materials and finishes for each component and for total system of preformed panels.
- C. Shop Drawings: Submit shop drawings of all roofing, flashing, fastenings, supports, anchors, clearances, and connection details to the State Engineer for acceptance.
- D. Samples: Submit manufacturer's standard color samples for State Engineer selection. Furnish 4 each, 4-inch long samples of full width panel materials and samples of all other materials to be used to State Engineer for acceptance.

- E. Test Reports: Provide test data demonstrating structural capacity, wind uplift and resistance to water infiltration performance as specified.
- F. Manufacturer's Technical Representative's Reports: Submit copies of all reports to the State Engineer.
- G. Warranty: Submit warranty as noted under item entitled "WARRANTY" hereinbelow.
- H. Delegated design submittal: Include analysis data signed and sealed by a qualified professional engineer responsible for their preparation.

1.04 QUALITY CONTROL

- A. Installer: The roofing system installer shall be factory-trained, approved by the metal roofing system manufacturer to install the system, and shall have a minimum of 3 years experience as an approved applicator with that manufacturer. The applicator shall have applied 5 installations of similar size and scope as this project within the previous 3 years.
- B. Installation Crew: Provide and maintain same foreman and crew from start to finish of work unless change is accepted by the State Engineer and manufacturer's representative. Workmen who will be walking on roof panels shall wear soft-soled shoes that will not damage the panels.
- C. Manufacturer's Technical Representative: The representative shall have authorization from manufacturer to approve field changes and shall be thoroughly familiar with the products and with installations in the geographical area where construction will take place. The manufacturer's representative shall be an employee of the manufacturer or their local representative.
- D. Pre-Roofing Conference: After submittals are received and accepted but before roofing work, including associated work are performed, the Contractor shall hold a pre-roofing conference to review the following:
 - 1. Procedure for on site inspection and acceptance of the roofing substrate and pertinent structural details relating to the roofing system.
 - 2. Contractor's plan for coordination of the work of the various trades involved in providing the roofing system and other components secured to the roofing.
 - 3. Attendees: The pre-roofing conference shall be attended by the Contractor and personnel directly responsible for the roofing installation and the roofing manufacturer's technical representative. Conflicts among those attending the pre-roofing conference shall be resolved and confirmed in writing before roofing work, including associated work, is begun. Prepare written minutes of the pre-roofing conference and submit to the State Engineer.

1.05 WARRANTY

- A. Contractor's Warranty: Furnish written 2-year warranty to the State Engineer jointly signed by Roofing Contractor, Sheet Metal Contractor, and General Contractor which shall provide for repairs or replacement of roofing and flashing where leaking occurs due to faulty materials and workmanship at Contractor's own expense.
- B. Manufacturer's Warranty: Furnish manufacturers warranty for coating system under Hawaiian weather conditions, provide following as a guide for expected warranty:
 - 1. The roofing panels and matching flashings with a factory applied Fluoroceram (Kynar 500 or equivalent) paint finish are free from material defects and shall be warranted for 20 years against peeling, chipping, cracking or color change in excess of 5 NBS units during the term of this warranty. For 20 years in the event that the above paint system fails under normal wind and weathering conditions, the manufacturer/supplier shall replace or repair as necessary any panels whose factory color finish that fails. This paint finish warranty commences upon project acceptance.
 - 2. Additionally, the metal roofing system components for the project as identified by the Contract Drawings for this project, shall be warranted for a period of 15 years from the date of project acceptance. Manufacturer/supplier shall replace or repair as necessary any component of the roof system supplied by them, when installed and maintained according to manufacturer's instructions, which fail to provide a watertight and weatherproof system due to defective materials. All materials required to perform any repair work shall be provided by the manufacturer/supplier. Repair work shall be done in a manner that will not disrupt State Engineer's access to the building.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle preformed panels, bulk roofing products, and other manufactured items in a manner to prevent damage or deformation.
- B. Provide adequate packaging to protect materials during shipment. Do not uncrate materials until ready for use except for inspection. Immediately upon arrival of materials at jobsite, inspect materials for damage, dampness, and staining. Replace damaged or permanently stained materials that cannot be restored to like new condition with new material. If materials are wet, remove moisture, restack, and protect panels until used.
- C. Stack materials stored on the site on platforms or pallets and cover with tarpaulins or other suitable weathertight coverings which prevent water trapping or condensation. Store panels so that water which might have accumulated during transit or storage will drain off. Do not store the panels in contact with materials that might cause staining, such as mud, lime, cement,

fresh concrete or chemicals. Protect stored panels from wind damage.

D. Handle material carefully to avoid damage to surfaces, edges, and ends.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Roof Panels: Formed from minimum 24 gauge "Zincalume" or "Galvalume" coated steel conforming to ASTM A792/A792M, Grade 33 with a minimum AZ55 coating. Panel configuration shall be structural standing seam roofing with concealed fasteners. Panel width shall be 12-inches with minimum 1-1/2 inch and maximum 2-inch vertical leg (custom or standard product) and 2 or 3 intermediate stiffening beads as manufactured by Western Steel Builders, Ultra Lock Standing Seam Panel, interlocking snap seam or equal acceptable to the State Engineer.
- B. Flashing and Closures: Formed of prefinished material to match roof panels of manufacturer's standard flashings for the panels specified. Configuration of flashings shown on the drawings are intended to indicate basic intent. Other flashings which accomplish the basic intent will be acceptable if standard with the panel manufacturer. Provide metal flashings for locations indicated. Furnish sheet metal flashing items in 8-foot to 10-foot lengths. Single pieces less than 8-feet long may be used at corners, and at ends of runs. Provide accessories and other items essential to complete the sheet metal installation of the same materials as the items to which they are applied. Connect all pieces of linear flashing by a slip joint to permit thermal movement. Exposed flashings and metal closure strips shall match finish of roof panel.

2.02 METAL FINISH

- A. General: Apply coatings either before or after forming and fabricating panels, as required by coating process and as required for maximum coating performance capability. Provide standard color indicated or, if not otherwise indicated, as selected by the State Engineer.
- B. For exposed exterior surfaces, provide thick finish of Kynar 500 or equivalent conforming to AAMA 621 with a primer from 0.2 to 0.3 dry mils and Kynar topcoat from 0.8 to 0.9 dry mils for a total thickness of 1.0 to 1.2 dry mils.
- C. Interior/underside finish shall be manufacturer's 0.5 mil standard washcoat or better, except provide off white polyester finish where exposed and for gutters.

2.03 MISCELLANEOUS MATERIALS

- A. Fasteners: Fasteners shall be stainless steel with composite metal and neoprene composition washers. Where required, exposed fasteners shall be gasketed on the exterior side of the covering to waterproof the covering and

finished to match roof finish. Concealed fastener and clip system shall be manufacturer approved for system provided and uplift specified.

- B. Accessories: Except as indicated as work of another specification section, provide components required for a complete roofing system, including stainless steel clips, standoff clips, sidelap clips, and uplift clips; trim, straps for bridging gaps in metal decking where required, flashings and expansion joint flashing; single component polyurethane sealants, gaskets, fillers, closure strips, and similar items. All clips shall be stainless steel with strength for all uplift pressures. Match materials/finish of preformed roof panels where exposed.
- C. Closure Strips: Formed specifically for this purpose of laminated cross-linked polyethylene closed cell-foam or neoprene materials and as standard with manufacturer. Molded closure strips shall be free of open voids and shall not absorb or retain water. Closure strips shall be formed to match configurations of the roofing and shall be provided where indicated and where necessary to provide weathertight construction.
- D. Sealants: ASTM C920, Type S, Grade NS, Class 25, Use NT, polyurethane or as recommended by the roofing manufacturer. Color, where exposed, shall match roofing.
- E. Sealant Tape: Pressure sensitive, 100 percent solid, polyisobutylene compound sealing tape with release paper backing as recommended by the roofing manufacturer.
- F. Mastic: As recommended by the roofing manufacturer.
- G. Bituminous Coating: Cold-applied asphalt mastic, SSPC paint 12, compounded for 15-mil dry film thickness per coat.
- H. Prefabricated Pipe Flashing System: A pre-molded flexible pipe sleeve of EPDM in pleated concentric rings, and bond to a square, corrosion-resistant base of soft, aluminum alloy, allowing conformance of base by hand pressure to roofing panel profile. Pipe flashing system shall be equivalent to "Master Flash" by Aztec Washer or Oatey, "Dektite" by Buildex, Aluminum Flashing by LSP Products Group, or equal acceptable to the State Engineer.
- I. Flexible Flashing: Aluminum foil faced 45 mil rubberized asphalt or butyl rubber roll sheet as recommended by roofing manufacturer for waterproofing top set flashings.
- J. Edge Treatment: DuraCoat Products Inc., Edge Seal or equal acceptable to the State Engineer for edge sealing all field cut edges.
- K. Ventilator:
 - 1. Continuous ridge with bird screens mesh galvanized hardware

cloth. Same finish and color as roof panels. 9" throat, integral damper opens to any degree from fully open to completely closed. Provide lockpull operator with 10' minimum sash chain and chain keeper. Construction to be 26 gauge exterior with various internal components of 18 to 24 gauge formed sheet metal. Provide with flashing and all accessories required for a complete, watertight installation.

2. Manufacturers:

- a. Metallic Products, continuous ridge ventilator (mpvent.com)
- b. Hog Slat, ridg-vent roof vents (hogslat.com)
- c. Simpson Steel, continuous ridge vents (simpsonsteel.com)
- d. Approved equal.

2.04 PANEL FABRICATION AND PERFORMANCE REQUIREMENTS

- A. General: Fabricate and finish panels and accessories at the factory to greatest extent possible, by manufacturer's standard procedures and processes, and as required to fulfill performance requirements, which have been demonstrated by factory testing. Comply with indicated profiles and dimensional requirements, and with structural requirements. Fabricate panels in full lengths from ridge to eave to the greatest extent possible.
- B. Metal Gages: Thicknesses required for structural performances, but not less than manufacturer's recommended minimums for profiles and applications indicated, and not less than specified under paragraph entitled "Roof Panels" hereinabove.
- C. Required Performances: Fabricate panels and other components of roof system for the following installed-as-indicated performances:
 1. Roof Loading: As indicated.
 2. Project Windloads: 150 mph, Exposure D.
 3. Panels must meet minimum UL windload uplift classification of 90. Provide additional row of clips at eaves for high wind conditions.
- D. Performance Criteria:
 1. Provide wind uplift resistance in accordance with the current local ICC IBC as amended, minimum UL580 Class 90.
 2. Structural capacity of metal roofing system shall be determined in accordance with ASTM E1592. A minimum of 2 tested spans are required in order to interpolate allowable load data between tested spans. Extrapolation of data outside the tested spans is not allowed.
 3. Provide a design analysis signed by a registered Professional Engineer,

confirming that the structural capacity of the metal roofing system as determined in accordance with ASTM E1592 is adequate to resist the design loads required by the ICC IBC as amended. Analysis shall include calculation verifying the design loads, the uplift pressures, and how those loads affect the various areas of discontinuity clearly shown and distinguished from the typical field roof elements.

4. Resistance to Water Infiltration: Roofing system shall show no infiltration at seams, edges, flashings, counterflashings, and penetrations when subjected to a rainfall of 5-inches per hour with 80 mph wind.
5. Thermal Movement: The system shall be capable of withstanding thermal movement based on a temperature range of 10 degrees Fahrenheit below design low air temperature and 140 degrees Fahrenheit for light colors.
6. Deflection: Panel deflection shall not exceed $L/180$ where exposed.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine surfaces to receive standing seam metal roofing and flashing. Provide plumb and true surfaces, clean, even, smooth, and as dry as possible. Ensure that surfaces are free from defects and projections which might affect the installation.
- B. Report unsuitable conditions to the State Engineer. The manufacturer's technical representative shall approve roof framing as suitable for roofing system application.

3.02 INSTALLATION

- A. General: Comply with panel fabricator's and material manufacturers' instructions and recommendations for installation, as applicable to project conditions and supporting substrates. Anchor panels and other components of the work securely in place in full and firm contact with concealed anchor clips with provisions for thermal/structural movement as well as carrying the weight of the panels. Obtain acceptance prior to installation on prefinished panels cut in the field and factory applied coverings or coatings that were repaired after being abraded or damaged during handling or installation. Make repairs with material of same color as weather coating. Completely seal openings through panels. Correct defects or errors in materials in an accepted manner. Replace materials which cannot be corrected in an accepted manner with new materials. Provide molded closure strips where indicated and where necessary for weathertight construction.
- B. Arrange side laps of roofing to leeward of prevailing wind direction. Apply roofing panels with standing seams parallel to slope of roof. Attach clips with

a minimum of 3 stainless steel screws per clip unless manufacturer's data allows otherwise for the required performance specified. Attach panels to structure with concealed clips which are incorporated into the panel seams. Clip attachment shall allow roof to move freely and independently of the structure. With clip screws in place, test all clips for freedom of movement before covering with the next panel. All clips that bind and cannot be moved with hand pressure shall be replaced. Before applying roofing over flashing such as at eaves and penetrations, place additional sealant on the underside of the pan in the pencil ribs to assure a continuous seal.

- C. Installation Tolerances: Shim and align panel units within installed tolerance of 1/4-inch in 20-feet on level/plumb/slope and location line as indicated, and within 1/8-inch offset of adjoining faces and of alignment of matching profiles. Layout lines parallel to the rakes at intervals. Use a spacing gage at each row of panels to ensure that panel width is not stretched or shortened.
- D. All field cutting of roofing panels shall be done as recommended by manufacturer's written instructions. Provide edge treatment for all field cut edges.
- E. Joint Sealers: Install joint fillers and sealants where indicated and where required for weatherproof performance of panel system. Provide types of sealants/fillers indicated or, if not otherwise indicated, types recommended by panel manufacturer. Refer to SECTION 07920 – JOINT SEALANTS of these specifications for installation requirements applicable to indicated joint sealers.
- F. Flashings: Provide flashing and related closures and accessories in connection with preformed metal panels as indicated and as necessary to provide a weathertight installation. Install flashing to ensure positive water drainage away from roof penetrations. Flash and seal roof at ridge, valleys, eaves, and rakes, at projections through roof, and elsewhere as necessary. Accomplish placement of closure strips, flashing, and sealing material in an accepted manner that will ensure complete weathertightness. Details of installation which are not indicated shall be in accordance with the NRCA CD, SMACNA ASMM, panel manufacturer's printed instructions and details of the accepted shop drawings. Installation shall allow for expansion and contraction of flashing.
- G. Flashing Fasteners: Fastener spacings shall be in accordance with the panel manufacturer's recommendations and as necessary to withstand the indicated design loads for both pullout and pullover. Install exposed fasteners in panel valleys as recommended by the manufacturer of the panels. Install fasteners in straight lines within a tolerance of 1/2-inch in the length of a bay. Drive exposed penetrating type fasteners normal to the surface and to a uniform depth to seat gasketed washers properly and drive so as not to damage factory applied coating. Exercise extreme care in drilling pilot holes for fastenings to keep drills perpendicular and centered. Do not drill through sealant tapes. After drilling, remove metal filings and burrs from holes prior to

installing fasteners and washers. Torque used in applying fasteners shall not exceed that recommended by the manufacturer. Remove panels deformed or otherwise damaged by over-torqued fastenings, and provide new panels.

- H. Closure Strips: Install 2 profile closures with a minimum separation of 3-inches. The innermost closure shall be fully wet sealed at its perimeter. These 2 closures shall be backed by a turned up pan end to provide both crosswise stiffness and minimum height at any point capable of holding standing water to the height of the closure. Install closure strips as indicated and as recommended by the manufacturer.
- I. Apply bituminous coating or other permanent separation materials on concealed panel surfaces where panels would otherwise be in direct contact with wood or other substrate materials which are noncompatible (i.e. copper and aluminum) or could result in corrosion or deterioration of either material or finishes.

3.03 CLEAN-UP AND PROTECTION

- A. Damaged Units: Replace panels and other components of the work which have been damaged or have deteriorated beyond successful repair by means of finish touch-up or similar minor repair procedures. Touch-up paint shall not be used without the permission of the State Engineer.
- B. Cleaning: Upon completion of panel installation, clean finished surfaces as recommended by panel manufacturer, and maintain in a clean condition during construction. Remove metal shavings, filings, nails, bolts, and wires from roofs and gutters on completion to prevent discoloration and harm to the panels and flashing.
- C. Remove grease and oil films, excess sealants, handling marks, contamination from steel wool, fittings, and drilling debris and scrub the work clean. Exposed metal surfaces shall be free of dents, creases, waves, scratch marks, and solder or weld marks.

3.04 MANUFACTURER'S FIELD INSPECTION

Manufacturer's technical representative shall visit the site as necessary during the installation process to assure panels, flashings, and other components are being installed in a satisfactory manner. Manufacturer's technical representative shall perform a field inspection of the installation at substantial completion and prior to issuance of warranty. After each site visit, a report, signed by the manufacturer's technical representative, shall be submitted to the State Engineer noting the overall quality of work, deficiencies and any other concerns, and recommended corrective actions in detail. Notify the State Engineer a minimum of 2 working days prior to site visit by manufacturer's technical representative.

PART 4 – MEASUREMENT AND PAYMENT

4.01 BASIS OF MEASUREMENT AND PAYMENT

- A. Work under this Section will not be measured nor paid for separately but shall be considered incidental to and included in the bid prices for the various items of work in this project.

END OF SECTION

SECTION 07411 - PREFORMED METAL SIDING

PART 1 - GENERAL

1.01 GENERAL CONDITIONS

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

1.02 SUMMARY

- A. Extent of preformed siding are indicated on the drawings and by provisions of this Section. Provide all materials, including all flashings for a complete system.
- B. Type of panels required include formed sheet panels for exposed fasteners which are structurally capable of spanning between supports spaced as indicated.
- C. Related Work Described Elsewhere:
 - 1. Metal flashing and trims are provided under SECTION 07600 – FLASHING AND SHEET METAL.

1.03 SUBMITTALS

- A. Submit in accordance with Section 01300 "Submittals."
- B. Manufacturer's Data: Submit manufacturer's product specifications, standard details, installation instructions and general recommendations, as applicable to materials and finishes for each component and for total system of preformed panels.
- C. Shop Drawings: Submit shop drawings of all siding, flashing, fastenings, supports, anchors, clearances, and connection details to the State Engineer for acceptance.
- D. Samples: Furnish 4 each, 4-inch long samples of full width panel materials and samples of all other materials to be used to State Engineer for acceptance.
- E. Test Reports: Provide test data demonstrating structural capacity and wind uplift as specified.
- F. Calculations: Provide manufacturer's calculations showing pullout and pullover capacity of fasteners and metal panels. Provide a calculations and screw chart with data indicating proposed system conforms to the

performance requirements.

- G. Warranty: Submit warranty as noted under item entitled "WARRANTY" hereinbelow.

1.04 QUALITY CONTROL

- A. Installer: The siding system installer shall be factory-trained, approved by the system manufacturer to install the system, and shall have a minimum of 3 years experience as an approved applicator with that manufacturer. The applicator shall have applied 5 installations of similar size and scope as this project within the previous 3 years.
- B. Installation Crew: Provide and maintain same foreman and crew from start to finish of work unless change is accepted by the State Engineer.
- C. Pre-Installation Meeting: The General Contractor shall attend a pre-installation meeting. Include other related trades, such as Sheet Metal Contractor and translucent wall panel system installer, as applicable. Confirm the required participants with the State Engineer. Notify participants at least 5 days prior to meeting. Intent of the meeting is to review the preparation and installation requirements for the siding system and to coordinate and schedule the required work.

1.05 WARRANTY

- A. Contractor's Warranty: Submit Contractor's warranty, signed jointly by Siding Installer covering the work of this Section, including all components of system without monetary limitation, in which siding installer and manufacturer(s) agree to repair or replace components of siding system that fail in materials or workmanship for the warranty period specified below from the date of project acceptance.
1. Failures include, but are not limited to, structural failures, loose parts, wrinkling or buckling, failure to remain weathertight, including uncontrolled water leakage, deterioration of metals, metal finishes, and other materials beyond normal weathering, including nonuniformity of color or finish, galvanic action between sheet metal siding, and dissimilar materials.
 2. A structural failure is defined as a failure to withstand, without damage, basic wind speeds up to 130 mph, Exposure D, as defined by the International Building Code for the applicable building heights.
 3. Warranty Period: Two years from the project acceptance date.
 4. Warranty shall cover repairs or replacement of damages to the building and its finishes due to leaks.

5. Warranty shall state the manufacturer's acceptance that the siding was installed in accordance with the contract requirements and that the State's personnel were properly instructed in the maintenance procedures.
 6. In the event of a failure, Contractor, Installer, and manufacturer shall mutually agree and determine system failures and remedies.
- B. Manufacturer's Special Warranty on Finishes: On manufacturer's standard form which manufacturer agrees to repair finish or replace sheet metal siding that shows evidence of deterioration of factory-applied finishes within specified warranty period.
1. Fluoropolymer 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 years from the project acceptance date.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle preformed panels, bulk products, and other manufactured items in a manner to prevent damage or deformation.
- B. Provide adequate packaging to protect materials during shipment. Do not uncrate materials until ready for use except for inspection. Immediately upon arrival of materials at jobsite, inspect materials for damage, dampness, and staining. Replace damaged or permanently stained materials that cannot be restored to like -new condition with new material. If materials are wet, remove moisture, restack, and protect panels until used.
- C. Stack materials stored on the site on platforms or pallets and cover with tarpaulins or other suitable weathertight coverings which prevent water trapping or condensation. Store panels so that water which might have accumulated during transit or storage will drain off. Do not store the panels in contact with materials that might cause staining, such as mud, lime, cement, fresh concrete or chemicals. Protect stored panels from wind damage.
- D. Handle material carefully to avoid damage to surfaces, edges, and ends.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Siding Panels: Formed from minimum 24 gauge "Zincalume" or "Galvalume" coated steel conforming to ASTM A792/A792M, Grade 33 with a minimum AZ55 coating. Panel configuration shall be equivalent to Western Steel Building "PBR" Panel configuration 1-1/4-inch deep with ribs at 12 inches on center or equal acceptable to the State Engineer, siding with exposed fasteners. Provide in lengths as indicated so that walls shall be in single lengths without joint. Panels shall be prefinished as specified.
- B. Flashing and Closures: Formed of prefinished material to match siding panels of manufacturer's standard flashings for the panels specified. Configuration of flashings shown on the drawings are intended to indicate basic intent. Other flashings which accomplish the basic intent will be acceptable if standard with the panel manufacturer. Provide metal flashings for locations indicated. Furnish sheet metal flashing items in 8-foot to 10-foot lengths. Single pieces less than 8-feet long may be used at corners, and at ends of runs. Provide accessories and other items essential to complete the sheet metal installation of the same materials as the items to which they are applied. Connect all pieces of linear flashing by a slip joint to permit thermal movement.

2.02 METAL FINISH

- A. General: Apply coatings either before or after forming and fabricating panels, as required by coating process and as required for maximum coating performance capability. Provide standard color indicated or, if not otherwise indicated, as selected by the State Engineer.
- B. For exposed exterior surfaces, provide thick finish of Kynar 500 or equivalent conforming to AAMA 621 with a primer from 0.2 to 0.3 dry mils and Kynar topcoat from 0.8 to 0.9 dry mils for a total thickness of 1.0 to 1.2 dry mils.
- C. Interior/underside finish shall be off white polyester.

2.03 MISCELLANEOUS MATERIALS

- A. Fasteners: Fasteners shall be stainless steel with composite metal and neoprene composition washers. Exposed fasteners shall be gasketed on the exterior side of the covering to waterproof the covering and finished to match siding finish.
- B. Accessories: Except as indicated as work of another specification section, provide components required for a complete siding system, including trim, flashings and expansion joint flashing; single component polyurethane sealants, gaskets, fillers, closure strips, and similar items. Match materials/finish of preformed panels where exposed.

- C. Closure Strips: Formed specifically for this purpose of laminated cross-linked polyethylene closed cell-foam or neoprene materials and as standard with manufacturer. Molded closure strips shall be free of open voids and shall not absorb or retain water. Closure strips shall be formed to match configurations of the panels and shall be provided where indicated and where necessary to provide weathertight construction.
- D. Sealants: ASTM C920, Type S, Grade NS, Class 25, Use NT, polyurethane or as recommended by the siding manufacturer. Color, where exposed, shall match panels.
- E. Mastic: As recommended by the siding manufacturer.
- F. Bituminous Coating: Cold-applied asphalt mastic, SSPC paint 12, compounded for 15-mil dry film thickness per coat.
- G. Edge Treatment: DuraCoat Products Inc., Edge Seal or equal acceptable to the State Engineer for edge sealing all field cut edges.

2.04 PANEL FABRICATION AND PERFORMANCE REQUIREMENTS

- A. General: Fabricate and finish panels and accessories at the factory to greatest extent possible, by manufacturer's standard procedures and processes, and as required to fulfill performance requirements, which have been demonstrated by factory testing. Comply with indicated profiles and dimensional requirements, and with structural requirements. Fabricate panels in full lengths from eave to base to the greatest extent possible.
- B. Metal Gages: Thicknesses required for structural performances, but not less than manufacturer's recommended minimums for profiles and applications indicated, and not less than specified under paragraph entitled "Siding Panels" hereinabove.
- C. Required Performances: Fabricate panels and other components of siding system for the following installed-as-indicated performances:
 - 1. Project Windloads: 150 mph, Exposure D (positive and negative pressures per ICC IBC).
- D. Performance Criteria:
 - 1. Provide wind uplift resistance in accordance with the current local ICC IBC as amended, minimum UL580 Class 90.
 - 2. Thermal Movement: The system shall be capable of withstanding thermal movement based on a temperature range of 10 degrees Fahrenheit below design low air temperature and 140 degrees Fahrenheit for light colors.

3. Deflection: Panel deflection shall not exceed $L/180$.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine surfaces to receive metal siding and flashing. Provide plumb and true surfaces, clean, even, smooth, and as dry as possible. Ensure that surfaces are free from defects and projections which might affect the installation.
- B. Report unsuitable conditions to the State Engineer.

3.02 INSTALLATION

- A. General: Comply with panel fabricator's and material manufacturers' instructions and recommendations for installation, as applicable to project conditions and supporting substrates. Anchor panels and other components of the work securely in place in full and firm contact with substrate and adjoining panels with provisions for thermal/structural movement as well as carrying the weight of the panels. Obtain acceptance prior to installation on prefinished panels cut in the field and factory applied coverings or coatings that were repaired after being abraded or damaged during handling or installation. Make repairs with material of same color as weather coating. Completely seal openings through panels. Correct defects or errors in materials in an accepted manner. Replace materials which cannot be corrected in an accepted manner with new materials. Provide molded closure strips where indicated and where necessary for weathertight construction.
- B. Arrange side laps of siding to leeward of prevailing wind direction. Laps shall be 2-1/2 corrugations unless indicated otherwise. Attach panels to structure with corrugations vertical at walls with exposed fasteners as recommended by the manufacturer.
- C. Installation Tolerances: Shim and align panel units within installed tolerance of 1/4-inch in 20-feet on level/plumb/slope and location line as indicated, and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.
- D. All field cutting of panels shall be done as recommended by manufacturer's written instructions. Provide edge treatment for all field cut edges.
- E. Joint Sealers: Install joint fillers and sealants where indicated and where required for weatherproof performance of panel system. Provide types of sealants/fillers indicated or, if not otherwise indicated, types recommended by panel manufacturer. Refer to SECTION 07920 – JOINT SEALANTS of these specifications for installation requirements applicable to indicated joint sealers.
- F. Flashings: Provide flashing and related closures and accessories in

connection with preformed metal panels as indicated and as necessary to provide a weathertight installation. Install flashing to ensure positive water drainage away from penetrations. Flash and seal siding at head and sill, door, louver, and similar openings and elsewhere as necessary. Accomplish placement of closure strips, flashing, and sealing material in an accepted manner that will ensure complete weathertightness. Details of installation which are not indicated shall be in accordance with the NRCA CD, SMACNA ASMM, panel manufacturer's printed instructions and details of the accepted shop drawings. Installation shall allow for expansion and contraction of flashing.

- G. Fasteners: Fastener spacings shall be in accordance with the panel manufacturer's recommendations and as necessary to withstand the indicated design loads for both pullout and pullover. Install fasteners as recommended by the manufacturer of the panels. Install fasteners in straight lines within a tolerance of 1/2-inch in the length of a bay. Drive exposed penetrating type fasteners normal to the surface and to a uniform depth to seat gasketed washers properly and drive so as not to damage factory applied coating. Exercise extreme care in drilling pilot holes for fastenings to keep drills perpendicular and centered. Do not drill through sealant tapes. After drilling, remove metal filings and burrs from holes prior to installing fasteners and washers. Torque used in applying fasteners shall not exceed that recommended by the manufacturer. Remove panels deformed or otherwise damaged by over-torqued fastenings, and provide new panels.
- H. Closure Strips: Install closure strips as indicated and as recommended by the manufacturer.
- I. Apply bituminous coating or other permanent separation materials on concealed panel surfaces where panels would otherwise be in direct contact with substrate materials which are noncompatible (i.e. copper and aluminum) or could result in corrosion or deterioration of either material or finishes.

3.03 CLEAN-UP AND PROTECTION

- A. Damaged Units: Replace panels and other components of the work which have been damaged or have deteriorated beyond successful repair by means of finish touch-up or similar minor repair procedures. Touch-up paint shall not be used without the permission of the State Engineer.
- B. Cleaning: Upon completion of panel installation, clean finished surfaces as recommended by panel manufacturer, and maintain in a clean condition during construction. Remove grease and oil films, excess sealants, handling marks, contamination from steel wool, fittings, and drilling debris and scrub the work clean. Exposed metal surfaces shall be free of dents, creases, waves, and scratch marks.

PART 4 - MEASUREMENT AND PAYMENT

4.01 BASIS OF MEASUREMENT AND PAYMENT

- A. Work under this Section will not be measured nor paid for separately but shall be considered incidental to and included in the bid prices for the various items of work in this project.

END OF SECTION

SECTION 07600 - FLASHING AND SHEET METAL

PART 1 - GENERAL

1.01 GENERAL CONDITIONS

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

1.02 SUMMARY

- A. Provide all labor, materials, and equipment necessary to fabricate and install gutters, downspouts, and other related work as shown on drawings and as specified herein.
- B. Related Work Described Elsewhere:
 - 1. Coordinate installation of sheet metal work with SECTION 07410 - PREFORMED METAL STANDING SEAM ROOFING and SECTION 07411 - PREFORMED METAL SIDING.
 - 2. Sealants are specified under SECTION 07920 – JOINT SEALANTS.
 - 3. Wood nailers, curbs, and blocking under SECTION 06105 – MISCELLANEOUS ROUGH CARPENTRY.

1.03 COORDINATION

- A. Coordinate sheet metal flashing and trim layout and seams with sizes and locations of penetrations to be flashed, and joints and seams in adjacent materials.
- B. Coordinate sheet metal flashing and trim installation with adjoining roofing and wall materials, joints, and seams to provide leakproof, secure, and noncorrosive installation.

1.04 SUBMITTALS

- A. Submit in accordance with Section 01300 "Submittals."
- B. Manufacturer's Data: Submit manufacturer's product data on all manufactured items. Include construction details, material description, dimensions of individual components and profiles, and finishes for each manufacturer's product and accessory.
- C. Shop Drawings: Submit shop drawings with reference made to detail numbers on the contract drawings to the State Engineer for acceptance. Contract drawings are general in nature. Furnish additional details for all the

similar and unusual conditions necessary to fabricate the flashing and sheet metal work. Shop drawings shall show all fasteners and relationship to adjacent work. No fabrication will be permitted before acceptance is secured. Tracing or reproducing drawing details is unacceptable.

For sheet metal flashing and trim

1. Detail fabrication and installation layouts, expansion-joint locations, and keyed details. Distinguish between shop- and field-assembled work.
 2. Include identification of material, thickness, weight, and finish for each item and location in Project.
 3. Include details for forming, including profiles, shapes, seams, and dimensions.
 4. Include details for joining, supporting, and securing, including layout, and spacing of fasteners, cleats, clips, and other attachments. Include pattern of seams.
 5. Include details of termination points and assemblies.
 6. Include details of expansion joints and expansion-joint covers, including showing direction of expansion and contraction from fixed points.
 7. Include details of roof-penetration flashing.
 8. Include details of edge conditions, including eaves, ridges, valleys, rakes, crickets, and counterflashings as applicable.
 9. Include details of special conditions.
 10. Include details of connections to adjoining work.
 11. Detail formed flashing and trim at scale of not less than 3 inches per 12 inches.
- D. Structural Calculations: For gutters, submit signed and sealed calculations by a professional engineer licensed in the project state, verifying bracket spacing and wind load resistance.
- E. Samples: Submit 4 samples of prefinished metal finishes to match colors as indicated or scheduled.
- F. Warranty: Submit warranty as stipulated in item entitled "WARRANTY" hereinbelow.

1.05 QUALITY ASSURANCE

- A. Sheet metal fabrications shall conform to State and local codes, SMACNA (latest edition), and industry standards.
- B. Roofing and siding penetrations shall be installed weathertight in such a manner to maintain integrity of the roofing and siding.
- C. Fastening and cleating shall withstand all positive and negative wind pressures for 150 mph, Exposure D winds in accordance with current Hawaii and State of Hawaii ICC IBC, as amended.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. All materials shall be delivered and stored in such a manner as to afford adequate protection. Damaged materials shall not be used and shall be removed from the site.
- B. Protect strippable protective covering on sheet metal flashing and trim from exposure to sunlight and high humidity, except to extent necessary for period of sheet metal flashing and trim installation.
- C. Handle manufactured materials as recommended by the manufacturer.

1.07 WARRANTY

- A. Contractor's Warranty: Submit a written warranty on the sheet metal for a 2-year period after the project acceptance date. The warranty shall provide for the repair of all leaks as well as repair and replacement of damage to the building and/or its finishes at Contractor's own expense. Where flashing is associated with a system with longer warranty period, flashing warranty shall match applicable system.
- B. Special Warranty on Finishes: Manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows 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 D 2244.
 - b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
 - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
 - 2. Finish Warranty Period: 20 years from date of Substantial Completion.

- C. The Surety shall not be held liable beyond 2 years from the project acceptance date.

PART 2 - PRODUCTS

2.01 PERFORMANCE REQUIREMENTS

- A. General: Sheet metal flashing and trim assemblies shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Complete sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain weathertight.
- C. Sheet Metal Standard for Flashing and Trim: Comply with SMACNA's "Architectural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.
- B. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

2.02 SHEET METALS

- A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying strippable, temporary protective film before shipping.
- B. Stain-Steel Sheet: ASTM A 240/A 240M or ASTM A 666, Type 316, dead soft, fully annealed; with smooth, flat surface.
 - 1. Finish: 2D (dull, cold rolled)
 - 2. Minimum Thickness: 0.038 inches.
- C. Metallic-Coated Steel Sheet: Provide zinc-coated (galvanized) steel sheet according to ASTM A 653/A 653M, G90 coating designation or aluminum-zinc alloy-coated steel sheet according to ASTM A 792/A 792M, Class AZ50 coating designation, Grade 40; prepainted by coil-coating process to comply with ASTM A 755/A 755M.
 - 1. Minimum Thickness: 0.028 inches.
 - 2. Surface: Smooth, flat.
 - 3. Exposed Coil-Coated Finish: Three-Coat Fluoropolymer: AAMA 621. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in both color coat and clear topcoat. Prepare, pretreat, and apply

coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

4. Color: To match adjacent material.
5. Concealed Finish: Pretreat with manufacturer's standard white or light-colored acrylic or polyester backer finish, consisting of prime coat and wash coat with minimum total dry film thickness of 0.5 mil.

2.03 MISCELLANEOUS MATERIALS

- A. General: Provide materials and types of fasteners, solder, protective coatings, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and as recommended by manufacturer of primary sheet metal unless otherwise indicated.
- B. Flashings Material: Provide materials from the same source, material, and finish as metal roofing provided under SECTION 07410 - PREFORMED METAL STANDING SEAM ROOFING and SECTION 07411 - PREFORMED METAL SIDING.
- C. Fasteners: Use stainless steel fasteners.
- D. Stainless Steel Wire Cloth Strainers: Maximum 1/2-inch mesh 0.063-inch diameter wire for downspout connector head covers at gutters, formed as shown, and removable.
- E. Gutters and Downspouts:
 1. Provide prefinished, heavy-gauge aluminum gutters and heavy-duty aluminum downspouts, complete with structural aluminum support brackets, hangars, anchors, and accessories required for a complete installation. Comply with ASTM B209, SMACNA Architectural Sheet Metal Manual recommendations, ASCE 7, and AAMA 2605.
 2. Fabricate gutters from aluminum sheet not less than 0.050 inch thick or 0.063 inch thick, as required by structural design and span conditions. Fabricate downspouts from smooth, welded-seam aluminum not less than 0.040 inch thick. Fabricate brackets, hangars, and anchors from heavy-duty extruded aluminum.
 3. Provide a factory-applied fluoropolymer coating complying with AAMA 2605. Finish shall be resistant to chalking, fading, peeling, corrosion, and degradation resulting from aviation fuel emissions, salt-laden air, high ultraviolet exposure, and other environmental pollutants.

F. Solder:

1. For Stainless Steel: ASTM B 32, Grade Sn60, with acid flux of type recommended by stainless-steel sheet manufacturer.
2. For Zinc-Coated (Galvanized) Steel: ASTM B 32, Grade Sn50, 50 percent tin and 50 percent lead or Grade Sn60, 60 percent tin and 40 percent lead with maximum lead content of 0.2 percent.

G. Sealant Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch wide and 1/8 inch thick.

H. Elastomeric Sealant: ASTM C 920, elastomeric silicone polymer sealant; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.

I. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type expansion joints with limited movement.

J. Bituminous Paint: Cold-applied asphalt mastic complying with SSPC-Paint 12 but containing no asbestos fibers, or cold-applied asphalt emulsion complying with ASTM D1187/D1187M.

K. Miscellaneous Trim: Provide flashings, internal and external corners, closure pieces, fascia trim, and other accessories required for a complete installation. Fabricate trim from the same material and with the same finish as adjacent materials. Profiles shall be as indicated on the drawings or, where not indicated, as required to accommodate the system and provide a weather-tight installation. Color and finish shall match adjacent materials and shall consist of a polyvinylidene fluoride (PVDF) coating system. Provide factory-finished trim components fabricated from materials matching adjacent metalwork in alloy, temper, thickness, color, and PVDF finish.

PART 3 - EXECUTION

3.01 INSTALLATION AND WORKMANSHIP

A. Surface to which sheet metal is to be applied shall be even, smooth, sound, thoroughly clean and dry, and free from defects that might affect the application. Report any unsatisfactory surfaces to the State Engineer. In the absence of such a report, the Contractor shall be held responsible for the finished product.

B. All accessories or other items essential for the completeness of the sheet metal installation, though not specifically indicated on the drawings or specified, shall be provided. All such items unless otherwise indicated on the drawings or specified, shall be of the same kind of materials as the item to be

applied. Screws, rivets, and bolts shall be of the type best suited for the purpose intended and shall be of a composition that is compatible with the metal to which it will contact.

- C. Except as otherwise indicated on the drawings or specified, the workmanship of sheet metal work, method of forming joints, anchoring, cleating, provisions for expansion, etc., shall conform to the standards details and recommendations of the Sheet Metal and Air Conditioning Contractors National Association's "Architectural Sheet Metal Manual" and shall be subject to the acceptance of the State Engineer. Exposed edges shall be folded back neatly to form a minimum 1/2-inch hem on the concealed side. Fabricate for waterproof and weather-resistant performance, with expansion provisions for running work, sufficient to permanently prevent leakage, damage, or deterioration of the work.
- D. Gutters: Provide gutters with a cross-sectional area not less than the size indicated and complete with mitered corners, end pieces, and special pieces as required. Form gutters in sections not less than 8-feet in length. Join ends of each section with a 3 to 4-inch overlap and a 1-inch flat-locked, riveted, and sealed joint. Provide expansion-type slip joints at the center of runs and at intervals not exceeding 40 feet. Provide hangers spaced not more than 36 inches on center. Form hangers and fastenings to match the gutter profile.
- E. Downspout Leaders: Provide downspouts with a cross-sectional area not less than the size indicated and complete with elbow, offsets, and accessories for a complete installation. Provide gutter outlets with standard stainless-steel wire-ball strainers. Fabricate gutter outlets and gutter-to-downspout transition fittings from same material as the gutters. Position downspouts not less than 1/2 inch away from adjacent walls surfaces and secure them at the top and bottom, and at intermediate points spaced not more than 5 feet on center, using standard leader straps and concealed fasteners. Fabricate straps and fasteners from metals compatible with the downspout material.
- F. Seal joint as required for watertight construction.
 - 1. Use sealant-filled joints unless otherwise indicated. Embed hooked flanges of joint members not less than 1 inch into sealant. Form joints to completely conceal sealant. When ambient temperature at time of installation is between 40 and 70 deg F, set joint members for 50 percent movement each way. Adjust setting proportionately for installation at higher ambient temperatures. Do not install sealant-type joints at temperatures below 40 deg F.
 - 2. Prepare joints and apply sealants to comply with requirements in Section 07920 "Joint Sealants."
- G. Seams: Straight and uniform in width and height with no sealants showing on the face.

1. Flat-Lock Seams: Finish not less than 3/4-inch wide.
 2. Lap Seams: Overlap seams not less than 3-inches.
 3. Loose-Lock Expansion Seams: Not less than 3-inches wide, and shall provide minimum one-inch movement within the joint. Joint shall be completely filled with exterior sealant, applied at not less than 1/8-inch thick bed.
 4. Flat Seams: Make seams in the direction of the flow.
- H. All sheet metal work shall be watertight and wind-tight in compliance with the purpose intended for the items indicated on the drawings or specified herein. Sheet metal shall be held firmly in place and shall not rattle.
- I. Cleating: Cleats for sheet metal work shall be provided where required, continuous, unless otherwise indicated on the drawings. Cleats shall be of the same material and weight as the metal being installed. Hook cleating with 3/4-inch minimum hem on concealed side of flashing.
- J. Protection from Contact of Dissimilar Materials: Surfaces in contact with dissimilar metal shall be painted with heavy-bodied bituminous paint or shall be separated by means of moisture-proof building felts.

3.02 ROOF FLASHING INSTALLATION

- A. General Install sheet metal flashing and trim to comply with performance requirements, sheet metal manufacturer's written installation instructions, and cited sheet metal standard. Provide concealed fasteners where possible, and set units true to line, levels, and slopes. Install work with laps, joints, and seams that are permanently watertight and weather resistant.
- B. Roof Edge Flashing: Anchor to resist uplift and outward forces according to recommendations in cited sheet metal standard unless otherwise indicated. Interlock bottom edge of roof edge flashing with continuous cleat anchored to substrate at staggered 3-inch centers.
- C. Pipe or Post Counterflashing: Install counterflashing umbrella with close-fitting collar with top edge flared for elastomeric sealant, extending minimum of 4 inches over base flashing. Install stainless-steel draw band and tighten.
- D. Counterflashing: Coordinate installation of counterflashing with installation of base flashing. Insert counterflashing in reglets or receivers and fit tightly to base flashing. Extend counterflashing 4 inches over base flashing. Lap counterflashing joints minimum of 4 inches. Secure in waterproof manner by means of interlocking folded seam or blind rivets and sealant unless otherwise indicated.

- E. Roof-Penetration Flashing: Coordinate installation of roof-penetration flashing with installation of roofing and other items penetrating roof. Seal with elastomeric sealant and clamp flashing to pipes that penetrate roof.

3.03 MISCELLANEOUS FLASHING INSTALLATION

- A. Equipment Support Flashing: Coordinate installation of equipment support flashing with installation of roofing and equipment. Weld or seal flashing with elastomeric sealant to equipment support member.

3.04 PROTECTION

- A. Protect sheet metal work until final acceptance of the building.

3.05 CLEAN-UP

- A. Clean exposed sheet metal work at completion of installation. Grease and oil films, handling marks, contamination from steel wool, fittings, and drilling debris shall be removed, and the work scrubbed clean. Exposed metal surfaces shall be free of dents, creases, waves, or scratch marks.
- B. Clean and neutralize flux materials. Clean off excess solder.
- C. Clean off excess sealants.
- D. At completion of the work, clean-up and remove rubbish and debris from the premises which resulted from this work. Remove all unused materials.
- E. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

PART 4 - MEASUREMENT AND PAYMENT

4.01 BASIS OF MEASUREMENT AND PAYMENT

- A. Work under this Section will not be measured nor paid for separately but shall be considered incidental to and included in the bid prices for the various items of work in this project.

END OF SECTION

SECTION 09911 - EXTERIOR PAINTING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

- A. Section includes surface preparation and the application of paint systems the following exterior substrates:
 - 1. Concrete.
 - 2. Concrete masonry units (CMU).
 - 3. Steel.
 - 4. Galvanized metal.
 - 5. Aluminum (not anodized or otherwise coated).
 - 6. Exterior Portland cement plaster (stucco).

1.03 DEFINITIONS

- A. Gloss Level 1: Not more than 5 units at 60 degrees and 10 units at 85 degrees, according to ASTM D 523.
- B. Gloss Level 3: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- C. Gloss Level 4: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D 523.
- D. Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D 523.
- E. Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D 523.
- F. Gloss Level 7: More than 85 units at 60 degrees, according to ASTM D 523.

1.04 SUBMITTALS

- A. Submit in accordance with Section 01300 "Submittals."

- B. Product Data: For each type of product. Include preparation requirements and application instructions.
- C. Samples for Verification: For each type of paint system and each color and gloss of topcoat.
 - 1. Submit Samples on rigid backing, 8 inches square.
 - 2. Step coats on Samples to show each coat required for system.
 - 3. Label each coat of each Sample.
 - 4. Label each Sample for location and application area.
- D. Product List: For each product indicated, include the following:
 - 1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
 - 2. Printout of current "MPI Approved Products List" for each product category specified, with the proposed product highlighted.
 - 3. VOC content.
- E. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents. Paint: 5 percent, but not less than 1 gal. of each material and color applied.

1.05 QUALITY ASSURANCE

- A. Mockups: Apply mockups of each paint system indicated and each color and finish selected to verify preliminary selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 1. State Engineer will select one surface to represent surfaces and conditions for application of each paint system specified in Part 3.
 - a. Vertical and Horizontal Surfaces: Provide samples of at least 100 sq. ft.
 - b. Other Items: State Engineer will designate items or areas required.
 - 2. Final approval of color selections will be based on mockups. If preliminary color selections are not approved, apply additional mockups of additional colors selected by State Engineer at no added cost to State.

3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless State Engineer specifically approves such deviations in writing.
4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F.
 1. Maintain containers in clean condition, free of foreign materials and residue.
 2. Remove rags and waste from storage areas daily.

1.07 FIELD CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.
- B. Do not apply paints in snow, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.

1.08 WARRANTY

- A. The Contractor shall warrant that the work performed under this section conforms to the contract requirements and is free of any defect of material or workmanship performed by the Contractor. Such warranty shall continue for a period of two (2) years from the project acceptance date during which period the Contractor shall remedy at his own expense any such failure to conform to any such defect.
- B. The Contractor shall warrant a mildew free surface for a period of one year from the project acceptance date. Should mildew formation occur on surfaces painted under this project within the one year, the Contractor shall clean such surfaces at no additional cost to the State.
- C. Should the Contractor fail to remedy any failure or defect described in Paragraph A. above within 10 working days after receipt of notice thereof, the State shall have the right to repair or otherwise remedy such failure of damage at the Contractor's expense.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Benjamin Moore & Co.
 - 2. Dunn-Edwards Corporation
 - 3. Sherwin-Williams Company
 - 4. Vista Paint
 - 5. Or Approved Equal
- B. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to products listed in other Part 2 articles for the paint category indicated.

2.02 PAINT, GENERAL (PT-01 – PT-08)

- A. Material Compatibility:
 - 1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 - 2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.
- B. VOC Content: Provide materials that comply with VOC limits of authorities having jurisdiction.
- C. Colors: As indicated in "Finish Legend" on Drawings.

2.03 SOURCE QUALITY CONTROL

- A. Testing of Paint Materials: State reserves the right to invoke the following procedure:
 - 1. State will engage the services of a qualified testing agency to sample paint materials. Contractor will be notified in advance and may be present when samples are taken. If paint materials have already been

delivered to Project site, samples may be taken at Project site. Samples will be identified, sealed, and certified by testing agency.

2. Testing agency will perform tests for compliance with product requirements.
3. State may direct Contractor to stop applying paints if test results show materials being used do not comply with product requirements. Contractor shall remove noncomplying paint materials from Project site, pay for testing, and repaint surfaces painted with rejected materials. Contractor will be required to remove rejected materials from previously painted surfaces if, on repainting with complying materials, the two paints are incompatible.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
 1. Concrete: 12 percent
 2. Masonry (Clay and CMU): 12 percent
 3. Portland Cement Plaster: 12 percent
 4. Gypsum Board: 12 percent
- C. Portland Cement Plaster Substrates: Verify that plaster is fully cured.
- D. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- E. Proceed with coating application only after unsatisfactory conditions have been corrected. Application of coating indicates acceptance of surfaces and conditions.

