SECTION 07 71 00

ROOF SPECIALTIES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Manufactured and tested copings with special warranties attached.
   2. Manufactured and tested roof edge specialties with special warranties attached.
   3. Manufactured reglets and counterflashings.

1.2 PRICE AND PAYMENT PROCEDURES

A. This specification Section shall be bid exactly as written. No substitutions, no changes in materials, no changes to configuration, and no changes to the requirements for fully manufactured materials for fabricated Roof Specialties, warranty or other terms shall be considered.
   1. All Roof Specialties shall be fully manufactured and tested only, to meet the performance requirements of this Section. No consideration will be given to fabricated items regardless of fabricator qualifications or other considerations.
   2. All submittals shall be reviewed by Corgan TDS Roofing Specialists prior to return.

1.3 ACTION SUBMITTALS

A. All submittals shall be reviewed by Corgan TDS Roofing Specialists prior to return.

B. Product Data: Submit technical data, including construction details, material descriptions, dimensions of individual components and profiles, and finishes.

C. Shop Drawings: Submit plans, elevations, expansion joint locations, keyed details, and attachments to other work. Distinguish between plant and field assembled work.
   1. Coordinate all shop drawings with those of the Roofing System to uphold the warranty and comply with all performance requirements.
   2. Submit details for expansion and contraction; locations of expansion joints, including direction of expansion and contraction.
   3. Indicate profile and pattern of seams and layout of fasteners, cleats, clips, and other attachments.
   4. Submit detail termination points and assemblies, including fixed points.
   5. Indicate details of special conditions.

D. Samples: Submit Samples of each type of roof specialty to verify finish and color selection, in manufacturer's standard sizes.

1. Include copings reglets and counterflashings made from 12 foot lengths of full size components in specified material, and including fasteners, cover joints, accessories, and attachments.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: Submit data for manufacturer.

B. Product Certificates: Submit certificated for each type of roof specialty supporting compliance with requirements.

C. Product Test Reports: For copings and roof edge flashings, for tests performed by a qualified testing agency.

D. Provide written verification from the manufacturer of roof specialty metals that the lightning protection mounting brackets utilized are acceptable and will have no impact on warranty.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For roofing specialties to include in maintenance manuals.

1.6 COORDINATION

A. Coordinate lightning protection mounting bracket locations impacted by the Work of this Section with approved Lightning Protection shop drawings.

1. Lightning protection components may not be mounted to manufactured metals without impact to the warranty specified. Lighting protection shall be mounted only to additional brackets in coordinated locations.

1.7 QUALITY ASSURANCE

A. Manufacturer/Fabricator Qualifications: Entity having minimum five years experience in the production of roof specialties whose products comply with requirements and are FM Approvals listed for specified class and SPRI ES-1 tested to specified design pressure.

B. Source Limitations: Obtain roof specialties approved by manufacturer providing roofing system warranty.

C. Mockups: Build mockups to verify selections, to demonstrate aesthetic effects, and set quality standards for fabrication and installation.

1. Build mockup of typical roof edge, including fascia and coping, approximately 10 feet (3.0 m) long, including supporting construction, seams, attachments, underlayment, and accessories.
2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.

3. Subject to compliance with requirements, approved mockups may become part of the completed work if undisturbed at time of Substantial Completion.
4. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

D. Preinstallation Conference: Conduct conference at site.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Do not store roof specialties in contact with other materials that might cause staining, denting, or surface damage. Store roof specialties away from uncured concrete and masonry.

B. Protect strippable protective covering on roof specialties from exposure to sunlight and high humidity, except to extent necessary for the period of roof-specialty installation.

1.9 FIELD CONDITIONS

A. Field Measurements: Verify profiles and tolerances of roof specialty substrates by field measurements before fabrication and indicate measurements on Shop Drawings.

B. Coordination: Coordinate roof specialties with flashing, trim, and construction of parapets, roof deck, roof and wall panels, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.

1.10 WARRANTY

A. Roof System Warranty: Written warranty signed by manufacturer in which roof specialties are included in the roofing warranty provisions. Coordinate the warranty of this Section with that of Section 07 54 00.

B. Manufacturer's Warranty:
1. Submit a written warranty, without monetary limitation signed by the Roof Specialties manufacturer agreeing to promptly make repairs resulting from defects in materials or workmanship for the following warranty period:
a. Twenty (20) Year Full System Warranty: Manufacturer’s Warranty shall be non-prorated and shall include coverage for wind speeds up to 100 mph minimum from the date of Substantial Completion.

C. Roof Specialties Installer's Warranty:
1. Completed warranty form at end of Section, signed by Installer and notarized, including:
a. Submit Roof Specialties installer workmanship warranty, on notarized written warranty form inclusive to this Section, signed by Installer, covering all Work of this Section, including all Work of this Section and accessories for the following warranty period:
1) Warranty Period: Five (5) years from date of Substantial Completion.

D. Painted Finishes: Written warrant signed by manufacturer in which manufacturer agrees to repair finish or replace roof specialties that show 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 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.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. The Design and document intent shall be to provide fully manufactured, tested and warranted Roof Specialties as specified herein.

1. Fabricated Roof Specialties shall not be considered to satisfy the requirements of the Work, nor the intent of the documents or design intent. No substitutions shall be permitted.

B. Roof specialties shall withstand exposure to weather and resist thermally induced movement without failure, rattling, leaking, or fastener disengagement due to defective manufacture, fabrication, installation, or other defects in construction.

C. FM Approvals' Listing: Manufacture and install copings and roof edge specialties that are listed in FM Approvals' RoofNav and approved for windstorm classification, Class 1-90. Identify materials with FM Approvals' markings.

D. SPRI Wind Design Standard: Manufacture and install copings and roof edge specialties tested according to SPRI ES-1 and capable of resisting the following design pressures:

1. Top of Parapet up to 50 feet above grade Main Roof Area.
   a. Horizontal: 38 lb/sq.ft. at perimeter and 47 lb/sq.ft. at corner.
   b. Vertical: 81 lb/sq.ft. at perimeter and 110 lb/sq.ft. at corner.

E. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, hole elongation, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Provide clips that resist rotation and avoid shear stress as a result of thermal movements. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change (Range): 120 degrees F (67 degrees C), ambient; 180 degrees F (100 degrees C), material surfaces.

2.2 MATERIALS

A. Metals:

1. Aluminum Sheet: ASTM B 209 (ASTM B 209M), alloy as standard with manufacturer for finish required, with temper to suit forming operations and performance required.
   a. Mill Finish: As manufactured.
   b. Exposed Coil Coated Finishes: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
2. Aluminum Extrusions: ASTM B 221 (ASTM B 221M), alloy and temper recommended by manufacturer for type of use and finish indicated, finished as follows:
3. Stainless Steel Sheet: ASTM A 240/A 240M or ASTM A 666, Type 304.

B. Underlayment Materials:
1. Self Adhering, High Temperature Sheet: Minimum 30 to 40 mils (0.76 to 1.0 mm) thick, consisting of slip resisting polyethylene film top surface laminated to layer of butyl or SBS odified asphalt adhesive, with release paper backing; cold applied. Provide primer when recommended by underlayment manufacturer.
   a. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      1) Carlisle Coatings & Waterproofing; CCW WIP 300HT.
      2) GCP Applied Technologies; Ultra.
      3) Henry Company; Blueskin PE200 HT.
      4) Metal-Fab Manufacturing, LLC; MetShield.
      5) Owens Corning; WeatherLock Specialty Tile & Metal Underlayment.
   b. Thermal Stability: ASTM D 1970/D 1970M; stable after testing at 240 degrees F (116 degrees C).
   c. Low Temperature Flexibility: ASTM D 1970/D 1970M; passes after testing at minus 20 degrees F (29 degrees C).
2. Slip Sheet: Rosin sized building paper, 3-lb/100 sq. ft. (0.16-kg/sq. m) minimum.

C. Miscellaneous Materials:
1. Fasteners: Provide Type 316 stainless steel fasteners only, suitable for application and designed to meet performance requirements. Furnish the following unless otherwise indicated:
   a. Exposed Penetrating Fasteners: Type 316 stainless steel gasketed screws with hex washer heads matching color of sheet metal.
   b. Fasteners for Aluminum: Type 316 stainless steel. Do not use fasteners other than stainless steel for roof blocking, coping and parapet construction.
   c. Fasteners for Stainless Steel Sheet: Type 316 stainless steel.
   d. Fasteners for Zinc Coated (Galvanized) Steel Sheet: Type 316 stainless steel .
2. Elastomeric Sealant: ASTM C 920, elastomeric silicone polymer sealant of type, grade, class, and use classifications required by roofing specialty manufacturer for each application.
3. Butyl Sealant: ASTM C 1311, single component, solvent release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked type joints with limited movement.