3.02 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates and paint systems indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible

because of size or weight of item, provide surface-applied protection before surface preparation and painting. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection.

- C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.
- D. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.
- E. Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces or mortar joints exceeds that permitted in manufacturer's written instructions.
- F. Steel Substrates: Remove rust, loose mill scale, and shop primer if any. Clean using methods recommended in writing by paint manufacturer. but not less than the following: SSPC-SP 7/NACE No. 4, "Brush-off Blast Cleaning."
- G. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.
- H. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.
- I. Aluminum Substrates: Remove loose surface oxidation.
- J. Plastic Trim Fabrication Substrates: Remove dust, dirt, and other foreign material that might impair bond of paints to substrates.

3.03 APPLICATION

- A. Apply paints according to manufacturer's written instructions and recommendations in "MPI Manual."
 - 1. Use applicators and techniques suited for paint and substrate indicated.
 - 2. Paint surfaces behind movable items same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed items with prime coat only.

3. Paint both sides and edges of exterior doors and entire exposed surface of exterior door frames.
 4. Paint entire exposed surface of window frames and sashes.
 5. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
 6. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- B. Tint undercoats same color as topcoat, but tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Provide sufficient difference in shade of undercoats to distinguish each separate coat.
- C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

3.04 FIELD QUALITY CONTROL

- A. Dry Film Thickness Testing: State may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness.
1. Contractor shall touch up and restore painted surfaces damaged by testing.

2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written recommendations.

3.05 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by State Engineer, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.06 EXTERIOR PAINTING SCHEDULE

- A. Concrete and Portland Cement Plaster Substrates, Non-traffic Surfaces:
100% Acrylic Flat.
 1. Prime Coat:
 - a. Benjamin Moore & Co: 023 Fresh Start Primer
 - b. Dunn Edwards: UGPR00 Ultra-Grip Premium
 - c. Sherwin-Williams Company (The): A24W300 Loxon Primer
 - d. Vista Paint: 4600 Uniprime II
 2. Intermediate Coat:
 - a. Benjamin Moore & Co: N105 MooreLife Acrylic Flat
 - b. Dunn Edwards: EVSH10 Evershield Flat Exterior
 - c. Sherwin-Williams Company (The): K33 Duration Flat
 - d. Vista Paint: 2000 Duratone 100% Acrylic Flat
 3. Finish Coat:
 - a. Benjamin Moore & Co: N105 MooreLife Acrylic Flat
 - b. Dunn Edwards: EVSH10 Evershield Flat Exterior
 - c. Sherwin-Williams Company (The): K33 Duration Flat
 - d. Vista Paint: 2000 Duratone 100% Acrylic Flat

B. Concrete and Portland Cement Plaster Substrates, Non-traffic Surfaces:
100% Acrylic Eggshell.

1. Prime Coat:

- a. Benjamin Moore & Co: 023 Fresh Start Primer
- b. Dunn Edwards: UGPR00 Ultra-Grip Premium
- c. Sherwin-Williams Company (The): A24W300 Loxon Primer
- d. Vista Paint: 4600 Uniprime II

2. Intermediate Coat:

- a. Benjamin Moore & Co: 631 Aura Satin Exterior
- b. Dunn Edwards: EVSH30 Evershield Eggshell Exterior
- c. Sherwin-Williams Company (The): K334 Duration Satin
- d. Vista Paint: 8300 Carefree Eggshell 100% Acrylic

3. Finish Coat:

- a. Benjamin Moore & Co: 631 Aura Satin Exterior
- b. Dunn Edwards: EVSH30 Evershield Eggshell Exterior
- c. Sherwin-Williams Company (The): K334 Duration Satin
- d. Vista Paint: 8300 Carefree Eggshell 100% Acrylic

C. Concrete and Portland Cement Plaster Substrates, Non-traffic Surfaces:
100% Acrylic Semi Gloss.

1. Prime Coat:

- a. Benjamin Moore & Co: 023 Fresh Start Primer
- b. Dunn Edwards: UGPR00 Ultra-Grip Premium
- c. Sherwin-Williams Company (The): A24W300 Loxon Primer
- d. Vista Paint: 4600 Uniprime II

2. Intermediate Coat:

- a. Benjamin Moore & Co: 096 MoorGlo Semi Gloss
- b. Dunn Edwards: EVSH40 Evershield Semi Gloss Exterior
- c. Sherwin-Williams Company (The): K34 B42 Metalatex Semi GlossDuration Gloss
- d. Vista Paint: 8400 Carefree Semi Gloss 100% Acrylic

3. Finish Coat:

- a. Benjamin Moore & Co: 096 MoorGlo Semi Gloss
- b. Dunn Edwards: EVSH40 Evershield Semi Gloss Exterior
- c. Sherwin-Williams Company (The): K34 Duration GlossB42 Metalatex Semi Gloss
- d. Vista Paint: 8400 Carefree Semi Gloss 100% Acrylic

D. Concrete and Portland Cement Plaster Substrates, Non-traffic Surfaces:
100% Acrylic Gloss.

1. Prime Coat:

- a. Benjamin Moore & Co: 023 Fresh Start Primer
- b. Dunn Edwards: UGPR00 Ultra-Grip Premium
- c. Sherwin-Williams Company (The): A24W300 Loxon Primer
- d. Vista Paint: 4600 Uniprime II

2. Intermediate Coat:

- a. Benjamin Moore & Co: 543 Ben Gloss Exterior
- b. Dunn Edwards: EVSH50 Evershield Gloss Exterior
- c. Sherwin-Williams Company (The): A85 Super Paint Gloss
- d. Vista Paint: 8500 Carefree Gloss 100% Acrylic

3. Finish Coat:

- a. Benjamin Moore & Co: 543 Ben Gloss Exterior
- b. Dunn Edwards: EVSH50 Evershield Gloss Exterior
- c. Sherwin-Williams Company (The): A85 Super Paint Gloss
- d. Vista Paint: 8500 Carefree Gloss 100% Acrylic

E. CMU Substrates: 100% Acrylic Flat.

1. Prime Coat:

- a. Benjamin Moore & Co: 285 Block Filler
- b. Dunn Edwards: SBPR00 Block Filler
- c. Sherwin-Williams Company (The): B25W25 Block Filler
- d. Vista Paint: 040 Block Filler

2. Intermediate Coat:

- a. Benjamin Moore & Co: N105 MooreLife Acrylic Flat
- b. Dunn Edwards: EVSH10 Evershield Ext Flat
- c. Sherwin-Williams Company (The): K33 K32 Duration Flat
- d. Vista Paint: 2000 Duratone 100% Acrylic Flat

3. Finish Coat:

- a. Benjamin Moore & Co: N105 MooreLife Acrylic Flat
- b. Dunn Edwards: EVSH10 Evershield Ext Flat
- c. Sherwin-Williams Company (The): K33 K32 Duration Flat
- d. Vista Paint: 2000 Duratone 100% Acrylic Flat

F. CMU Substrates: 100% Acrylic Eggshell.

1. Prime Coat:

- a. Benjamin Moore & Co: 285 Block Filler
- b. Dunn Edwards: SBPR00 Block Filler
- c. Sherwin-Williams Company (The): B25W25 Block Filler
- d. Vista Paint: 040 Block Filler

2. Intermediate Coat:

- a. Benjamin Moore & Co: 631 Aura Satin Exterior
- b. Dunn Edwards: EVSH30 Evershield Eggshell Exterior
- c. Sherwin-Williams Company (The): K334 Duration Satin
- d. Vista Paint: 8300 Carefree Eggshell 100% Acrylic

3. Finish Coat:

- a. Benjamin Moore & Co: 631 Aura Satin Exterior
- b. Dunn Edwards: EVSH30 Evershield Eggshell Exterior
- c. Sherwin-Williams Company (The): K334 Duration Satin
- d. Vista Paint: 8300 Carefree Eggshell 100% Acrylic

G. CMU Substrates: 100% Acrylic Semi Gloss.

1. Prime Coat:

- a. Benjamin Moore & Co: 285 Block Filler
- b. Dunn Edwards: SBPR00 Block Filler
- c. Sherwin-Williams Company (The): B25W25 Block Filler
- d. Vista Paint: 040 Block Filler

2. Intermediate Coat:

- a. Benjamin Moore & Co: 096 MoorGlo Semi Gloss
- b. Dunn Edwards: EVSH40 Evershield Semi Gloss Exterior
- c. Sherwin-Williams Company (The): B42 Metalatex Semi GlossK34
Duration Gloss
- d. Vista Paint: 8400 Carefree Semi Gloss 100% Acrylic

3. Finish Coat:

- a. Benjamin Moore & Co: 096 MoorGlo Semi Gloss
- b. Dunn Edwards: EVSH40 Evershield Semi Gloss Exterior
- c. Sherwin-Williams Company (The): B42 Metalatex Semi GlossK34
Duration Gloss
- d. Vista Paint: 8400 Carefree Semi Gloss 100% Acrylic

H. CMU Substrates: 100% Acrylic Gloss.

1. Prime Coat:

- a. Benjamin Moore & Co: 285 Block Filler
- b. Dunn Edwards: SBPR00 Block Filler
- c. Sherwin-Williams Company (The): B25W25 Block Filler
- d. Vista Paint: 040 Block Filler

2. Intermediate Coat:

- a. Benjamin Moore & Co: 543 Ben Gloss Exterior
- b. Dunn Edwards: EVSH50 Evershield Gloss Exterior
- c. Sherwin-Williams Company (The): A85 Super Paint Gloss
- d. Vista Paint: 8500 Carefree Gloss 100% Acrylic

3. Finish Coat:

- a. Benjamin Moore & Co: 543 Ben Gloss Exterior
- b. Dunn Edwards: EVSH50 Evershield Gloss Exterior
- c. Sherwin-Williams Company (The): A85 Super Paint Gloss
- d. Vista Paint: 8500 Carefree Gloss 100% Acrylic

I. Ferrous Metal Substrate: 100% Acrylic Semi Gloss.

1. Prime Coat:

- a. Benjamin Moore & Co: M04 Acrylic Prime
- b. Dunn Edwards: UGPR00 Ultra-Grip Premium
- c. Sherwin-Williams Company (The): B66W1 DTM Acrylic Primer
- d. Vista Paint: 9600 Protec Primer

2. Intermediate Coat:

- a. Benjamin Moore & Co: 096 MoorGlo Semi Gloss
- b. Dunn Edwards: EVSH40 Evershield Semi Gloss Exterior
- c. Sherwin-Williams Company (The): B42 Metalatex Semi GlossK34
Duration Gloss
- d. Vista Paint: 8400 Carefree Semi Gloss 100% Acrylic

3. Finish Coat:

- a. Benjamin Moore & Co: 096 MoorGlo Semi Gloss
- b. Dunn Edwards: EVSH40 Evershield Semi Gloss Exterior
- c. Sherwin-Williams Company (The): B42 Metalatex Semi GlossK34
Duration Gloss
- d. Vista Paint: 8400 Carefree Semi Gloss 100% Acrylic

J. Galvanized and Aluminum Metal Substrates: 100% Acrylic Semi Gloss.

1. Prime Coat:

- a. Benjamin Moore & Co: M04 Acrylic Prime
- b. Dunn Edwards: GAPR00 Galv-Alum Premium
- c. Sherwin-Williams Company (The): B66A50 DTM Bonding Primer
- d. Vista Paint: 4800 Metal Pro Primer

2. Intermediate Coat:

- a. Benjamin Moore & Co: 096 MoorGlo Semi Gloss
- b. Dunn Edwards: EVSH40 Evershield Semi Gloss Exterior
- c. Sherwin-Williams Company (The): B42 Metalatex Semi GlossK34
Duration Gloss
- d. Vista Paint: 8400 Carefree Semi Gloss 100% Acrylic

3. Finish Coat:

- a. Benjamin Moore & Co: 096 MoorGlo Semi Gloss
- b. Dunn Edwards: EVSH40 Evershield Semi Gloss Exterior
- c. Sherwin-Williams Company (The): B42 Metalatex Semi GlossK34
Duration Gloss
- d. Vista Paint: 8400 Carefree Semi Gloss 100% Acrylic

PART 4 - MEASUREMENT AND PAYMENT

4.01 BASIS OF MEASUREMENT AND PAYMENT

- A. Work under this Section will not be measured for payment but will be paid for at the contract Lump Sum Price.

END OF SECTION

SECTION 09960 - HIGH-PERFORMANCE COATINGS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

- A. This Section includes surface preparation and application of high-performance coating systems on the following substrates:
 - 1. Steel structure.
- B. Related Sections include the following:
 - 1. Division 09 painting Sections for general field painting.

1.03 DEFINITIONS

- A. Gloss ranges used in this Section include the following:
 - 1. Semigloss refers to medium-sheen finish with a gloss range between 30 and 65 when measured at a 60-degree meter.
 - 2. High gloss refers to high-sheen finish with a gloss range more than 65 when measured at a 60-degree meter.

1.04 SUBMITTALS

- A. Submit in accordance with Section 01300 "Submittals."
- B. Product Data: For each type of product indicated.
- C. Samples for Verification: For each type of coating system and in each color and gloss of finish coat indicated.
 - 1. Submit Samples on rigid backing, 8 inches square.
 - 2. Step coats on Samples to show each coat required for system.
 - 3. Label each coat of each Sample.
 - 4. Label each Sample for location and application area.
- D. Product List: For each product indicated. Cross-reference products to coating system and locations of application areas.

1.05 QUALITY ASSURANCE

- A. Master Painters Institute (MPI) Standards, Preparation and Workmanship: Comply with requirements in "MPI Architectural Painting Specification Manual" for preparation and application requirements as supplemental to coating systems manufacturer's written instructions and recommendations.
- B. Mockups: Apply benchmark samples of each coating system indicated to verify preliminary selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 1. State Engineer will select one surface to represent surfaces and conditions for application of each type of coating and substrate. Provide samples of at least 100 sq. ft.
 - 2. Final approval of color selections will be based on benchmark samples. If preliminary color selections are not approved, apply additional benchmark samples of additional colors selected by State Engineer at no added cost to State.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F.
 - 1. Maintain containers in clean condition, free of foreign materials and residue.
 - 2. Remove rags and waste from storage areas daily.

1.07 PROJECT CONDITIONS

- A. Apply coatings only when temperature of surfaces to be coated and surrounding air temperatures are between 50 and 95 deg F.
- B. Do not apply coatings in rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.

PART 2 - PRODUCTS

2.01 HIGH-PERFORMANCE COATINGS, GENERAL

- A. Material Compatibility:
 - 1. Provide materials for use within each coating system that are compatible with one another and substrates indicated, under conditions of service

- and application as demonstrated by manufacturer, based on testing and field experience.
- 2. Provide products of same manufacturer for each coat in a coating system.
- B. VOC Content of Field-Applied Interior Paints and Coatings: Provide products that comply with limits for VOC content not exceeding maximum permitted by authorities having jurisdiction.
- C. Basis of Design Products: Coating systems indicated are products manufactured by Tnemec Company, Inc.(see Section 3.06) Subject to compliance with requirements, provide coating products indicated or comparable products by one of the following, or equal:
 - 1. PPG Amercoat;
 - 2. Carboline Protective Coatings
 - 3. Or Approved Equal.
- D. Colors: As selected and approved by State Engineer, from manufacturers standard selection.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for conditions affecting performance of work.
 - 1. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 - 2. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.
 - 3. Coating application indicates acceptance of surfaces and conditions.

3.02 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations applicable to substrates indicated.
- B. Remove plates, machined surfaces, and similar items already in place that are not to be coated. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and coating. After completing coating operations, reinstall items that were removed; use workers skilled in the trades involved.
- C. Clean substrates of substances that could impair bond of coatings, including dirt, oil, grease, and incompatible paints and encapsulants. Remove

incompatible primers and reprime substrate with compatible primers as required to produce coating systems indicated. Clean all welds and damaged organic urethane zinc shop primer.

- D. Steel Substrates: Remove rust and loose mill scale. Clean using methods recommended in writing by coating manufacturer and according to SSPC-SP 11, "Power Tool Clean to Bare Metal."
- E. Galvanized-Metal Substrates: SSPC-SP1 Solvent Clean to Remove grease and oil residue from galvanized sheet metal fabricated from coil stock by mechanical methods to produce clean, mechanically etch surfaces to provide a uniform anchor profile that promote adhesion of subsequently applied coatings.

3.03 APPLICATION

- A. Apply high-performance coatings according to manufacturer's written instructions.
 - 1. Use applicators and techniques suited for coating and substrate indicated.
 - 2. Coat surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, coat surfaces behind permanently fixed equipment or furniture with prime coat only.
 - 3. Coat back sides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
- B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of the same material are to be applied. Tint undercoats to match color of finish coat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.
- C. If undercoats or other conditions show through final coat, apply additional coats until cured film has a uniform coating finish, color, and appearance.
- D. Apply coatings to produce surface films without cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections. Produce sharp glass lines and color breaks.

3.04 FIELD QUALITY CONTROL

- A. State reserves the right to invoke the following procedure at any time and as often as State deems necessary during the period when coatings are being applied:
 - 1. State may engage the services of a qualified testing agency to sample coating material being used. Samples of material delivered to Project site will be taken, identified, sealed, and certified in presence of Contractor.

2. Testing agency will perform tests for compliance with specified requirements.
3. State may direct Contractor to stop applying coatings if test results show materials being used do not comply with specified requirements. Contractor shall remove noncomplying coating materials from Project site, pay for testing, and recoat surfaces coated with rejected materials. Contractor will be required to remove rejected materials from previously coated surfaces if, on recoating with complying materials, the two coatings are incompatible.

3.05 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing coating application, clean spattered surfaces. Remove spattered coatings by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from coating operation. Correct damage by cleaning, repairing, replacing, and recoating, as approved by State Engineer, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced coated surfaces.

3.06 EXTERIOR / INTERIOR HIGH-PERFORMANCE COATING SCHEDULE

- A. Steel Substrates: Zinc/Epoxy/Urethane Coating System: Semi-Gloss Acrylic Polyurethane Finish
 1. Prime (Spot) Coat: Tnemec 94-H20 Hydro-Zinc @ 2.5-3.5 mils DFT.
 2. Intermediate Coat: Tnemec L69 Epoxoline @ 2.0-4.0 mils DFT.
 3. Topcoat: Tnemec 1095 Endura-Shield @ 2.0-4.0 mils DFT.
- B. Galvanized-Metal Substrates: Epoxy/Urethane Coating System: Semi-Gloss Acrylic Polyurethane Finish
 1. Prime Coat: Tnemec L69 Epoxoline @ 2.0-4.0 mils DFT.
 2. Intermediate Coat: Not required
 3. Topcoat: Tnemec 1095 Endura-Shield @ 2.0-4.0 mils DFT.

PART 4 - MEASUREMENT AND PAYMENT

4.01 BASIS OF MEASUREMENT AND PAYMENT

- A. Work under this Section will not be measured nor paid for separately but shall be considered incidental to and included in the bid prices for the various items of work in this project.

END OF SECTION

MKK TERMINAL BUILDING ROOF REPLACEMENT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII
STATE PROJECT NO. CM2521-33

PROPOSAL SCHEDULE

Item No.	Description	Quantity	Unit	Unit Price	Total
<u>I. General Requirements</u>					
01010.1	Construction Work		L.S.	\$	_____
01561.1	Construction Site Pollution Controls		L.S.	\$	_____
01562.1	Management of Contaminated Media, Soil Disposal, and Soil Reuse		L.S.	\$	_____
01700.1	Mobilization (Not to Exceed 6% of sum of all items, excluding this item and all allowances)		L.S.	\$	_____
<u>II. Allowances</u>					
01562.2	Additional Management of Contaminated Media, Soil Disposal, and Soil Reuse		Allowance		\$10,000
01565.1	Security Measures		Allowance		\$50,000
02410.1	Unforeseen Conditions		Allowance		\$200,000
TOTAL AMOUNT FOR COMPARISON OF BIDS					\$ _____

\$200,000
3

The prices bid herein shall include all labor, materials, equipment, and incidentals necessary to construct all items in place, including installation and testing of equipment, complete and ready for operation, all in accordance with the plans and specifications.

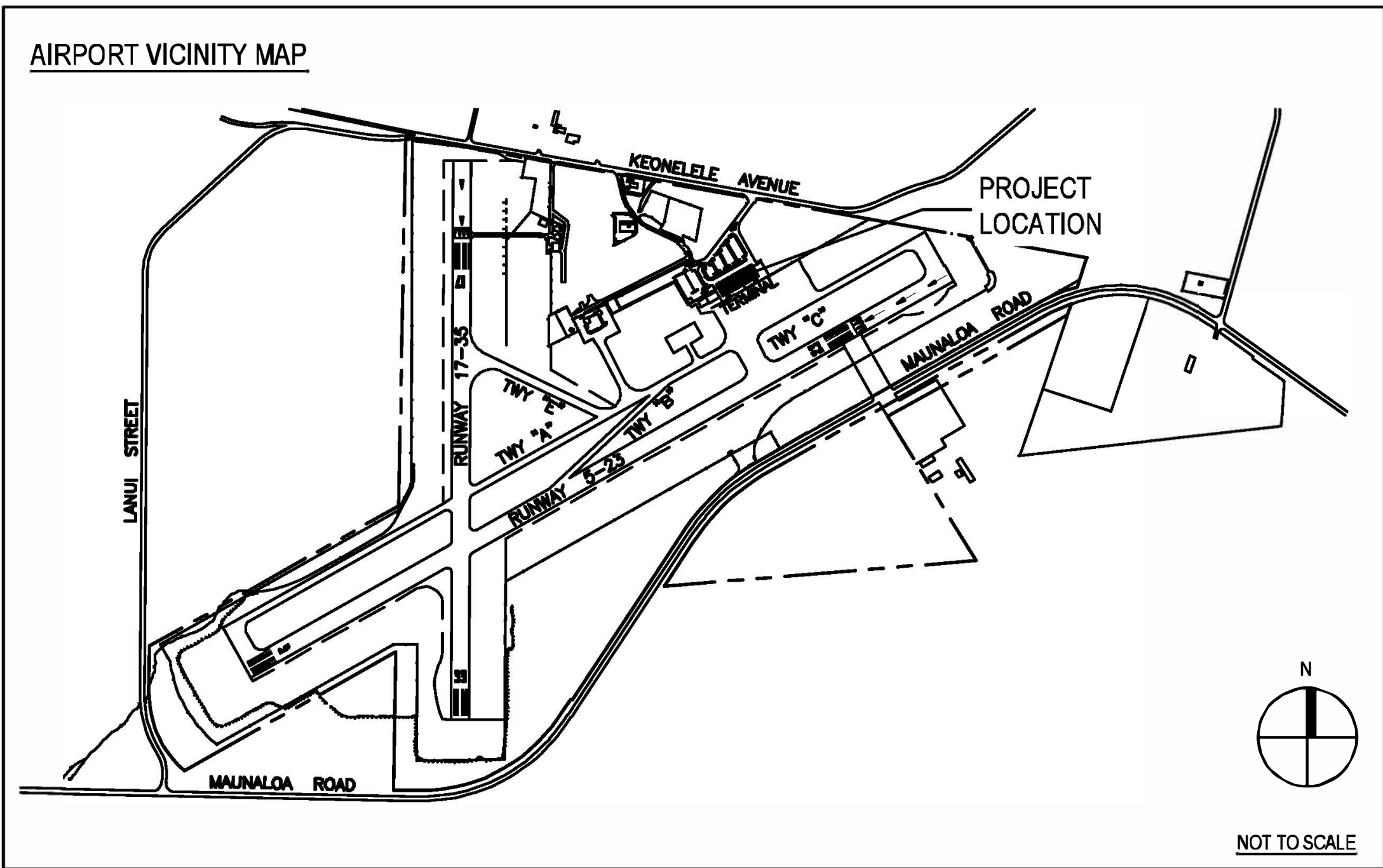
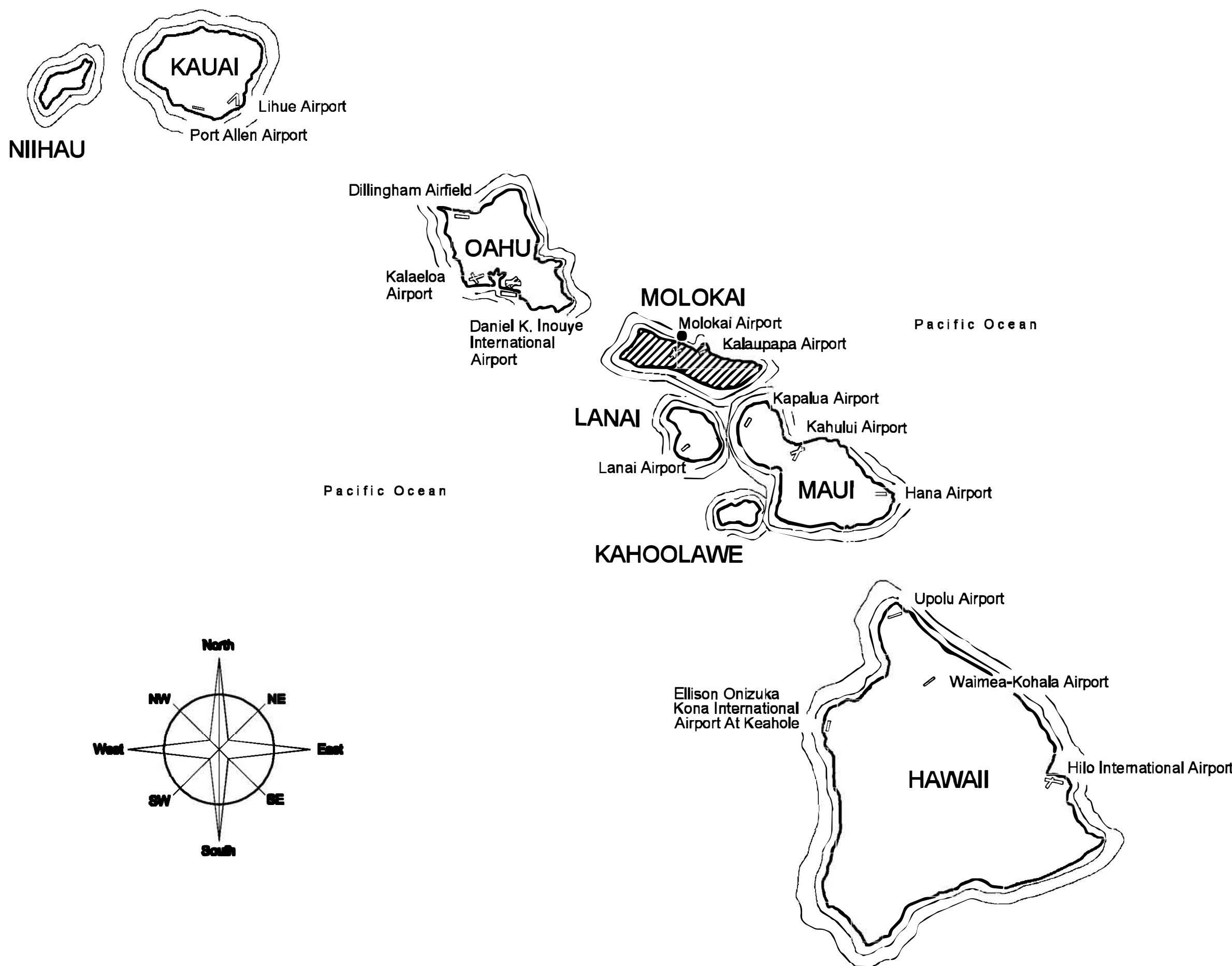
- Note 1: Bid shall include all Federal, State, County and other applicable taxes and fees.
- Note 2: The TOTAL AMOUNT FOR COMPARISON OF BIDS shall be used to determine the lowest responsible bidder.
- Note 3: Bidders shall complete all unit prices and amounts. Failure to do so shall be grounds for rejection of bid.
- Note 4: The State reserves the right to reject any or all Bids and to waive any defects in said Bids in the best interest of the State.
- Note 5: The bidders' attention is directed to Section 2.11 – BID SECURITY of the "General Provisions" as amended by the Special Provisions.
- Note 6: Bidders shall complete all unit prices and amounts. Failure to do so shall be grounds for rejection of bid.
- Note 7: If the lowest TOTAL AMOUNT FOR COMPARISON OF BIDS is less than, or approximately equal to the funds available for this project, an award will be made to the lowest responsible bidder.
- Note 8: If the TOTAL AMOUNT FOR COMPARISON OF BIDS exceeds the funds available for the project, then the State reserves the right to negotiate with the lowest, responsive, responsible bidder as permitted under Section 103D-302, Hawaii Revised Statutes, to further reduce the scope of work and award a contract thereafter.
- Note 9: **Bidders shall submit and upload the complete proposal to HlePRO prior to the bid opening date and time. Proposals received after said due date and time shall not be considered. Any additional support documents explicitly designated as confidential and/or proprietary shall be uploaded as a separate file to HlePRO. Bidders shall not include confidential and/or proprietary documents with the proposal. The record of each bidder and respective bid shall be open to public inspection. Original (wet ink, hard copy) proposal documents are not required to be submitted. Contract award shall be based on evaluation of proposals submitted and uploaded to HlePRO. If there is a conflict between the specification document and the HlePRO solicitation, the specifications shall govern and control unless otherwise specified.**

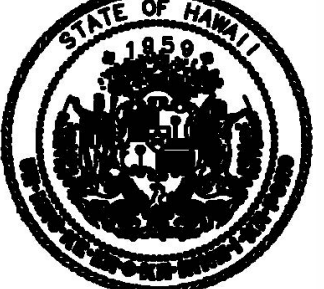
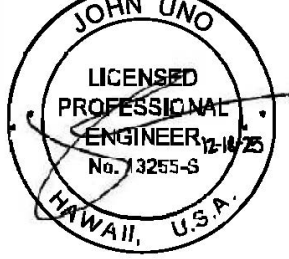
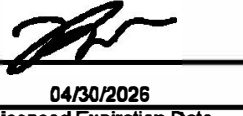
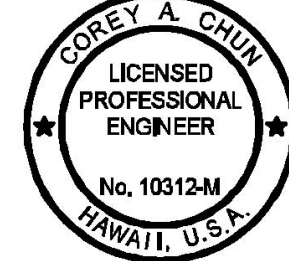
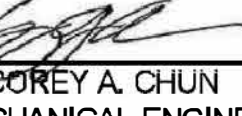
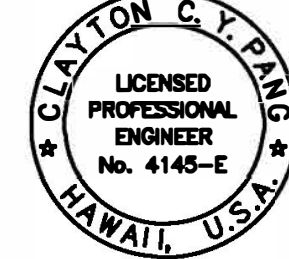
FAILURE TO UPLOAD THE COMPLETE PROPOSAL TO HlePRO SHALL BE GROUNDS FOR REJECTION OF THE BID.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS

PLANS FOR
MKK TERMINAL BUILDING
ROOF REPLACEMENT

AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII
PROJECT NO. CM2521-33



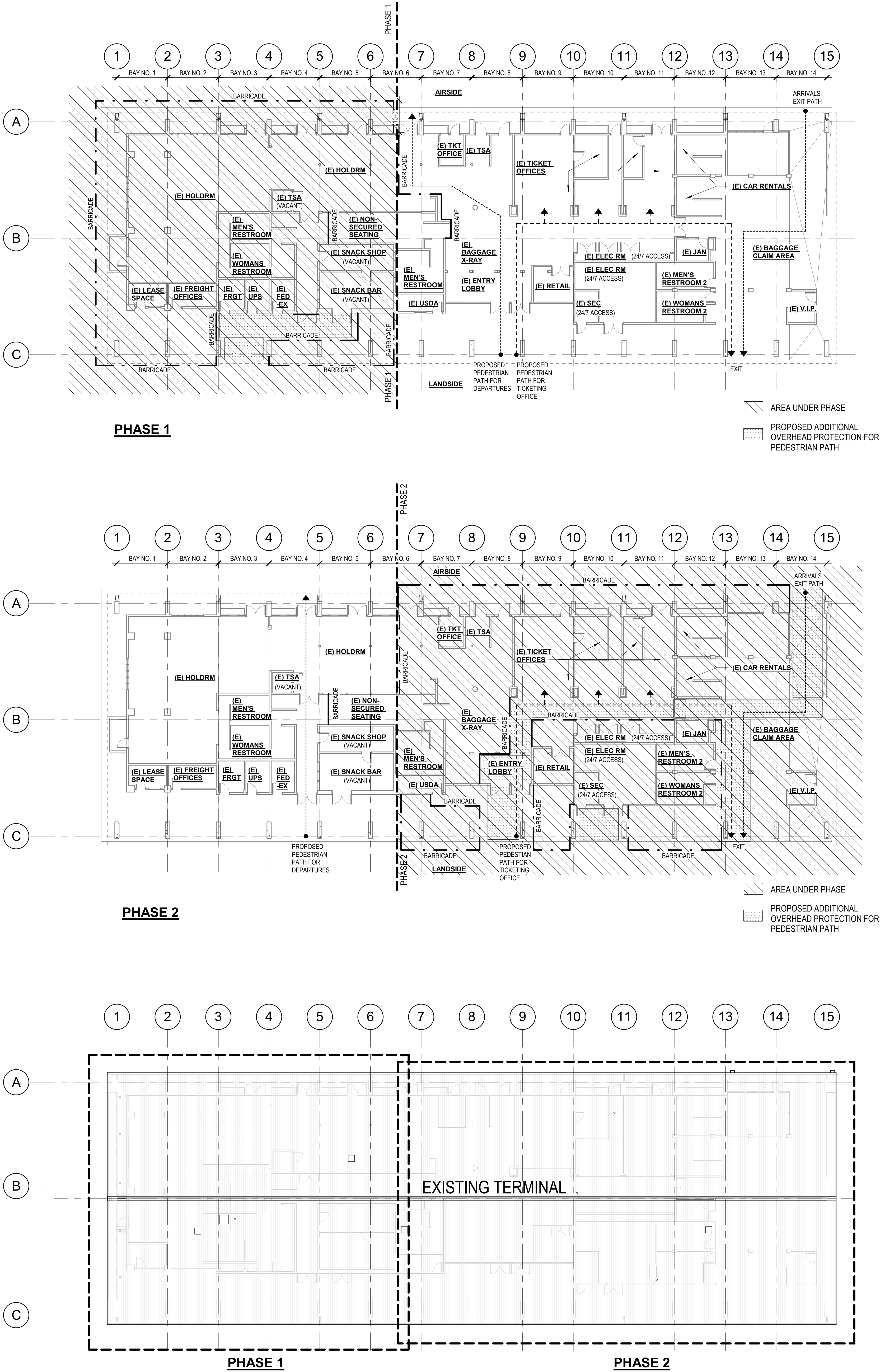
PROJECT TEAM ARCHITECTURAL: KYA, INC. 934 PUMEHANA STREET HONOLULU, HI 96826 (808) 949-7770   KYLE WANG ARCHITECT		 STATE OF HAWAII DEPARTMENT OF TRANSPORTATION AIRPORTS																										
STRUCTURAL: SSFM INT'L, INC. 501 SUMNER ST. SUITE 620 HONOLULU, HI 96817 (808) 931-1308   JOHN UNO STRUCTURAL ENGINEER		  KYLE WANG 04/06/2026 Licensed Professional Engineer This work was prepared by me or under my supervision. <table><tr><td>DSGN.</td><td>DRWN.</td><td>CHKD.</td><td>APPD.</td></tr><tr><td>RW</td><td>KL</td><td>DT</td><td>RW</td></tr></table>	DSGN.	DRWN.	CHKD.	APPD.	RW	KL	DT	RW																		
DSGN.	DRWN.		CHKD.	APPD.																								
RW	KL		DT	RW																								
MECHANICAL: BOWERS + KUBOTA, 94-408 AKOIKI ST. SUITE 201A WAIKALUA, HI 96797 (808) 838-7787   COREY A. CHUN MECHANICAL ENGINEER																												
ELECTRICAL: ELBSTECH HAWAII, INC. 1100 WARD AVE. SUITE 750 HONOLULU, HI 96814 (808) 522-1888   CLAYTON C. WANG ELECTRICAL ENGINEER																												
<table><tr><td colspan="4">DEPARTMENT OF TRANSPORTATION STATE OF HAWAII</td></tr><tr><td colspan="4">APPROVED:  FOR DIRECTOR OF TRANSPORTATION</td></tr><tr><td colspan="2">DATE</td><td colspan="2">05/04/2026</td></tr></table>		DEPARTMENT OF TRANSPORTATION STATE OF HAWAII				APPROVED:  FOR DIRECTOR OF TRANSPORTATION				DATE		05/04/2026		<table><tr><td>NO.</td><td>DATE</td><td>REVISIONS</td></tr><tr><td></td><td>6/9/26</td><td>ADD#3</td></tr></table> CONSTRUCTION DOCUMENTS DEC 19, 2025 DATE PROJECT TITLE: MKK TERMINAL BUILDING ROOF REPLACEMENT AT MOLOKAI AIRPORT HOOLEHUA, MOLOKAI, HAWAII PROJECT NO.: CM2521-33 SHEET TITLE: COVER SHEET, VICINITY MAP, PROJECT TEAM <table><tr><td>DATE:</td><td>DWG. NO.</td></tr><tr><td>DEC 19, 2025</td><td>G000</td></tr><tr><td>SHEET:</td><td></td></tr><tr><td>1 OF 30 SHTS</td><td></td></tr></table>	NO.	DATE	REVISIONS		6/9/26	ADD#3	DATE:	DWG. NO.	DEC 19, 2025	G000	SHEET:		1 OF 30 SHTS	
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1 OF 30 SHTS																												

ABBREVIATIONS									
AWS	AVIATION WORKER SCREENING	EXP	EXPANSION	OGG	KAHULUI AIRPORT	USCS	UNITED STATES CUSTOM SERVICE		
AB	ABOVE	EXP CLG	EXPOSED CEILING	OL	OCCUPANT LOAD	USPS	UNITED STATES POSTAL SERVICE		
AC	AIR CONDITIONING	EXT	EXTERIOR	OLF	OCCUPANT LOAD FACTOR	UTIL	UTILITY		
ACOUS	ACOUSTIC/ACOUSTICAL	FA	FIRE ALARM; FAMILY ASSIST	OPNG	OPENING	VAR	VARIES		
ACS	AIRLINE CUSTOMER SERVICE	FAA	FEDERAL AVIATION ADMINISTRATION	OPP	OPPOSITE	VCT	VINYL COMPOSITE TILE		
ACT	ACOUSTICAL TILE	FCB	FIBER CEMENT BOARD	OSB	OVERSIZED BAGGAGE	VERT	VERTICAL		
ADA	AMERICANS WITH DISABILITIES ACT	FCO	FLOOR CLEANOUT	OSR	ON SCREEN RESOLUTION	VSR	VEHICLE SERVICE ROAD		
ADGS	AIRCRAFT DOCKING GUIDANCE SYSTEM	FD	FLOOR DRAIN	OST	OVERSEAS TERMINAL	VTR	VENT TO ROOF		
AED	AUTOMATED EXTERNAL DEFIBRILLATOR	FE	FIRE EXTINGUISHER						
AF	ACCESS FLOORING	FEC-R	FIRE EXTINGUISHER CABINET (RECESSED)	PAVT	PAVEMENT	W/	WITH		
AFF	ABOVE FINISHED FLOOR	FEC-S	FIRE EXTINGUISHER CABINET (SURFACE MOUNTED)	PAX	PASSENGERS	WC	WATER CLOSET		
AG	AGRICULTURE	FF	FINISH FLOOR	PCA	PRECONDITIONED AIR	WD	WOOD		
AGTS	AUTOMATED GUIDEWAY TRANSIT SYSTEM	FFE	FURNITURE FIXTURE & EQUIPMENT	PCC	PORTLAND CEMENT CONCRETE	WDW	WINDOW		
AI	APRON ILLUMINATION	FH	FIRE HYDRANT	PGS	PARKING GUIDANCE SYSTEM	WF	WOOD FINISH		
AIT	ADVANCED IMAGING TECHNOLOGY	FHC-R	FIRE HOSE CABINET (RECESSED)	PHS	PUBLIC HEALTH SERVICE	WFE	WHEELED FIRE EXTINGUISHER		
AL/ALUM	ALUMINUM	FHC-S	FIRE HOSE CABINET (SURFACE MOUNTED)	PL	PROPERTY LINE; PLATE	WH	WATER HEATER		
ALA	AIRCRAFT LOAD AGENT	FIDS	FLIGHT INFORMATION DISPLAY SYSTEM	PLAM	PLASTIC LAMINATE	WO	WITHOUT; WHERE OCCURS		
ALP	AIRPORT LAYOUT PLAN	FIN	FINISH	PLB	PASSENGER LOADING BRIDGE	WP	WATERPROOFING		
AMP	AIRPORT MASTER PLAN	FIS	FEDERAL INSPECTION SERVICES	PLBG	PLUMBING	WR	WASTE RECEPTACLE; WATER RESISTANT		
ANOD	ANODIZED	FIXT	FIXTURE	PLST	PLASTER SYNTHETIC	WT	WEIGHT		
AOA	AIRPORT OPERATION AREA	FLR	FLOOR	PLYWD	PLYWOOD	WTMD	WALK-THROUGH METAL DETECTOR		
APHIS	ANIMAL PLANT HEALTH INSPECTION SERVICE	FLSH	FLASHING	PNL	PANEL				
APPROX	APPROXIMATE	FLUOR	FLUORESCENT	POTS	PLAIN OLD TELEPHONE SERVICE	XFMR	TRANSFORMER		
APU	AUXILIARY POWER UNIT	FOC	FACE OF CONCRETE; FACE OF COLUMN	PR	PAIR				
ARCH	ARCHITECTURAL	FOF	FACE OF FINISH	PREFAB	PREFABRICATED				
ARFF	AIRPORT RESCUE AND FIRE FIGHTING	FOS	FACE OF STUD	PSA	PASSENGER SERVICE AGENTS				
ATDS	AIRPORT TECHNICAL DESIGN STANDARDS	FRMG	FRAMING	PSR	PRIVATE SCREENING ROOM				
ATT	ATTENUATION	FRP	FIBERGLASS REINFORCED POLYESTER PANEL	PT	POINT; PAINT				
AVS	ALTERNATE VIEWING STATION	FRT	FIRE RETARDANT TREATED	PTD	PAPER TOWEL DISPENSER				
		FS	FULL SIZE	PTN	PARTITION				
		FSPK	FIRE SPRINKLER	PVC	POLY VINYL CHLORIDE				
BC	BOTTOM OF CURB	FT	FEET	PWC	PORTABLE WATER CABINET				
BCU/BCD	BAGGAGE CLAIM UNIT/ DEVICE	FTG	FOOTING						
BD	BOARD	FV	FIELD VERIFY	Q	QUANTITY				
BHS	BAGGAGE HANDLING SYSTEM								
BHS CR	BAGGAGE HANDLING SYSTEM CONTROL ROOM	GA	GAUGE	RAD	RADIUS				
BHS MCP	BAGGAGE HANDLING SYSTEM MOTOR CONTROL PANEL	GALV	GALVANIZED	RB	RESILIENT BASE				
		GB	GRAB BAR	RCC	ROVER COMMAND CENTER				
BIDS	BAGGAGE INFORMATION DISPLAY SYSTEM	GIDS	GATE INFORMATION DISPLAY SYSTEM	RD	ROOF DRAIN				
BLDG	BUILDING	GL	GLASS	REF	REFERENCE				
BLKG	BLOCKING	GP	GUARD POST	REFR	REFRIGERATOR				
BLVD	BOULEVARD	GRD	GROUND	REINF	REINFORCED; REINFORCING				
BM	BEAM	GSE	GROUND SERVICE EQUIPMENT	REQ	REQUIRED				
BMS	BUILDING MANAGEMENT SYSTEM	GWB	GYP SUM WALL BOARD	REST/ RR	RESTROOM				
BOB	BOTTOM OF BEAM	GYP BD	GYP SUM BOARD	REV	REVISION				
BOT	BOTTOM	HB	HOSE BIBB	RF	ROOF				
BU	BUFFER POWER CONVEYOR	HDCP	HANDICAPPED	RIDS	RAMP INFORMATION DISPLAY SYSTEM				
BUR	BUILT-UP ROOF	HDWR	HARDWARE	RJ	REJECT ROLLER				
		HGT	HEIGHT	RO	ROUGH OPENING				
C&C	CITY & COUNTY	HORIZ	HORIZONTAL	ROW	RIGHT OF WAY				
CB	CATCH BASIN	HPL	HIGH PRESSURE LAMINATE	RR	REMOTE RESOLUTION				
CBP	CUSTOMS AND BORDER PROTECTION	HR	HOUR; HOLDROOM	RV	REVEST ROLLER				
CBX	COMM BOX	HSS	HOLLOW STRUCTURAL SECTION	SB	SPLASH BLOCK				
CCC	COMMAND AND CONTROL CENTER	HT	HIGH THREAT CONTAINMENT UNIT	SC	SCALE; SOLID CORE				
CCTV	CLOSED-CIRCUIT TELEVISION	HZ	HERTZ	SCHED	SCHEDULE				
CDC	CENTERS FOR DISEASE CONTROL AND PREVENTION			SCRN	SCREEN				
CES	CANINE ENHANCED SCREENING	IBC	INTERNATIONAL BUILDING CODE	SD	SOAP DISPENSER; SMOKE DETECTOR; STORM DRAIN				
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED	ICAO	INTERNATIONAL CIVIL AVIATION ORGANIZATION	SECT	SECTION				
CG	CORNER GUARD	IDF	INTERMEDIATE DISTRIBUTION FRAME	SF/ SQFT	SQUARE FOOT				
CH	COAT HOOK	IE	INDEPENDENT ELECTRICAL	SHT	SHEET				
CHWP	CHILLED WATER PIPE	IGR	INTELLIGENT GATE READER	SIDA	SECURITY IDENTIFICATION DISPLAY AREA				
CJ	CONTROL JOINT	ILS	INSTRUMENT LANDING SYSTEM	SIM	SIMILAR				
CL	CENTERLINE	INCL	INCLUSIVE	SKY	SKYLIGHT				
CLG	CEILING	INFO	INFORMATION	SL	SLOPE				
CLR	CLEAR	INS	IMMIGRATION AND NATURALIZATION SERVICE	SND	SANITARY NAPKIN DISPENSER				
CMU	CONCRETE MASONRY UNIT	INSUL	INSULATION	SNDU	SANITARY NAPKIN DISPOSAL UNIT				
CNTR	CENTER	INT	INTERIOR	SOG	SLAB-ON-GRADE				
COL(S)	COLUMN(S)	IT	INFORMATIONAL TECHNOLOGY	SP	SPACE; SOLID PLASTIC				
COMM	COMMUNICATIONS	JAN	JANITOR	SPEC	SPECIFICATION				
CON	CONCESSION	JB	JUNCTION BOX	SPR	SPRINKLER				
CONC	CONCRETE	JT(S)	JOINT(S)	SQ	SQUARE				
COND	CONDITION			SRCH	SEARCH ROOM				
CONF	CONFERENCE	L	LENGTH	SS	SOLID SURFACE				
CONN	CONNECTION	LAM	LAMINATE	SSCP	SECURITY SCREENING CHECK POINT				
CONSTR	CONSTRUCTION	LAV	LAVATORY	SST	STAINLESS STEEL				
CONT/CONT	CONTINUOUS; CONTINUED	LBS	POUNDS	ST	STREET; STONE				
CONTR	CONTRACTOR	LEO	LAW ENFORCEMENT OFFICER	STA	STATION				
CORR	CORRIDOR	LOB	LEFT OVER BAGGAGE	STD	STANDARD				
CP	CARPET	LOG	LOGISTICS	STL	STEEL				
CRM	CONCRETE RUBBLE MASONRY	LTG	LIGHTING	STOR	STORAGE				
CRPG	CHECKPOINT REQUIREMENTS AND PLANNING GUIDE	LVL	LEVEL	STRL	STRUCTURAL				
CT	CERAMIC TILE	LVR	LOUVER	STRUC	STRUCTURE				
				STSO	SUPERVISORY TRANSPORTATION SECURITY OFFICER				
DBH	DAY BAG HOLDROOM	MAINT	MAINTENANCE	SUPV	SUPERVISOR				
DBL	DOUBLE	MANUF/MFG	MANUFACTURER	SUSP	SUSPENDED				
DCS	DIAPER CHANGING STATION	MAX	MAXIMUM	SVC	SERVICE				
DEMO	DEMOLITION	MCP	MOTOR CONTROL PANEL	SYM	SYMMETRICAL				
DET	DETAIL	MDF	MAIN DISTRIBUTION FRAME	SYS	SYSTEM				
DI	DRAIN INLET	MECH	MECHANICAL						
DIA	DIAMETER	MEMB	MEMBRANE	TC	TOP OF CURB				
DIM	DIMENSION	MET/ MTL	METAL	TDC	TRAVEL DOCUMENT CHECKER				
DN	DOWN	MH	MANHOLE	TECH	TECHNOLOGY; TECHNICAL				
DOTA	DEPARTMENT OF TRANSPORTATION, AIRPORTS DIVISION	MIN	MINIMUM	TEMP	TEMPERED; TEMPORARY; TEMPERATURE				
DR	DOOR	MIR	MIRROR	THK	THICK				
DS	DOWNSPOUT	MISC	MISCELLANEOUS	TKT	TICKET				
DWG/DWGS	DRAWINGS	MKK	MOLOKAI AIRPORT	TKTNG	TICKETING				
		ML ACS	MAINLINE AIRLINE CUSTOMER SERVICE	TLN	TAXILANE				
(E)/EXIST	EXISTING	MS	MOP SINK	TMP	TERMINAL MODERNIZATION PROGRAM				
EA	EACH	MSH	MOP SHELF w/ UTILITY HOOKS & MOP STRIP	TO ()	TOP OF (ITEM)				
ECS	ENVIRONMENTAL CONTROL SYSTEM	MTD	MOUNTED	TPO	THERMOPLASTIC POLYOLEFIN				
EFSD	EMERGENCY FUEL SHUT OFF			TSA	TRANSPORTATION SECURITY ADMINISTRATION				
EHD	ELECTRIC HAND-DRYER	NDWP	NEW DAY WORK PROJECT	TSCD	TOILET SEAT COVER DISPENSER				
EJ	EXPANSION JOINT	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	TTD	TOILET TISSUE DISPENSER				
EL	ELEVATION	NIC	NOT IN CONTRACT	TWY	TAXIWAY				
ELEC	ELECTRICAL	NO	NUMBER	TYP	TYPICAL				
ELEV	ELEVATOR	NOM	NOMINAL	TZ	TERRAZZO				
EM GEN	EMERGENCY GENERATOR	NTS	NOT TO SCALE						
EMER	EMERGENCY	OA	OUTSIDE AIR	UBX	UTILITY BOX				
EQ	EQUAL	OC	ON CENTER	UL	UNDERWRITERS LABORATORY				
EQUIP	EQUIPMENT	OFCl	OWNER FURNISH, CONTRACTOR INSTALL	UON	UNLESS OTHERWISE NOTED				
ER	EXHAUST REGISTER	OFD	OVERFLOW DRAIN	UPS	UNINTERRUPTED POWER SOURCE				
ESC	ESCALATOR	OFOI	OWNER FURNISH, OWNER INSTALL	UR	URINAL				
ETD	EXPLOSIVE TRACE DETECTION			US	URINAL SCREEN				
ETR	ELECTRONIC TICKET READER								
EW	ELECTRIC WATER COOLER								
EXH	EXHAUST								