4. Bituminous Coating: Cold applied asphalt emulsion complying with ASTM D 1187/D 1187M.
5. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.

2.3 COPINGS

A. Metal Copings: Provide Manufactured and tested coping systems consisting of metal coping cap in section lengths not exceeding 12 feet (3.6 m), concealed anchorage; with corner units, end cap units, and concealed splice plates with finish matching coping caps. Fabricated copings are not acceptable.

1. Basis of Design: Provide the Pema-Tite Series Continuous Cleat coping with by Metal-Era, Inc. meeting the dimensional and other properties indicated. Subject to compliance with requirements, products by one of the following may also be acceptable pending Architect's reviews for equivalent technical and aesthetic properties:
   a. ATAS International, Inc.
   b. Hickman Company, W. P.
2. Formed Aluminum Sheet Coping Caps: Aluminum sheet, 0.050 inch (1.27 mm) thick minimum; thickness required to meet performance requirements.
   a. Surface: Smooth, flat finish.
   b. Finish: Three coat fluoropolymer.
   c. Color: Selected by Architect to match Architect's sample.
3. Corners: Factory mitered and continuously welded.
4. Special Fabrications: As indicated.
5. Coping Cap Attachment Method: Snap on both sides, fabricated from coping cap material.
   a. Coping with continuous outside and inside cleats for capping parapet walls.
   b. Snap on Coping Anchor Plates: Concealed, galvanized steel sheet, continuous with integral cleats.

2.4 ROOF EDGE SPECIALTIES

A. Canted Roof Edge Fascia and Gravel Stop: Manufactured and tested, two piece, roof edge fascia consisting of snap on compression clamped metal fascia cover in section lengths not exceeding 12 feet (3.6 m) and a continuous formed galvanized steel sheet cant, 0.028 inch (0.71 mm) thick, minimum, with extended vertical leg terminating in a drip edge cleat. Provide matching corner units. Fabricated units are not acceptable.

1. Basis of Design: Provide the Anchor-Tite Canted Series coping with continuous cleats by Metal-Era, Inc. meeting the dimensional and other properties indicated. Subject to compliance with requirements, products by one of the following may also be acceptable pending Architect's reviews for equivalent technical and aesthetic properties:
   a. ATAS International, Inc.
   b. Hickman Company, W. P.

2. Formed Aluminum Sheet Fascia Covers: Aluminum sheet, 0.050 inch (1.27 mm) thick minimum; thickness required to meet performance requirements.
   a. Surface: Smooth, flat finish.
   b. Finish: Three coat fluoropolymer.
   c. Color: Selected by Architect to match Architect's sample.
3. Corners: Factory mitered and continuously welded.
4. Splice Plates: Concealed, of same material, finish, and shape as fascia cover.
5. Anchors: Minimum #10 x 2 inch Stainless steel furnished by manufacturer for application and all performance requirements. 12 inch on center minimum.
   a. Do not utilize fasteners other than stainless steel for roofing system related construction.
6. Special Fabrications: As indicated.
7. Fascia Accessories: Fascia extenders with continuous hold down cleatsand other items as detailed.

B. Roof Edge Fascia: Manufactured and tested, two piece, roof edge fascia consisting of snap on metal fascia cover in section lengths not exceeding 12 feet (3.6 m) and a continuous metal receiver with integral drip edge cleat to engage fascia cover and secure single ply roof membrane. Provide matching corner units.
   1. Basis of Design: Provide the Anchor-Tite Standard Fascia Modified System with continuous cleats by Metal-Era and coordinate mounting of all lightning protection components. Subject to compliance with requirements, and a determination of aesthetic equivalence by the Architect, products by one of the following may also be acceptable:
      a. Hickman Company, W. P.
      b. Metal-Fab Manufacturing, LLC.
   2. Approvals:
      a. Fascia Assembly shall be certified as meeting or exceeding ANSI/SPRI/FM 4435/ES-1 to the design pressures indicated and required for the Project and carry a lifetime 215 MPH wind warranty.
      b. FM Ratings: Fascia Assembly shall be certified as meeting or exceeding all FM perimeter and corner ratings.
   3. Formed Aluminum Sheet Fascia Covers: Aluminum sheet, 0.063 inch (1.60 mm) thick minimum and as required to meet performance requirements.
      a. Typical Lengths: 12 feet
      b. Surface: Smooth, flat finish.
      c. Finish: Three coat fluoropolymer.
      d. Color: Selected by Architect.
   4. Corners: Factory mitered and continuously welded.
   5. Anchor Bar / Cleat: Extruded Aluminum with pre-punched mounting holes / slots.
   6. Anchor Bar Cap Width: The horizontal exposed cap leg of the anchor bar extrusion shall be of sufficient width to accept lightning rod mounting as detailed on the Drawings and as confirmed in submittals. Coordinate all materials and Work.
   7. Anchor Bar Splice Plates: Concealed, of same material, finish, and shape as fascia cover.