SYMBOLS			
			WORKING POINT
		148	DOOR NO
	DETAIL REFERENCE	WF121	WINDOW NO
	DETAILED OBJECT		RESTROOM ACCESSORY
	SHEET NUMBER		DOOR SIGN
	DETAIL SECTION	D3A	WALL PARTITION
	BUILDING SECTION	Room Name	SPACE/ROOM NAME AND NUMBER
	WALL SECTION	FF+18.50'	FINISH FLOOR EL ABOVE MEAN SEA LEVEL
	DETAIL NUMBER	(+ 16.80)	EXST FINISH FLOOR EL ABOVE MEAN SEA LEVEL
	EXTERIOR ELEVATION		DEMOLITION KEYNOTE
	SHEET NUMBER		COLUMN TYPE
	DEMOLISHED CONSTRUCTION		
	EXISTING CONSTRUCTION TO REMAIN (HALF-TONE)		
	NEW CONSTRUCTION		
	NORTH		
	EAST		
	WEST		
	SOUTH		
	NORTH ARROW		
	DETAIL NUMBER		
	INTERIOR ELEVATION		
	SHEET NUMBER		
	GRIDS (CIRCLE)		
	GRID LINE AND REFERENCE		
	GRIDS (CIRCLE)		
	CEILING HEIGHT		
	CEILING MATERIAL		
	GRAPHIC SCALE:		
	1/8" = 1'-0"		
	0'		
	4'		
	8'		
	16'		
	32'		

REFLECTED CEILING PLAN SYMBOLS					
MATERIALS		LIGHT FIXTURES		POWER & TELEDATA	
	2' x 2' GRID AND TILE SYSTEM - SEE SPECIFICATIONS		2' x 2' RECESSED SEMI-INDIRECT FLUORESCENT		FURNITURE FEED, POWER POLE AS INDICATED
	GYPSUM BOARD CEILING AS INDICATED ON PLAN. SEE FINISH PLAN FOR PAINT SPECIFICATIONS		2' x 4' RECESSED SEMI-INDIRECT FLUORESCENT		OCCUPANCY SENSOR
	LINEAR METAL PLANK CEILING - SEE SPECIFICATIONS		RECESSED LINEAR		AUDIO SPEAKER
			RECESSED DOWNLIGHT		PROJECTOR
			RECESSED WALL WASH DOWNLIGHT		PROJECTION SCREEN - ELECTRONIC
			CEILING MTD SEMI RECESS WALLWASH		PROJECTION SCREEN - MANUAL
			PENDANT		
			CEILING SURFACE MOUNTED STRIP LIGHT		
			WALL SCONCE		EXIT SIGN, ARROW INDICATES PATH OF TRAVEL
			PENDANT MTD DIRECT / INDIRECT FLUORESCENT		SMOKE DETECTOR
			UNDER CABINET		LIFE SAFETY SPEAKER
			UPLIGHT STRIP		LIFE SAFETY SPEAKER
					LIFE SAFETY STROBE
					LIFE SAFETY STROBE
					SPRINKLER
ANNOTATIONS					
	FINISHED CEILING HEIGHT AS INDICATED ON PLAN, UON				
SECURITY					
	CLOSED-CIRCUIT TV				

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30	E102	ELECTRICAL PLAN - LEVEL 1



- PHASING NOTES:**
- THE PROJECT SHALL BE PHASED TO MAINTAIN AIRPORT AND AIRLINE OPERATIONS. CONSTRUCTION SHALL PROCEED ONE BAY AT A TIME. FOR EXAMPLE, THE CONTRACTOR SHALL COMPLETE BAY NO. 1 (BETWEEN GRID LINES 1 AND 2) INCLUDING DEMOLITION OF EXISTING ROOF AND INSTALLATION OF NEW ROOF BEFORE PROCEEDING TO THE NEXT BAY. CONTRACTOR SHALL PROVIDE TARP AND/OR OTHER BARRIERS TO PROTECT THE IMPROVEMENTS AND PROVIDE SAFETY FOR ADJACENT OCCUPIED SPACE BELOW WHILE THE ROOF IS REMOVED. THIS PHASING IS CONCEPTUAL IN NATURE AND IS NOT INTENDED TO ILLUSTRATE EVERY STEP OF CONSTRUCTION. EACH BAY SHALL BE FULLY COMPLETED AND INSPECTED PRIOR TO THE CONTRACTOR MOVING ON TO THE NEXT BAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING DETAILED CONSTRUCTION PHASING AND A COMPREHENSIVE PROJECT SCHEDULE. THE CONTRACTOR SHALL MEET THE STATE ENGINEER ON A WEEKLY BASIS AND SHALL PROVIDE A THREE-WEEK LOOK-AHEAD SCHEDULE OF CONSTRUCTION ACTIVITIES. THE STATE ENGINEER RESERVES THE RIGHT TO APPROVE OR REJECT ELEMENTS OF THE CONTRACTOR'S CONSTRUCTION PHASING PLAN. CONTRACTOR SHALL REVISE CONSTRUCTION PLAN AND SCHEDULE UNTIL ACCEPTED BY THE STATE ENGINEER.
 - CERTAIN WORK, INCLUDING BUT NOT LIMITED TO UTILITY SHUT-DOWNS AND WORK OUTSIDE THE CONSTRUCTION FENCE LIMITS, SHALL BE PERFORMED AT NIGHT. NIGHT WORK SHALL BE PERFORMED BETWEEN THE HOURS OF 10:30 PM TO 5:00 AM. ANY WORK PERFORMED DURING HOLIDAYS MUST BE PRESENTED TO THE AIRPORT 3 WEEKS PRIOR APPROVAL.
 - THIS IS AN OPERATING AIRPORT. THE CONTRACTOR SHALL CONDUCT ALL OPERATIONS IN A MANNER THAT WILL CAUSE NO INTERFERENCE WITH AIRPLANE TRAFFIC OR NORMAL OPERATION OF THE AIRPORT. IN ALL OPERATIONS, THE CONTRACTOR SHALL BE GOVERNED BY THE REGULATIONS AND RULES OF MOLOKAI AIRPORT, AND SHALL COOPERATE FULLY WITH THE STATE ENGINEER AND AIRPORT OPERATIONS.
 - AIRPORT OPERATIONS WILL NOTIFY THE CONTRACTOR OF ANY UNSCHEDULED FLIGHTS THAT WILL BE ARRIVING OR DEPARTING. THE CONTRACTOR SHALL TEMPORARILY STOP WORK IN SPECIFIC AREAS THAT WOULD AFFECT THE FLIGHT AND PASSENGER OPERATIONS AT THE AIRPORT OR TERMINAL. WHEN THE OPERATIONS HAVE BEEN COMPLETED, AIRPORT OPERATIONS WILL NOTIFY THE CONTRACTOR TO RESUME THE WORK. NOTICE TO THE CONTRACTOR WILL BE ISSUED AT LEAST 1 HOUR PRIOR TO REQUIRED WORK STOPPAGE.
 - ALL EQUIPMENT AND MATERIALS SHALL BE STORED OFF AIRPORT PROPERTY, OR IN DESIGNATED LAY-DOWN AREAS ON THE AIRPORT UNTIL THEY ARE TO BE USED IN THE WORK. EQUIPMENT AND MATERIALS LOCATED ON AIRPORT PROPERTY, BUT NOT BEING USED, SHALL BE LEFT AT LOCATIONS TO BE APPROVED BY THE STATE ENGINEER AND AIRPORT OPERATIONS. ALL OTHER OPERATIONS OF THE CONTRACTOR SHALL BE CONFINED TO THE AREAS SHOWN ON THESE DOCUMENTS, OR AUTHORIZED BY THE STATE ENGINEER.
 - IF THE AIRPORT HAS OTHER CONSTRUCTION PROJECTS OCCURRING AT THE SAME TIME AS THIS PROJECT, THE CONTRACTOR SHALL COOPERATE WITH OTHER CONTRACTORS ON THE SITE AND SHALL CAUSE NO DISRUPTION TO ANY OF THE CONSTRUCTION WORK.
 - THE CONTRACTOR SHALL ABIDE BY FAA ADVISORY CIRCULAR 150/5370-2E "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION".
 - OUTLINE OF CONSTRUCTION BARRICADES ARE CONCEPTUAL IN NATURE. CONTRACTOR TO COORDINATE WITH THE AIRPORT AND STATE ENGINEER TO FINALIZE CONSTRUCTION BARRICADE LAYOUT.
 - IN EACH PHASE, PROVIDE ADDITIONAL OVERHEAD PROTECTION WITHIN THE TERMINAL FOR AREAS OR PATHS THAT ARE TO REMAIN OPEN DURING CONSTRUCTION. THE PROPOSED PATHS ARE CONCEPTUAL IN NATURE. CONTRACTOR TO COORDINATE WITH THE AIRPORT AND STATE ENGINEER TO FINALIZE AREAS REQUIRING PROTECTION.

- PHASE 1 SCOPE:**
- CONTRACTOR MOBILIZATION AND ERECTING BARRICADES.
 - STRUCTURE STEEL FRAMING REPAIRS INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
 - REMOVE CORROSION FROM RIGID FRAME AND APPLY HIGH PERFORMANCE COATING.
 - REPLACE CORRODED STEEL Z-PURLINS AND X-BRACING.
 - REPLACE DAMAGED GABLE BRACING.
 - REPLACE METAL ROOF PANELS INCLUDING RIDGE VENTS, GUTTERS, AND DOWNSPOUTS.
 - REPLACE METAL LOUVERS AT GABLE END WITH METAL SIDING.
- PHASE 2 SCOPE:**
- COMPLETE STRUCTURE STEEL FRAMING REPAIRS INCLUDING REPLACING DAMAGED GABLE BRACING.
 - REPLACE BALANCE OF METAL ROOF PANELS, GUTTERS, AND DOWNSPOUTS.
 - REPLACE MECHANICAL EXHAUST FAN, INSTALL DUCT WORK EXTENSION, AND VENTS THROUGH ROOF.
 - REPAIRS TO EXTERIOR CEILING SOFFITS.
 - CONTRACTOR CLEANUP AND DEMOBILIZATION.

PROJECT DIRECTORY

CLIENT
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORT DIVISION
400 RODGERS BLVD., SUITE 700
HONOLULU, HI 96819

ARCHITECT
KYA INC.
934 PUMEHANA STREET
HONOLULU, HI 96826

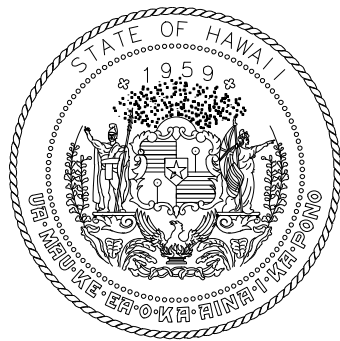
STRUCTURAL ENGINEER
SSFM INTERNATIONAL
501 SUMNER STREET, SUITE 620
HONOLULU, HI 96817

MECHANICAL, PLUMBING & FIRE PROTECTION
BOWERS + KUBOTA CONSULTING
94 408 AKOHI ST #201A
WAIKAPU, HI 96797

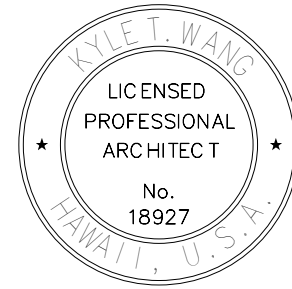
ELECTRICAL ENGINEERING
ELECTECH HAWAII INC.
1100 WARD AVE, SUITE 750
HONOLULU, HI 96814

CODE SUMMARY

- PROJECT ADDRESS:
MOLOKAI AIRPORT
3980 AIRPORT LOOP
HO'OLEHUA, HAWAII 96729
- TAX MAP KEY:
(2) S-2-004-106
- APPLICABLE CODES & ORDINANCES
2018 INTERNATIONAL BUILDING CODE (IBC)
2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
2018 UNIFORM PLUMBING CODE WITH COUNTY AMENDMENTS
2017 NATIONAL ELECTRIC CODE
2018 NFPA 1, FIRE CODE WITH STATE AMENDMENTS
2010 ADA STANDARDS FOR ACCESSIBLE DESIGN
- PROJECT STATISTICS
NON-SEPARATED OCCUPANCIES: COMPLY WITH MOST RESTRICTIVE OCCUPANCY. ONE-HOUR FIRE BARRIER REQUIRED AROUND STORAGE ROOMS GREATER THAN 100 SF.
EXTERIOR STRUCTURE:
CONSTRUCTION TYPE: IB
FIRE SPRINKLERS REQUIRED. PROVIDED PER NFPA 13. NO WORK REQUIRED.
AUTOMATIC FIRE ALARM IS REQUIRED. PROVIDED PER NFPA 72. NO WORK REQUIRED.
STANDPIPES ARE NOT REQUIRED.
OCCUPANT LOADS:
AIRPORT TERMINAL:
BAGGAGE HANDLING: 300 GROSS
CONCOURSE: 100 GROSS
WAITING AREAS: 15 GROSS
OFFICE: 150 GROSS
MERCANTILE: 60 GROSS
EXIT WIDTH REQUIRED (STAIR WIDTH): 175"
EXIT WIDTH PROVIDED (STAIR WIDTH): 239"
EXIT TRAVEL DISTANCE: 250 FEET MAX ALLOWED.
NO NEW PLUMBING FIXTURES REQUIRED.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS



04/30/2028
License Expiration Date

This work was prepared by me or under my supervision.

DSGN.	DRWN.	CHKD.	APPD.
RW	KL	DT	RW

	6/9/26	ADD #3
NO.	DATE	REVISIONS

CONSTRUCTION
DOCUMENTS

DEC 19, 2025
DATE

PROJECT TITLE:

**MKK TERMINAL BUILDING
ROOF REPLACEMENT**

AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

PROJECT NO.:

CM2521-33

SHEET TITLE:

**PROJECT DIRECTORY,
CODE SUMMARY,
PHASING PLAN**

DATE:	DWG. NO.
DEC 19, 2025	G002
SHEET:	
3 OF 3 SHTS	

A. GENERAL NOTES:

1. THE CONTRACTOR SHALL PROVIDE COMPLETE PROJECT SYSTEMS AND COMPONENTS AND COMPLY WITH ALL REQUIREMENTS INDICATED ON THE PROJECT DOCUMENTS.
2. WORK WITHIN THE AREA BOUNDARIES INDICATED IN THE PROJECT DOCUMENTS, AND COMPLY WITH ALL APPLICABLE BUILDING CODE, REGULATION, & ORDINANCE REQUIREMENTS. OCCUPANTS ADJACENT TO THE PROJECT AREA BOUNDARIES SHALL CONTINUE UNINTERRUPTED OCCUPANCY DURING CONSTRUCTION OF THE PROJECT.
3. VERIFY FIELD CONDITIONS AND COORDINATION WITH THE PROJECT DOCUMENTS PRIOR TO PROCEEDING WITH THE WORK.
4. COORDINATE THE WORK WITH ALL REQUIREMENTS INDICATED IN THE PROJECT DOCUMENTS.
5. PERFORM THE WORK AT THE PROJECT SITE DURING HOURS INDICATED IN THE SPECIFICATIONS, UNLESS OTHERWISE NOTED.
6. COORDINATE THE WORK WITH EQUIPMENT, FURNISHINGS, AND SYSTEMS PROVIDED BY THE OWNER.
7. THE SIZES, LOCATION FOR MOUNTINGS AND ATTACHMENTS AND LOCATIONS OF UTILITY CONNECTIONS FOR EACH ITEM OF EQUIPMENT SHOWN ON THE DRAWINGS ARE FOR ILLUSTRATION ONLY. ALL CAN VARY FROM MANUFACTURER TO MANUFACTURER AND ARE DEPENDENT ON EXACT MANUFACTURER'S MODEL FURNISHED. THE CONTRACTOR SHALL PROVIDE AND COORDINATE EXACT DIMENSIONS RELATING TO THE SIZE OF EACH ITEM OF EQUIPMENT, THE LOCATIONS OF ALL MOUNTINGS AND ATTACHMENTS FOR EACH ITEM OF EQUIPMENT AND FOR ALL UTILITY CONNECTIONS TO EACH ITEM OF EQUIPMENT.
9. THE CONTRACTOR SHALL PROVIDE AND COORDINATE THE EXACT DIMENSIONS, SIZES AND POSITIONS OF ALL OPENINGS IN FLOOR AND WALL CONSTRUCTION NECESSARY FOR THE INSTALLATION OF THE WORK. CONFIRM LOCATION WITH THE ARCHITECT PRIOR TO BEGINNING THE WORK.
10. THE CONTRACTOR SHALL VERIFY THAT ALL EMBEDDED ITEMS AND MATERIALS ARE IN PLACE AND SECURELY ANCHORED PRIOR TO POURING CONCRETE.
11. PENETRATIONS INTO AND THROUGH PARTITIONS CONTAINING SOUND INSULATION BATTS SHALL BE SEALED WITH PERMANENT RESILIENT SEALANT SPECIFIED FOR THAT PURPOSE. ELECTRICAL DEVICES, RECESSED CABINETS, ETC. SHALL BE SEALED, LINED, INSULATED OR OTHERWISE TREATED TO MAINTAIN THE INTEGRITY OF THE ACOUSTICAL ASSEMBLY. ALL PENETRATIONS THROUGH MATERIALS PROVIDING FIRE PROTECTION SHALL BE SEALED TO MAINTAIN REQUIRED FIRE RATINGS.
12. ALL PIPING AND DUCT WORK, VALVES, DAMPERS, CONTROLS AND TERMINATIONS SHALL BE INSTALLED AT LOCATIONS WHICH PROVIDE SAFE, DIRECT AND EASY ACCESS. PROVIDE ACCESS DOORS AT WALLS AND CEILINGS FOR ACCESS WHERE REQUIRED WHETHER SHOWN ON THE DRAWINGS OR NOT WITH NO ADDITIONAL COST TO THE OWNER.
13. ALL ATTACHMENTS TO AND PENETRATIONS THROUGH CONCRETE NOTED ON THE DRAWINGS TO BE WATERPROOFED SHALL BE MADE PRIOR TO APPLICATION OF THE WATERPROOF MATERIAL.
14. PROVIDE LABELS ON DOORS, FRAMES AND OTHER ASSEMBLIES AT OPENINGS IN FIRE RATED CONSTRUCTION.
15. FIRE ALARM AND FIRE SPRINKLER SYSTEM SHOP DRAWINGS MUST BE REVIEWED AND APPROVED BY AUTHORITY HAVING JURISDICTION PRIOR TO ANY INSTALLATION.
16. GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE COORDINATION OF THE VARIOUS TRADES PERFORMING THE WORK. CONTRACTOR SHALL SUBMIT FOR REVIEW COMPLETE, COMPOSITE COORDINATION SHOP DRAWINGS ILLUSTRATING THE EXTENT AND POSITION OF EACH COMPONENT OF THE WORK SO AS TO AVOID CONFLICT AND TO MAINTAIN REQUIRED SERVICE ACCESS AND CODE REQUIRED CLEARANCES. NO WORK SHALL BE PERFORMED UNTIL REFERENCED COORDINATION SHOP DRAWINGS HAVE BEEN REVIEWED WITH NO EXCEPTION TAKEN.
17. CUTTING, BORING, SAWCUTTING OR DRILLING THROUGH THE NEW OR EXISTING STRUCTURAL ELEMENTS TO BE DONE ONLY WHEN SO DETAILED IN THE DRAWINGS OR REVIEWED AND ACCEPTED BY BUILDING INSPECTOR.
18. THROUGH PENETRATION FIRE STOP SYSTEM* DETAILS ARE FOR REFERENCE ONLY. PENETRATION THROUGH FIRE-RATED FLOORS AND WALLS SHALL BE PROVIDED IN ACCORDANCE WITH IBC SECTION 712. SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE PROVIDED FOR REVIEW BY INSPECTION AUTHORITIES. SUBSTITUTIONS OF OR REVISIONS OR ADDITIONS TO APPROVED SYSTEMS SHALL BE SUBMITTED TO THE INSPECTOR OF RECORD AND OSHPD FOR FIELD REVIEW AND APPROVAL.
19. THE CONTRACTOR IS TO NOTIFY THE STATE ENGINEER IMMEDIATELY REGARDING ANY CONFLICTS IN THE DRAWINGS OR SPECIFICATIONS. FOR BIDDING PURPOSES, THE CONTRACTOR IS TO NOTE THE FOLLOWING: WHEN INFORMATION IS IN CONFLICT WITHIN OR BETWEEN THE DRAWING AND SPECIFICATIONS, THE CONTRACTOR IS TO ASSUME THE MOST STRINGENT CASE.
20. PRIOR TO START OF WORK, THE CONTRACTOR SHALL CAREFULLY INSPECT AND VERIFY ALL CONDITIONS SHOWN ON THE CONTRACT DRAWINGS. IF WORK CAN NOT BE PERFORMED AS SHOWN, THE CONTRACTOR SHALL NOTIFY THE STATE ENGINEER IMMEDIATELY. WORK PERFORMED AFTER SUCH DISCOVERY UNLESS AUTHORIZED BY THE OWNER/ARCHITECT, SHALL BE DONE AT THE CONTRACTOR'S RISK.
21. THE CONTRACTOR SHALL NOT INTERRUPT EXISTING UTILITIES SERVING EXISTING FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY THE STATE ENGINEER AND ALL AUTHORITIES HAVING JURISDICTION. PROVIDE TEMPORARY SERVICES DURING CONSTRUCTION ACTIVITIES ACCEPTABLE TO OWNER AND GOVERNING AUTHORITIES.
22. THE WORK SHALL INCLUDE ALL REMOVALS NOT SPECIFICALLY INDICATED ON DRAWINGS BUT NECESSARY FOR THE COMPLETION OF THE WORK.
23. THE CONTRACTOR SHALL COORDINATE AND PERFORM THE WORK FOR ANY AND ALL REQUIREMENTS FOR OFF SITE IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO SIDEWALKS, DRIVEWAYS, CURBS, GUTTERS, UTILITIES, ETC. OFF-SITE IMPROVEMENTS SHALL MEET THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
24. THE CONTRACTOR SHALL KEEP ALL EXITS READILY ACCESSIBLE AND UNOBSTRUCTED AT ALL TIMES.
25. DRAWINGS WHICH SHOW LISTED CONSTRUCTION HAVE BEEN DETAILED IN COMPLIANCE WITH UNDERWRITERS LABORATORIES (UL), WARNOCK HERSEY AND/OR OTHER RECOGNIZED TESTING LABORATORY LISTING REQUIREMENTS AND WITH ICBO REPORTS FOR THE MATERIALS SPECIFIED. IF AN ALTERNATE OR SUBSTITUTE MATERIAL IS PROPOSED BY THE CONTRACTOR, THE SUBSTITUTION SHALL CONFORM TO THE REQUIREMENTS IN THE SPECIFICATION.
26. ALL WOOD USED FOR BLOCKING, NAILERS AND/OR FRAMING USED FOR PERMANENT CONSTRUCTION SHALL BE FIRE RETARDANT PRESSURE TREATED AND SHALL BEAR AN APPROVED INSPECTION AGENCY LABEL.
27. INTERIOR WALL FINISHES SHALL BE SMOOTH, WASHABLE AND DURABLE. ROUGH TEXTURED SURFACES ARE PROHIBITED.
28. ALL DETAILS SHOWN ON DRAWINGS ARE TO BE APPLIED, WHETHER CALLED OUT OR NOT, IN CASE OF A CONFLICT, THE 'G' SERIES IS TO GOVERN. NOTIFY THE STATE ENGINEER BEFORE PROCEEDING WITH THE WORK IN CASE OF A CONFLICT.
29. FLOOR FINISHES SHALL BE SMOOTH, WATERPROOF AND DURABLE. SAMPLES SHALL BE MAINTAINED ON SITE FOR REFERENCE.
30. HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE COVERED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES.
31. FAUCET CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND, AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBS. LEVER-OPERATED, PUSH TYPE, AND ELECTRONICALLY CONTROLLED MECHANISMS ARE EXAMPLES OF ACCEPTABLE DESIGNS.
32. PROVIDE FIRE EXTINGUISHERS PER NFPA 10 AND 99. WHERE FIRE EXTINGUISHER CABINETS AND/OR ANY OTHER EQUIPMENT ARE RECESSED IN PARTITIONS OF FIRE RATED CONSTRUCTION, THE CONTRACTOR SHALL MODIFY THE PARTITION AS REQUIRED TO PROVIDE CONTINUOUS ENCLOSURE TO INSURE UNINTERRUPTED FIRE RATING.
33. THE CONTRACTOR SHALL MAINTAIN PROPER ACCESS FOR FIRE DEPARTMENT VEHICLES AND EQUIPMENT AT ALL TIMES. ANY CHANGES MADE TO FIRE DEPARTMENT ACCESS ROUTES SHALL BE REVIEWED AND APPROVED BY FIRE DEPARTMENT AUTHORITIES HAVING JURISDICTION PRIOR TO CHANGING ACCESS ROUTING.

34. AIRPORT OPERATIONS SHALL BE KEPT IN FULL OPERATION THROUGHOUT THE CONSTRUCTION PERIOD. ANY WORK THAT WILL DISRUPT OPERATIONS SHALL BE COORDINATED WITH THE STATE ENGINEER. NOISY WORK, ACTIVITIES CAUSING VIBRATION AND/OR SIMILAR DISRUPTIVE ACTIONS SHALL BE SCHEDULED AT TIMES ACCEPTABLE TO THE STATE ENGINEER.
- ANY NIGHT WORK MUST BE ACCEPTED AND COORDINATED WITH THE STATE ENGINEER AND AIRPORT MANAGER, AND BE IN COMPLIANCE WITH STATE AND LOCAL AUTHORITIES. THE CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING:

A. ADHERE TO LOCAL RESTRICTIONS OR REGULATIONS DURING NIGHT WORK.

B. OUTLINE AND FOLLOW SAFETY PROTOCOLS AND MEASURES TO ENSURE THE SAFETY OF WORKERS AND THE PUBLIC DURING NIGHT WORK.

C. INCLUDE A PLAN FOR EMERGENCY RESPONSE IN CASE OF ACCIDENTS OR EMERGENCIES.

D. IMPLEMENT VISIBILITY MEASURES, SUCH AS ADEQUATE LIGHTING AND REFLECTIVE GEAR.

E. CONFIRM THAT THE PROJECT COMPLIES WITH THE LATEST INDUSTRY STANDARDS AND REGULATIONS FOR NIGHT WORK.
35. THE CONTRACTOR SHALL PROVIDE SOUND, DUST AND SIGHT BARRIERS AS REQUIRED AND DESCRIBED IN THE SPECIFICATIONS TO PROTECT THE EXISTING TERMINAL DURING CONSTRUCTION. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXTENT AND LOCATION OF THESE BARRIERS TO LIMIT THE PASSAGE OF DUST AND NOISE TO THE EXISTING TERMINAL.
36. IN AREAS REQUIRING REMODELING, THE USE OF 'VISQUEEN' OR SIMILAR TYPE OF MATERIAL AS TEMPORARY CONSTRUCTION BARRIER IS NOT PERMITTED. TEMPORARY CONSTRUCTION BARRIERS SHALL MEET THE SAME FIRE RATING AS THE PERMANENT PARTITION.
37. ATTACHMENTS OF EQUIPMENT WEIGHING LESS THAN 400# AND SUPPORTED DIRECTLY ON THE FLOOR OR ROOF STRUCTURE, FURNITURE OR TEMPORARY OR MOVABLE EQUIPMENT AND EQUIPMENT WEIGHING LESS THAN 20# THAT IS SUPPORTED BY VIBRATION ISOLATION DEVICES SUSPENDED FROM THE ROOF, WALL OR FLOOR NEED NOT BE DETAILED ON THE PLANS (CBC TITLE 24 PART 1, SECTIONS 7-125(i)(2)(L)). MUST BE SUPPORTED AND ANCHORED TO RESIST THE FORCES PRESCRIBED BY CBC CH 16A AND THE ANCHORAGE SHALL BE APPROVED BY THE APPROPRIATE INSPECTIONS. THE INSPECTOR OF RECORD SHALL ASSURE THAT THE ABOVE REQUIREMENTS ARE ENFORCED.
38. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS, DETAILS AND (EXISTING) CONDITIONS OF THE PROJECT. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT FOR THE RESOLUTION PRIOR TO FABRICATIONS INSTALLATION OF AFFECTED BUILDING COMPONENTS.
39. WHERE LOCAL AND COUNTY CODES ARE MORE RESTRICTIVE THAN IBC 2018 REQUIREMENTS THE LOCAL CODES WILL BE ENFORCED BY THE BUILDING INSPECTOR.
40. ALL CHANGE ORDERS AND/OR ADDITIONS TO THE WORK MUST BE APPROVED BY THE STATE ENGINEER PRIOR TO CONSTRUCTION.
41. WHEN INSTALLING DRILLED-IN ANCHORS AND/OR POWER DRIVEN PINS IN EXISTING NON-PRESTRESSED REINFORCEMENT CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. WHEN INSTALLING THEM INTO EXISTING PRESTRESSED CONCRETE (PRE- OR POST-TENSIONED) LOCATE THE PRESTRESSED TENDONS BY A NON-DESTRUCTIVE METHOD PRIOR TO INSTALLATION. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH BETWEEN REINFORCEMENT AND THE DRILLED-IN ANCHOR AND/OR PIN.
42. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH TSA INSPECTIONS AS REQUIRED BY THE TRANSPORTATION SECURITY ADMINISTRATION (TSA).
43. CONTRACTOR IS RESPONSIBLE FOR RELOCATION OF EQUIPMENT AND/OR FURNISHING AS REQUIRED BY TSA FROM EXISTING SECURITY SCREENING CHECKPOINT. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES TO THE EQUIPMENT DURING STORAGE AND RELOCATION, PROVIDE QUALITY INSPECTION PRIOR TO REMOVAL OF EQUIPMENT TO ASSESS EQUIPMENT CONDITION WITH TSA PRESENT AND NOTE EXISTING DAMAGE.
44. CONTRACTOR TO MAINTAIN AT ALL TIMES DESIGNATED CLEAR PATH FOR EMERGENCY VEHICLES TO ACCESS AIRFIELD.
- B. DEFINITIONS:
1. WHEN A DETAIL IS IDENTIFIED AS TYPICAL, THE CONTRACTOR SHALL APPLY THIS DETAIL TO EVERY LIKE CONDITION WHETHER OR NOT THE REFERENCE IS REPEATED IN EVERY INSTANCE. WHEN A NOTE IS IDENTIFIED AS TYPICAL (TYP), THE CONTRACTOR SHALL APPLY THIS NOTE TO EVERY LIKE CONDITION (REPRESENTED GRAPHICALLY OR NOT) WHETHER OR NOT THE REFERENCE IS REPEATED IN EVERY INSTANCE.
2. "SIMILAR" INDICATES COMPLETE SYSTEM AND COMPONENTS SHALL BE PROVIDED COMPARABLE TO THE CHARACTERISTICS FOR THE CONDITION NOTED.
3. "AS REQUIRED" INDICATES COMPONENTS REQUIRED TO COMPLETE THE NOTED, SYSTEM AS INDICATED IN THE PROJECT DOCUMENTS, SHALL BE PROVIDED.
4. "ALIGN" INDICATES ACCURATELY PROVIDE FINISH FACES OF MATERIALS IN STRAIGHT, TRUE, AND PLUMB RELATION TO ADJACENT MATERIALS.
- C. DIMENSIONS:
1. DIMENSIONS ARE INDICATED TO THE CENTERLINE OF THE STRUCTURAL GRID, FACE OF CONCRETE WALL, NOMINAL FACE OF CMU WALL, FACE OF PARTITION FINISH, UON
2. ALIGNMENT OF PARTITIONS AND FINISHES AS SCHEDULED SHALL BE STRAIGHT, TRUE & PLUMB. THE PRIORITY FOR PROJECT DIMENSIONS SHALL BE IN THE FOLLOWING ORDER:

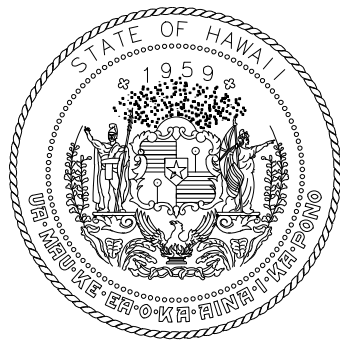
A. MIN DIMENSIONS FOR ACCESSIBILITY CLEARANCE & BUILDING CODE REQUIREMENT

B. LARGE SCALE DETAILS

C. SMALL SCALE DETAILS

D. ENLARGED VIEWS

E. FLOOR PLANS AND ELEVATIONS
3. FLOOR ELEVATIONS ARE INDICATED TO THE FACE OF THE STRUCTURAL SLAB, UNLESS OTHERWISE NOTED.
4. VERTICAL DIMENSIONS ARE INDICATED FROM THE FLOOR ELEVATION TO FACE OF FINISHED MATERIAL AT THE DIMENSION POINT, UNLESS NOTED ABOVE FINISH FLOOR - 'AFF'.
5. CEILING HEIGHTS ARE INDICATED FROM THE FLOOR ELEVATION TO THE FACE OF SUSPENDED CEILING SYSTEM OR FACE OF FINISH MATERIAL AS SCHEDULED.
6. DIMENSIONS SHOWN ON THE DRAWINGS SHALL INDICATE THE REQUIRED SIZE, CLEARANCE, AND DIMENSIONAL RELATIONSHIP BETWEEN PROJECT SYSTEMS AND COMPONENTS. DIMENSIONS SHALL NOT BE DETERMINED BY SCALING THE DRAWINGS.
- D. DRAWING SET ORGANIZATION:
1. EACH DRAWING SET SHEET IS IDENTIFIED BY THE SHEET NUMBER IN THE LOWER RIGHT HAND CORNER OF THE DRAWING TITLE BLOCK. THE SHEET TITLE PROVIDES A GENERAL DESCRIPTION OF THE CONTENTS OF THE SHEET.
- SHEET NUMBER EXAMPLE: A201
"A" INDICATES THE DISCIPLINE THAT CREATED THE DRAWING
"2" INDICATES THE DRAWING CATEGORY CONTAINED ON THE SHEET
"01" INDICATES THE SHEET NUMBER
2. DRAWING SET INDEX INDICATES THE COMPLETE LIST OF SHEETS CONTAINED IN THE DRAWING SET, INDEXED BY DISCIPLINE, SHEET NUMBER AND SHEET TITLE, IN SEQUENTIAL ORDER. NOTE THAT ALL SEQUENTIAL SHEET NUMBERS MAY BE NOT USED IN THE DRAWING SET.
3. DISCIPLINE IDENTIFICATION, IN ORDER BOUND IN THE DRAWING SET. REFER TO THE DRAWING SET INDEX FOR DISCIPLINE CONTAINED IN THIS DRAWING SET.
- G GENERAL INFORMATION
A ARCHITECTURAL
S STRUCTURAL
M MECHANICAL
E ELECTRICAL
4. DRAWING CATEGORY IDENTIFICATION. REFER TO THE DRAWING SET INDEX FOR DISCIPLINES, CATEGORIES, AND SHEET NUMBERS CONTAINED IN THIS DRAWING SET.



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NO.	DATE	REVISIONS
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CONSTRUCTION
DOCUMENTS

DEC 19, 2025
DATE

PROJECT TITLE:

MKK TERMINAL BUILDING
ROOF REPLACEMENT

AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

PROJECT NO.:

CM2521-33

SHEET TITLE:

GENERAL NOTES

DATE:

DEC 19, 2025

SHEET:

4 OF 30 SHTS

DWG. NO.

G003



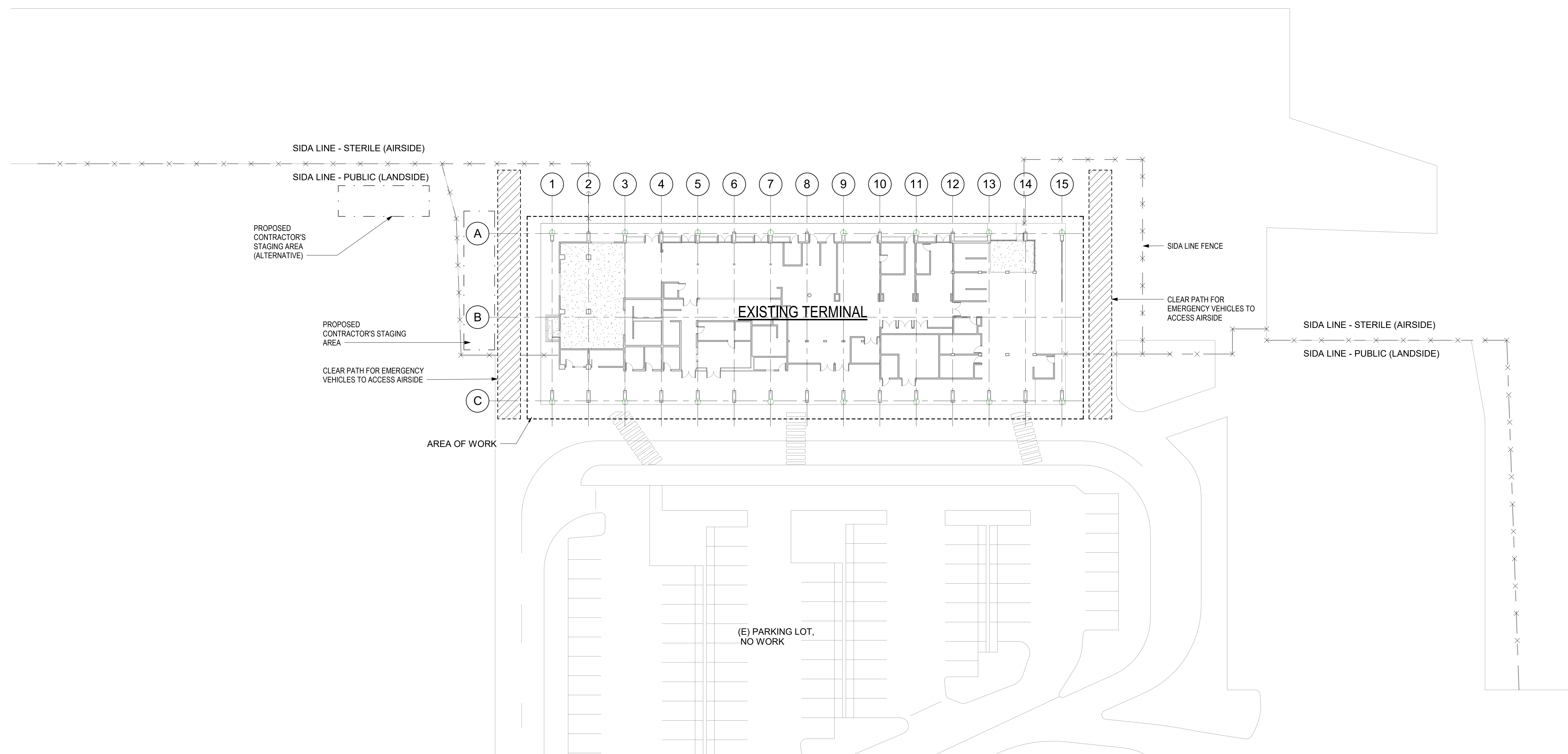
STATE OF HAWAII
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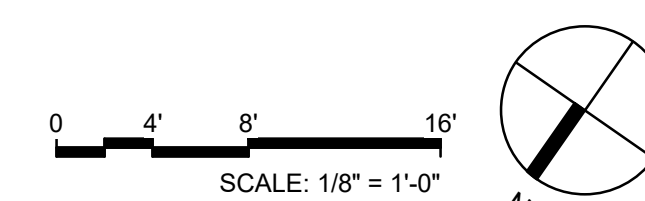
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1 SITE PLAN
1" = 20'-0"



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	6/9/26	ADD #3

**CONSTRUCTION
DOCUMENTS**
DEC 19, 2025
DATE

PROJECT TITLE:

**MKK TERMINAL BUILDING
ROOF REPLACEMENT**
AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

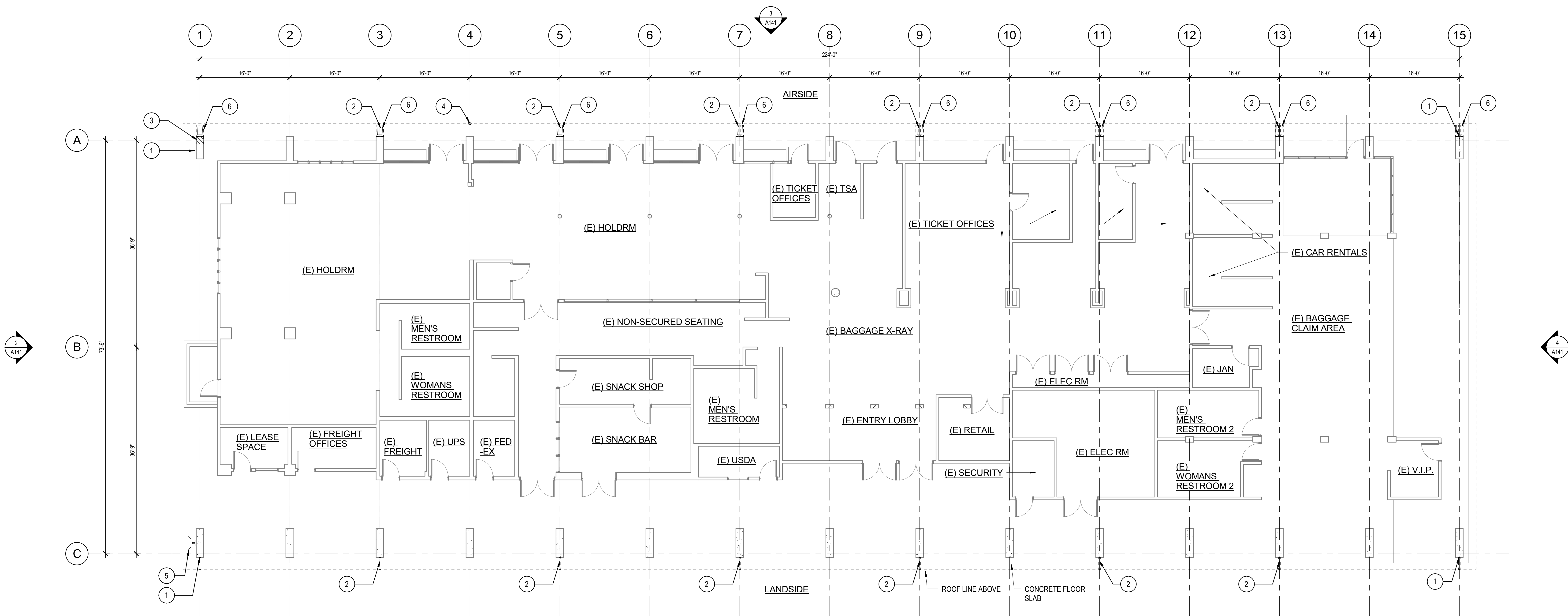
PROJECT NO.:

CM2521-33

SHEET TITLE:

SITE PLAN

DATE:	DWG. NO.
DEC 19, 2025	A100
SHEET :	
5 OF 30 SHTS	



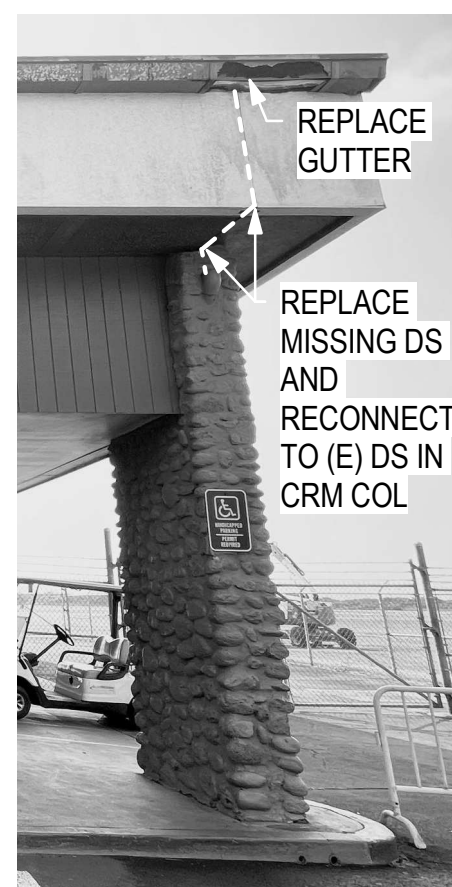
1 DEMOLITION FLOOR PLAN - GROUND LEVEL
1/8" = 1'-0"



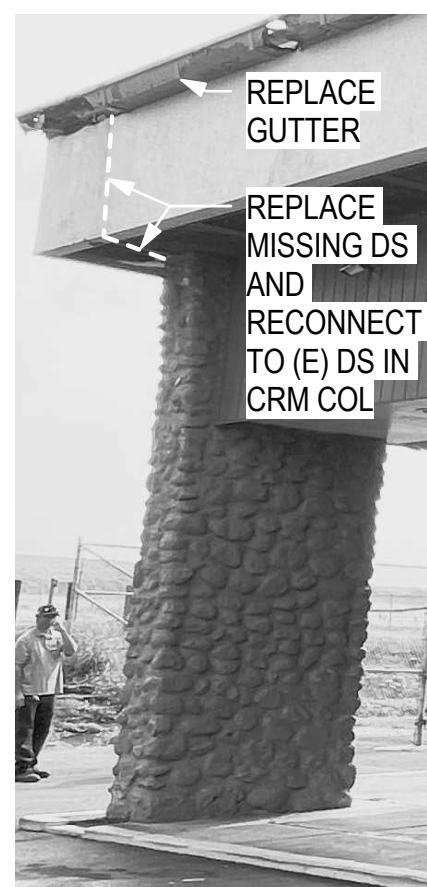
AT COLUMN GRID A15



AT COLUMN GRID A1



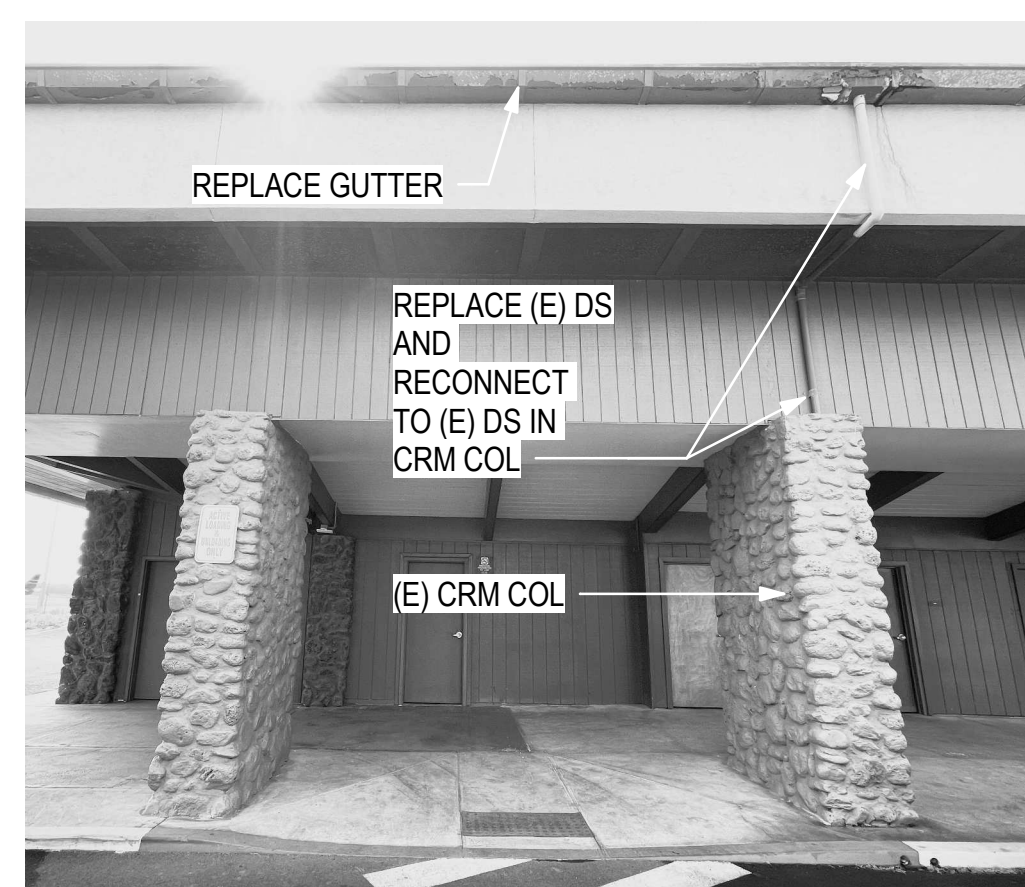
AT COLUMN GRID C15



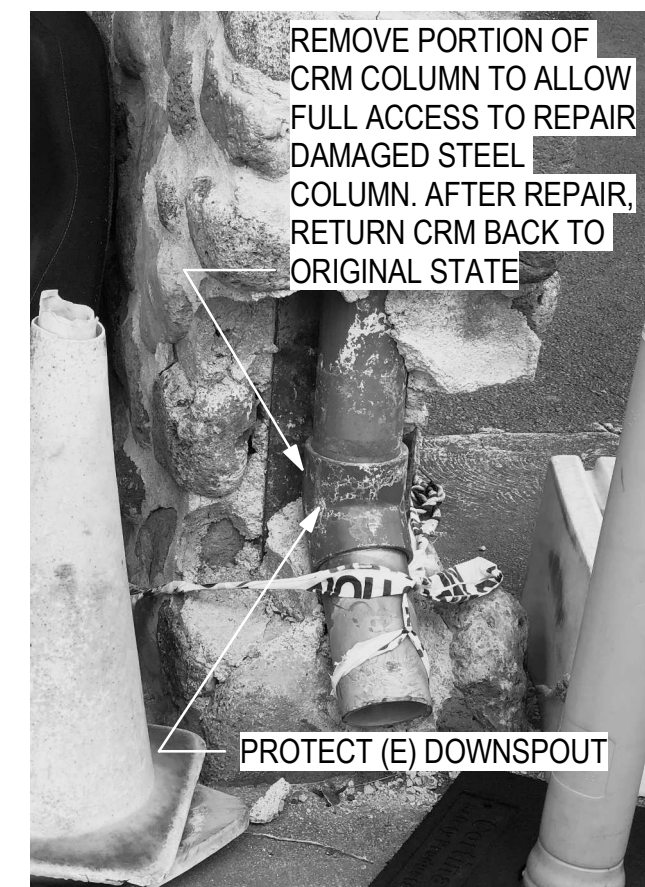
AT COLUMN GRID C1



AT COLUMNS ALONG GRID A



AT COLUMNS ALONG GRID C



AT COLUMN GRID A1

2 DOWNSPOUT AT CORNER CRM COLUMN
NTS



AT GRID A4



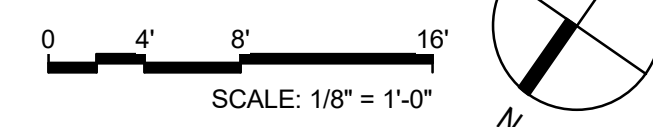
AT GRID C1

5 ANTENNA POLE
NTS

6 SATELLITE DISH
NTS

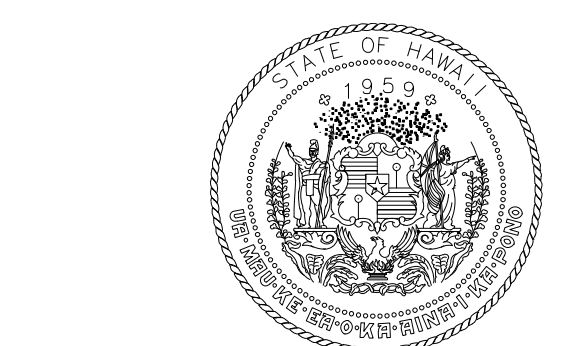
3 DOWNSPOUT AT CRM COLUMN
NTS

4 COLUMN BASE
NTS



DEMOLITION FLOOR PLANS KEYNOTES

- 1 REPLACE DS ABOVE CORNER CRM COLUMNS AT GRID A1, A15, C1, & C15 (4 TOTAL). SEE DETAIL 2/A101.
- 2 REPLACE DS ABOVE CRM COLUMNS ALONG GRID LINES A & C (12 TOTAL). SEE DETAIL 3/A101.
- 3 REMOVE PORTION OF CRM TO ALLOW FOR STEEL COLUMN REPAIR. SEE DETAIL 4/A101. SEE STRUCTURAL DWG.
- 4 REMOVE ANTENNA AND POLE. INFILL HOLE AND PATCH ASPHALT. SEE DETAIL 5/A101.
- 5 REMOVE SATELLITE DISH AND MOUNTING BRACKET. PATCH AND PAINT TO MATCH EXISTING. SEE DETAIL 6/A101.
- 6 REMOVE (E) CONCRETE SPLASH BLOCK (8 TOTAL).



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PROJECT TITLE:

MKK TERMINAL BUILDING
ROOF REPLACEMENT

AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

PROJECT NO.:

CM2521-33

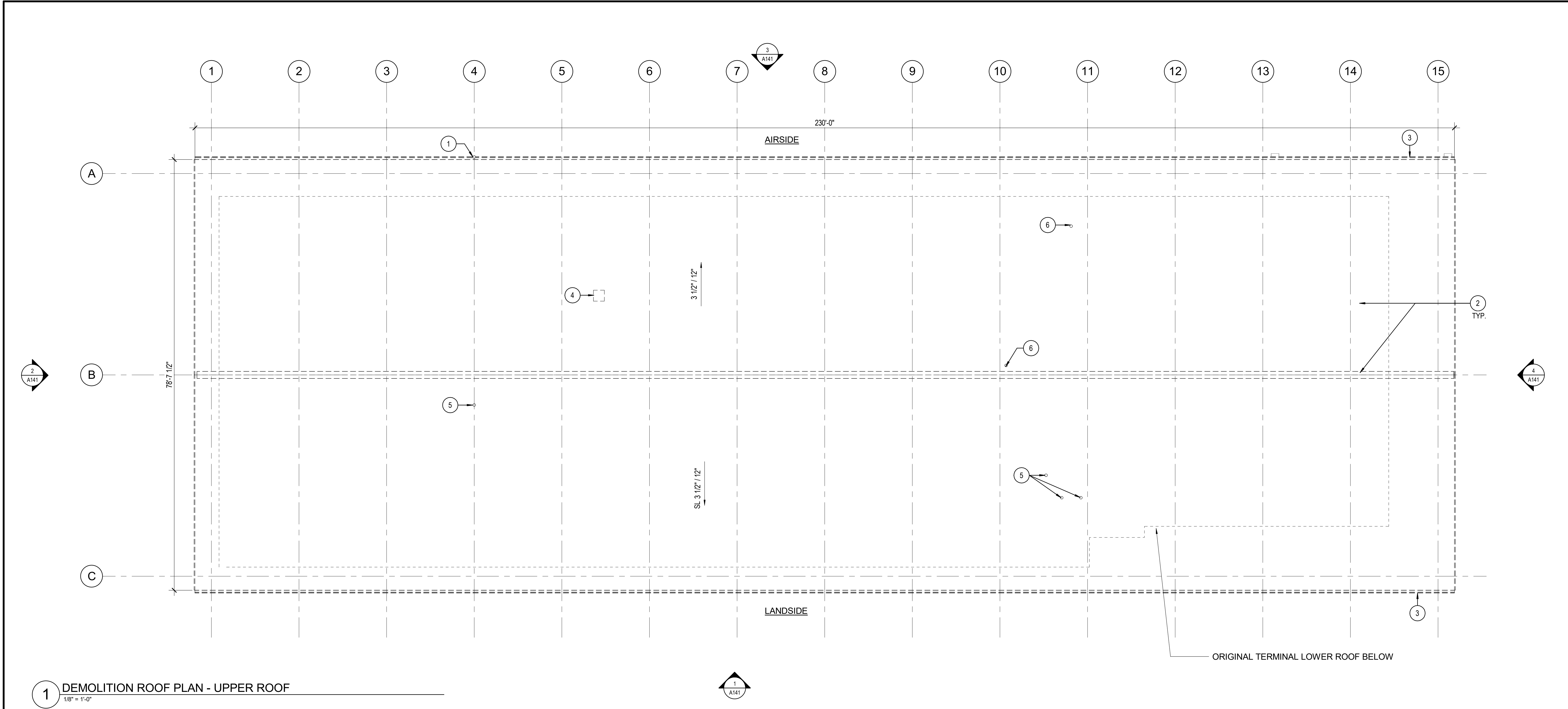
SHEET TITLE:

DEMOLITION FLOOR
PLAN

DATE: DWG. NO.

DEC 19, 2025 A101

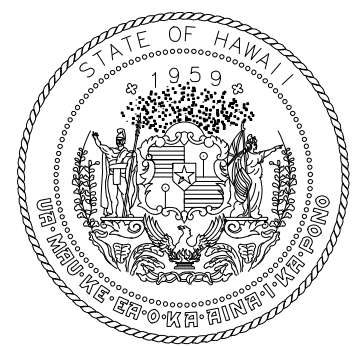
SHEET: 6 OF 30 SHTS



1 DEMOLITION ROOF PLAN - UPPER ROOF
1/8" = 1'-0"

DEMOLITION ROOF PLANS KEYNOTES

- 1 REMOVE (E) ANTENNA POLE
- 2 REMOVE (E) METAL PANEL ROOF IN ITS ENTIRETY INCLUDING ROOF TRIM, EAVE,RIDGE VENTILATOR AND FASCIA UON.
- 3 REMOVE (E) GUTTER
- 4 REMOVE (E) EX-HAUST FAN,
- 5 REMOVE (E) VENT PIPE.
- 6 REMOVE (E) ANTENNA AND SALVAGE FOR REINSTALLATION.



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CONSTRUCTION DOCUMENTS

DEC 19, 2025
DATE

PROJECT TITLE:

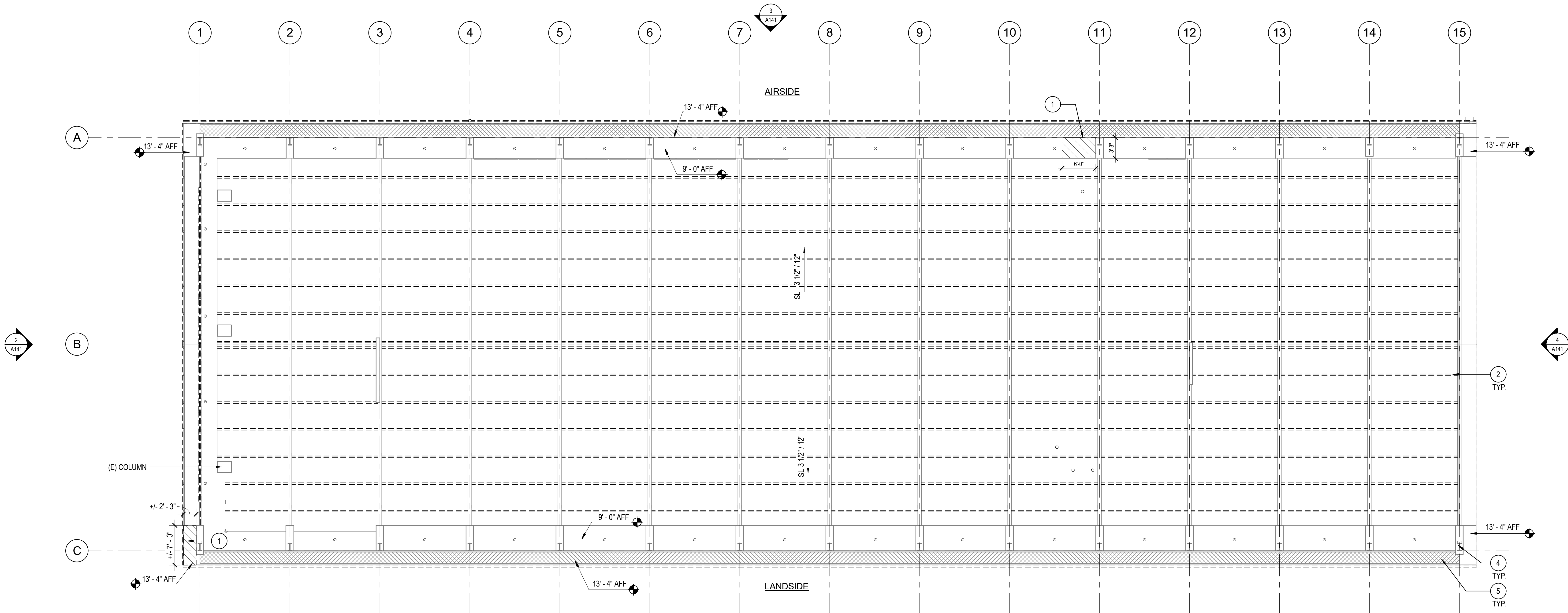
**MKK TERMINAL BUILDING
ROOF REPLACEMENT**

AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

PROJECT NO.:
CM2521-33

SHEET TITLE:
**DEMOLITION ROOF
PLAN**

DATE:	DWG. NO.
DEC 19, 2025	A122
SHEET:	
7 OF 30 SHTS	



1 DEMO REFLECTED CEILING PLAN - UPPER ROOF
1/8" = 1'-0"



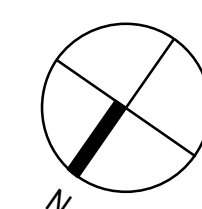
AT GRID LINE C1



AT GRID LINE A11

2 REPAIR CEILING SOFFIT
NTS

0 4' 8' 16'
SCALE: 1/8" = 1'-0"



DEMOLITION REFLECTED CEILING PLAN KEYNOTES

- 1 REMOVE PORTION OF CEILING FOR REPAIR. SEE DETAIL 2/A131.
- 2 REMOVE DAMAGED (E) PURLINS AND REPLACE WITH NEW. SEE STRUCTURAL DWGS.
- 3 REMOVE (E) METAL PANEL ROOF IN ITS ENTIRETY, INCLUDING ROOF TRIM, EAVE, AND FASCIA. UON.
- 4 (E) RIGID METAL STRUCTURE TO REMAIN.
- 5 (E) EXPANDED ALUM PLATE EAVE CEILING TO REMAIN.



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DOCUMENTS

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DATE

PROJECT TITLE:

MKK TERMINAL BUILDING
ROOF REPLACEMENT

AT
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HOOLEHUA, MOLOKAI, HAWAII

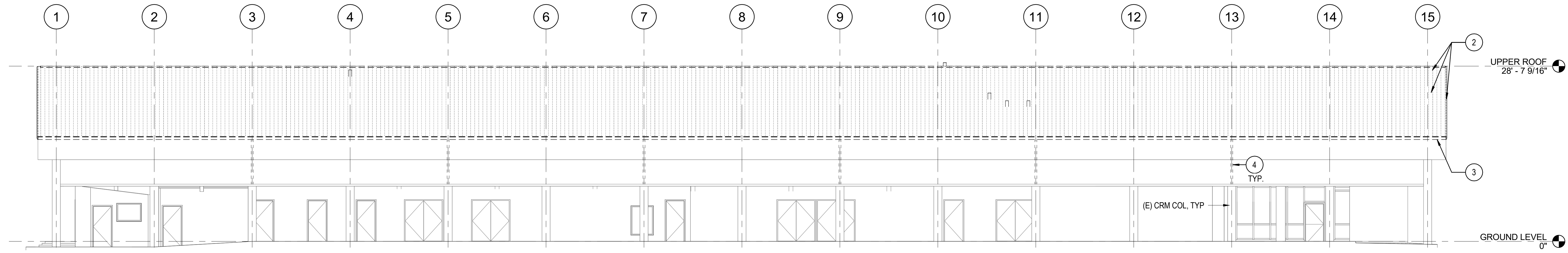
PROJECT NO.:

CM2521-33

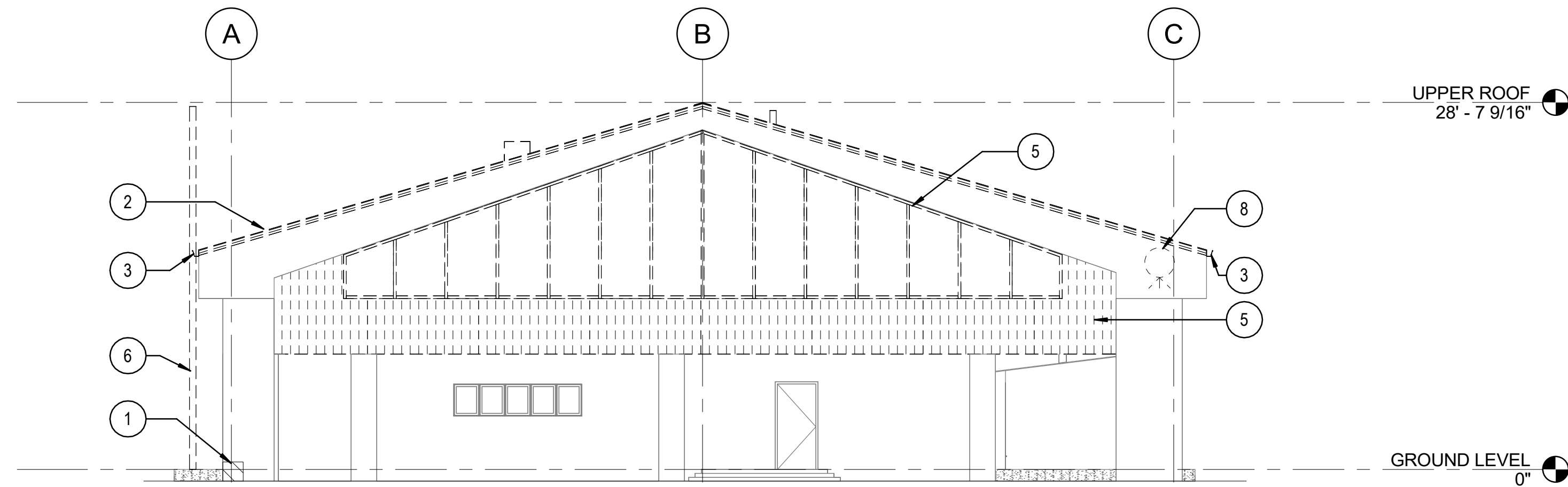
SHEET TITLE:

DEMOLITION
REFLECTED CEILING
PLAN

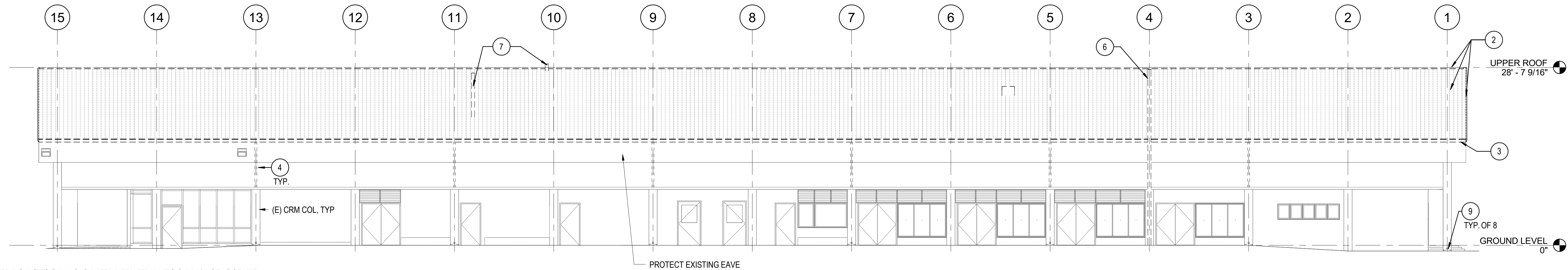
DATE:	DWG. NO.
DEC 19, 2025	A131
SHEET:	
8 OF 30 SHTS	



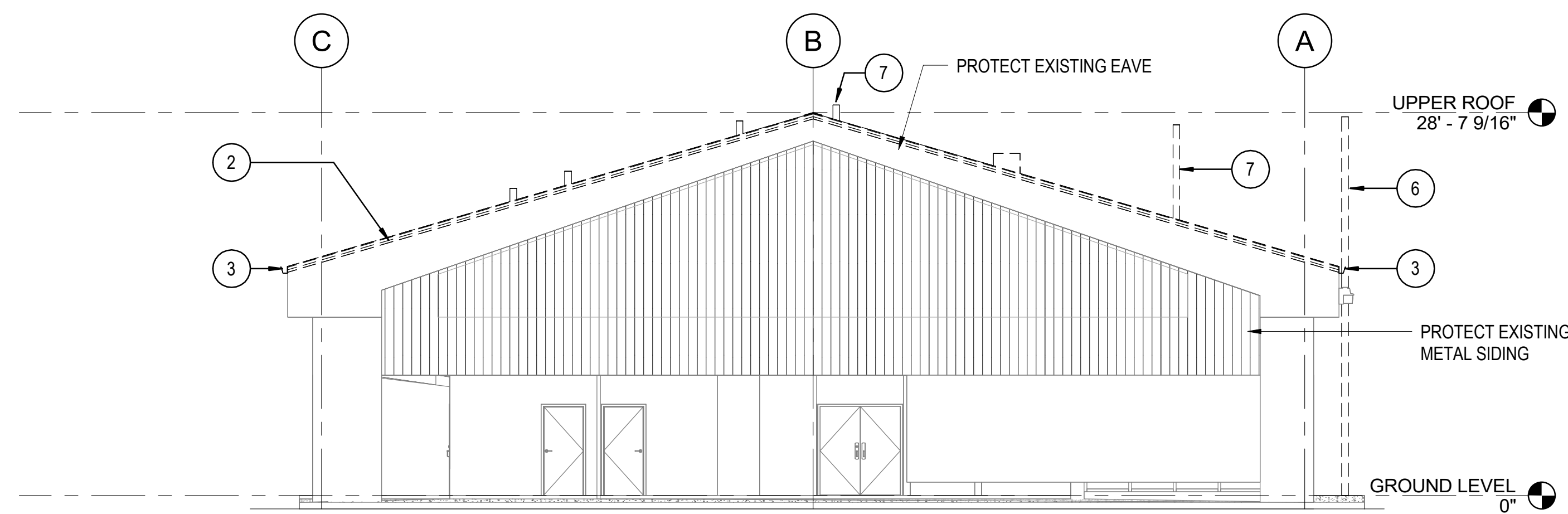
1 DEMOLITION NORTH ELEVATION (LANDSIDE)
1/8" = 1'-0"



2 DEMOLITION WEST ELEVATION
1/8" = 1'-0"



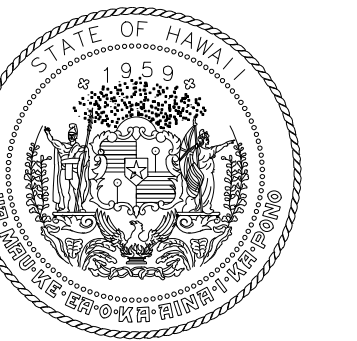
3 DEMOLITION SOUTH ELEVATION (AIRSIDE)
1/8" = 1'-0"



4 DEMOLITION EAST ELEVATION
1/8" = 1'-0"

DEMOLITION EXTERIOR ELEVATIONS KEYNOTES

- 1 REPAIR DAMAGED COLUMN. SEE STRUCTURAL DWG
- 2 REMOVE (E) METAL PANEL ROOF IN ITS ENTIRETY INCLUDING ROOF TRIM, EAVE, AND FASCIA UON.
- 3 REMOVE (E) GUTTER
- 4 REMOVE PORTION OF (E) DS DOWN TO TOP OF CRM COL. REMAINING PORTION OF (E) DS IN CRM COL TO REMAIN TO RECONNECT TO NEW DS.
- 5 REMOVE (E) LOUVER WALL AND (E) METAL PANEL WALL
- 6 REMOVE (E) ANTENNA POLE.
- 7 REMOVE (E) ANTENNA AND SALVAGE FOR REINSTALLATION.
- 8 REMOVE (E) DISH ANTENNA AND MOUNTING BRACKET.
- 9 REMOVE (E) CONCRETE SPLASH BLOCK ALONG AIRSIDE.



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CONSTRUCTION DOCUMENTS

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DATE

PROJECT TITLE:

MKK TERMINAL BUILDING
ROOF REPLACEMENT

AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

PROJECT NO.:

CM2521-33

SHEET TITLE:

DEMOLITION
EXTERIOR
ELEVATIONS

DATE:

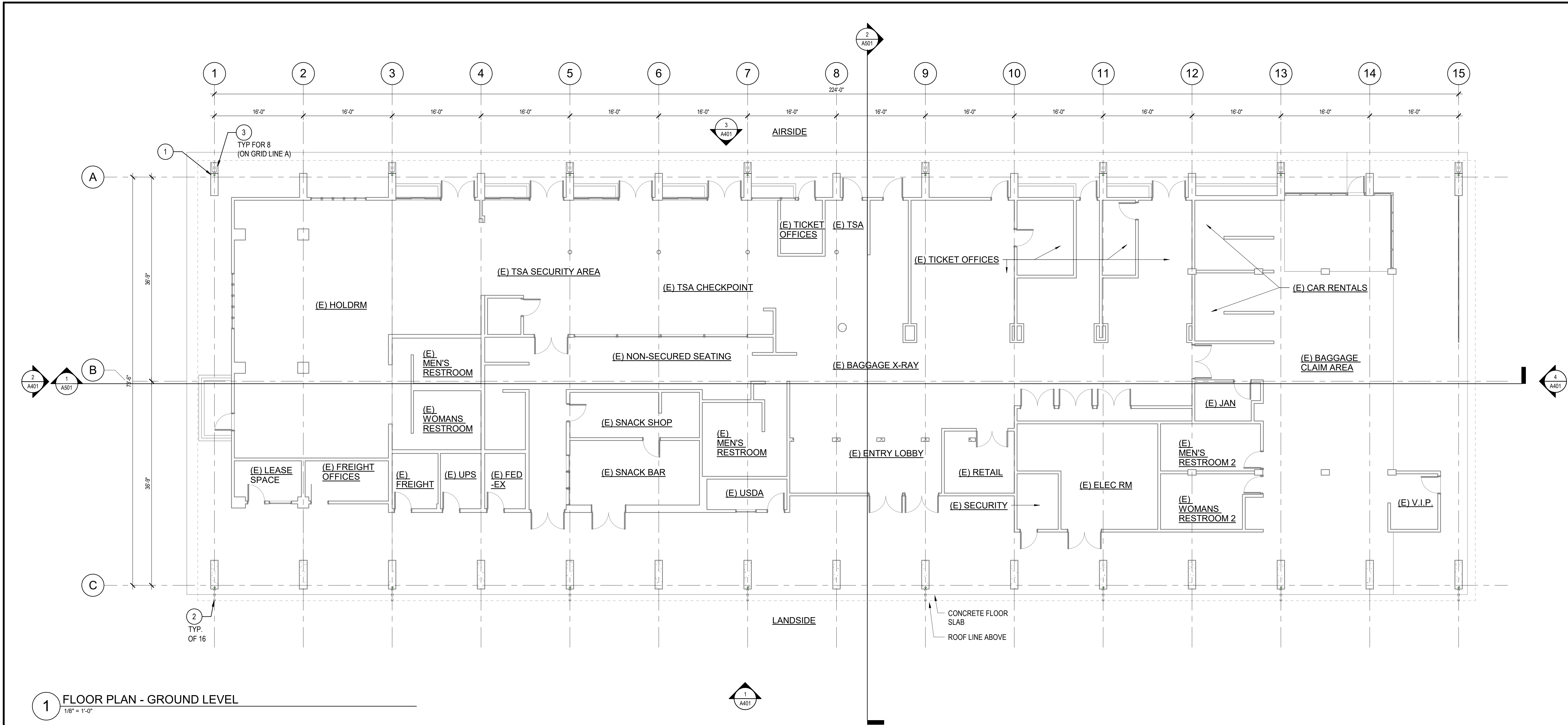
DEC 19, 2025

SHEET:

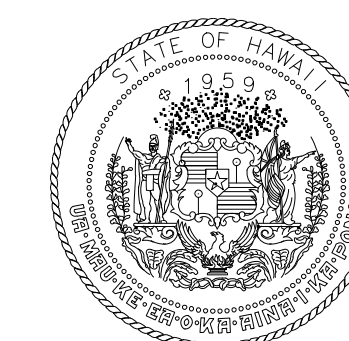
9 OF 30 SHTS

DWG. NO.

A141



1 FLOOR PLAN - GROUND LEVEL
1/8" = 1'-0"



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PROJECT TITLE:

MKK TERMINAL BUILDING
ROOF REPLACEMENT

AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

PROJECT NO.:

CM2521-33

SHEET TITLE:

FLOOR PLAN

DATE: DWG. NO.

DEC 19, 2025

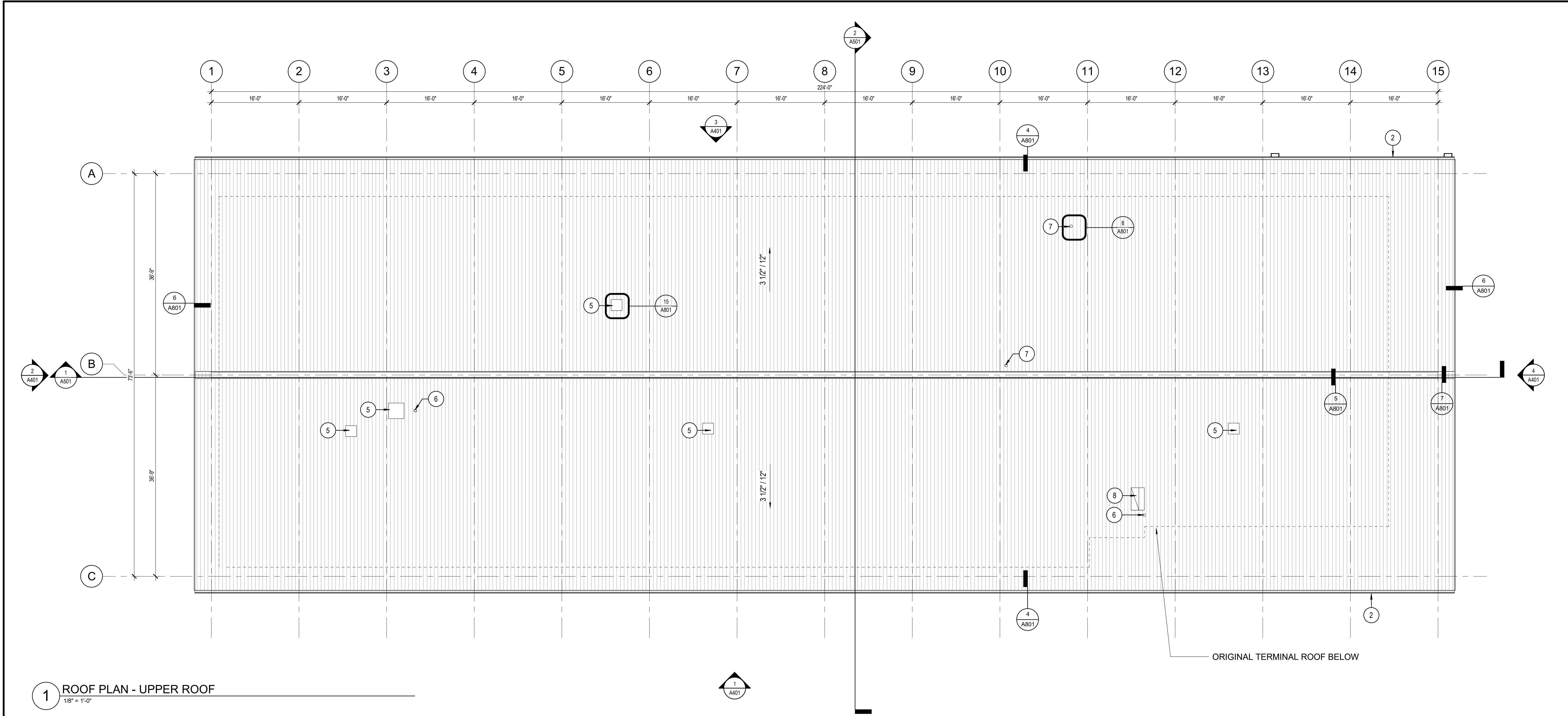
SHEET:

10 OF 30 SHTS

A201

FLOOR PLANS KEYNOTES

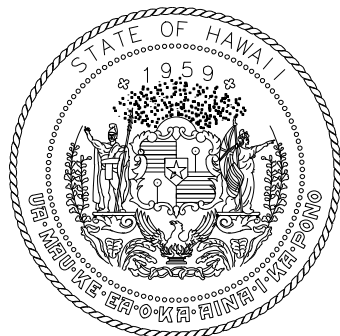
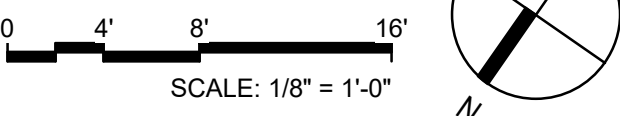
- REPAIR CRM COLUMN. SEE STRUCTURAL DWG.
- DOWNSPOUT AND LEADER ABOVE COLUMN (TOTAL 16)
- CONCRETE SPLASH BLOCK (8 TOTAL)



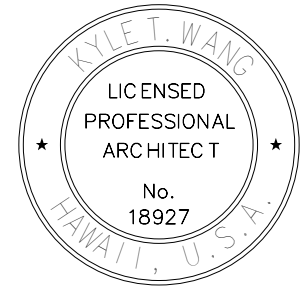
1 ROOF PLAN - UPPER ROOF
1/8" = 1'-0"

ROOF PLANS KEYNOTES

- 1 RIDGE VENT
- 2 GUTTER
- 3 METAL PANEL ROOF
- 4 RAKE TRIM
- 5 EXHAUST FAN
- 6 ROOF VENT
- 7 REINSTALL (E) ANTENNA
- 8 DISCHARGE HOOD



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PROJECT TITLE:

MKK TERMINAL BUILDING
ROOF REPLACEMENT

AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

PROJECT NO.:

CM2521-33

SHEET TITLE:

ROOF PLAN

DATE:

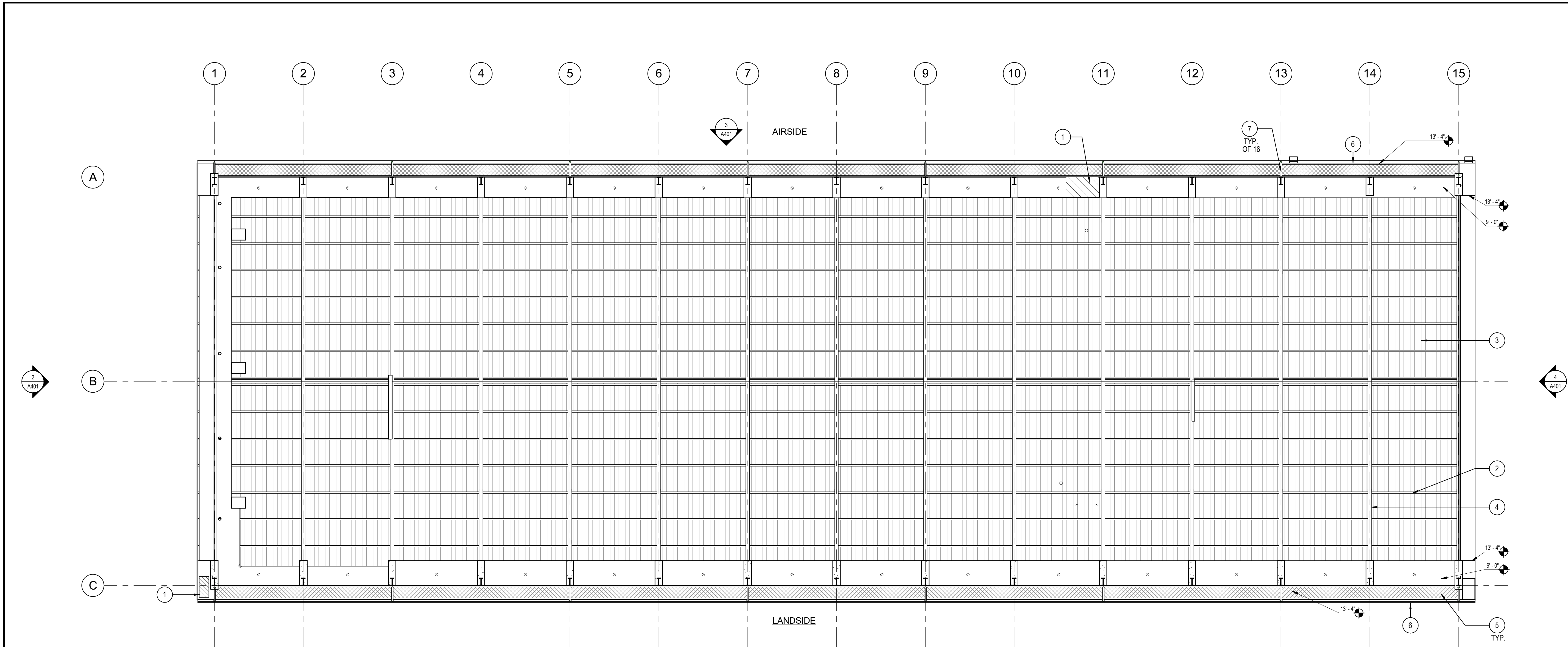
DEC 19, 2025

SHEET:

11 OF 30 SHTS

DWG. NO.

A222



1 REFLECTED CEILING PLAN - UPPER ROOF
1/8" = 1'-0"

REFLECTED CEILING PLAN KEYNOTES

- 1 REPAIR SOFFIT TO MATCH EXISTING.
- 2 REPLACED PURLINS. SEE STRUCTURAL DWGS.
- 3 METAL PANEL ROOF.
- 4 (E) RIGID METAL STRUCTURE.
- 5 (E) EXPANDED ALUM PLATE EAVE CEILING.
- 6 GUTTER.
- 7 DOWNSPOUT AND LEADER.



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CONSTRUCTION DOCUMENTS
DEC 19, 2025
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PROJECT TITLE:

MKK TERMINAL BUILDING
ROOF REPLACEMENT
AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

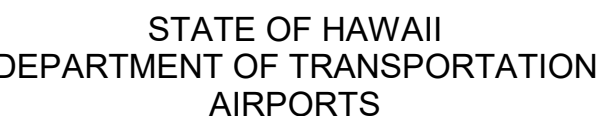
PROJECT NO.:

CM2521-33

SHEET TITLE:

REFLECTED CEILING
PLAN

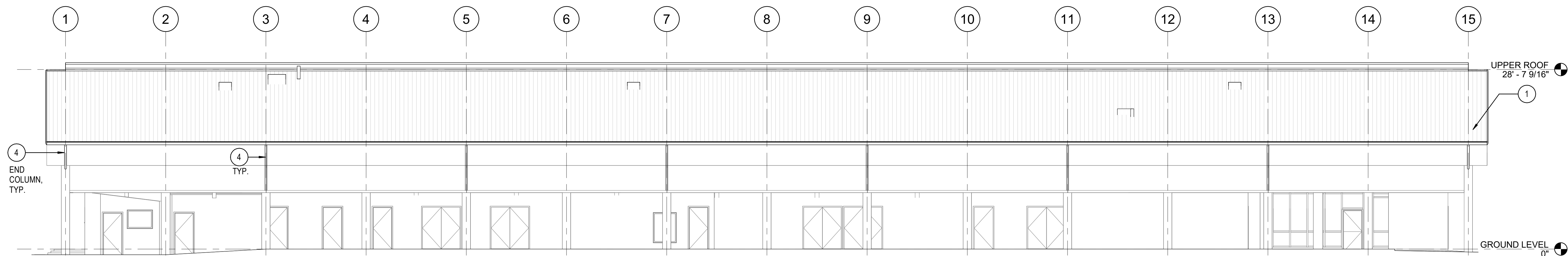
DATE:	DWG. NO.
DEC 19, 2025	A301
SHEET:	
12 OF 30 SHTS	



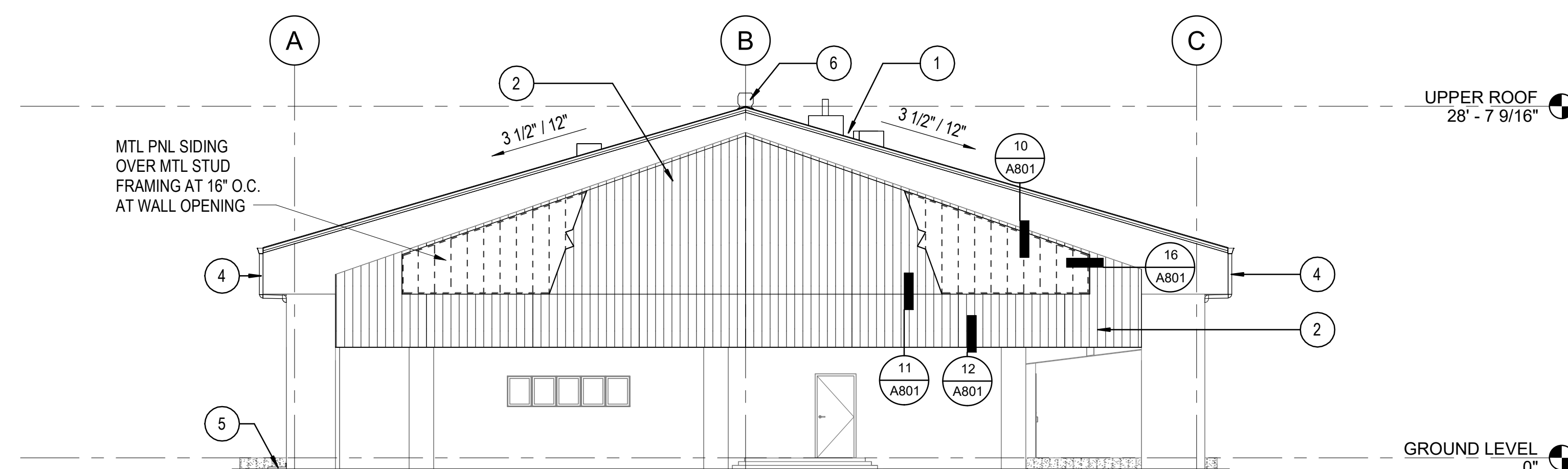
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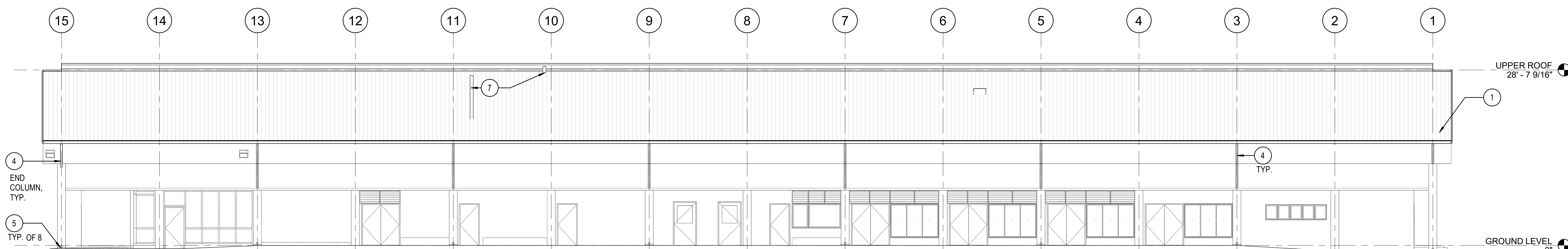
DSGN.	DRWN.	CHKD.	APPD.
RW	KL	DT	RW



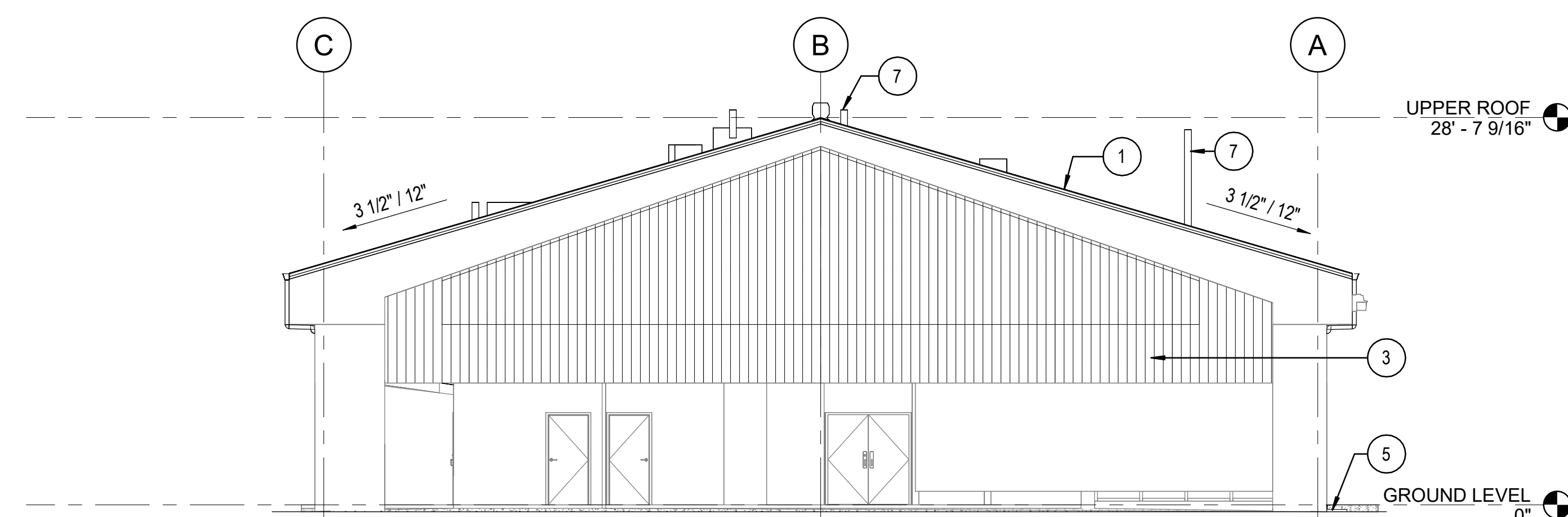
1 NORTH ELEVATION (LANDSIDE)
1/8" = 1'-0"



2 EAST ELEVATION
1/8" = 1'-0"



3 SOUTH ELEVATION (AIRSIDE)
1/8" = 1'-0"



4 WEST ELEVATION
1/8" = 1'-0"

EXTERIOR ELEVATIONS KEYNOTES

- | | |
|---|---|
| 1 | METAL PANEL ROOF |
| 2 | METAL SIDING |
| 3 | (E) METAL SIDING |
| 4 | DOWNSPOUT AND LEADER, CONNECT TO (E) CAST IRON PIPE INSIDE CRM COLUMN |
| 5 | CONCRETE SPLASH BLOCK |
| 6 | RIDGE VENT |
| 7 | REINSTALL (E) ANTENNA |

0 4' 8'

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

	6//26	ADD #3
NO.	DATE	REVISIONS

CONSTRUCTION DOCUMENTS

DEC 19, 2025
DATE

PROJECT TITLE:

MKK TERMINAL BUILDING ROOF REPLACEMENT

AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

PROJECT NO.:

CM2521-33

SHEET TITLE:

EXTERIOR ELEVATIONS

DATE :

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SHEET

13 OF 30 SHTS

DWG. NO.