8. Anchors: Minimum #10 x 2 inch Stainless steel furnished by manufacturer for application and all performance requirements. 12 inch on center minimum.
9. Special Fabrications: Radiused sections Arched sections Cornice fascia cover and others as indicated.

2.5 ROOF DRAINAGE SYSTEMS

A. Refer to Section 07 62 00 Sheet Metal Flashing and Trim for fabricated drainage system components.

2.6 REGLETS AND COUNTERFLASHINGS

A. Basis of Design: Provide manufactured 2 Piece Counterflashing Systems by Metal-Era mounting as detailed. Subject to compliance with requirements, and a determination of aesthetic equivalence by the Architect, products by one of the following may also be acceptable:
   1. ATAS International, Inc.
   2. Hickman Company, W. P.

B. Reglets: Manufactured and tested units formed to provide secure interlocking of separate reglet and counterflashing pieces, from the following exposed metal:
   1. Formed Aluminum: 0.050 inch (1.27 mm) thick.
   2. Stainless Steel: 0.025 inch (0.64 mm) thick.
   3. Corners: Factory mitered and continuously welded.
   4. Surface Mounted Type: Provide reglets with slotted holes for fastening to substrate, with neoprene or other suitable weatherproofing washers, and with channel for sealant at top edge.
      a. Provide stainless steel only in contact with concrete, masonry and stucco.
   5. Concrete Type, Embedded: Provide temporary closure tape to keep reglet free of concrete materials, special fasteners for attaching reglet to concrete forms, and guides to ensure alignment of reglet section ends; stainless steel only
   6. Masonry Type, Embedded: Provide reglets with offset top flange for embedment in masonry mortar joint; stainless steel only.

C. Counterflashings: Manufactured units of heights to overlap top edges of base flashings by 4 inches (100 mm) and in lengths not exceeding 12 ft. (3.6 m) designed to snap into reglets or through-wall-flashing receiver as indicated and compress against base flashings with joints lapped, from the following exposed metal:
   1. Formed Aluminum Sheet: 0.050 inch (1.27 mm) thick.
   2. Formed Stainless Steel Sheet: 0.0250 inch (0.635 mm) thick; provide where indicated.

D. Accessories:

1. Flexible Flashing Retainer: Provide resilient plastic or rubber accessory to secure flexible flashing in reglet where clearance does not permit use of standard metal counterflashing or where reglet is provided separate from metal counterflashing.
2. Counterflashing Wind Restraint Clips: Provide clips to be installed before counterflashing to prevent wind uplift of counterflashing lower edge.

E. Finish:

1. Aluminum Finish: Three coat fluoropolymer.
   a. Color: Selected by Architect to match Architect's sample.
2. Stainless Steel Finish: No. 4 (bright, polished directional satin).

2.7 MISCELLANEOUS ACCESSORIES

A. Lightning Protection Mounting Brackets: Stainless steel sheet, thickness as required to meet performance requirements, but not less than 0.050 inch (1.27 mm) thick.

1. Finish: ASTM A480/A480M No. 2B (bright, cold rolled).
2. Source Limitations: Provide lightning protection mounting brackets, acceptable to roof specialties manufacturer, that will not adversely effect manufacturer's warranty. Provide written verification of these terms in warranty documentation.

2.8 FINISHES

A. Comply with NAAMM Metal Finishes Manual for Architectural and Metal Products for recommendations for applying and designating finishes.

B. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

C. Appearance of Finished Work: Noticeable variations in same piece are unacceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

D. Coil Coated Aluminum Sheet Finishes:

1. High Performance Organic Finish: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
   a. Three Coat Fluoropolymer: AAMA 2605. 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.
   b. Concealed Surface Finish: Apply pretreatment and acrylic or polyester backer finish consisting of prime coat and wash coat with a minimum total dry film thickness of 0.5 mil (0.013 mm).

E. Aluminum Extrusion Finishes:

1. High Performance Organic Finish: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

a. Three Coat Fluoropolymer: AAMA 2605. 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.

b. Concealed Surface Finish: Apply pretreatment and acrylic or polyester backer finish consisting of prime coat and wash coat with a minimum total dry film thickness of 0.5 mil (0.013 mm).