A401



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PROJECT TITLE:

**MKK TERMINAL BUILDING
ROOF REPLACEMENT**

AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

PROJECT NO.:

CM2521-33

SHEET TITLE:

BUILDING SECTIONS

DATE:

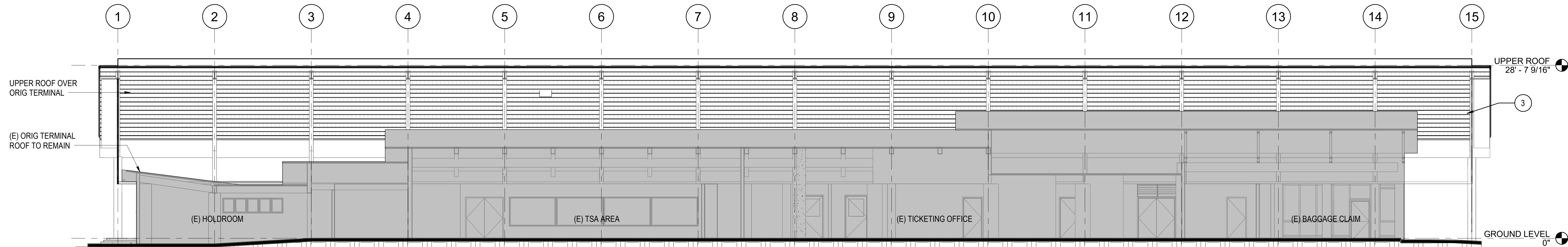
DEC 19, 2025

SHEET:

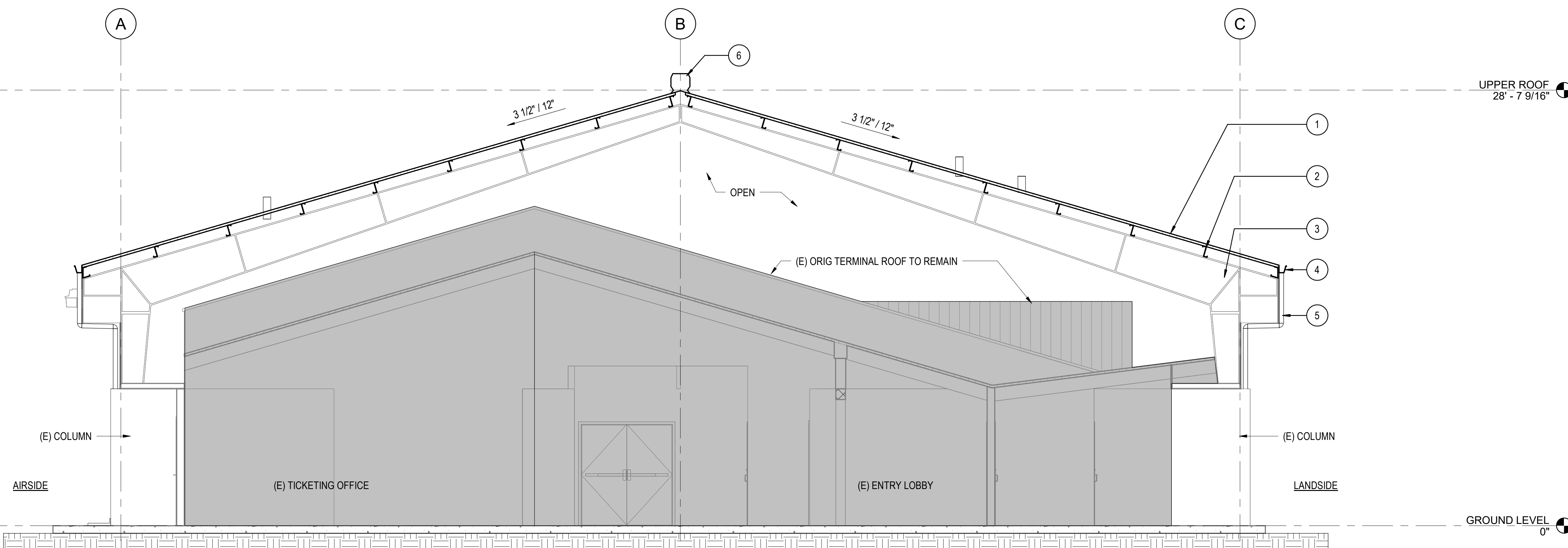
14 OF 30 SHTS

DWG. NO.

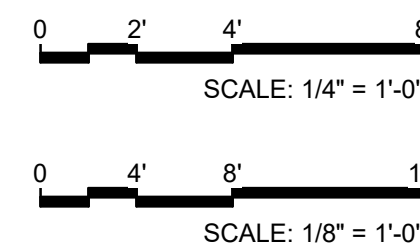
A501



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

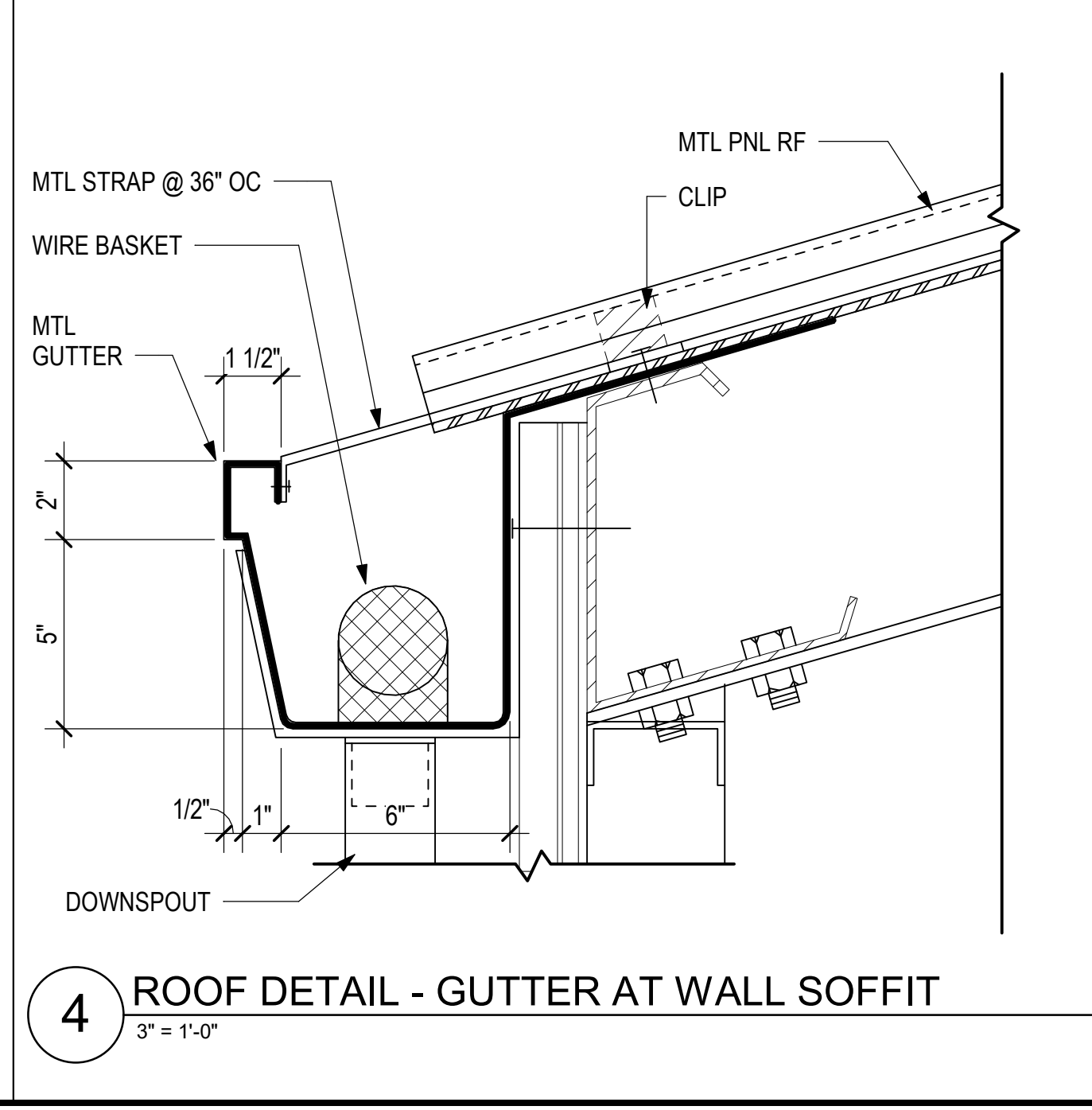
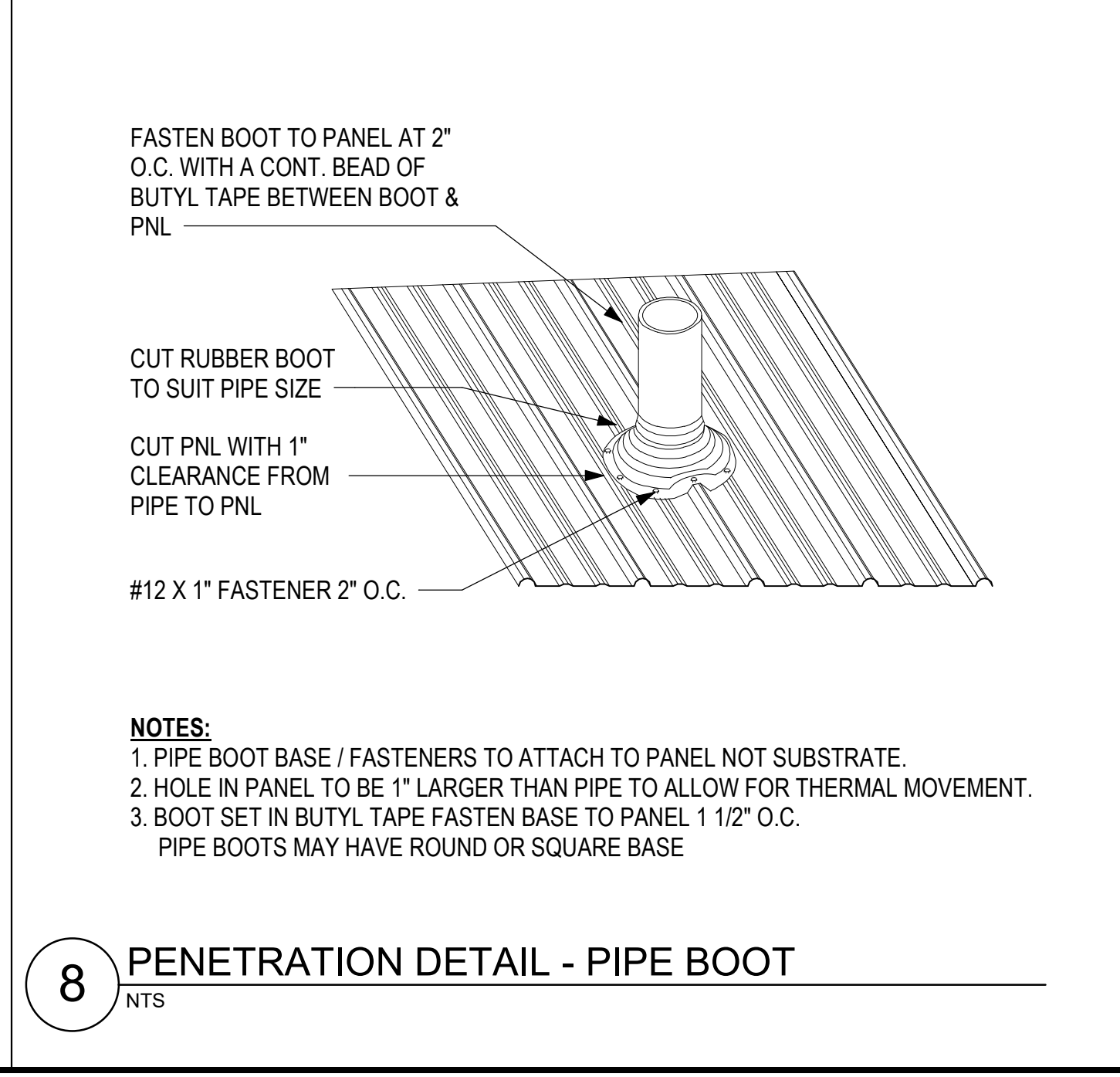
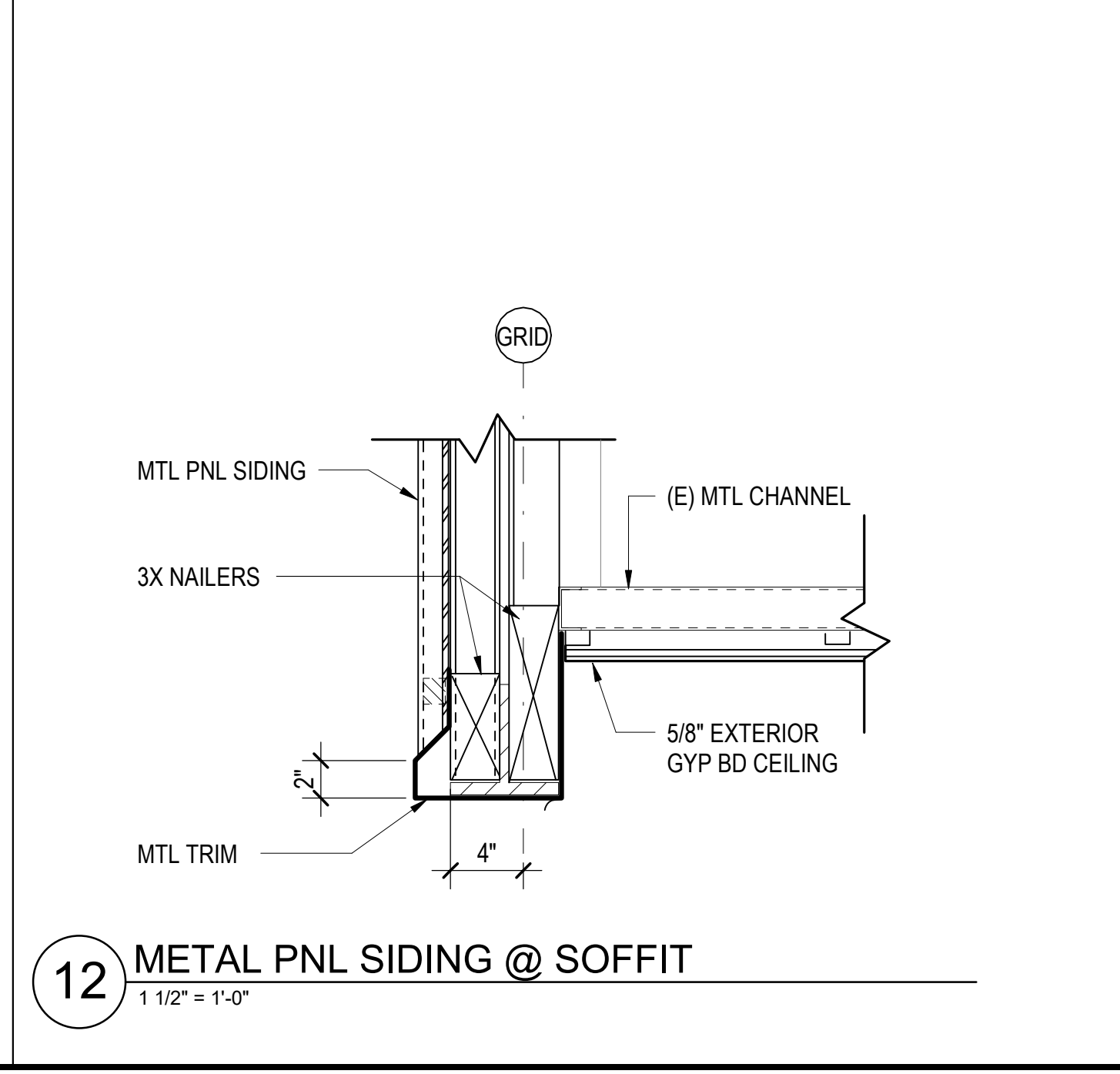
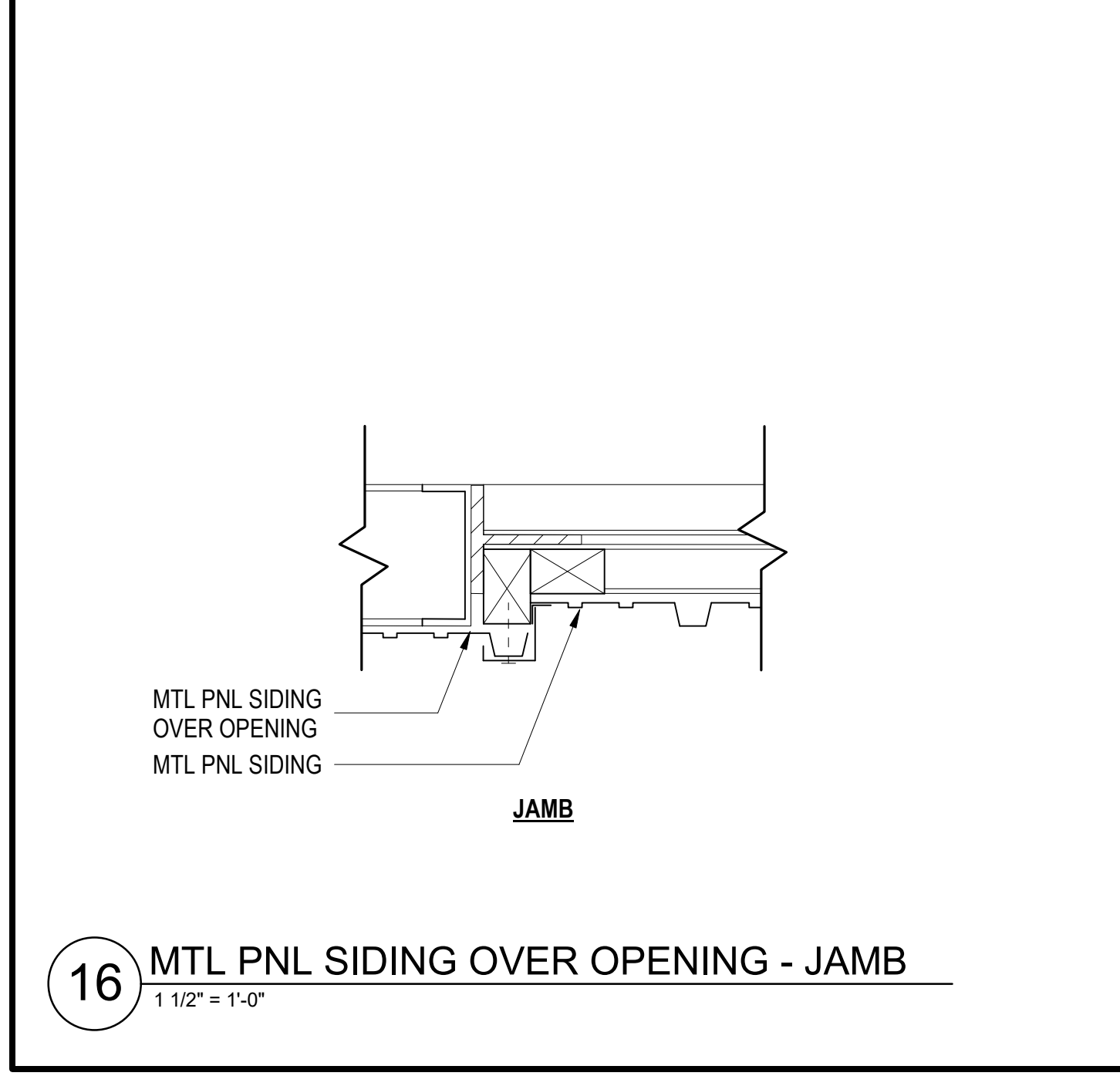
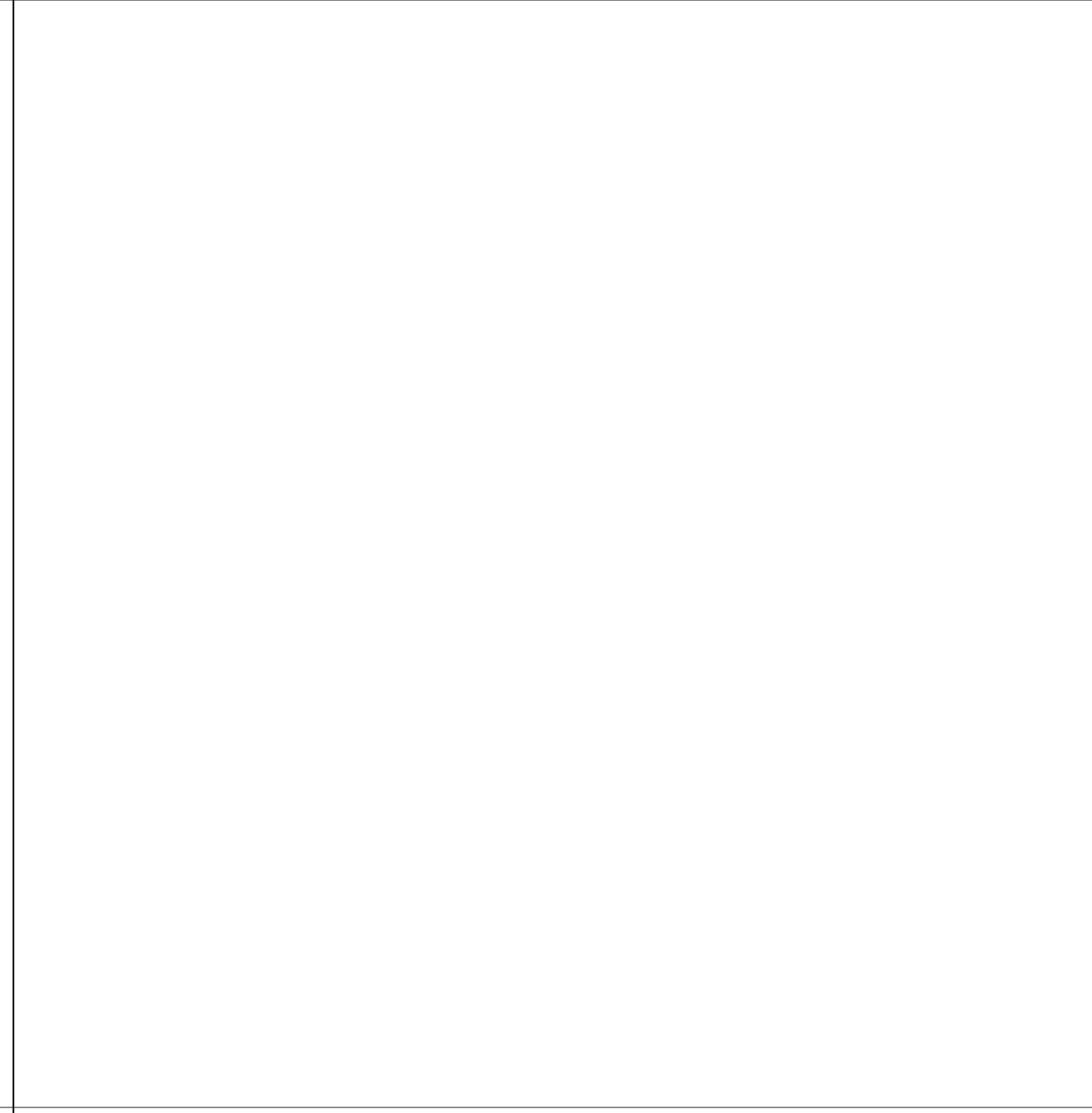
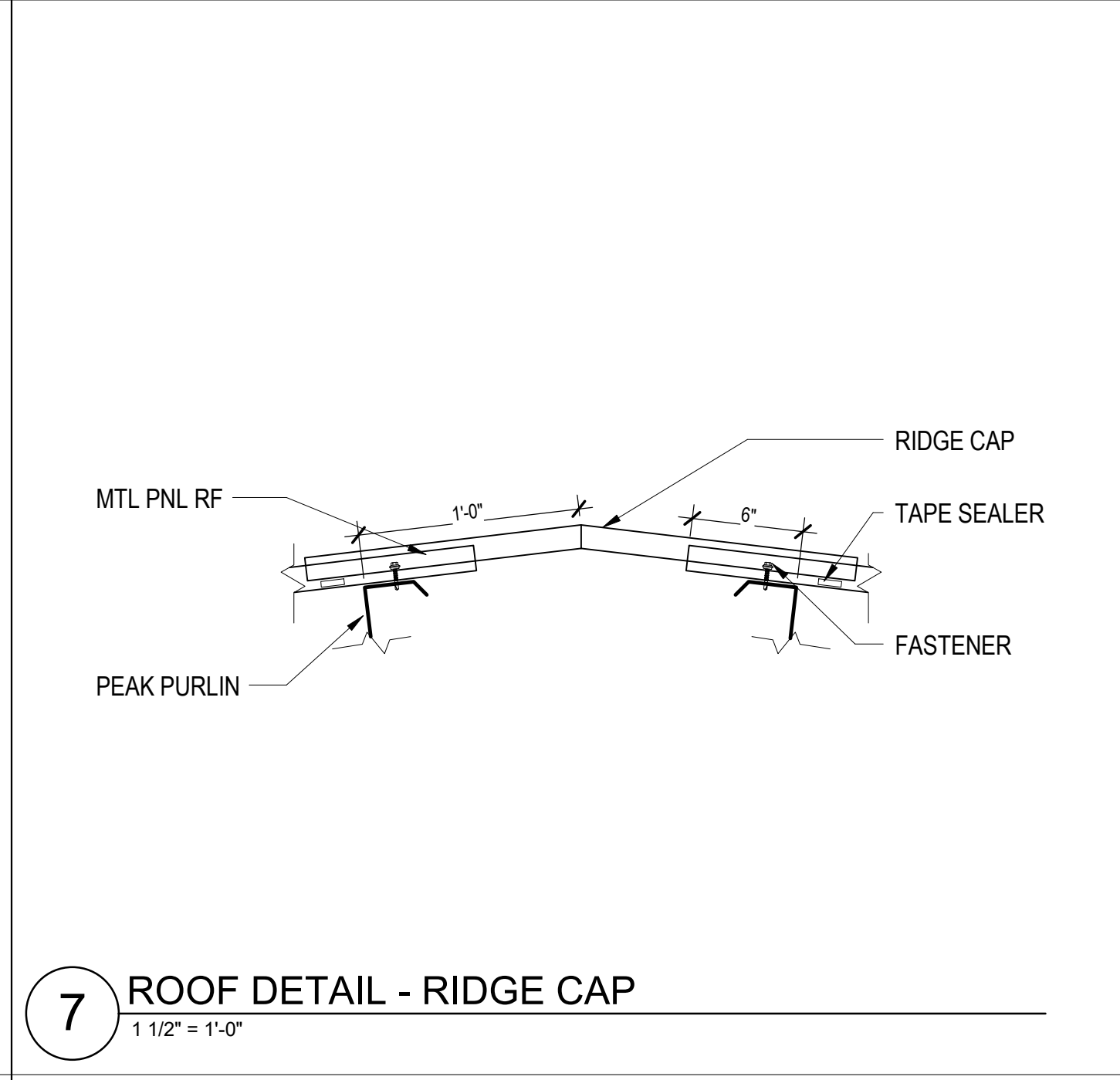
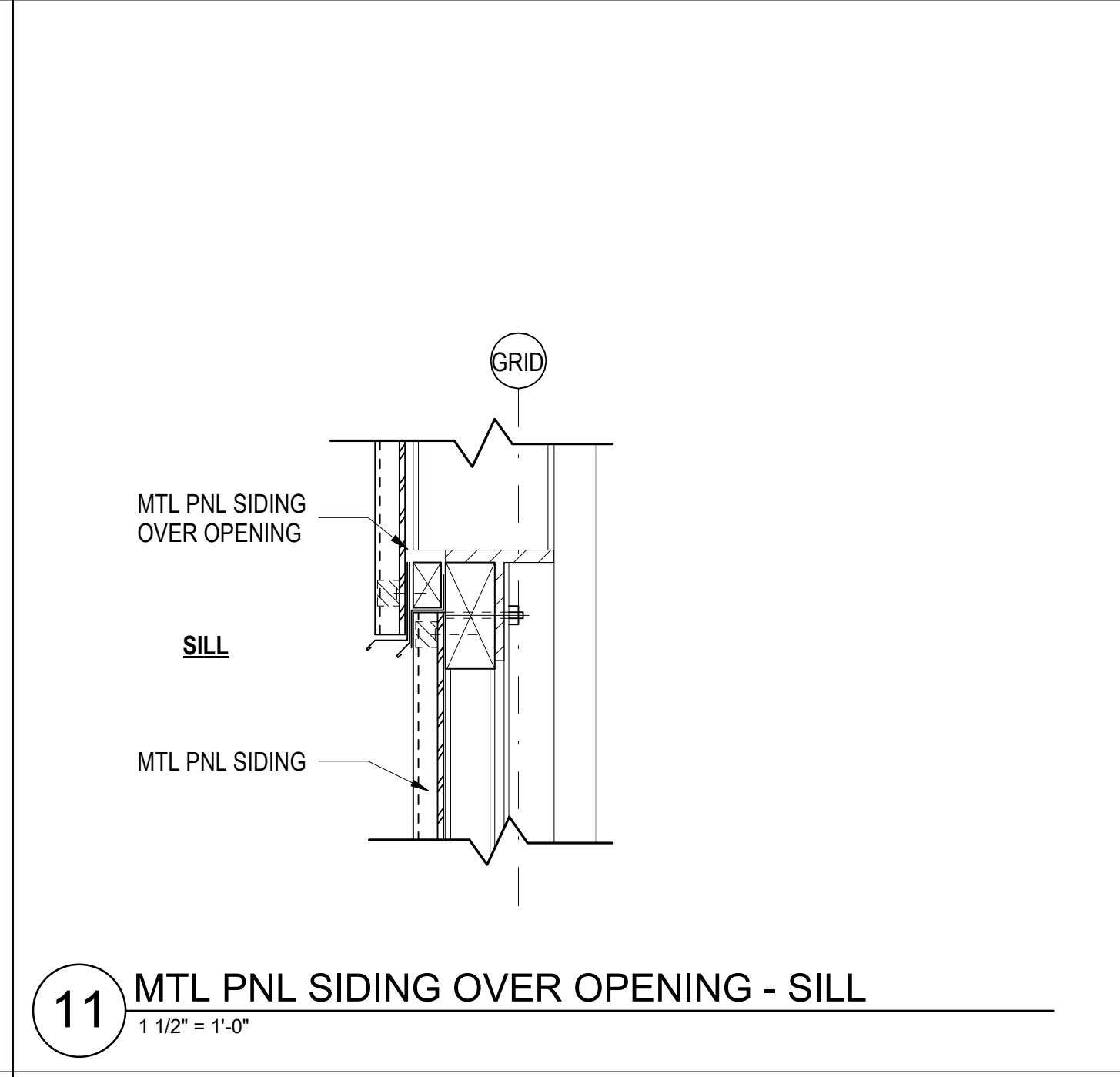
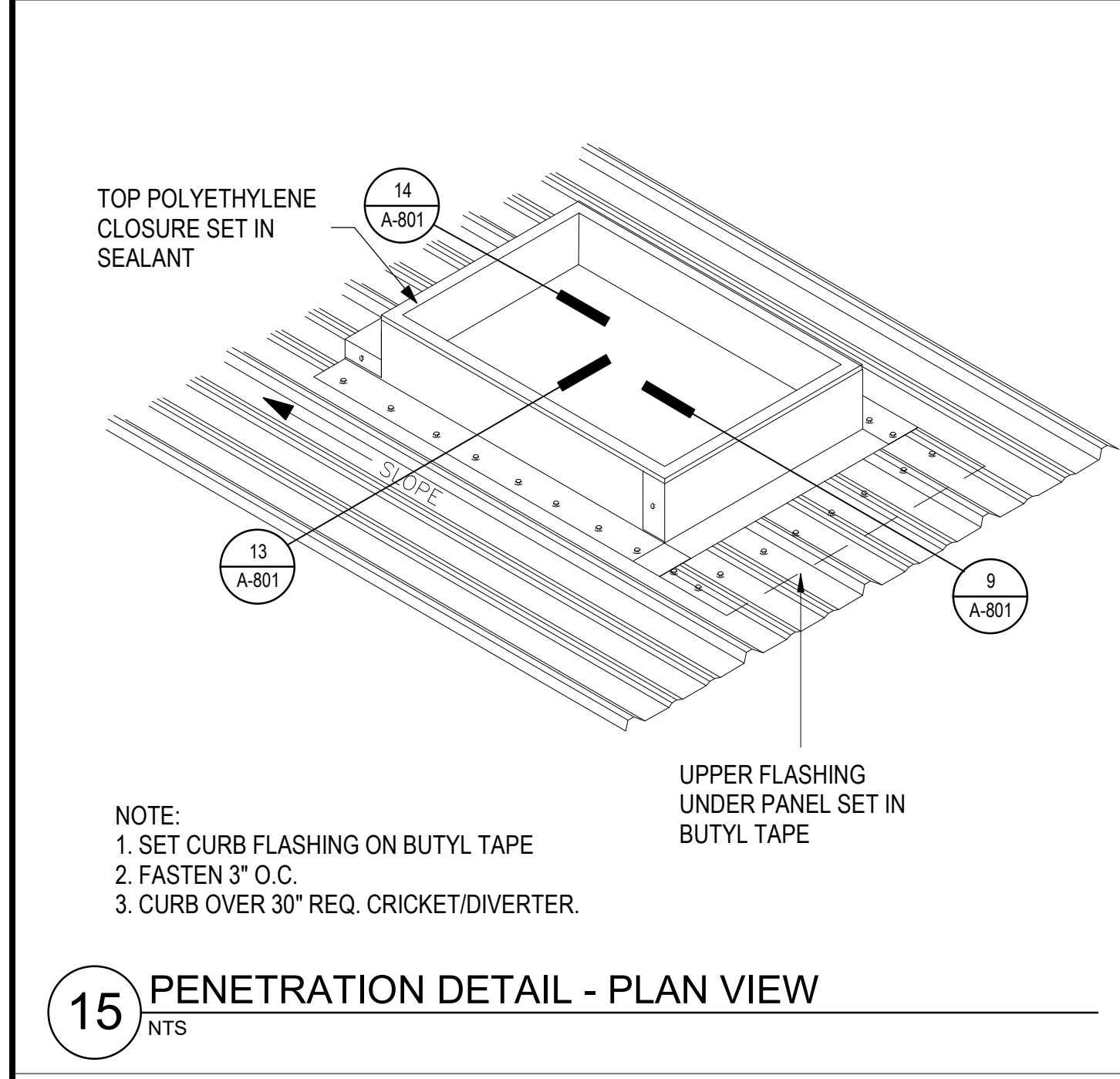
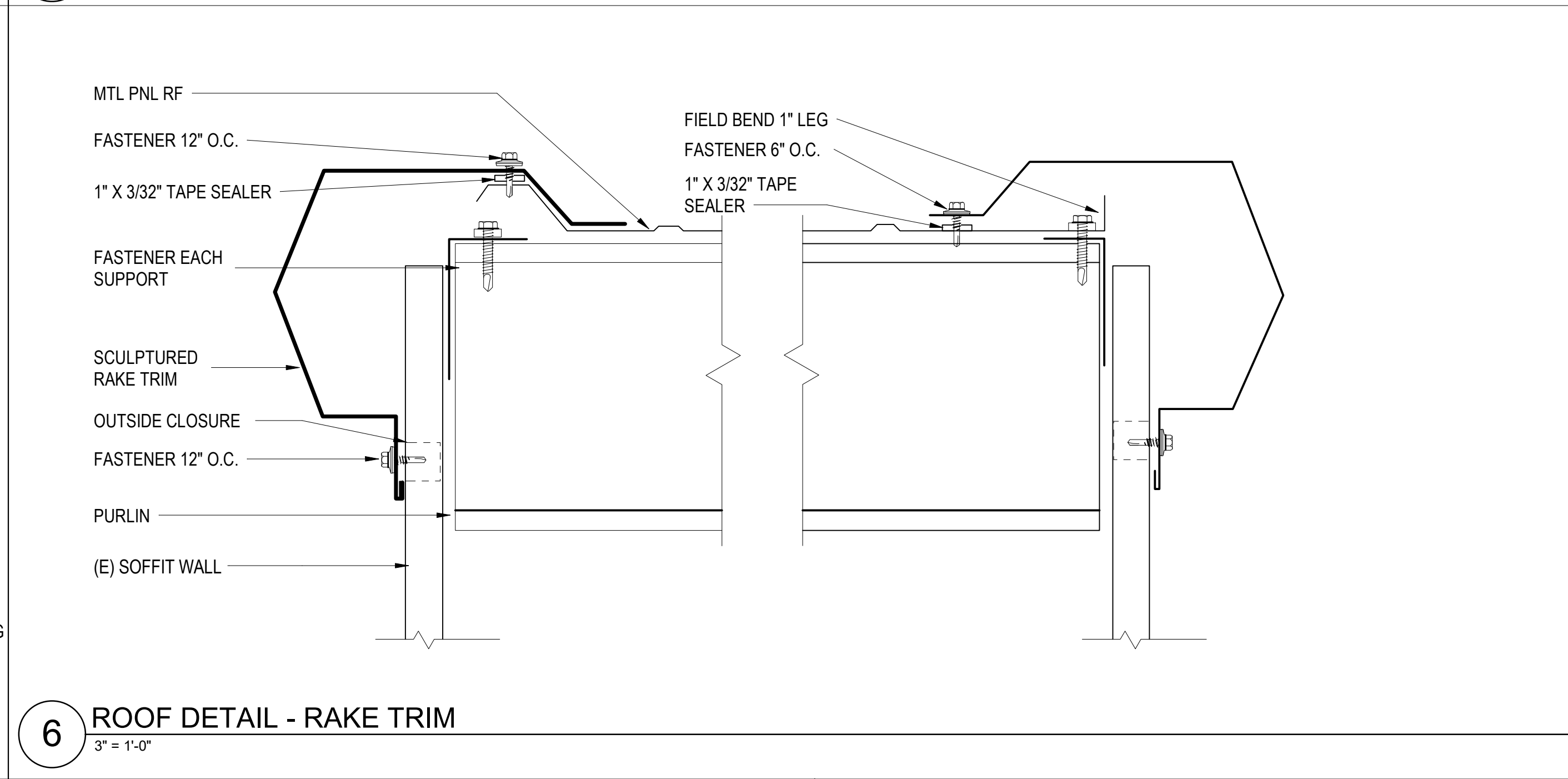
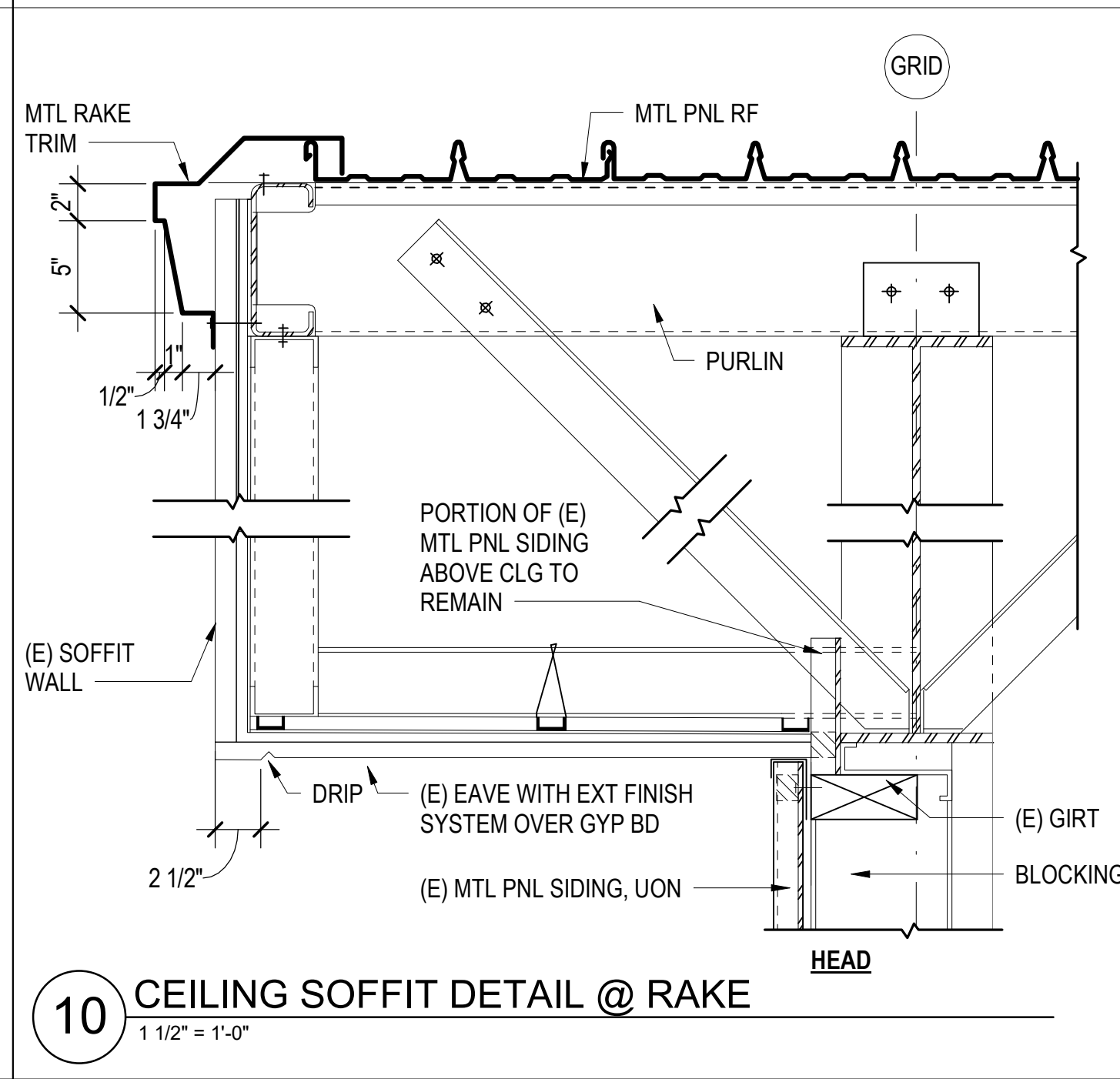
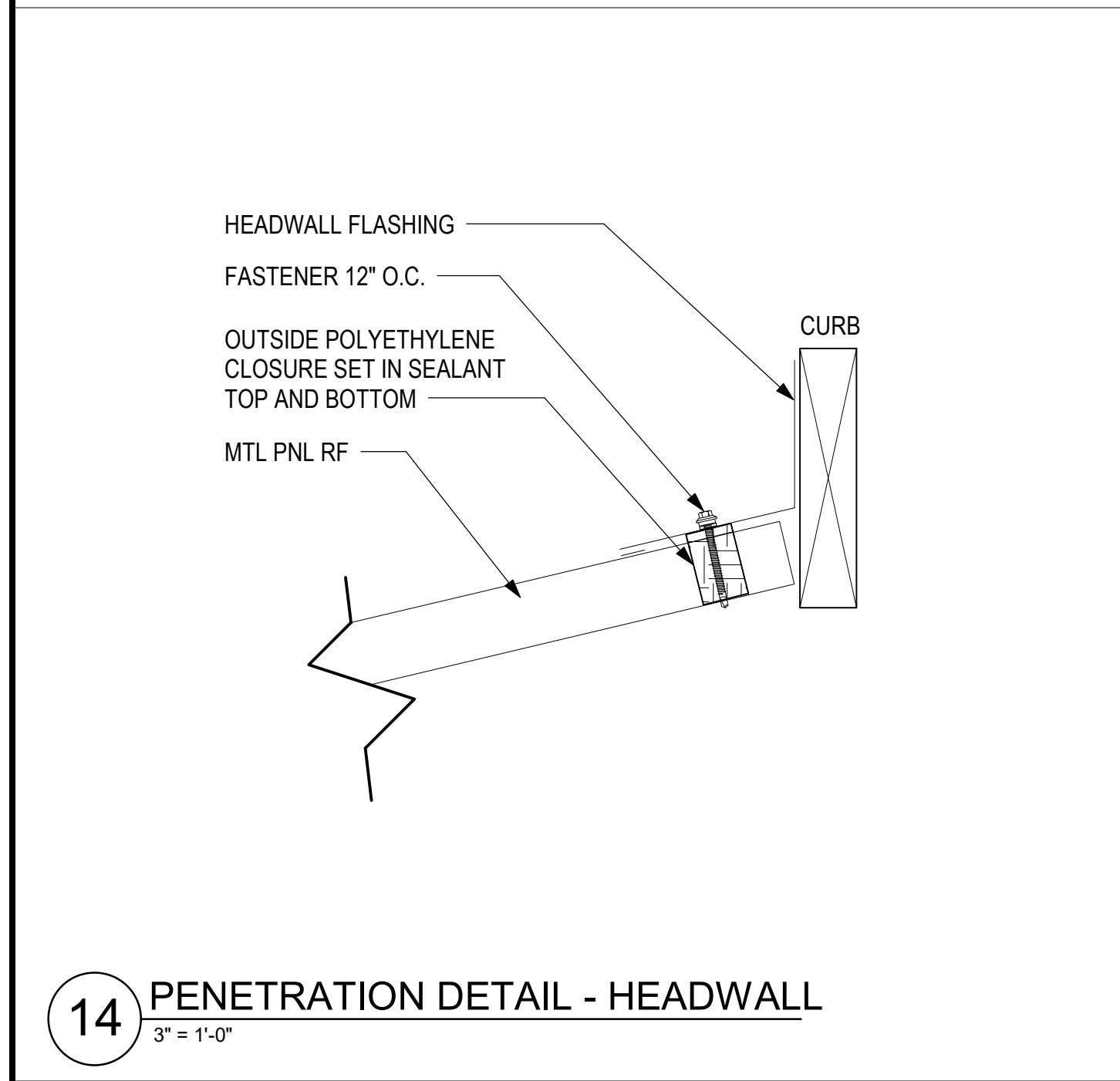
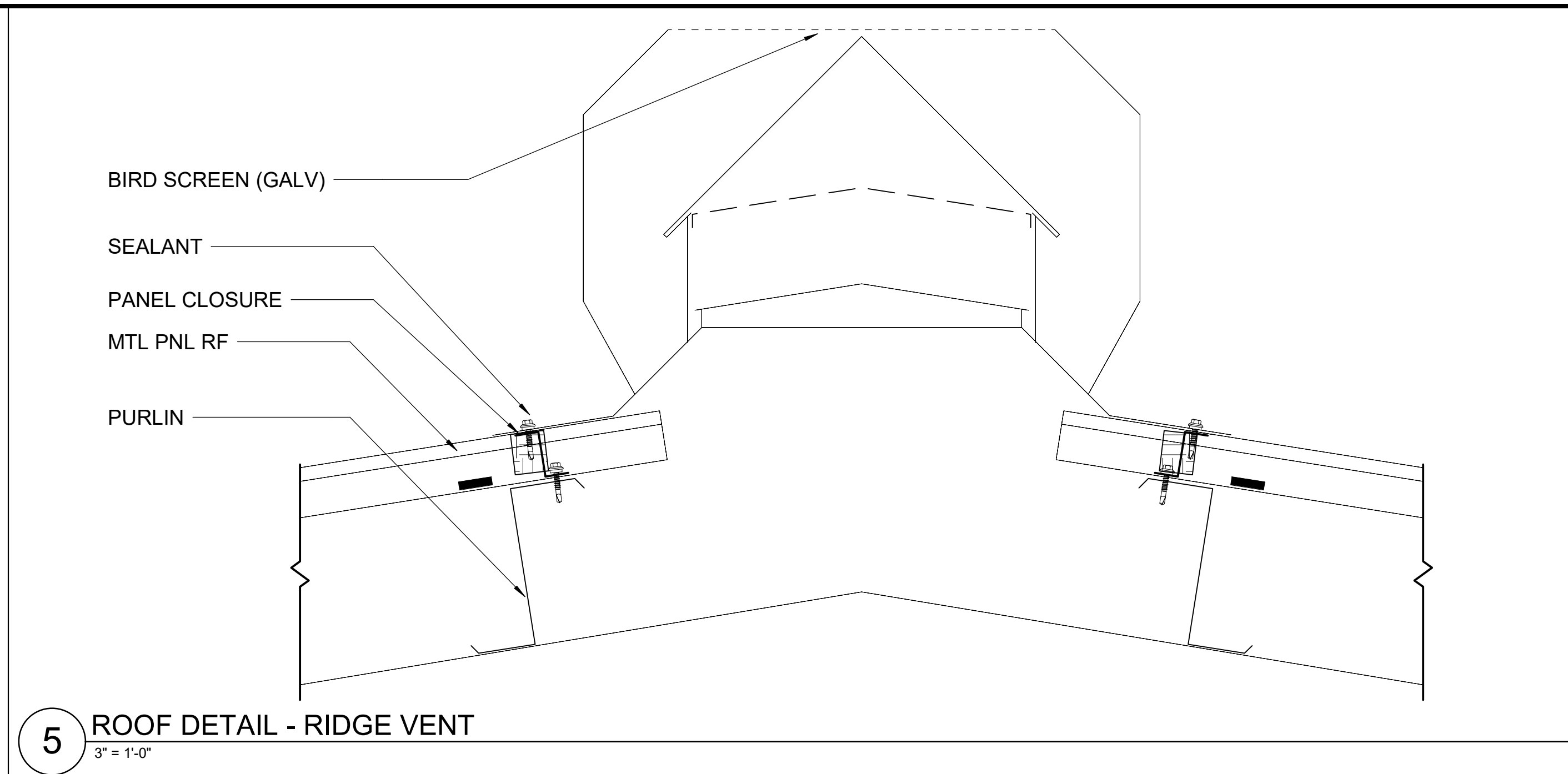
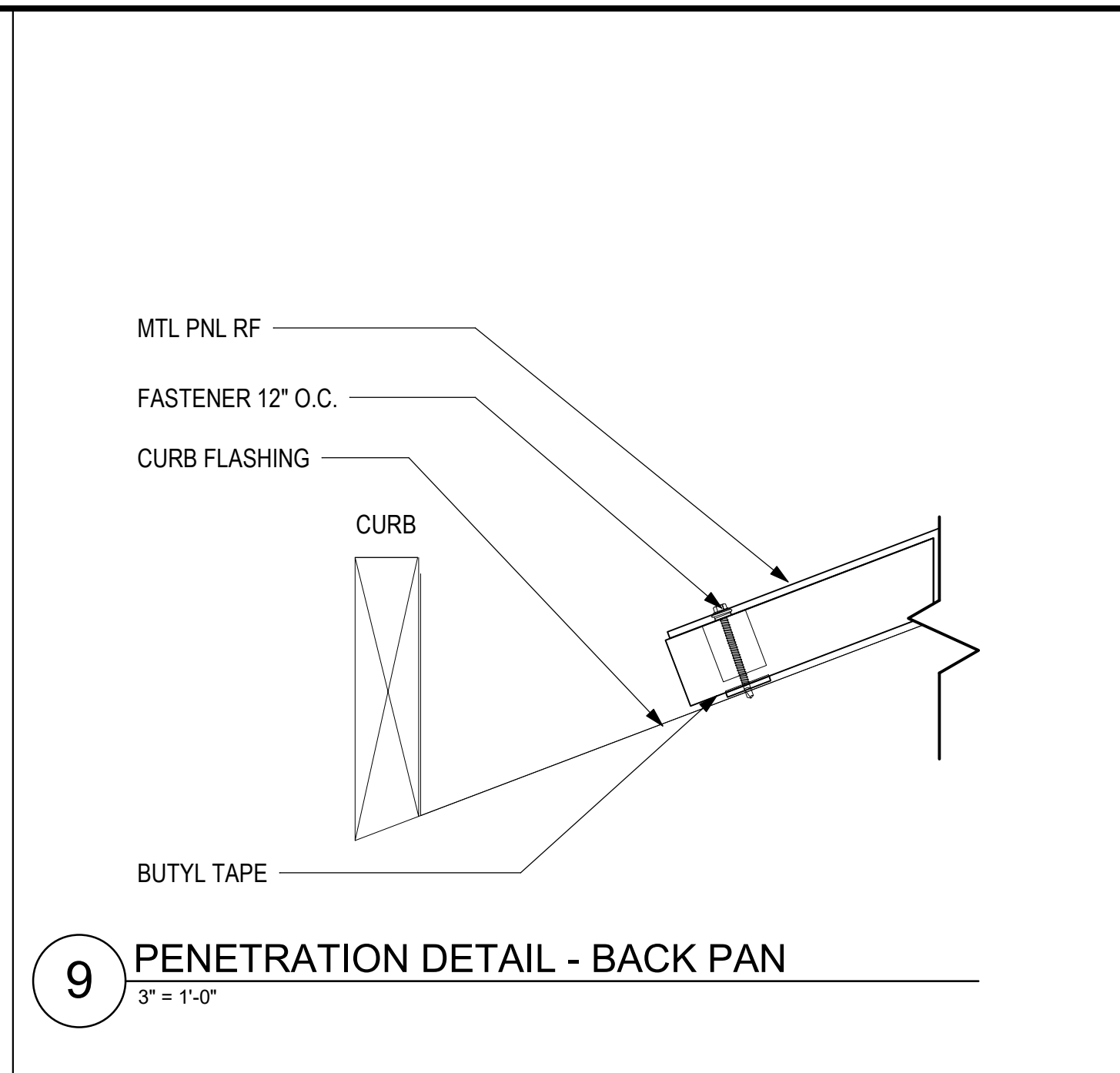
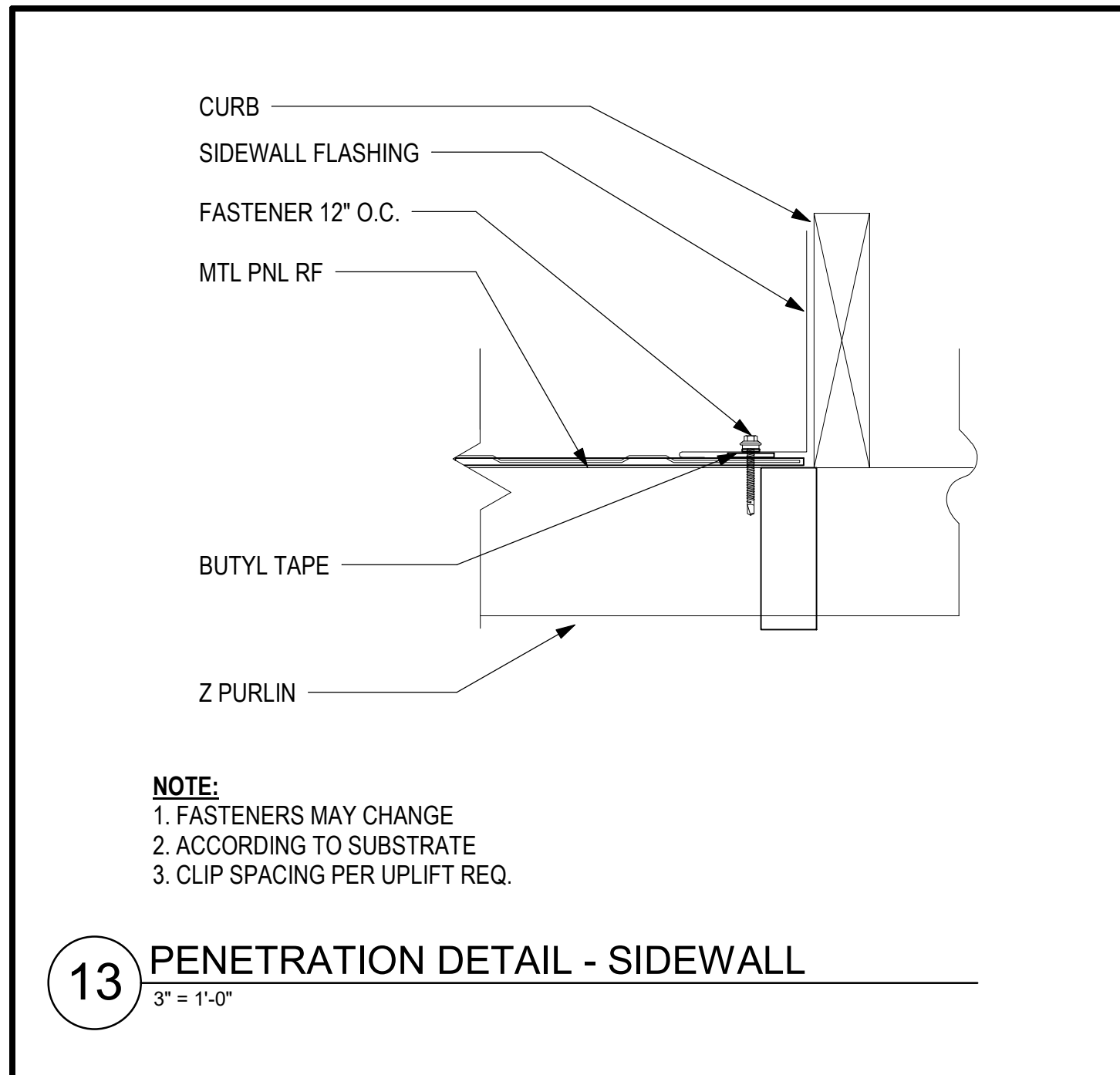


2 SECTION 2
1/4" = 1'-0"



SECTIONS KEYNOTES

- 1 METAL PANEL ROOF
- 2 (E) PURLINS
- 3 (E) STRUCTURAL FRAME
- 4 METAL GUTTER
- 5 DOWNSPOUT
- 6 CONT ROOF RIDGE VENT



GENERAL NOTES
1. ALL PENETRATIONS INTO METAL SIDING & METAL ROOFING SHALL BE TREATED W/PAINTE PER SPEC.
2. USE STAINLESS STEEL NUTS & BOLTS ON ALL PENETRATIONS INTO METAL SIDING & ROOF.

0 1 1/2" 3" 6"
SCALE: 1 1/2" = 1'-0"

0 3" 6" 12"
SCALE: 3" = 1'-0"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
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RW	KL	DT	RW

NO.	DATE	REVISIONS
	6/9/26	ADD #3

CONSTRUCTION DOCUMENTS
DEC 19, 2025
DATE

PROJECT TITLE:
**MKK TERMINAL BUILDING
ROOF REPLACEMENT**
AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

PROJECT NO.:
CM2521-33

SHEET TITLE:
EXTERIOR DETAILS

DATE:	DWG. NO.
DEC 19, 2025	A801
SHEET:	
15 OF 30 SHTS	

GENERAL NOTES

- A.VERIFY DIMENSIONS AND CONDITIONS AND REPORT DISCREPANCIES IN WRITING TO THE CONTRACTING OFFICER BEFORE COMMENCING WORK OR ORDERING MATERIALS.
- B.MATERIALS AND WORKMANSHIP MUST CONFORM TO THE REQUIREMENTS OF THE LOCAL BUILDING CODE IN ADDITION TO THE CODES CITED.
- C.DETAILED SHOWN ON THE DRAWINGS MUST BE TYPICAL FOR SIMILAR CONDITIONS.
- D.MODIFY DETAILS FOR SPECIAL CONDITIONS AS DIRECTED BY THE CONTRACTING OFFICER.
- E.INCLUDE IN BID OR PROPOSAL, COSTS TO CHANGE STRUCTURAL SUPPORTS TO ACCOMMODATE ACTUAL EQUIPMENT OR ITEM USED.

CONSTRUCTION NOTES

- A.NOTIFY THE CONTRACTING OFFICER AT LEAST 48 HOURS IN ADVANCE FOR REVIEW AND OBSERVATION OF EXCAVATIONS, REINFORCING, AND CONCRETE PLACEMENT.
- B.CONSTRUCTION LOADING MUST NOT EXCEED THE DESIGN LIVE LOAD UNLESS SPECIAL SHORING IS PROVIDED. ALLOWABLE LOADS MUST BE REDUCED IN AREAS WHERE THE STRUCTURE HAS NOT ATTAINED ITS FULL DESIGN STRENGTH.
- C.FORM AND SHORE REMOVAL MUST NOT INJURE OR OVERSTRESS COMPLETED OR PARTIALLY COMPLETED STRUCTURAL ELEMENTS. TIMING OF FORM AND SHORE REMOVAL MUST BE IN ACCORDANCE WITH ACI-347.
- D.SEE ARCHITECTURAL DRAWINGS FOR CHAMFERS, EDGE RADII, DRIPS, REGLETS, FINISHES, AND OTHER NON-STRUCTURAL ITEMS NOT SHOWN OR SPECIFIED ON STRUCTURAL DRAWINGS.

STRUCTURAL STEEL NOTES

- A.STRUCTURAL STEEL MEMBERS MUST CONFORM TO THE FOLLOWING:

1.W-SHAPES - ASTM A992/A992M

2.CHANNELS, ANGLES, PLATES, BARS - ASTM A36/A36M

3.HOLLOW STRUCTURAL SECTIONS - ASTM A500 GRADE B

4.STEEL PIPE - ASTM A53/A53M, TYPE E OR S, GRADE B

5.WELD ELECTRODES - E70XX

6.BOLTS - ASTM A307 GRADE A

7.RODS - ASTM A193/A193M

8.NUTS - ASTM A563

9.WASHERS - ASTM F436
- B.FIELD WELDS MUST BE DONE BY CERTIFIED WELDERS.
- C.HOT-DIP GALVANIZED STRUCTURAL STEEL MEMBERS.
- D.FIELD VERIFY DIMENSIONS AND CONDITIONS PRIOR TO FABRICATION OR PREPARATION OF SHOP DRAWINGS FOR STRUCTURAL STEEL WORK AND SUBMIT TO CONTRACTING OFFICER FOR REVIEW AND COMMENT PRIOR TO FABRICATION.

COLD-FORMED STEEL NOTES

- A.COLD-FORMED STEEL MEMBERS MUST COMPLY WITH ASTM C955 AND ASTM A1003/A003M.
- B.COLD-FORMED STEEL MEMBERS MUST BE G90 GALVANIZED IN ACCORDANCE WITH A653/A653M.
- C.PROVIDE COLD-FORMED STEEL MEMBERS WITH MINIMUM YIELD STRENGTH OF 55 KSI.
- D.PROVIDE MILL CERTIFICATES OR DATA FROM A QUALIFIED INDEPENDENT TESTING AGENCY INDICATING STEEL SHEET COMPLIES WITH REQUIREMENTS, INCLUDING BASE-METAL THICKNESS, YIELD STRENGTH, TENSILE STRENGTH, TOTAL ELONGATIONS, CHEMICAL REQUIREMENTS, AND METALLIC-COATING THICKNESS.
- E.MEMBERS MUST BE VISUALLY CHECKED FOR CRACKS IN THE STEEL AT BENDS
MEMBERS WITH CRACKS MUST NOT BE USED FOR STRUCTURAL FRAMING.
MEMBERS WITH SURFACE RUST ON THE GALVANIZED FINISH AND/OR SCALING RUST ON THE CUT ENDS MUST NOT BE USED FOR STRUCTURAL FRAMING.
- F.PROVIDE FULL HEIGHT, SQUARE CUT, FULL CONTACT BEARING WEB STIFFENERS, OF THE SAME THICKNESS AND DEPTH AS THE FRAMING MEMBER AT EACH REACTION POINTS AND/OR AT POINTS OF CONCENTRATED LOADS WHERE INDICATED ON THE DRAWINGS.
- G.PROVIDED END BLOCKING WHERE JOIST END IS NOT RESTRAINED FROM ROTATION.
- H.SPLICES IN FRAMING MEMBERS ARE NOT PERMITTED.
- I.FLAME CUTTING OF THE ENDS OF LOAD-BEARING STUDS IS NOT PERMITTED.
- J.DO NOT CUT SHEARWALL STUDS, TRACKS, STRAPS, ETC., WITHOUT WRITTEN AUTHORIZATION FROM THE CONTRACTING OFFICER.

STANDARDS AND REFERENCES

- A.IBC 2018, INTERNATIONAL BUILDING CODE, INTERNATIONAL CODE COUNCIL, 2018 EDITION
- B.CHAPTER 180 OF TITLE 3, HAWAII ADMINISTRATIVE RULES, ENTITLED "STATE BUILDING CODE", DATED OCTOBER 13, 2009
- C.ASCE 7-16, AMERICAN SOCIETY OF CIVIL ENGINEERS, MINIMUM DESIGN LOADS FOR BUILDINGS AND ASSOCIATED CRITERIA FOR BUILDINGS AND OTHER STRUCTURES
- D.AISC 360-16, AMERICAN INSTITUTE OF STEEL CONSTRUCTION, SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS
- E.AWS D1.1, AMERICAN WELDING SOCIETY, STRUCTURAL WELDING CODE-STEEL
- F>AISI S100 -16, NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, 2016 EDITION
- G>AISI S400-15/S1-16, NORTH AMERICAN STANDARD FOR SEISMIC DESIGN OF COLD-FORMED STEEL STRUCTURAL SYSTEMS, 2015, WITH SUPPLEMENT 1, DATED 2016

DESIGN LOADS

- A.ROOF LIVE LOAD = 20 PSF
- B.RISK CATEGORY II
- C.WIND LOADS:

1.BASIC DESIGN WIND SPEED, V = 150 MPH

2.ALLOWABLE STRESS DESIGN WIND SPEED, V_{ASD} = 117 MPH

3.WIND EXPOSURE CATEGORY C

4.TOPOGRAPHIC FACTOR, K_{zt} = 1.00

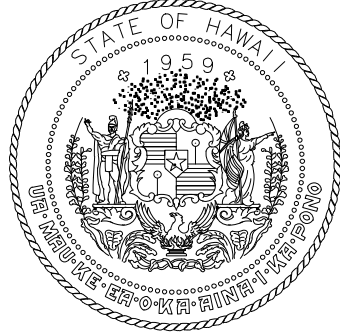
5.DIRECTIONALITY FACTOR, K_d = 0.85

6.WINDBORNE DEBRIS REGION

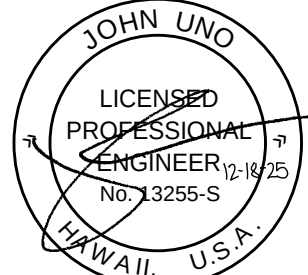
SPECIAL INSPECTION

- A.PERFORM SPECIAL INSPECTIONS IN ACCORDANCE WITH THE PROVISIONS OF SECTION 1704 OF THE INTERNATIONAL BUILDING CODE.
- B.RETAIN AND PAYMENT OF THIRD-PARTY SPECIAL INSPECTOR IS BY THE CONTRACTOR. NOTIFY THE SPECIAL INSPECTOR AND TESTING AGENCY AT LEAST 48 HOURS IN ADVANCE FOR SPECIAL INSPECTION WORK.
- C.SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING WORK.

1.WELDING
- D.SPECIAL INSPECTION DOES NOT RELIEVE THE GENERAL CONTRACTOR OF THE RESPONSIBILITY TO PERFORM QUALITY ASSURANCE AND TO COMPLETE CONSTRUCTION IN ACCORDANCE WITH PLANS AND SPECIFICATIONS, AND TO PROVIDE SAFETY ON THE JOB SITE.



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	6/9/26	ADD #3
NO.	DATE	REVISIONS

CONSTRUCTION DOCUMENTS

DEC 19, 2025
DATE

PROJECT TITLE:

MKK TERMINAL BUILDING
ROOF REPLACEMENT

AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

PROJECT NO.:

CM2521-33

SHEET TITLE:

STRUCTURAL NOTES

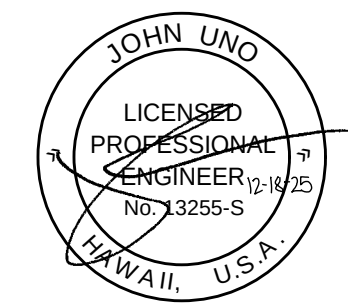
DATE :
DEC 19, 2025

SHEET :
16 OF 30 SHTS

DWG. NO.
S001



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DATE

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ROOF REPLACEMENT

AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

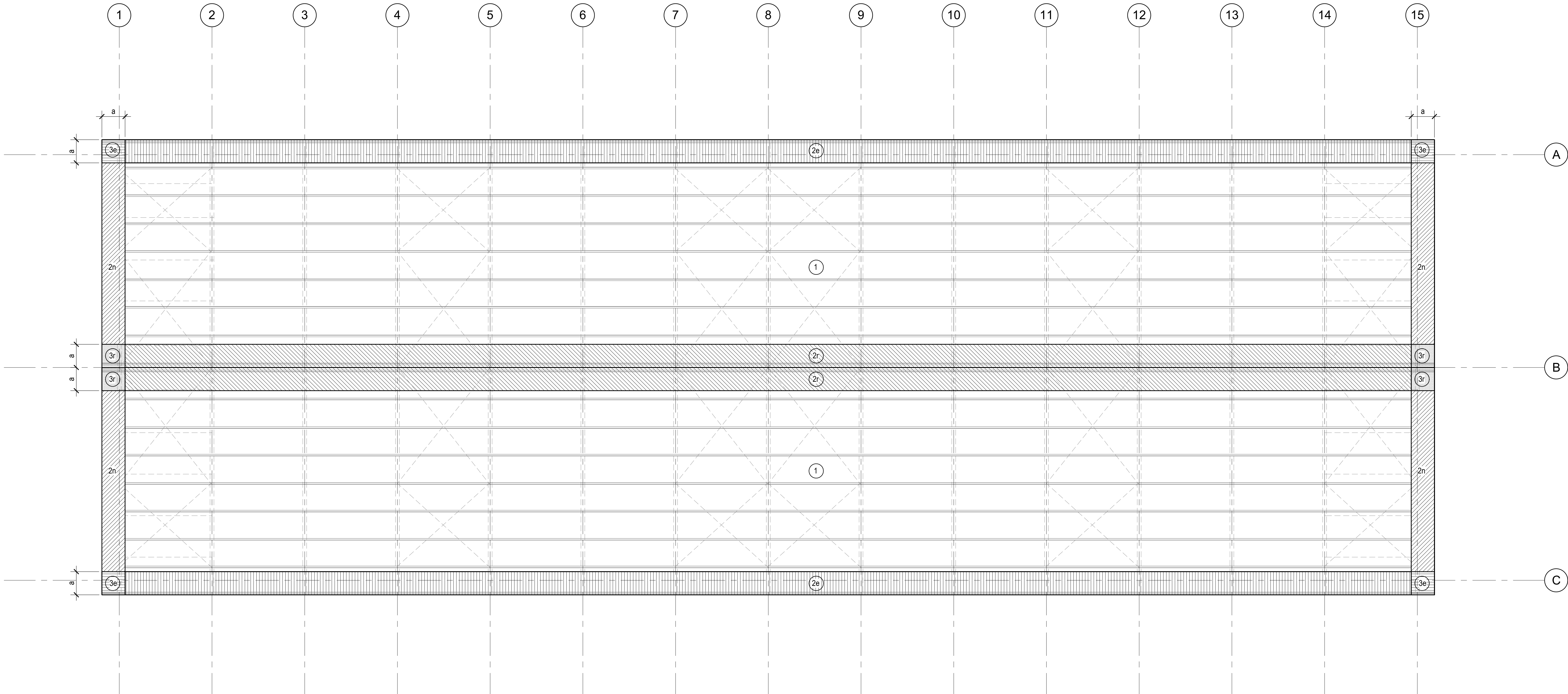
PROJECT NO.:

CM2521-33

SHEET TITLE:

COMPONENT AND
CLADDING DESIGN
WIND PRESSURES

DATE:	DWG. NO.
DEC 19, 2025	S002
SHEET :	
17 OF 30 SHTS	



ROOF COMPONENT AND CLADDING WING PRESSURES (PSF)							
ZONE	HATCH	EFFECTIVE WIND AREA					
		A < 20 SF		20 SF ≤ A < 100 SF		A ≥ 100 SF	
		(+)	(-)	(+)	(-)	(+)	(-)
1		40	-122	30	-122	22	-76
2e		40	-122	30	-122	22	-76
2n		40	-167	30	-152	22	-118
2r		40	-167	30	-152	22	-118
3e		40	-194	30	-169	22	-110
3r		40	-221	30	-188	22	-113

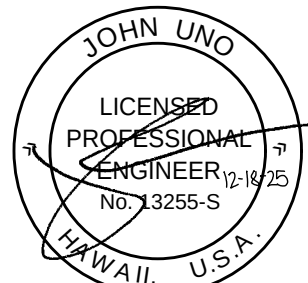
1 ROOF COMPONENT AND CLADDING WIND PRESSURES
1/8" = 1'-0"

NOTES:

- a = 7'-6"
- EFFECTIVE WIND AREA (SF) = MEMBER SPAN x EFFECTIVE WIDTH (NEED NOT BE LESS THAN ONE-THIRD SPAN LENGTH)
- (+) INDICATES TOWARD SURFACE
- (-) INDICATES AWAY FROM SURFACE



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DOCUMENTS

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MKK TERMINAL BUILDING
ROOF REPLACEMENT

AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

PROJECT NO.:

CM2521-33

SHEET TITLE:

EXISTING
FOUNDATION PLAN

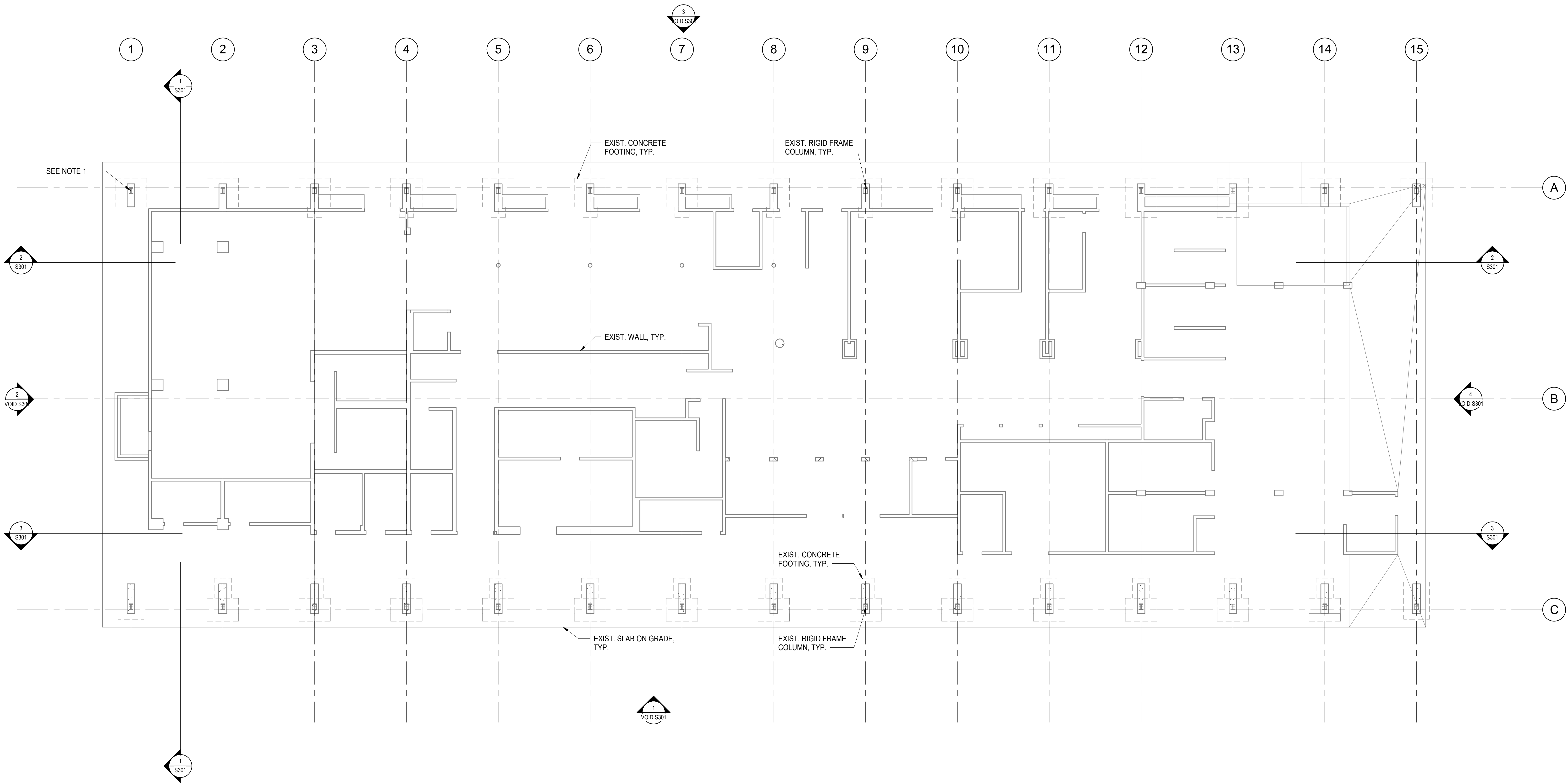
DATE:	DWG. NO.
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DEC 19, 2025

SHEET:

18 OF 30 SHTS

S101



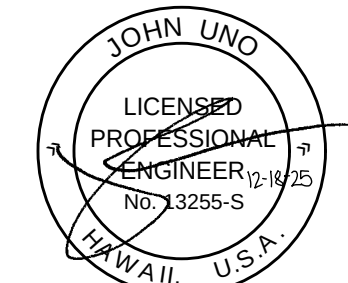
1 EXISTING FOUNDATION PLAN
1/8" = 1'-0"

NOTE:

1. REMOVE EXISTING STONE FACADE TO EXPOSE CORRODED STEEL FRAME COLUMN. REMOVE SURFACE CORROSION
IN ACCORDANCE WITH SSPC-SP3, APPLY HIGH-PERFORMANCE MARINE COATING AND RECONSTRUCT STONE FACADE IN-KIND.



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DATE

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MKK TERMINAL BUILDING
ROOF REPLACEMENT

AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

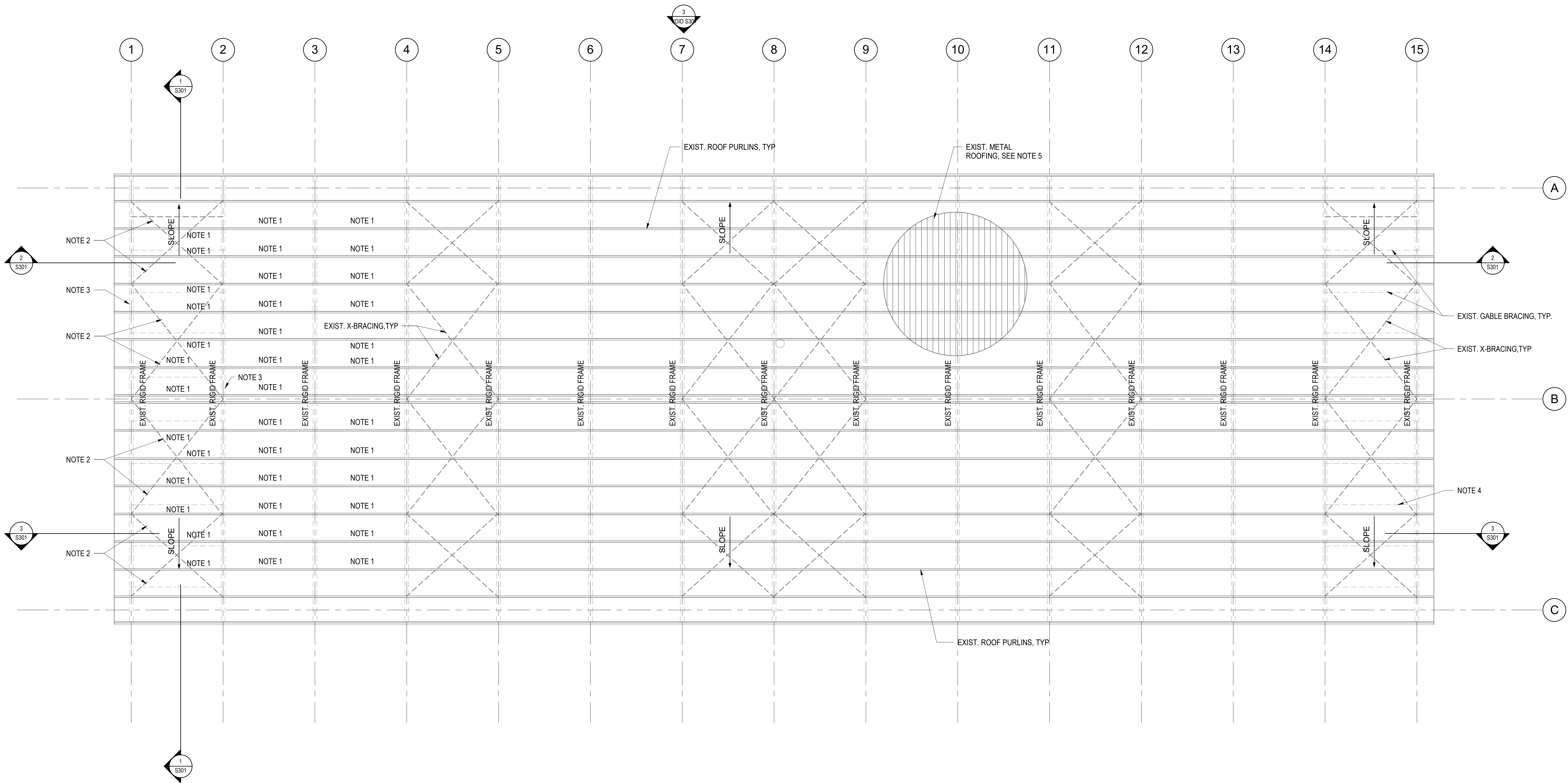
PROJECT NO.:

CM2521-33

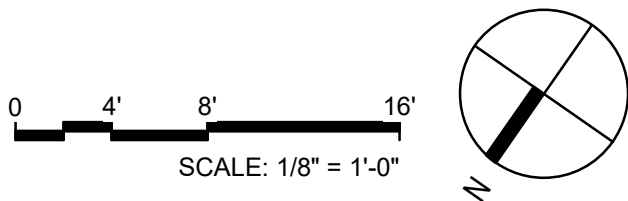
SHEET TITLE:

EXISTING ROOF
FRAMING PLAN

DATE :	DWG. NO.
DEC 19, 2025	S102
SHEET :	
19 OF 30 SHTS	



1 EXISTING ROOF FRAMING PLAN
1/8" = 1'-0"

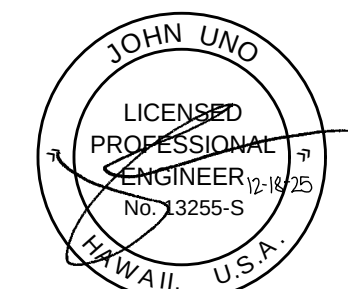


NOTES:

1. REMOVE EXISTING CORRODED 8"x Z-PURLIN WITH 12-GAUGE 8x2.5 Z-PURLIN SPACED AT 5 FEET ON CENTER. REPLACEMENT Z-PURLIN MUST BE CONTINUOUS OVER THREE SUPPORTS AND LAPPED WITH ADJACENT Z-PURLIN LARGER OF 2 FEET OR MANUFACTURER RECOMMENDATION. REMOVE FLANGE BRACING AND PROVIDE IN-KIND REPLACEMENT. SEE DRAWING S501.
2. REMOVE EXISTING CORRODED X-BRACING AND PROVIDE N-KIND REPLACEMENT. ASSUME 3/4" DIAMETER STEEL RODS FOR BIDDING PURPOSES. VERIFY MEMBER SIZE IN FIELD.
3. REMOVE SURFACE CORROSION FROM EXISTING RIGID FRAMES AND APPLY HIGH-PERFORMANCE MARINE COATING.
4. REMOVE DAMAGED GABLE BRACING AND PROVIDE IN-KIND REPLACEMENT. ASSUME HSS8x4x5/16 FOR BIDDING PURPOSES. VERIFY MEMBER SIZE. SEE DRAWING S501.
5. REMOVE EXISTING METAL ROOF AND PROVIDE REPLACEMENT PER ARCHITECTURAL DRAWINGS.
6. VERIFY SIZES OF EXISTING MEMBERS REMOVED.

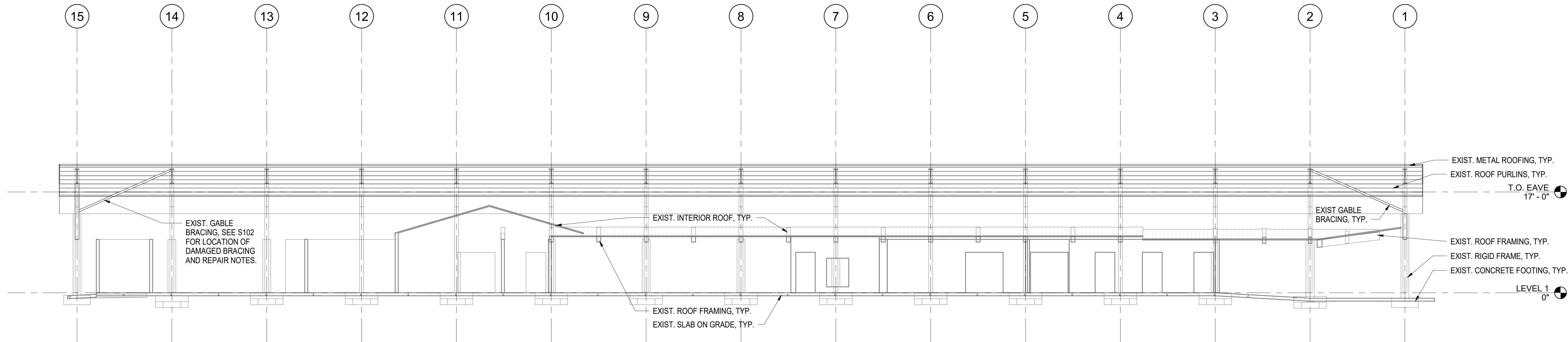


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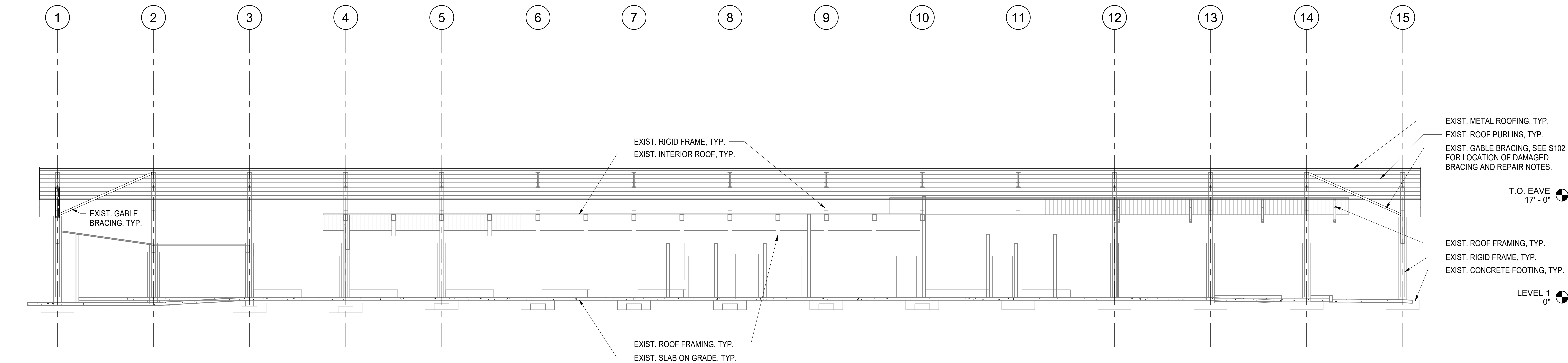


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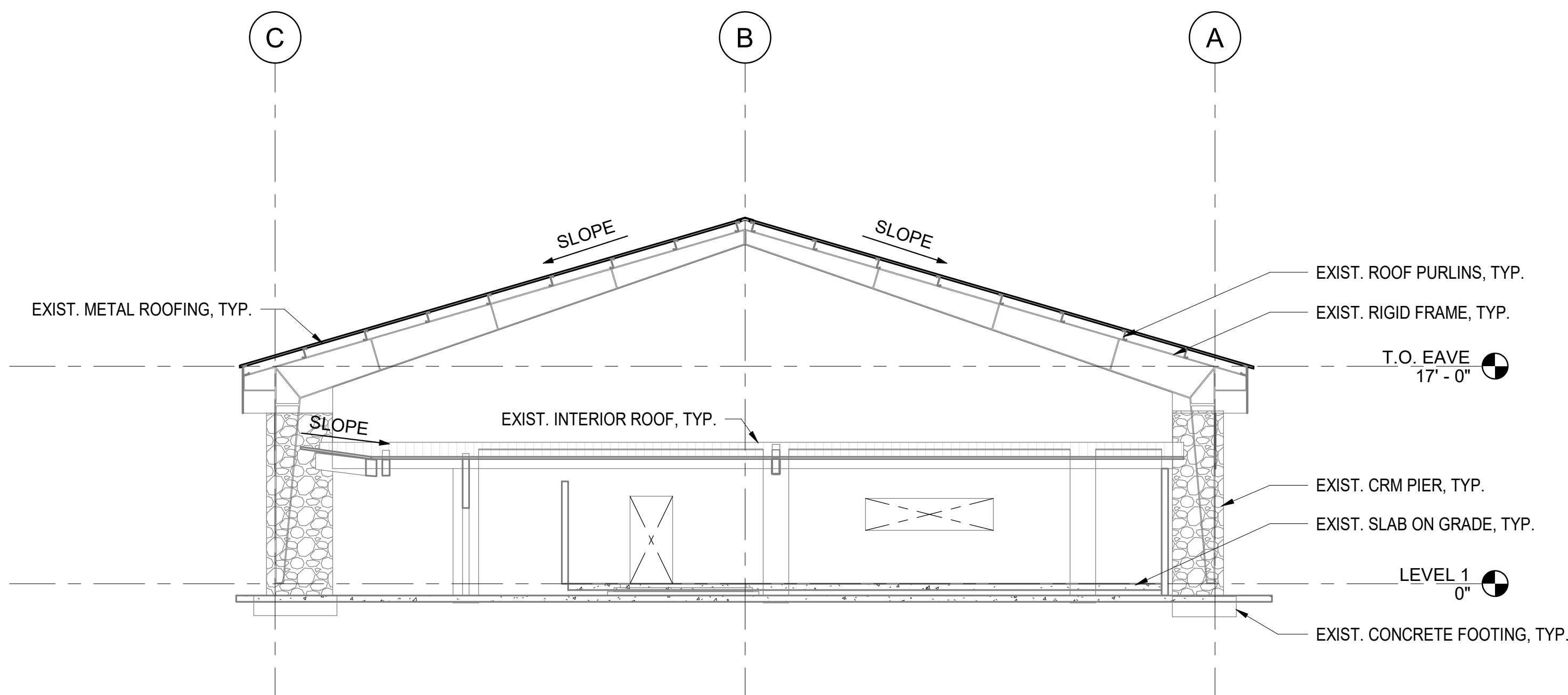
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AP	NS	JU	JU



3 EXISTING BUILDING SECTION
1/8" = 1'-0"



2 EXISTING BUILDING SECTION
1/8" = 1'-0"



1 EXISTING BUILDING SECTION
1/8" = 1'-0"

NO.	DATE	REVISIONS
	6/9/26	ADD #3

CONSTRUCTION DOCUMENTS
DEC 19, 2025
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PROJECT TITLE:

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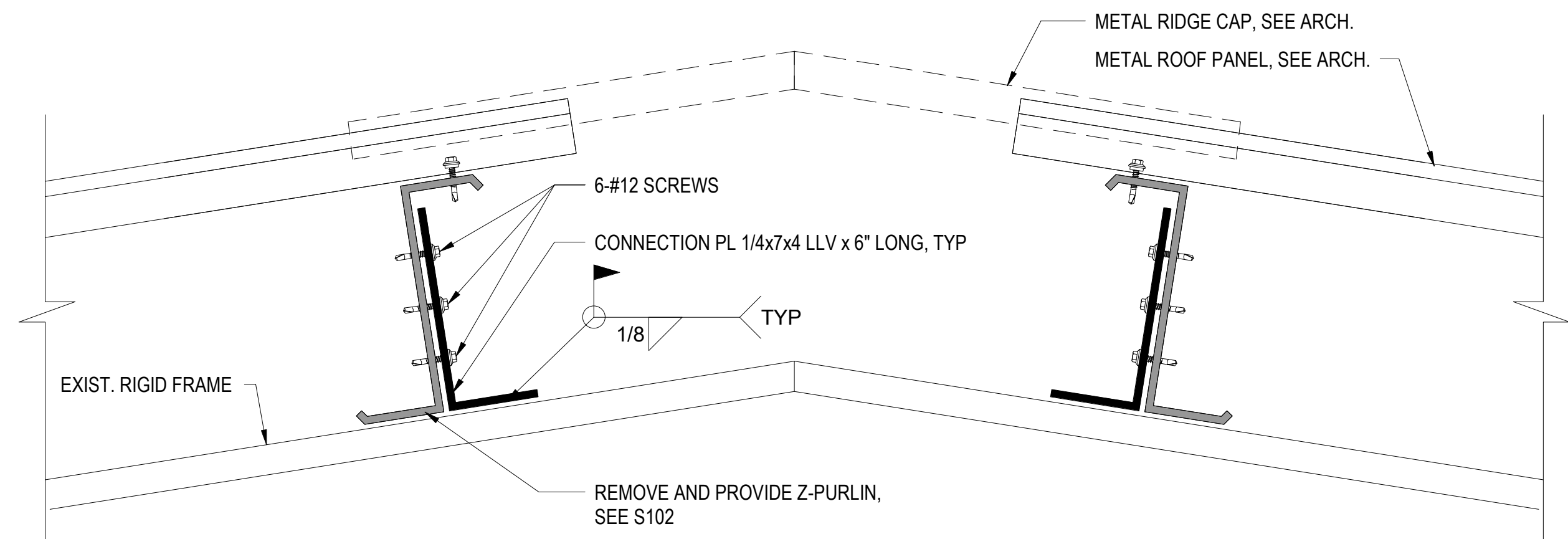
PROJECT NO.:

CM2521-33

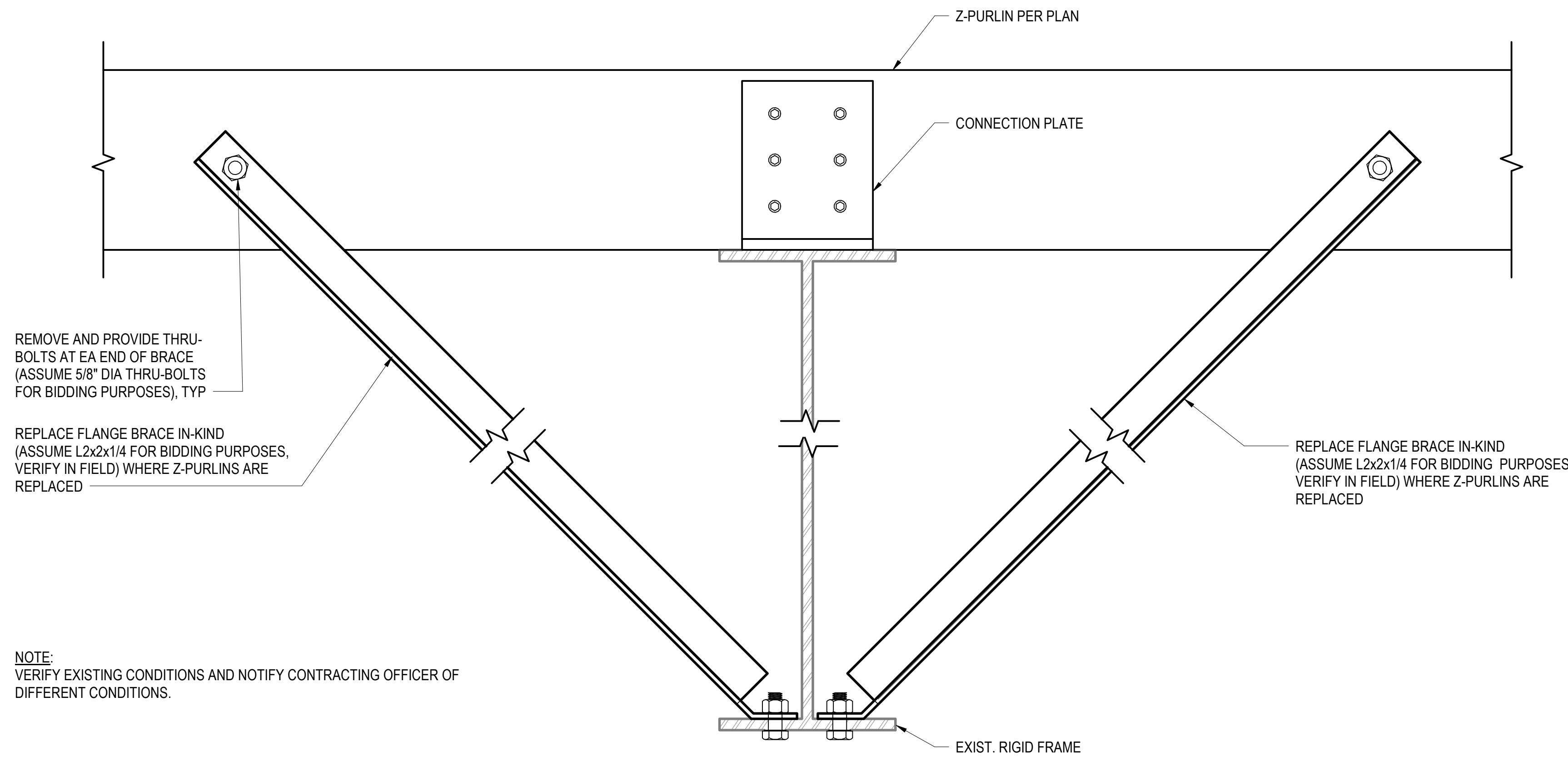
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**EXISTING BUILDING
SECTIONS**

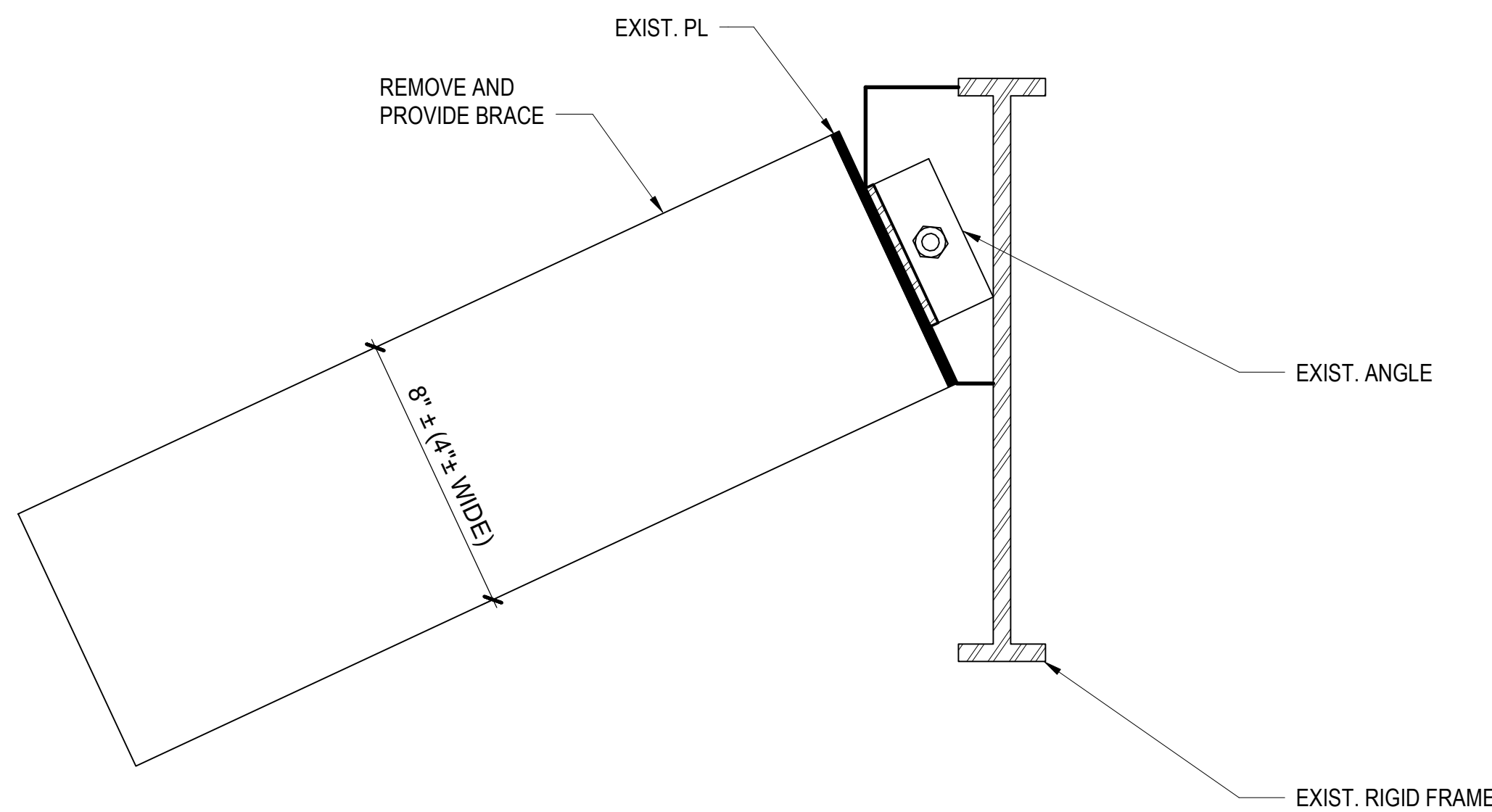
DATE:	DWG. NO.
DEC 19, 2025	S301
SHEET:	
20 OF 30 SHTS	



1 Z-PURLIN CONNECTION DETAIL
3" = 1'-0"

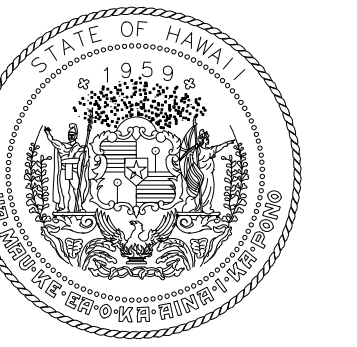


2 FLANGE BRACE CONNECTION DETAIL
3" = 1'-0"

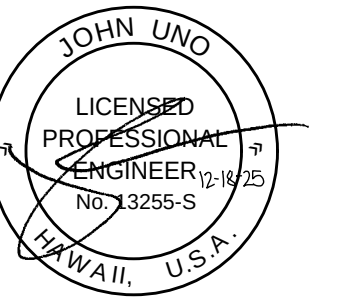


NOTE:
VERIFY EXISTING CONDITIONS AND NOTIFY CONTRACTING OFFICER OF DIFFERENT CONDITIONS. PROVIDE BRACE CONNECTION IN-KIND AT END WALL AND EXISTING RIGID FRAME. CONNECTION DETAIL AT RIGID FRAME PROVIDED FOR BIDDING PURPOSES.

3 GABLE BRACE TO MOMENT FRAME CONNECTION
3" = 1'-0"



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CM2521-33

SHEET TITLE:

ROOF CONNECTION
DETAILS

DATE:	DWG. NO.
DEC 19, 2025	S501
SHEET:	
21 OF 30 SHTS	

GENERAL MECHANICAL NOTES:

1. THE CONTRACTOR SHALL VISIT THE JOB SITE TO VERIFY ALL EXISTING FIELD CONDITION, DIMENSIONS AND OBSTRUCTIONS. THE CONTRACTOR SHALL VERIFY THAT THERE ARE NO UTILITIES PRESENT BEFORE DEMOLITION OF ANY SORT. SHOULD ANY UTILITIES BE DAMAGED IN THE PROCESS OF DEMOLITION, THE CONTRACTOR SHALL REPAIR THE UTILITIES AT NO ADDITIONAL COST TO THE STATE. ANY CLAIMS FILED DUE TO THE DISRUPTION OF THE UTILITY SERVICE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROPERLY DISPOSE OF ALL DEMOLITION MATERIAL, COMPLYING WITH ALL FEDERAL, STATE AND LOCAL CODES.
2. ALL MECHANICAL AND PLUMBING WORK SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL AUTHORITIES HAVING JURISDICTION; AND ALL APPLICABLE CODES IN EFFECT; IBC, UMC, UPC, UFC, NFPA, OSHA AND THE STATE OF HAWAII DEPARTMENT OF HEALTH.
3. ALL WORKMANSHIP SHALL BE OF THE HIGHEST STANDARDS. INSTALL ALL WORK IN A NEAT SYSTEMATIC AND ORDERLY ARRANGEMENT. ALL MATERIAL SHALL BE NEW AND OF THE BEST QUALITY AVAILABLE, FREE FROM ALL DEFECTS. THE CONTRACTOR SHALL GUARANTEE THE MATERIALS AND INSTALLATION FOR ONE YEAR FROM THE PROJECT ACCEPTANCE DATE AGAINST ANY DEFECTS DUE TO FAULTY MATERIALS, EQUIPMENT, WORKMANSHIP OF INSTALLATION. UPON THE NOTICE OF THE DEFECT, THE CONTRACTOR SHALL REPLACE OR REPAIR THE DEFECTIVE ITEM AT NO ADDITIONAL COST.
4. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE WORK OF ALL OTHER TRADES. SHOULD ANY DISCREPANCIES BE DISCOVERED IN THE BID DOCUMENTS (ARCHITECTURAL, CIVIL, STRUCTURAL, ELECTRICAL, MECHANICAL) THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CONTRACTING OFFICER BEFORE PROCEEDING ANY FURTHER WITH THE WORK, OTHERWISE THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL COST INVOLVED WITH THE CORRECTION OF THE CONSTRUCTION INSTALLATION.
5. ALL EQUIPMENT, DUCTWORK, PIPING ETC. SHALL BE SUPPORTED FROM THE BUILDING STRUCTURAL MEMBERS. ALL PATCHWORK SHALL MATCH THE EXISTING ADJACENT SURFACE IN TEXTURE AND COLOR UNLESS INDICATED OTHERWISE. COORDINATE ALL PATCHWORK WITH THE ARCHITECTURAL DRAWINGS. PAINT ALL EXPOSED SURFACES TO MATCH THE ADJACENT SURFACES UNLESS INDICATED OTHERWISE. PROVIDE CORROSION PROTECTION ON ALL EXPOSED SURFACES AS INDICATED IN THE SPECIFICATIONS.
6. THE CONTRACTOR SHALL PERFORM TEST ON ALL MECHANICAL SYSTEMS AS REQUIRED BY FEDERAL, STATE AND LOCAL CODES AND REGULATIONS. ALL TEST SHALL BE WITNESSED AND ACCEPTED BY THE AUTHORITY HAVING JURISDICTION. THE CONTRACTOR SHALL PROVIDE ALL SERVICES AND MATERIALS REQUIRED BY THE TEST AND CERTIFY IN WRITING THAT ALL WORK HAS PASSED ALL REQUIRED TEST. TESTING AND BALANCING OF THE WATER SYSTEMS SHALL BE COMPLETED BY A THIRD PARTY INDEPENDENT NEBB OR AABC CERTIFIED CONTRACTOR, RETAINED BY THE CONTRACTOR.
7. ALL PIPE, DUCT, CONDUIT, ETC PENETRATIONS THRU ASSEMBLIES (LISTED IN IBC 2018 SEC. 714.4) AND FIRE RESISTANCE RATED WALL ASSEMBLIES (LISTED IN IBC 2018 SEC. 714.3) SHALL BE PROTECTED BY METHODS DESCRIBED IN IBC 2018 SEC. 714. PENETRATIONS SHALL NOT BE MADE WHERE PROHIBITED BY THE BUILDING CODE.
8. CAP ALL PIPE AND DUCT ENDS AND OPENINGS UNTIL NEW PIPE OR DUCT IS RECONNECTED. ENSURE THAT ALL CONNECTIONS ARE FREE OF DUST AND DEBRIS PRIOR TO RECONNECTION.
9. PROVIDE WIRE MOLDING / CONDUITS FOR FINISHED AREAS AND JUNCTION BOXES AS REQUIRED FOR ALL POWER AND CONTROL WIRING. COORDINATE WITH ELECTRICAL SPECIFICATIONS AND MATCH ACCORDINGLY. ALL CONTROL WIRING 120V AND GREATER SHALL BE INSTALL BE A LICENSED ELECTRICAL CONTRACTOR.
10. PROVIDE ACCESS PANELS FOR ALL CLEANOUTS AND SHUTOFF VALVES LOCATED IN THE WALLS AND CEILINGS. CONCEAL ALL PIPING IN PUBLIC SPACES. WHERE IMPRACTICAL TO CONCEAL PIPING, ROUTE PIPING AS HIGH AS POSSIBLE. NO TRAPS IN THE PIPING ARE ALLOWED.
11. PROVIDE IDENTIFICATION FOR ALL PIPING BY MEANS OF COLORED, WATERPROOF, ALL TEMPERATURE, SELF ADHERING LABEL AND DIRECTIONAL ARROWS OR BY PAINTING USING CONTRACTING COLORS, $\frac{3}{8}$ " MINIMUM HEIGHT STENCIL LETTERING.
12. PROVIDE SEISMIC BRACING ON ALL EQUIPMENT, DUCTWORK, PIPING, ETC. AS REQUIRED BY THE 2012 INTERNATIONAL BUILDING CODE AND AS DETAILED BY SMACNA STANDARDS.
13. ALL CONTROL WIRING SHALL BE IN RIGID CONDUIT. PLENUM TYPE WIRING AND INSTALLATION IS NOT ACCEPTABLE.

EXHAUST FANS:

NO.	MODEL NO.	LOCATION	TYPE	CFM	ESP (IN. WG)	APPROX RPM	DRIVE	SONES	ELECTRICAL				REMARKS
									HP	V	PH	HZ.	
EF 1	COOK 150C6B OR APPROVED EQUAL	—	DOWNBLAST	2,220	0.5"	1,725	BELT	—	0.5	115	1	60	INTEGRAL BACKDRAFT DAMPER INTERLOCK FAN WITH LIGHT SWITCH
EF 2	COOK 120C3B OR APPROVED EQUAL	—	DOWNBLAST	1,120	0.5"	1,725	BELT	—	0.25	115	1	60	INTEGRAL BACKDRAFT DAMPER INTERLOCK FAN WITH LIGHT SWITCH
EF 3	COOK 150C6B OR APPROVED EQUAL	—	DOWNBLAST	2,420	0.5"	1,725	BELT	—	0.75	115	1	60	INTEGRAL BACKDRAFT DAMPER INTERLOCK FAN WITH LIGHT SWITCH
EF 4	COOK 135C5B OR APPROVED EQUAL	—	DOWNBLAST	1,800	0.5"	1,725	BELT	—	0.5	115	1	60	INTEGRAL BACKDRAFT DAMPER INTERLOCK FAN WITH LIGHT SWITCH
EF 5	COOK 210RH9B OR APPROVED EQUAL	GREASE HOOD	UPBLAST	2,240	2.25"	1,725	BELT	—	2.0	115	1	60	INTEGRAL BACKDRAFT DAMPER INTERLOCK FAN WITH HOOD CONTROLS

GENERAL PLUMBING NOTES:

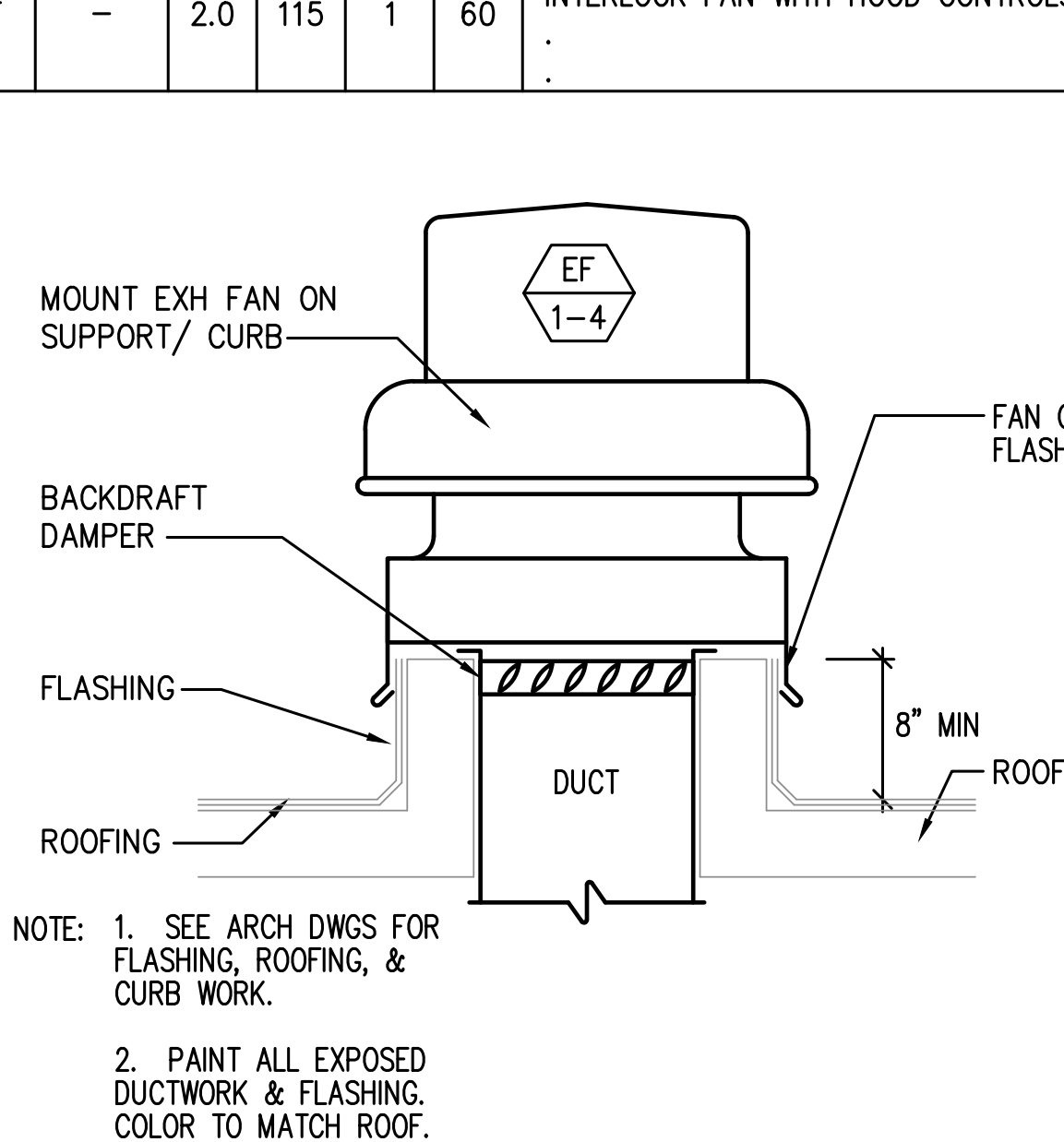
1. THE CONTRACTOR SHALL VISIT THE JOB SITE TO VERIFY ALL EXISTING FIELD CONDITION, DIMENSIONS AND OBSTRUCTIONS. THE CONTRACTOR SHALL VERIFY THAT THERE ARE NO UTILITIES PRESENT BEFORE DEMOLITION OF ANY SORT. SHOULD ANY UTILITIES BE DAMAGED IN THE PROCESS OF DEMOLITION, THE CONTRACTOR SHALL REPAIR THE UTILITIES AT NO ADDITIONAL COST TO THE STATE. ANY CLAIMS FILED DUE TO THE DISRUPTION OF THE UTILITY SERVICE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROPERLY DISPOSE OF ALL DEMOLITION MATERIAL, COMPLYING WITH ALL FEDERAL, STATE AND LOCAL CODES.
2. ALL MECHANICAL AND PLUMBING WORK SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL AUTHORITIES HAVING JURISDICTION; AND ALL APPLICABLE CODES IN EFFECT; IBC, UMC, UPC, UFC, NFPA, OSHA AND THE STATE OF HAWAII DEPARTMENT OF HEALTH.
3. ALL WORKMANSHIP SHALL BE OF THE HIGHEST STANDARDS. INSTALL ALL WORK IN A NEAT SYSTEMATIC AND ORDERLY ARRANGEMENT. ALL MATERIAL SHALL BE NEW AND OF THE BEST QUALITY AVAILABLE, FREE FROM ALL DEFECTS. THE CONTRACTOR SHALL GUARANTEE THE MATERIALS AND INSTALLATION FOR ONE YEAR FROM THE PROJECT ACCEPTANCE DATE AGAINST ANY DEFECTS DUE TO FAULTY MATERIALS, EQUIPMENT, WORKMANSHIP OF INSTALLATION. UPON THE NOTICE OF THE DEFECT, THE CONTRACTOR SHALL REPLACE OR REPAIR THE DEFECTIVE ITEM AT NO ADDITIONAL COST.
4. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE WORK OF ALL OTHER TRADES. SHOULD ANY DISCREPANCIES BE DISCOVERED IN THE BID DOCUMENTS (ARCHITECTURAL, CIVIL, STRUCTURAL, ELECTRICAL, MECHANICAL) THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OFFICER-IN-CHARGE BEFORE PROCEEDING ANY FURTHER WITH THE WORK, OTHERWISE THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL COST INVOLVED WITH THE CORRECTION OF THE CONSTRUCTION INSTALLATION.
5. ALL EQUIPMENT, DUCTWORK, PIPING ETC. SHALL BE SUPPORTED FROM THE BUILDING STRUCTURAL MEMBERS. PAINT ALL EXPOSED PIPING IN FINISHED AREAS TO MATCH THE ADJACENT SURFACES OR OTHERWISE AS INSTRUCTED AS EQUAL AND ACCEPTABLE TO THE UNIVERSITY. ALL PATCHWORK SHALL MATCH THE EXISTING ADJACENT SURFACE IN TEXTURE AND COLOR UNLESS INDICATED OTHERWISE. COORDINATE ALL PATCHWORK WITH THE ARCHITECTURAL DRAWINGS. PAINT ALL EXPOSED SURFACES TO MATCH THE ADJACENT SURFACES UNLESS INDICATED OTHERWISE. PROVIDE CORROSION PROTECTION ON ALL EXPOSED SURFACES AS INDICATED IN THE SPECIFICATIONS.
6. THE CONTRACTOR SHALL PERFORM TEST ON ALL MECHANICAL SYSTEMS AS REQUIRED BY FEDERAL, STATE AND LOCAL CODES AND REGULATIONS. ALL TEST SHALL BE WITNESSED AND ACCEPTED BY THE AUTHORITY HAVING JURISDICTION. THE CONTRACTOR SHALL PROVIDE ALL SERVICES AND MATERIALS REQUIRED BY THE TEST AND CERTIFY IN WRITING THAT ALL WORK HAS PASSED ALL REQUIRED TEST. TESTING AND BALANCING OF THE WATER SYSTEMS SHALL BE COMPLETED BY A THIRD PARTY INDEPENDENT NEBB OR AABC CERTIFIED CONTRACTOR, RETAINED BY THE CONTRACTOR.
7. ALL PIPE, DUCT, CONDUIT, ETC PENETRATIONS THRU ASSEMBLIES (LISTED IN IBC 2012 SEC. 714.4) AND FIRE RESISTANCE RATED WALL ASSEMBLIES (LISTED IN IBC 2012 SEC. 714.3) SHALL BE PROTECTED BY METHODS DESCRIBED IN IBC 2012 SEC. 714. PENETRATIONS SHALL NOT BE MADE WHERE PROHIBITED BY THE BUILDING CODE.
8. CAP ALL PIPE AND DUCT ENDS AND OPENINGS UNTIL NEW PIPE OR DUCT IS RECONNECTED. ENSURE THAT ALL CONNECTIONS ARE FREE OF DUST AND DEBRIS PRIOR TO RECONNECTION.
9. PROVIDE WIRE MOLDING / CONDUITS FOR FINISHED AREAS AND JUNCTION BOXES AS REQUIRED FOR ALL POWER AND CONTROL WIRING. COORDINATE WITH ELECTRICAL SPECIFICATIONS AND MATCH ACCORDINGLY. ALL CONTROL WIRING 120V AND GREATER SHALL BE INSTALL BE A LICENSED ELECTRICAL CONTRACTOR.
10. PROVIDE ACCESS PANELS FOR ALL CLEANOUTS AND SHUTOFF VALVES LOCATED IN THE WALLS AND CEILINGS. CONCEAL ALL PIPING IN PUBLIC SPACES. WHERE IMPRACTICAL TO CONCEAL PIPING, ROUTE PIPING AS HIGH AS POSSIBLE. NO TRAPS IN THE PIPING ARE ALLOWED.
11. PROVIDE IDENTIFICATION FOR ALL PIPING BY MEANS OF COLORED, WATERPROOF, ALL TEMPERATURE, SELF ADHERING LABEL AND DIRECTIONAL ARROWS OR BY PAINTING USING CONTRACTING COLORS, $\frac{3}{8}$ " MINIMUM HEIGHT STENCIL LETTERING.
12. PROVIDE SEISMIC BRACING ON ALL EQUIPMENT, DUCTWORK, PIPING, ETC. AS REQUIRED BY THE 2012 INTERNATIONAL BUILDING CODE AND AS DETAILED BY SMACNA STANDARDS.
13. ALL CONTROL WIRING SHALL BE IN RIGID CONDUIT. PLENUM TYPE WIRING AND INSTALLATION IS NOT ACCEPTABLE.

MECHANICAL LEGEND & ABBREVIATIONS

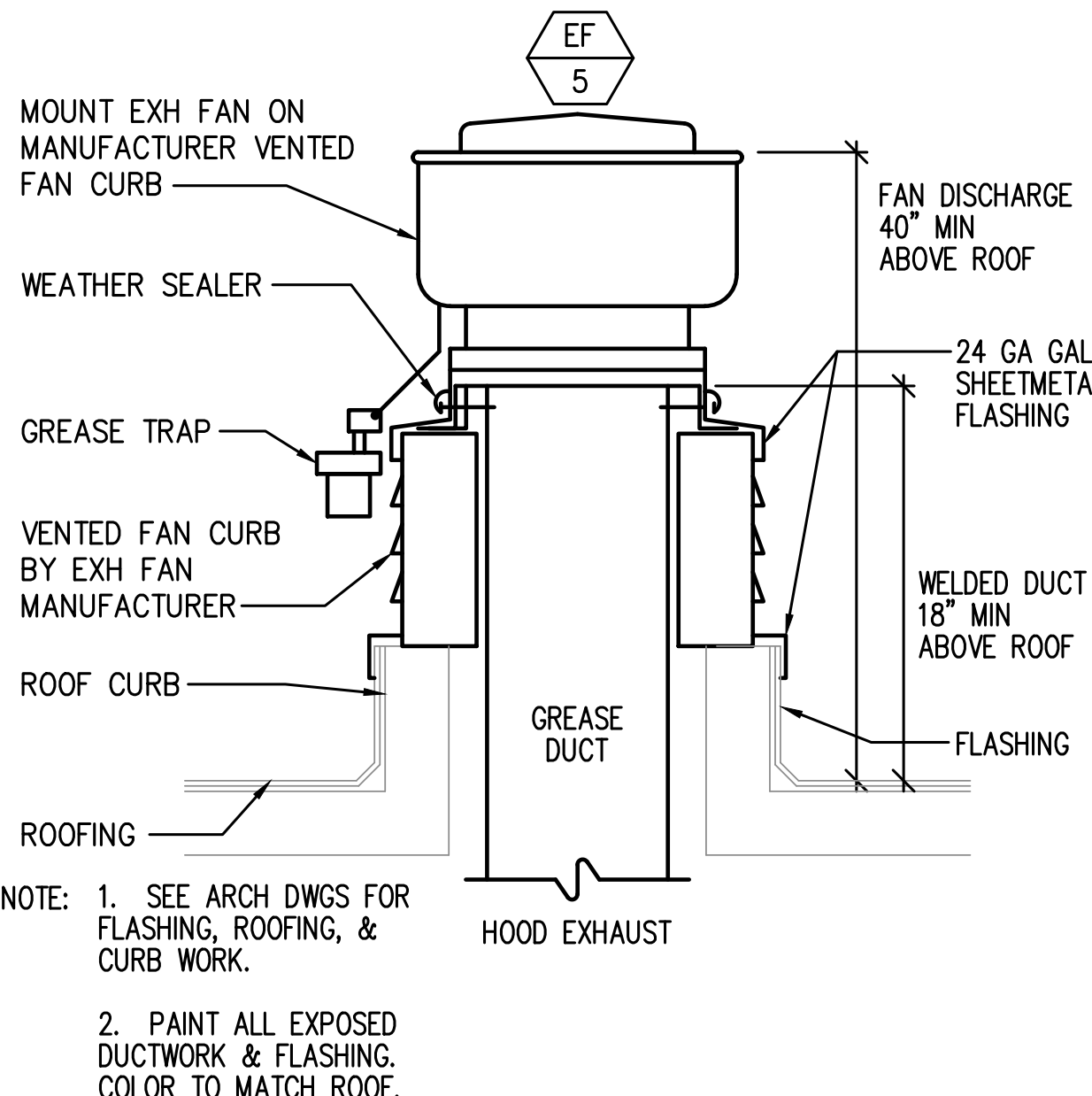
SYMBOL	ABBREV	DESCRIPTION	SYMBOL	ABBREV	DESCRIPTION
	ABV	ABOVE		EXH	EXHAUST
	ACCU	AIR COOLED CONDENSING UNIT		EXIST	EXISTING
	AFF	ABOVE FINISHED FLOOR		EXT	EXTERIOR
	AHJ	AUTHORITY HAVING JURISTCTION		FCU	FAN COIL UNIT
	ARCH	ARCHITECT		FLR	FLOOR
	BOT	BOTTOM		MECH	MECHANICAL
	CD	CEILING DIFFUSER		MTD	MOUNTED
		/ CONDENSATE DRAIN		RR	RETURN REGISTER
	CFM	CUBIC FEET PER MINUTE		SF	SUPPLY FAN
	CLG	CEILING		SHT	SHEET
	CO	CLEANOUT		SR	SUPPLY REGISTER
	CONC	CONCRETE		STRUCT	STRUCTURAL
	CONN	CONNECT / CONNECTION		TG	TRANSFER GRILLE
	COORD	COORDINATE		TYP	TYPICAL
ø	DIA	DIAMETER	_____		NEW EQUIPMENT / WORK
DN	DOWN	-----			EXIST EQUIPMENT AND
DWG	DRAWING	_____			WORK TO REMOVE
EF	EXHAUST FAN	_____			EXIST EQUIPMENT AND
ELEC	ELECTRICAL				WORK TO REMAIN

PLUMBING LEGEND & ABBREVIATIONS

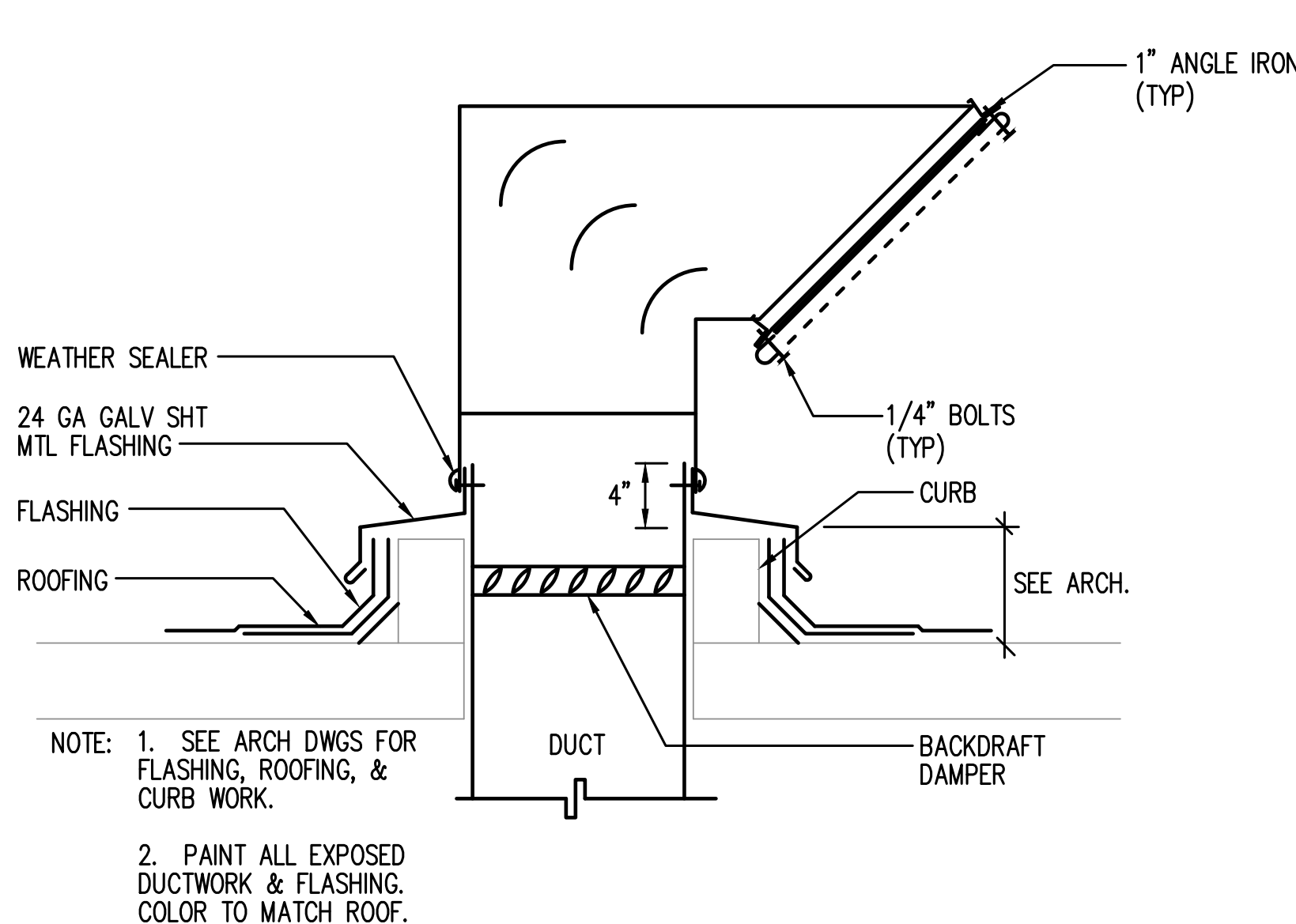
SYMBOL	ABBREV	DESCRIPTION	SYMBOL	ABBREV	DESCRIPTION
	ABV	ABOVE		FLR	FLOOR
	AFF	ABOVE FINISHED FLOOR		FS	FLOOR SINK
	ARCH	ARCHITECTURAL		MECH	MECHANICAL
	BEL	BELOW		MS	MOP SINK
	BFS	BOTTLE FILLING STATION		MTD	MOUNTED
	CLG	CEILING		RECONN	RECONNECT
	CONC	CONCRETE		SHT	SHEET
	CONN	CONNECTION		SK	SINK
	CONT	CONTINUATION		STRUCT	STRUCTURAL
	COORD	COORDINATE		TYP	TYPICAL
	DEMO	DEMOLITION		WCO	WALL CLEANOUT
	DIA	DIAMETER	_____		NEW EQUIP / WORK
	DN	DOWN	-----		EXIST WORK TO BE REMOVED
	DWG	DRAWING	_____		EXIST EQUIPMENT & WORK TO REMAIN
	EA	EACH	-----	CW	COLD WATER PIPE
	ELEC	ELECTRICAL	_____	S	SANITARY PIPE
	EQUIP	EQUIPMENT	- - - -	V	VENT PIPE
	EW	ELECTRIC WATER COOLER	-----	CW	EXIST COLD WATER PIPE TO REMAIN
	EXIST	EXISTING	-----	HW	EXIST HOT WATER PIPE TO REMAIN
	FCO	FLOOR CLEANOUT	-----	S	EXIST SANITARY PIPE TO REMAIN
	FD	FLOOR DRAIN	- - - -	V	EXIST VENT PIPE TO REMAIN



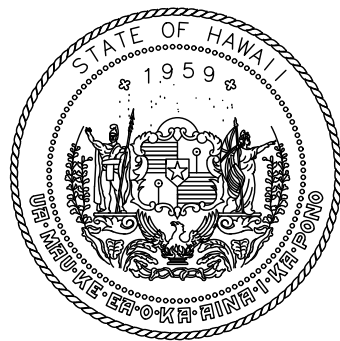
A EXHAUST FAN DETAIL
M001 SCALE: NOT TO SCALE



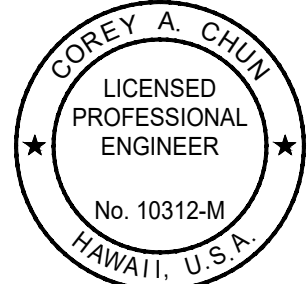
B GREASE EXHAUST FAN DETAIL
M001 SCALE: NOT TO SCALE



C GENERATOR EXHAUST HOOD DISCHARGE DETAIL
M001 SCALE: NOT TO SCALE



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS



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KP	KP	KK	CC

NO.	DATE	REVISIONS
	6/9/26	ADD #3

CONSTRUCTION DOCUMENTS

DEC 19, 2025
DATE

PROJECT TITLE:

MKK TERMINAL BUILDING
ROOF REPLACEMENT

AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

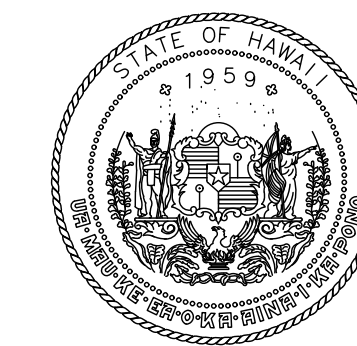
PROJECT NO.:

CM2521-33

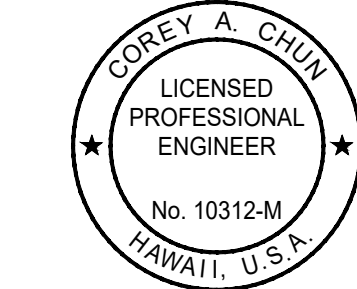
SHEET TITLE:

GENERAL NOTES,
EQUIPMENT
SCHEDULE

DATE:	DWG. NO.
DEC 19, 2025	M001
SHEET :	
22 OF 30 SHTS	



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS



Corey A. Chiu
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04/30/2025
License Expiration Date

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KP	KP	KK	CC

NO.	DATE	REVISIONS
	6/9/25	ADD #3

CONSTRUCTION DOCUMENTS

DEC 19, 2025
DATE

PROJECT TITLE:

**MKK TERMINAL BUILDING
ROOF REPLACEMENT**

AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

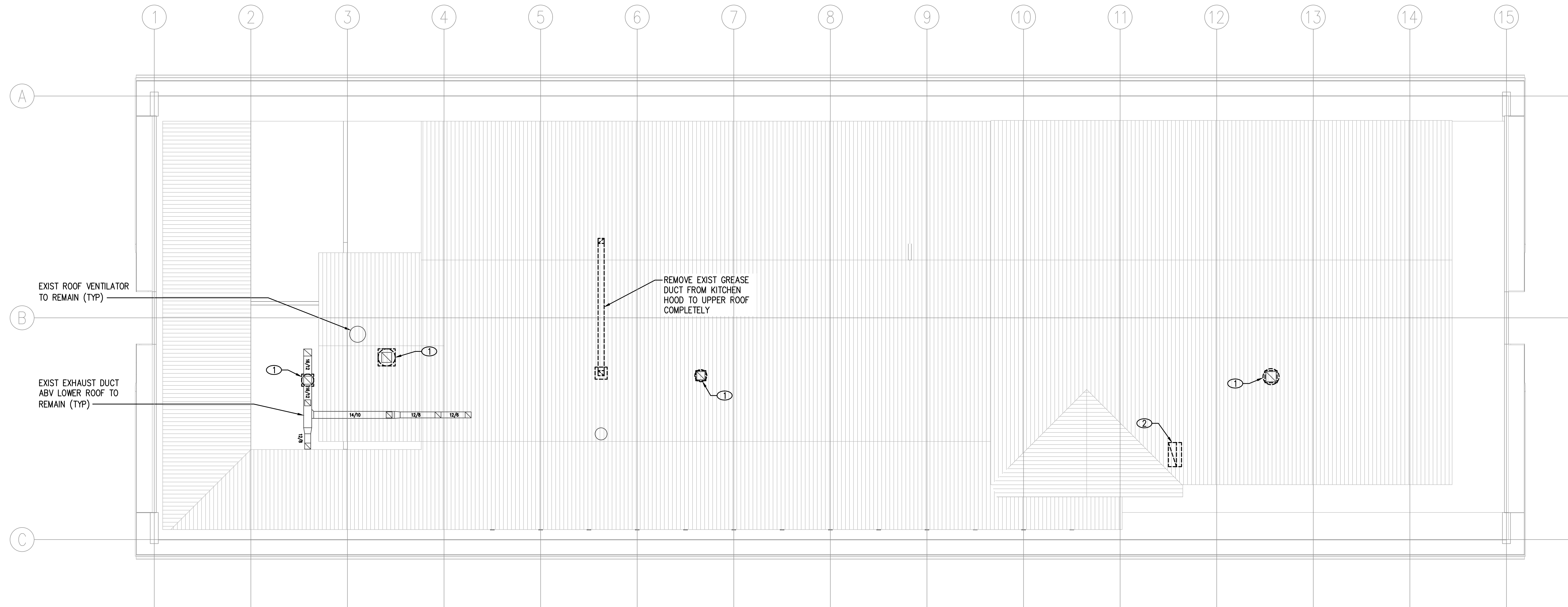
PROJECT NO.:

CM2521-33

SHEET TITLE:

**LOWER ROOF
DEMOLITION PLAN**

DATE:	DWG. NO.
DEC 19, 2025	M101
SHEET:	
23 OF 30 SHTS	



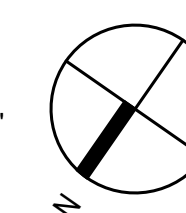
A LOWER ROOF DEMOLITION PLAN
M101 SCALE: 1/8" = 1'-0"

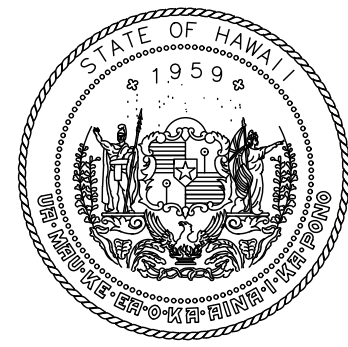
MECHANICAL DEMOLITION NOTES:

COORDINATE REMOVAL OF ALL MECHANICAL WORK (I.E. EQUIPMENT, PIPING, DUCTWORK AND ACCESSORIES) ABOVE THE CLG WITH ARCH DWGS AND CLG WORK. COORD THE REMOVAL OF EQUIPMENT WITH ELEC DWGS.

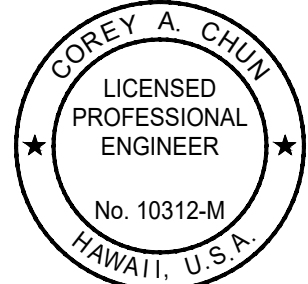
- 1 REMOVE EXIST EF AT LOWER ROOF COMPLETELY INCLUDING ALL SUPPORTS, ACCESSORIES AND CONTROL WIRING. CAP EXIST DUCT END ABV LOWER ROOF TO REMAIN UNTIL RECONNECTED.
- 2 CUT, DISCONNECT AND REMOVE EXIST GENERATOR EXHAUST DUCT. CAP EXIST DUCT END ABV LOWER ROOF TO REMAIN UNTIL RECONNECTED.

0 4' 8' 16'
SCALE: 1/8" = 1'-0"





STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS



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04/30/2025
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KP	KP	KK	CC

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	6/9/26	ADD #3
NO.	DATE	REVISIONS

CONSTRUCTION
DOCUMENTS

DEC 19, 2025
DATE

PROJECT TITLE:

MKK TERMINAL BUILDING
ROOF REPLACEMENT

AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

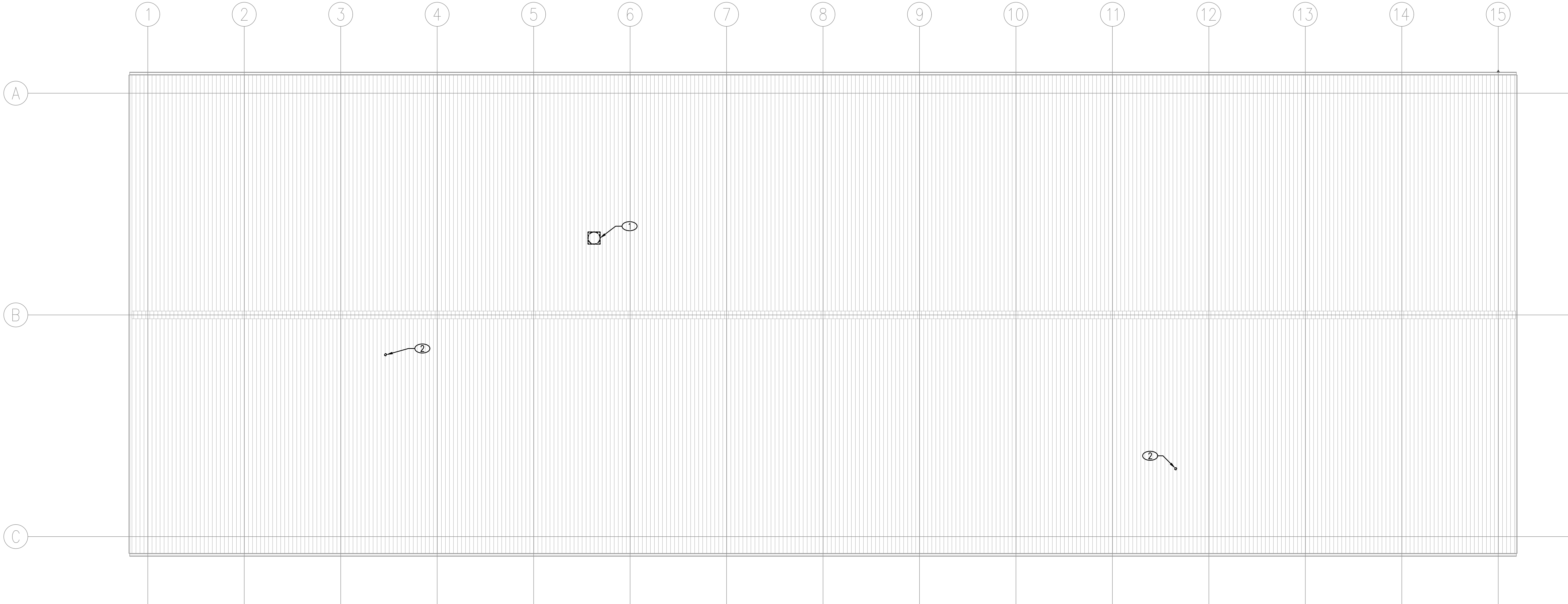
PROJECT NO.:

CM2521-33

SHEET TITLE:

UPPER ROOF
DEMOLITION PLAN

DATE:	DWG. NO.
DEC 19, 2025	M102
SHEET:	
24 OF 30 SHTS	



A UPPER ROOF DEMOLITION PLAN
M102 SCALE: 1/8" = 1'-0"

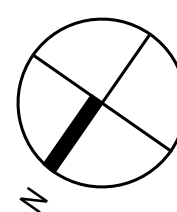
MECHANICAL DEMOLITION NOTES:

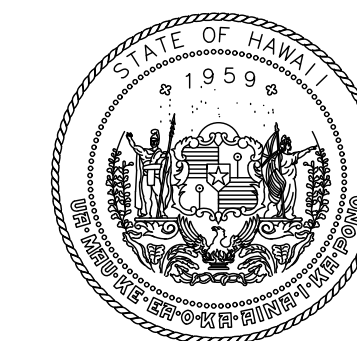
COORDINATE REMOVAL OF ALL MECHANICAL WORK (I.E. EQUIPMENT, PIPING, DUCTWORK AND ACCESSORIES) ABOVE THE CLG WITH ARCH DWGS AND CLG WORK. COORD THE REMOVAL OF EQUIPMENT WITH ELEC DWGS.

- ① REMOVE EXIST GREASE EF AT UPPER ROOF COMPLETELY INCLUDING ALL SUPPORTS, ACCESSORIES AND CONTROL WIRING. REMOVE EXIST GREASE DUCT AT EXIST KITCHEN HOOD COLLAR AND CAP UNTIL RECONNECTED.
- ② REMOVE EXIST VTR. CUT AND CAP EXIST V PIPE BEL ROOF TO REMAIN UNTIL RECONNECTED. TEMPORARILY SUPPORT VENT RISER UNTIL RECONNECTED.

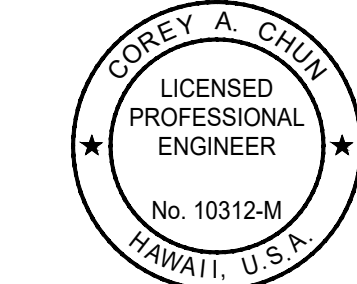


SCALE: 1/8" = 1'-0"





STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS



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KP	KP	KK	CC

NO.	DATE	REVISIONS
	6/9/26	ADD #3

CONSTRUCTION
DOCUMENTS

DEC 19, 2025
DATE

PROJECT TITLE:

MKK TERMINAL BUILDING
ROOF REPLACEMENT

AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

PROJECT NO.:

CM2521-33

SHEET TITLE:

LOWER ROOF
MECHANICAL PLAN

DATE:

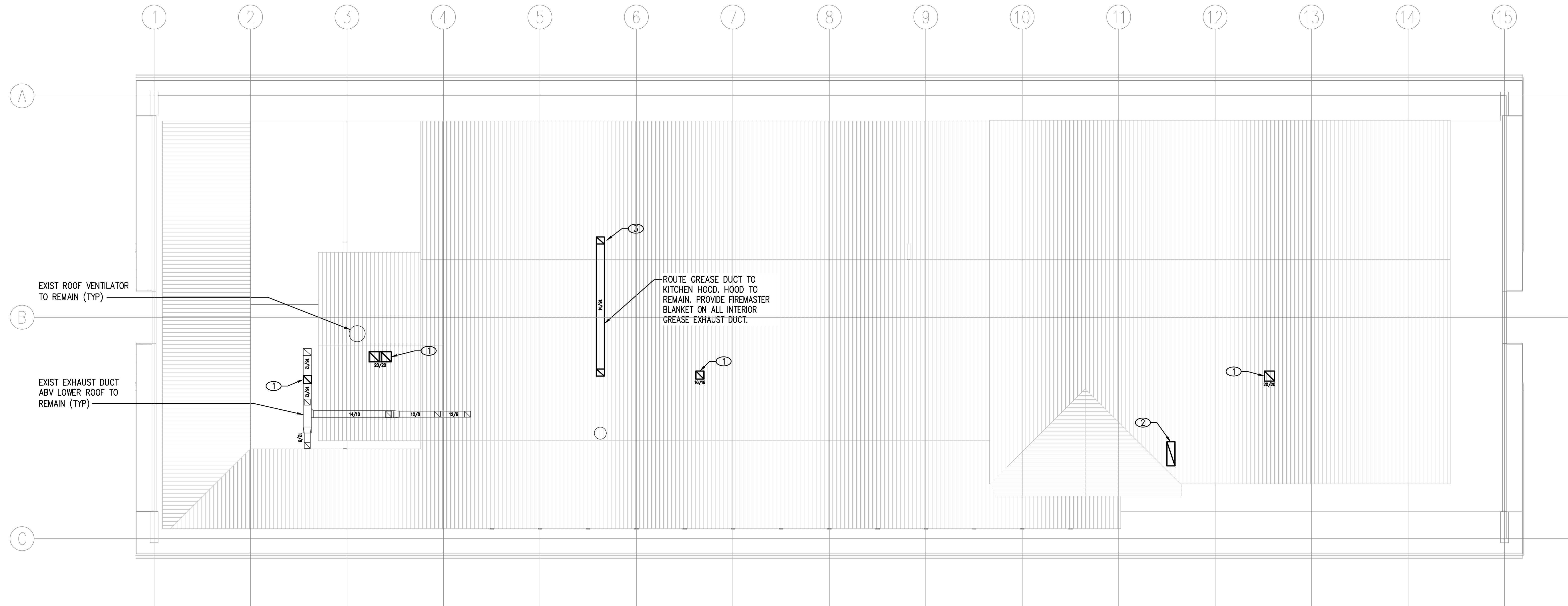
DEC 19, 2025

SHEET:

25 OF 30 SHTS

DWG. NO.

M201



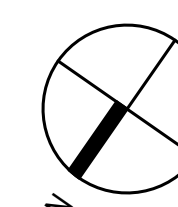
A LOWER ROOF MECHANICAL PLAN
M201 SCALE: 1/8" = 1'-0"

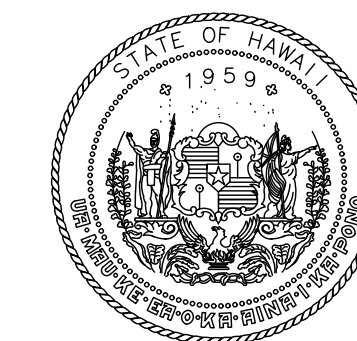
MECHANICAL WORK NOTES:

CONTRACTOR TO COORD INSTALLATION OF ALL MECHANICAL WORK WITH
ARCH, STRUCT AND ELEC DWGS.

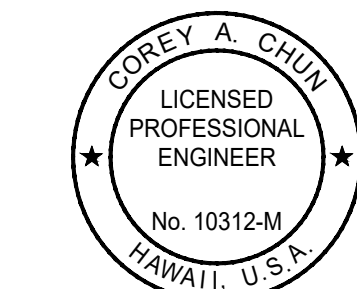
- CONN EXHAUST DUCT TO EXIST AND ROUTE ABV UPPER ROOF. MATCH EXIST
DUCT SIZE AND ADJUST CONN SIZE ACCORDINGLY.
- CONN GENERATOR EXHAUST DUCT TO EXIST AND ROUTE UP ABV UPPER ROOF.
MATCH EXIST DUCT SIZE AND ADJUST CONN SIZE ACCORDINGLY.
- ROUTE GREASE EXHAUST DUCT FROM KITCHEN HOOD ABV UPPER ROOF. PROVIDE
FIREMASTER BLANKET ON ALL INTERIOR GREASE EXHAUST DUCT. PROVIDE DUCT
ACCESS PANELS AT ALL CHANGES IN DIRECTION.

0 4' 8' 16'
SCALE: 1/8" = 1'-0"





STATE OF HAWAII
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AIRPORTS



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KP	KP	KK	CC

NO.	DATE	REVISIONS
	6/9/26	ADD #3

CONSTRUCTION
DOCUMENTS

DEC 19, 2025
DATE

PROJECT TITLE:

MKK TERMINAL BUILDING
ROOF REPLACEMENT

AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

PROJECT NO.:

CM2521-33

SHEET TITLE:

UPPER ROOF
MECHANICAL PLAN

DATE:

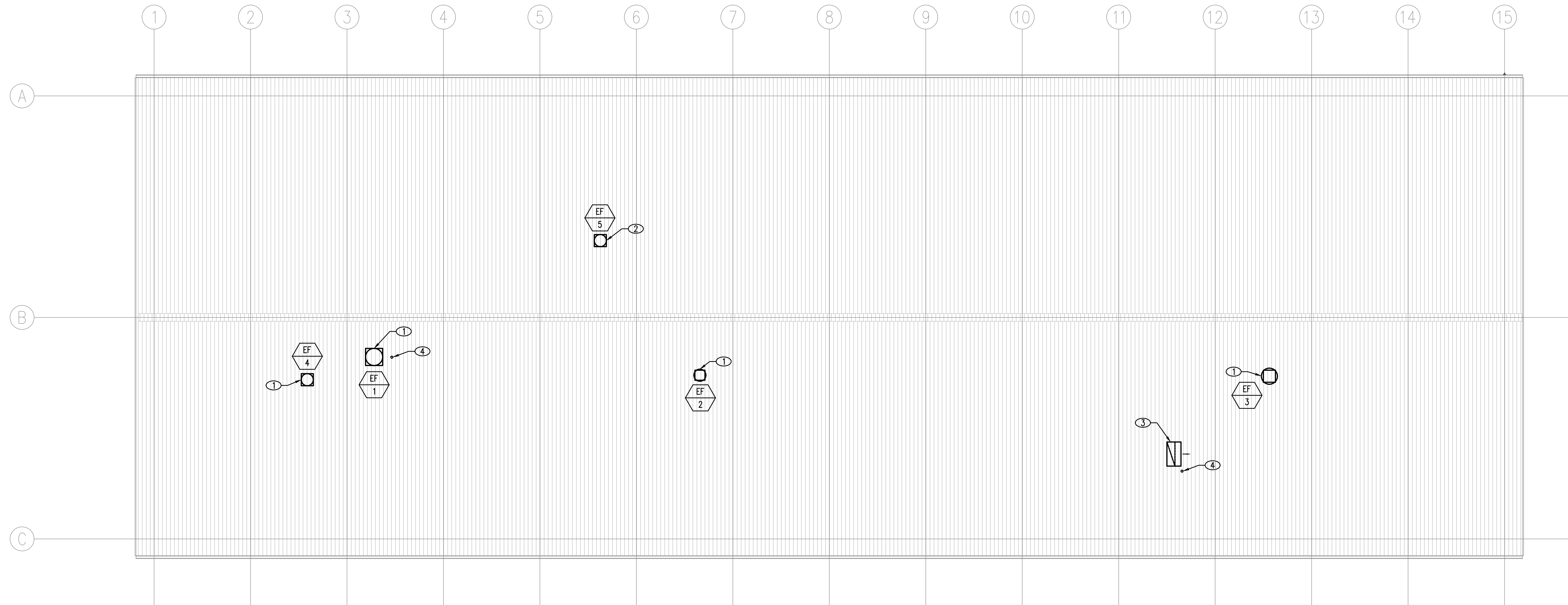
DEC 19, 2025

SHEET:

26 OF 30 SHTS

DWG. NO.

M202



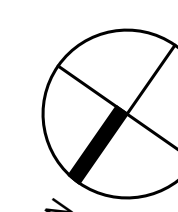
A UPPER ROOF MECHANICAL PLAN
M202 SCALE: 1/8" = 1'-0"

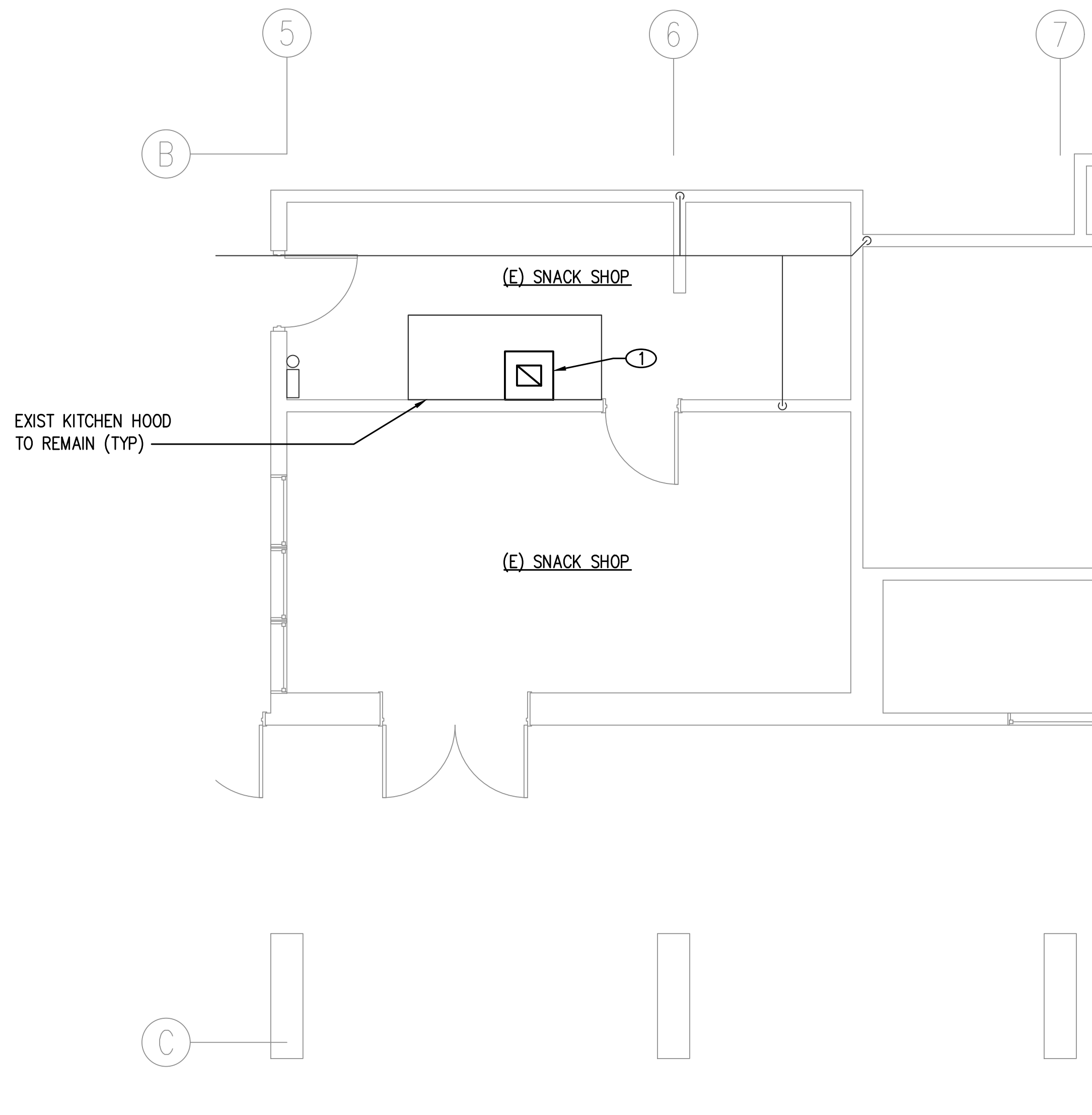
MECHANICAL WORK NOTES:

CONTRACTOR TO COORD INSTALLATION OF ALL MECHANICAL WORK WITH
ARCH, STRUCT AND ELEC DWGS.

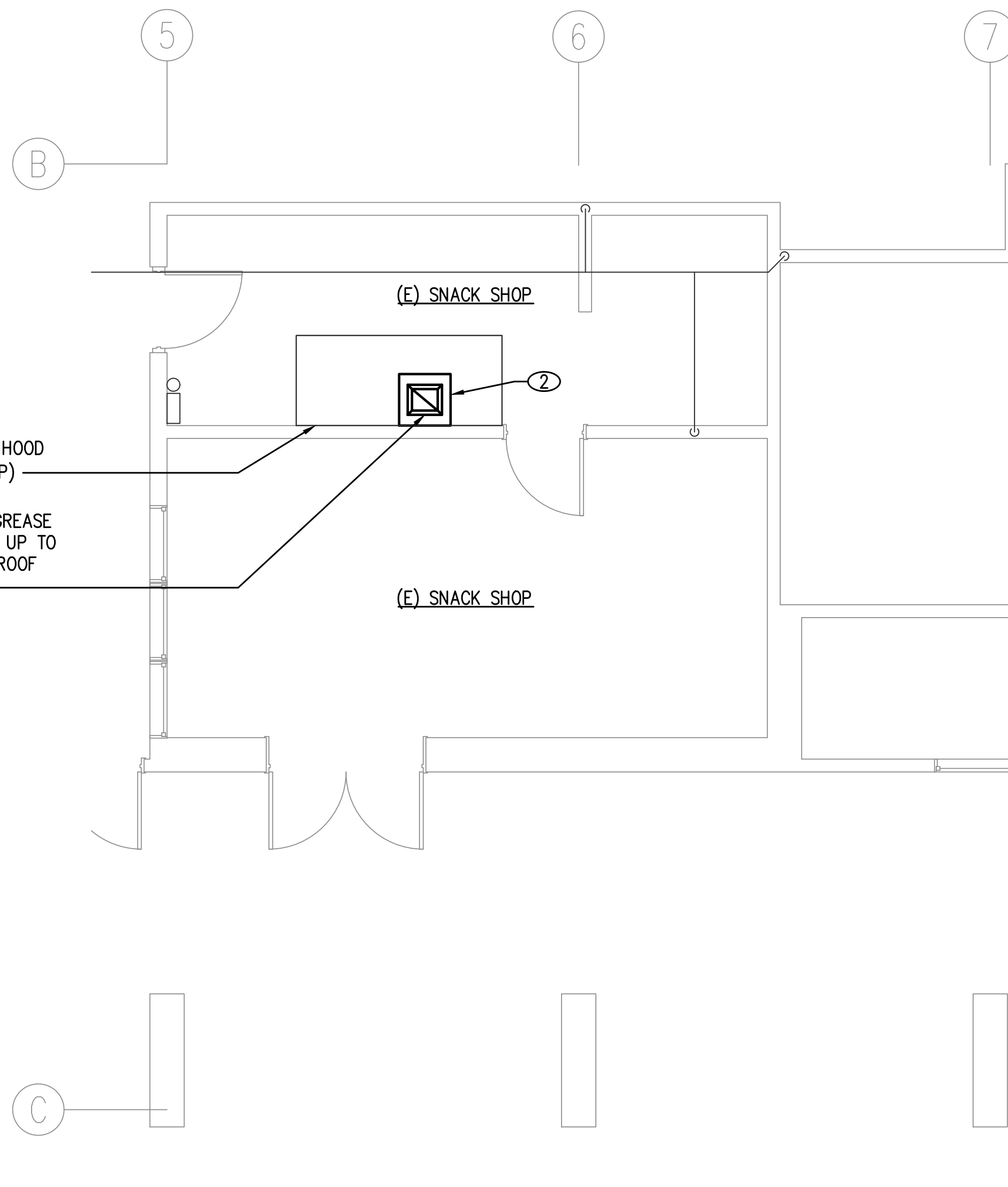
- 1 PROVIDE EF AT UPPER ROOF COMPLETELY INCLUDING ALL SUPPORTS,
ACCESSORIES AND CONTROL WIRING. ROUTE EXHAUST DUCT DN AND CONN TO
EXIST.
- 2 PROVIDE GREASE EF AT UPPER ROOF COMPLETELY INCLUDING ALL SUPPORTS,
ACCESSORIES AND CONTROL WIRING. PROVIDE HINGED ASSEMBLY AS PER UL
762. ROUTE GREASE DUCT DN AND CONN TO EXIST KITCHEN HOOD COLLAR.
ADJUST CONN SIZE ACCORDINGLY.
- 3 PROVIDE 45" DISCHARGE HOOD WITH BIRDSCREEN AT GENERATOR EXHAUST DUCT
ABV UPPER ROOF. MATCH EXIST DUCT SIZE AND ADJUST CONN SIZE
ACCORDINGLY.
- 4 PROVIDE VTR AT UPPER ROOF COMPLETELY. ADJUST CONN SIZE
ACCORDINGLY.

0 4' 8' 16'
SCALE: 1/8" = 1'-0"





A KITCHEN MECHANICAL DEMOLITION FLOOR PLAN
M301 SCALE: 1/4" = 1'-0"



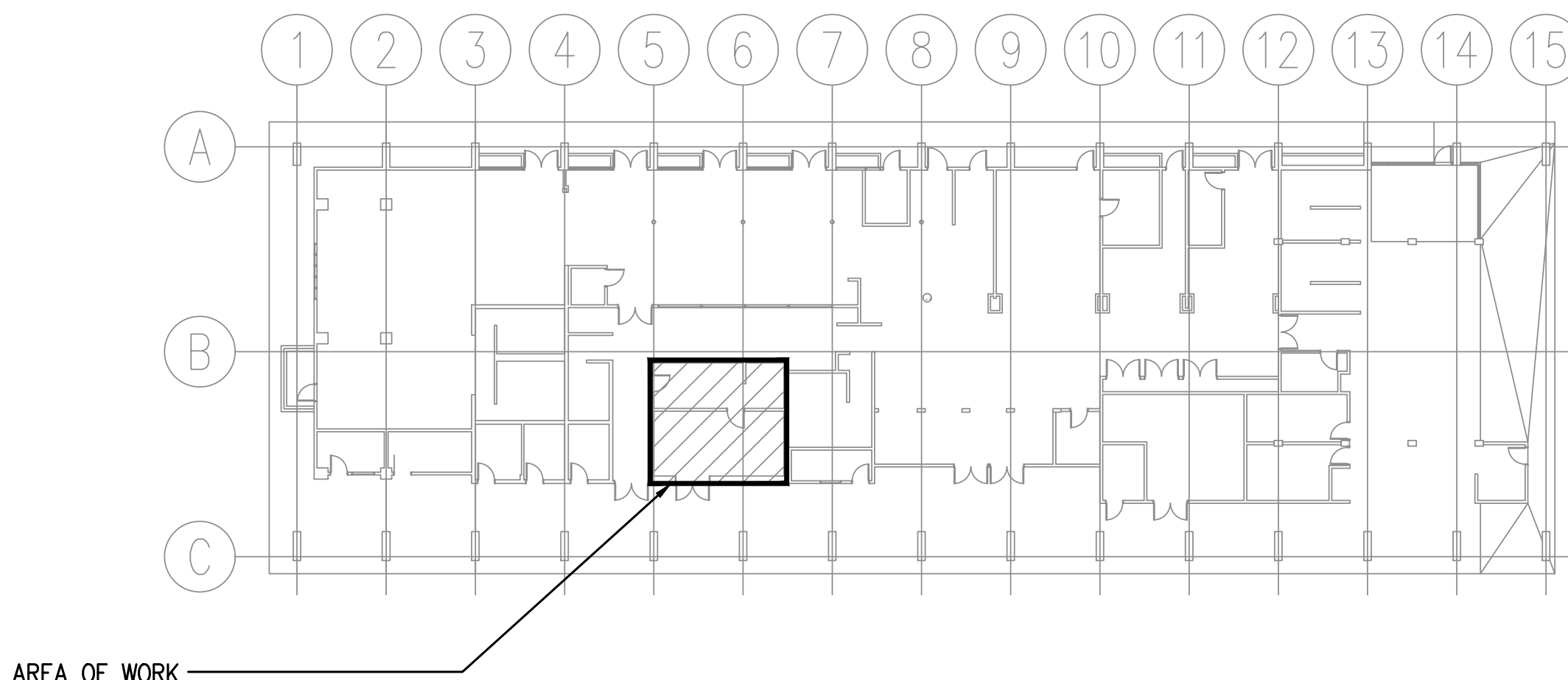
B KITCHEN MECHANICAL FLOOR PLAN
M301 SCALE: 1/4" = 1'-0"

MECHANICAL DEMOLITION NOTES:

- COORDINATE REMOVAL OF ALL MECHANICAL WORK (I.E. EQUIPMENT, PIPING, DUCTWORK AND ACCESSORIES) ABOVE THE CLG WITH ARCH DWGS AND CLG WORK. COORD THE REMOVAL OF EQUIPMENT WITH ELEC DWGS.
- ① REMOVE EXIST GREASE DUCT AT EXIST KITCHEN HOOD COLLAR AND CAP COLLAR UNTIL RECONNECTED.

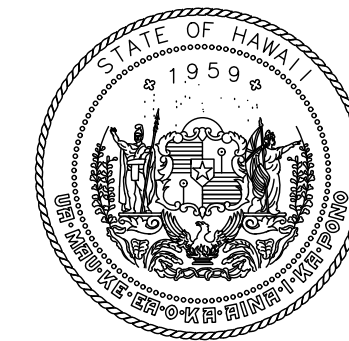
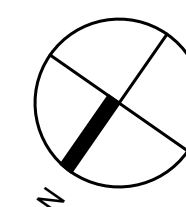
MECHANICAL WORK NOTES:

- CONTRACTOR TO COORD INSTALLATION OF ALL MECHANICAL WORK WITH ARCH, STRUCT AND ELEC DWGS.
- ② CONN 16/14 GREASE EXHAUST DUCT TO KITCHEN HOOD COLLAR AND ROUTE DUCT TO UPPER ROOF. VERIFY HOOD COLLAR SIZE AND ADJUST CONN ACCORDINGLY. PROVIDE FIREMASTER BLANKET ON ALL INTERIOR GREASE EXHAUST DUCT.

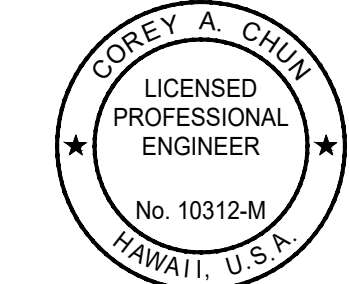


C BUILDING KEY PLAN
M301 SCALE: NOT TO SCALE

0 2' 4' 8'
SCALE: 1/4" = 1'-0"



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS



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04/30/2025
License Expiration Date

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DSGN.	DRWN.	CHKD.	APPD.
KP	KP	KK	CC

NO.	DATE	REVISIONS
	6/9/25	ADD #3

CONSTRUCTION DOCUMENTS

DEC 19, 2025
DATE

PROJECT TITLE:

**MKK TERMINAL BUILDING
ROOF REPLACEMENT**

AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

PROJECT NO.:

CM2521-33

SHEET TITLE:

**KITCHEN MECH DEMO
AND FLOOR PLAN**

DATE:
DEC 19, 2025
SHEET:

27 OF 30 SHTS

DWG. NO.

M301

- DEMOLITION NOTES
1.

EXISTING PLANS DO NOT INDICATE COMPLETE EXISTING WIRING CONDITIONS. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO START OF WORK.
2.

BEFORE ANY WIRING IS CUT, CONTRACTOR SHALL VERIFY USAGE OF WIRING TO BE CUT TO ASSURE THAT SERVICES REQUIRED ARE NOT DISCONTINUED. PROVIDE ADDITIONAL WIRING DEVICES AND OTHER ACCESSORIES TO ENSURE CONTINUITY OF SERVICE TO OTHER PARTS OF INSTALLATION TO REMAIN.
3.

REMOVE ALL EXISTING WIRING NOT TO REMAIN IN SERVICE.
4.

REMOVE ALL CONDUITS NO LONGER REQUIRED.
5.

PHASE WORK TO ASSURE CONTINUITY OF ELECTRICAL, TELEPHONE AND SIGNAL SERVICES TO PARTS OF FACILITIES THAT WILL REMAIN IN USE.
6.

REMOVE ALL EXISTING DISCONNECT SWITCHES INDICATED TO BE REMOVED OR NO LONGER REQUIRED. BLANK OUTLETS AND PLUG ALL HOLES IN BOXES AND CABINETS.
7.

DELIVER ALL SALVAGEABLE MATERIAL AS DETERMINED BY ENGINEER AT NO ADDITIONAL COST TO STATE. PACK MATERIAL IN BOXES. COIL ALL CABLES AND TIE. DISPOSE OF ITEM NOT SALVAGED BY THE THE STATE.

- ELECTRICAL SYMBOLS
- EXISTING PANELBOARD
- EXISTING MOTOR OUTLET TO BE DISCONNECTED
- EXISTING MOTOR CONTROLLER TO BE REMOVED
- EXISTING SAFETY SWITCH TO BE REMOVED
- MOTOR OUTLET
- MOTOR CONTROLLER
- SAFETY SWITCH
- WIRING IN EXISTING RACEWAY
- WIRING IN EXPOSED RACEWAY
- WIRING IN RACEWAY CONCEALED IN WALL OR CEILING
- NOTES:
1.

ANY CIRCUIT WITH NO FURTHER DESIGNATION INDICATES A TWO WIRE CIRCUIT. CIRCUITS WITH ADDITIONAL WIRES ARE INDICATED AS FOLLOWS: ~~///~~, 3 WIRES: ~~///~~, 4 WIRES, ETC.
2.

GROUND WIRE PER NATIONAL ELECTRICAL CODE INDICATED AS FOLLOWS; ~~—←—~~.
3.

ALL EXPOSED CONDUIT AND BOXES SHALL BE PAINTED TO MATCH ADJACENT WALL OR CEILING SURROUNDING.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS

LICENSED
PROFESSIONAL
ENGINEER
No. 4145-E
04/30/2025
Licensed Expiration Date

This work was prepared by me or under my supervision.

DSGN.	DRWN.	CHKD.	APPD.
CP	ESB	JY	CP

	6/9/26	ADD #3
NO.	DATE	REVISIONS

CONSTRUCTION
DOCUMENTS

DEC 19, 2025
DATE

PROJECT TITLE:

MKK TERMINAL BUILDING
ROOF REPLACEMENT

AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

PROJECT NO.:

CM2521-33

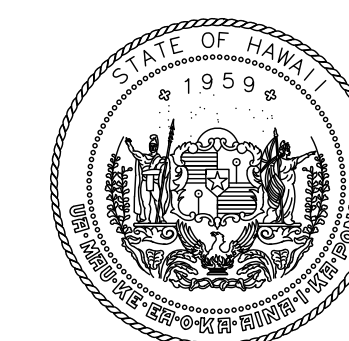
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NOTES AND
SYMBOLS

DATE:
DEC 19, 2025

SHEET:
28 OF 30 SHTS

DWG. NO.
E100



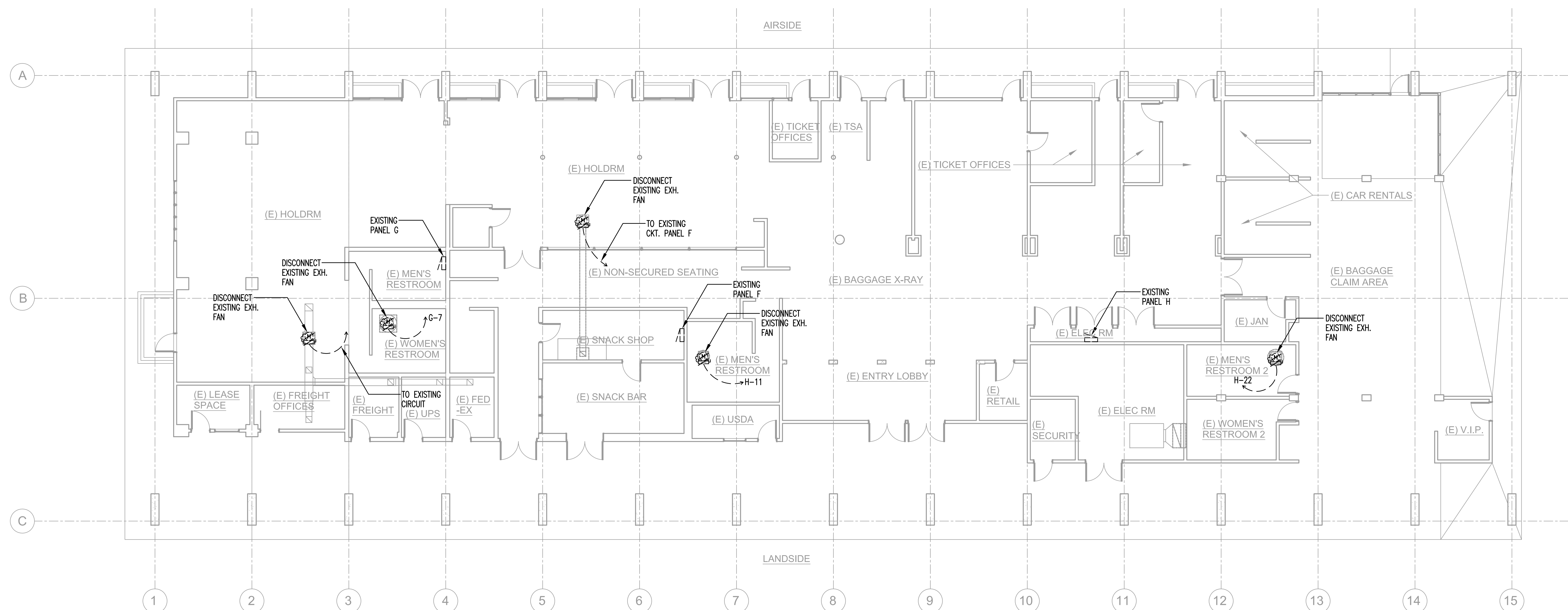
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS



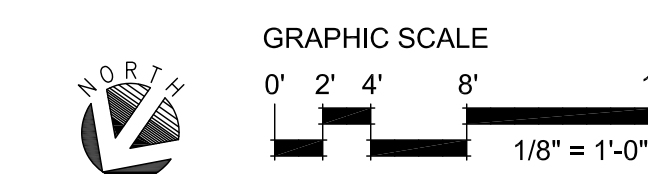
CLAYTON C. Y. PANG
LICENSED PROFESSIONAL ENGINEER
No. 4145-E
04/03/2025
License Expiration Date

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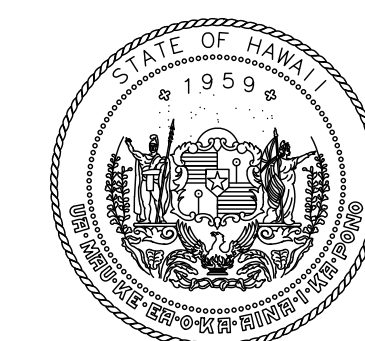
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CP	ESB	JY Approver	CP



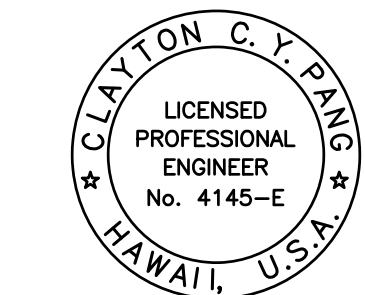
1 ELECTRICAL DEMOLITION PLAN - LEVEL 1
SCALE : 1/8" = 1' - 0"



	6/9/26	ADD #3
NO.	DATE	REVISIONS
CONSTRUCTION DOCUMENTS DEC 19, 2025 DATE		
PROJECT TITLE:		
MKK TERMINAL BUILDING ROOF REPLACEMENT AT MOLOKAI AIRPORT HOOLEHUA, MOLOKAI, HAWAII		
PROJECT NO.:		
CM2521-33		
SHEET TITLE:		
ELECTRICAL DEMOLITION PLAN - LEVEL 1		
DATE :		DWG. NO.
DEC 19, 2025		E101
SHEET :		
29 OF 30 SHTS		



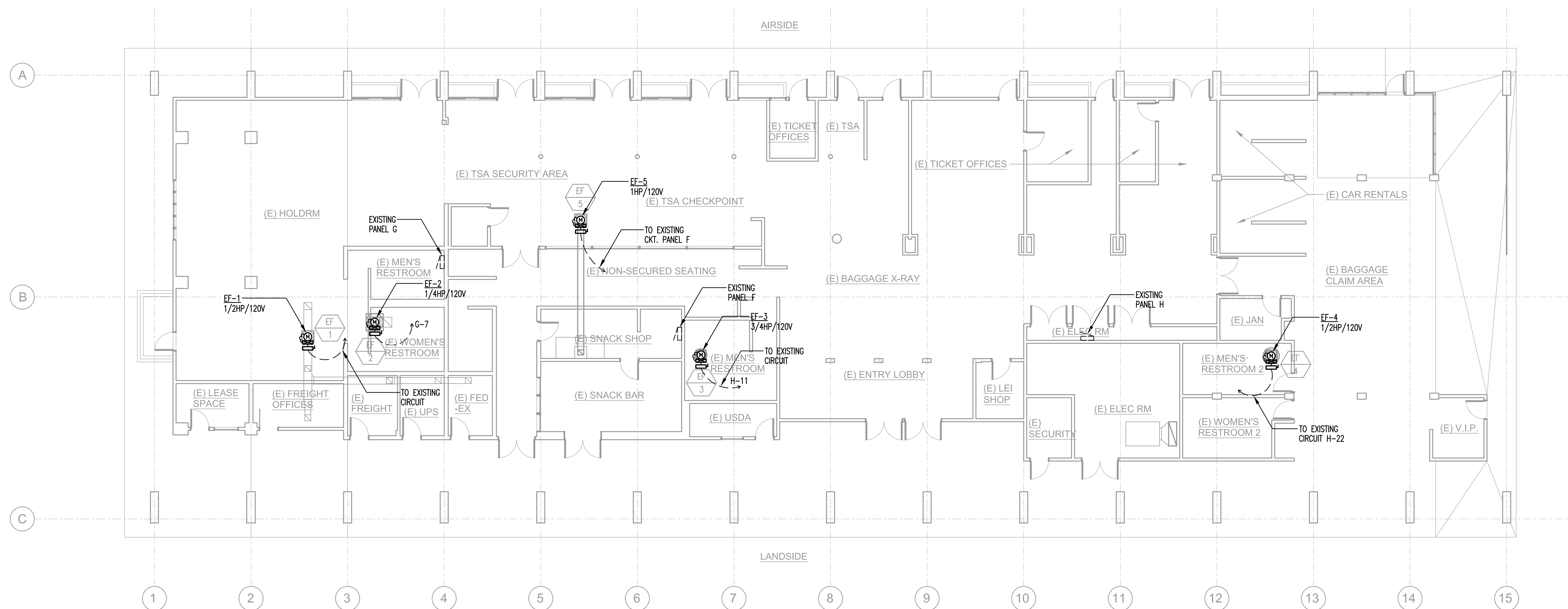
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS



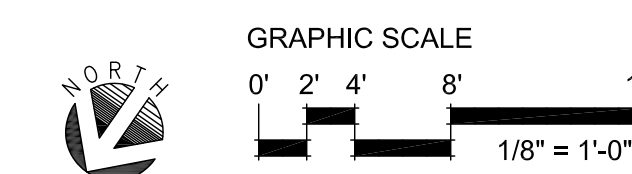
CLAYTON C. Y. PANG
LICENSED PROFESSIONAL ENGINEER
No. 4145-E
04/03/2025
License Expiration Date

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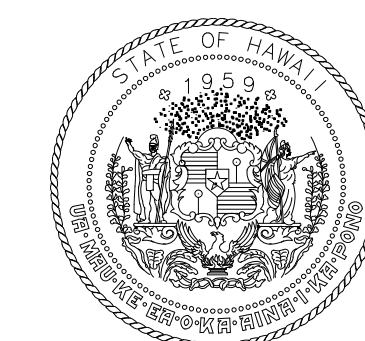
DSGN.	DRWN.	CHKD.	APPD.
CP	ESB	JY	CP



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



	6/9/26	ADD #3
NO.	DATE	REVISIONS
CONSTRUCTION DOCUMENTS DEC 19, 2025 DATE		
PROJECT TITLE:		
MKK TERMINAL BUILDING ROOF REPLACEMENT AT MOLOKAI AIRPORT HOOLEHUA, MOLOKAI, HAWAII		
PROJECT NO.:		
CM2521-33		
SHEET TITLE:		
ELECTRICAL PLAN - LEVEL 1		
DATE:		DWG. NO.
DEC 19, 2025		E102
SHEET:		
30 OF 30 SHTS		



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS



04/30/2025
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DSGN.	DRWN.	CHKD.	APPD.
RW	KL	DT	RW

NO.	DATE	REVISIONS
1	6/9/26	ADD#3

CONSTRUCTION DOCUMENTS

DEC 19, 2025
DATE

PROJECT TITLE:

**MKK TERMINAL BUILDING
ROOF REPLACEMENT**

AT
MOLOKAI AIRPORT
HOOLEHUA, MOLOKAI, HAWAII

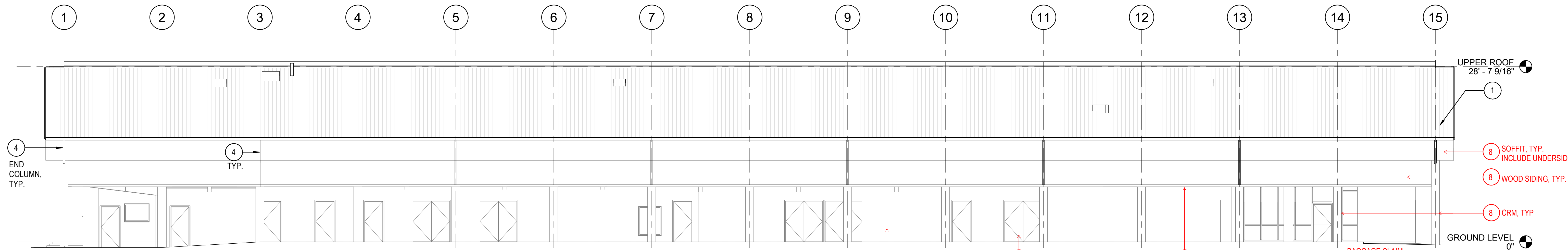
PROJECT NO.:

CM2521-33

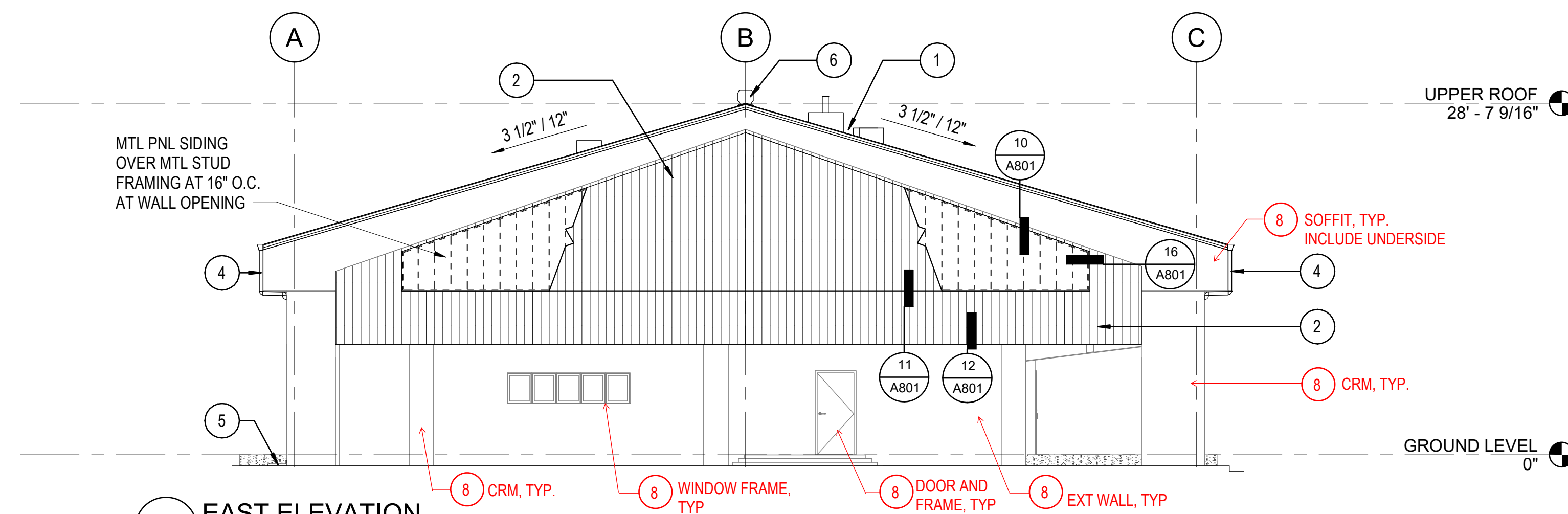
SHEET TITLE:

**EXTERIOR
ELEVATIONS**

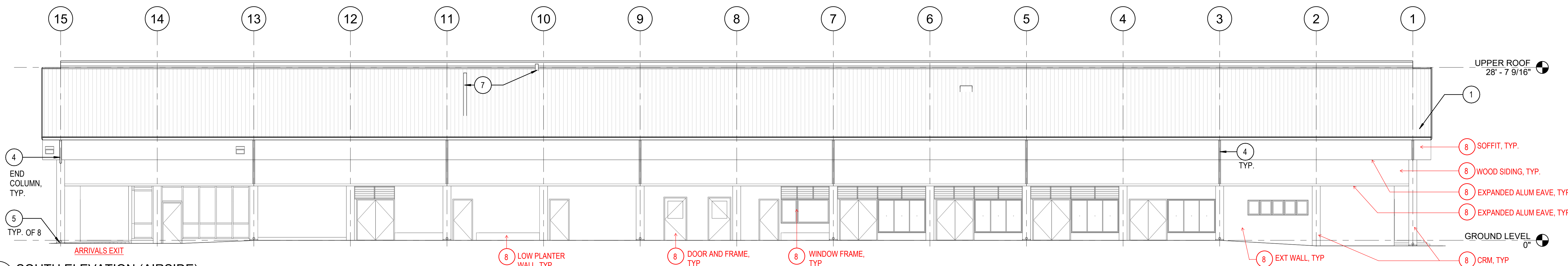
DATE:	DWG. NO.
DEC 19, 2025	A401
SHEET:	
13 OF 30 SHTS	6/4/26



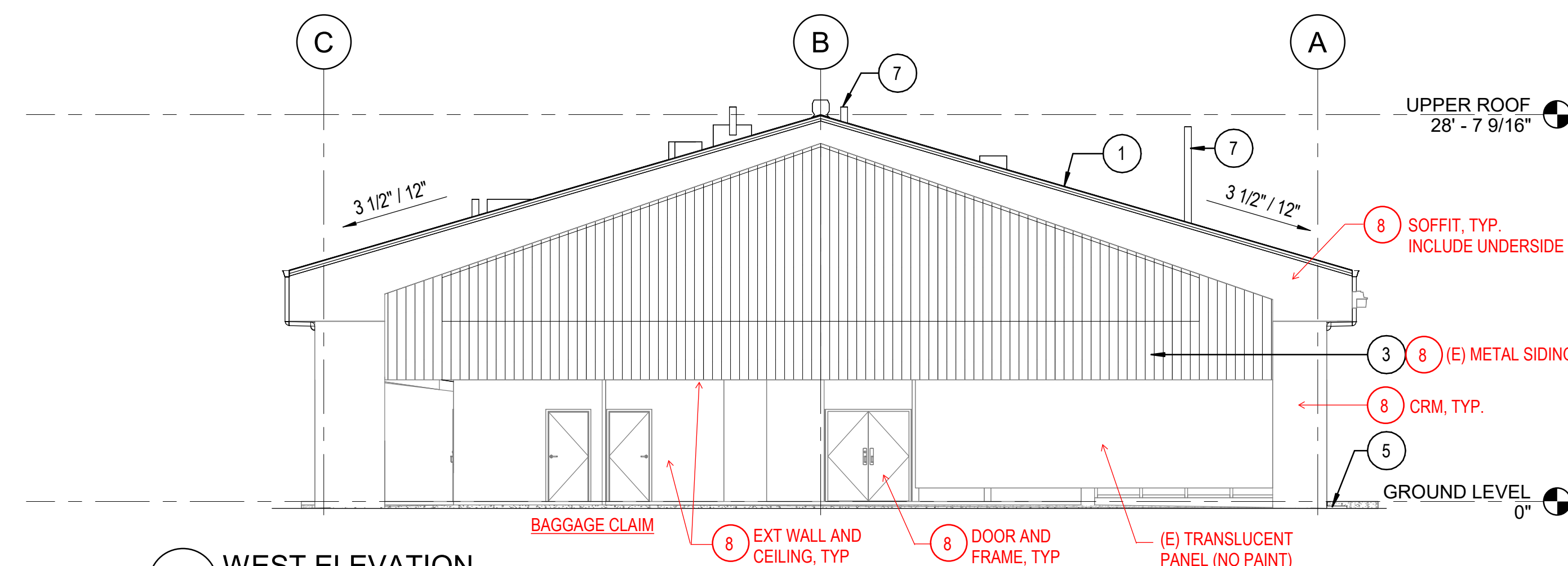
1 NORTH ELEVATION (LANDSIDE)
1/8" = 1'-0"



2 EAST ELEVATION
1/8" = 1'-0"



3 SOUTH ELEVATION (AIRSIDE)
1/8" = 1'-0"



4 WEST ELEVATION
1/8" = 1'-0"

EXTERIOR ELEVATIONS KEYNOTES

- METAL PANEL ROOF
- METAL SIDING
- (E) METAL SIDING
- DOWNSPOUT AND LEADER, CONNECT TO (E) CAST IRON PIPE INSIDE CRM COLUMN
- CONCRETE SPLASH BLOCK
- RIDGE VENT
- REINSTALL (E) ANTENNA
- PAINT

RESPONSES TO REQUESTS FOR INFORMATION QUESTIONS FOR

Solicitation: B26002812

CM2521-33 MKK Terminal Building Roof Replacement

- 1. Please provide specification for sheet metal work and gutters and downspouts**

A new specification Section 07600- FLASHING AND SHEET METAL will be added to the specifications in Addendum No. 3.

- 2. Are you requiring union labor for this project, or can both union and non-union contractors participate?**

There is no union labor requirement for this project, both union and non-union Contractors are allowed to bid on this project.

- 3. Is there a pre-bid meeting attendees list?**

See Addendum No. 1

- 4. Can you please provide specifications for the roof vents?**

See Addendum No. 3.

- 5. It is not clear on the structural plans (S-102) how many braces Note #4 references. Please clarify if this only applies to the East side where the wall vent is replaced with siding?**

Structural plan sheet S102, identifies one gable brace on the east side that should be replaced.

- 6. Note #3 calls out for a "high performance marine coating" for existing rigged frame. There is no specification in the paint section. Please provide.**

A new specification, SECTION 09960 – HIGH PERFORMANCE COATINGS, will be added to the Specifications in Addendum No. 3.

7. **Detail #5, Page A-801 shows a ridge vent. There is no size, type, style or finish indicated anywhere in the plans or specs.**

[See response to question #4.](#)

8. **Detail #2, Page A-401 calls for "metal panel siding over stud framing at 16" o.c at wall opening". There is no specification on details for stud connections to existing structure. Please provide details, gauge, size of framing material etc.**

[See Addendum No. 3.](#)

9. **For this question and #6 previously submitted, refer to Page S-102. Please clarify Note #1 that the new purlins that are to be replaced are continuous over 3 supports. The drawing as indicated has a total of 4 structural supports.**

[The purlins must be continuous over a minimum of three spans. Purlins can span four \(and the overhang\) if long enough.](#)

10. **Details 11, 12 and 16 on Page A-801, shows what appear to be framing details for Detail 2, Page A-141. Please provide details for metal framing, gauge, 2x4 or 2x6 metal frame members or any wood blocking that may be necessary.**

[See Addendum No. 3. Details for metal framing, gauge, 2x4 or 2x6 metal frame members to be part of the delegated design.](#)

11. **Section 03120 - Metal Building Systems. Basically, this is a spec for a prefabricated metal building package, not a re-roof project. Both local and mainland manufacturers will quote the new roofing system panels and siding but will not provide the new ridge vent, gutters or flashings etc.. The ridge vent must be specific to the building needs (no information provided) and all flashings, gutters, downspouts and other accessories can be fabricated using the approved manufacturer's flat sheet material that match the roof in color and gauge. Please provide a specification for the new ridge vent as detailed on Page A-801 Note #5.**

[See Addendum No. 3](#)

12. **There is no details on electrical roof conduit penetrations for new mechanical equipment on the new roof. Do you want in-curb conduits or out of curb-conduits. What type of waterproofing and support?**

Bidders shall provide for an In-Curb conduit waterproof penetration.

13. **Please confirm all new mechanical equipment will be replaced on new roof and current working mechanical equipment will stay in attic space. Not understanding why all new mechanical will go on the roof (except for a kitchen exhaust) for easier access, maintenance etc.**

The intent is to demolish existing mechanical equipment (exhaust fans, exhaust discharge) on the "Lower Roof" and provide new equipment on the "Upper Roof"; ductwork to be extended up to connect to new equipment. Currently, the exhaust fans discharge the exhaust air to an enclosed space ("attic") and not directly to the outdoors. This is not allowed per code.

14. **Section 09911 - Painting, Section 3.01, Paragraphs A2, A3, A4, A5 (exterior doors, window frames, equipment labels) and E1-E1 (fire suppression, plumbing, HVAC, communication, electronic safety and security work). Please confirm that this applies to this project. If so, please indicate on plans what is applicable and their locations.**

See Addendum No. 3

15. **It appears that all of the new and existing mechanical units that are to be installed or relocated from the roof below the main roof (that is being replaced) are going to be extended up through the new metal roofing in 5 - 6 areas. Is this because of current code requirements? Molokai Airport Maintenance Staff currently "service" existing units from the existing roof below the main roof. They are concerned they will not be able to service new units on top of the new roofing material as a safety hazard and union restriction. Please confirm design intent.**

Refer to the response to Question 13

- 16. Please confirm design intent on metal roofing panels. Will it be standing seam metal panels (which is there now) or another profile? Please confirm minimum gauge because of existing purlin spacing being 5' o.c.**

The intent is to replace the existing roof with a similar standing seam metal roof, 24 gauge minimum. Also note that the engineering of the roof covering is part of the contractor's scope of work. The engineer may require a heavier gauge to comply with the performance requirements.