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions to verify actual locations, dimensions, and other conditions affecting performance of the work.

1. Examine walls, roof edges, and parapets for suitable conditions for roof specialties.
2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage where applicable, and securely anchored.
3. Confirm that all fasteners utilized for roofing related construction are stainless steel only. Do not use fasteners other than stainless steel for roof blocking, coping and parapet construction.

B. Proceed with installation after correcting unsatisfactory conditions.

3.2 UNDERLAYMENT INSTALLATION

A. Self Adhering Sheet Underlayment: Apply primer if required by manufacturer. Comply with temperature restrictions of underlayment manufacturer for installation. Apply wrinkle free, in shingle fashion to shed water, and with end laps of not less than 6 inches (152 mm) staggered 24 inches (610 mm) between courses. Overlap side edges not less than 3-1/2 inches (90 mm). Roll laps with roller. Cover underlayment within 14 days.

1. Apply continuously under copings and roof edge specialties.
2. Coordinate application of self adhering sheet underlayment under roof specialties with requirements for continuity with adjacent air barrier materials.

B. Slip Sheet: Install with tape or adhesive for temporary anchorage to minimize use of mechanical fasteners under roof specialties. Apply in shingle fashion to shed water, with lapped joints of not less than 2 inches (50 mm).

3.3 INSTALLATION

A. Install roof specialties according to manufacturer's written instructions. Anchor roof specialties securely in place, with provisions for thermal and structural movement. Use fasteners, solder, protective coatings, separators, underlayments, sealants, and other miscellaneous items as required to complete roof specialty systems.

1. Install roof specialties in compliance with the manufacturer’s instructions to perform as tested and maintain the system warranty.

2. Install roof specialties level, plumb, true to line and elevation; with limited oil-canning and without warping, jogs in alignment, buckling, or tool marks.
3. Provide uniform, neat seams with minimum exposure of solder and sealant.
4. Install roof specialties to fit substrates and to result in weathertight performance. Verify shapes and dimensions of surfaces to be covered before manufacture.
5. Torch cutting of roof specialties is not permitted.
6. Do not use graphite pencils to mark metal surfaces.

B. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other or with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.
1. Coat concealed side of uncoated aluminum and stainless steel roof specialties with bituminous coating where in contact with wood, ferrous metal, or cementitious construction.
2. Bed flanges in thick coat of asphalt roofing cement where required by manufacturers of roof specialties for waterproof performance.

C. Expansion Provisions: Allow for thermal expansion of exposed roof specialties.
1. Space movement joints at a maximum of 12 feet (3.6 m) with no joints within 18 inches (450 mm) of corners or intersections unless otherwise indicated on Drawings.
2. When ambient temperature at time of installation is between 40 degrees F and 70 degrees F (4 degrees C and 21 degrees C), set joint members for 50 percent movement each way. Adjust setting proportionately for installation at higher ambient temperatures.

D. Fastener Sizes: Provide Type 316 stainless steel fasteners only. Use fasteners of sizes that penetrate wood blocking or sheathing not less than 1-1/4 inches (32 mm) for nails and not less than 3/4 inch (19 mm) for wood screws and penetrate substrate not less than recommended by fastener manufacturer to achieve maximum pull-out resistance.

E. Seal concealed joints with butyl sealant as required by roofing specialty manufacturer.

F. Seal joints as required for weathertight construction. Place sealant to be completely concealed in joint. Do not install sealants at temperatures below 40 degrees F (4 degrees C).

3.4 COPING INSTALLATION

A. Provide Type 316 stainless steel fasteners only.

B. Install cleats, anchor plates, and other anchoring and attachment accessories and devices with concealed fasteners.

C. Anchor copings with manufacturer's required devices, fasteners, and fastener spacing to meet performance requirements.

1. Interlock face and back leg drip edges of snap on coping cap into cleated anchor plates anchored to substrate at 24 inch centers maximum or manufacturer's required spacing that meets performance requirements whichever is less.
2. Interlock face leg drip edge into continuous cleat anchored to substrate at 24 inch (610 mm) centers maximum or manufacturer's required spacing that meets performance requirements whichever is less.

3.5 ROOF EDGE SPECIALTIES INSTALLATION

A. Provide Type 316 stainless steel fasteners only.

B. Install cleats, cants, and other anchoring and attachment accessories and devices with concealed fasteners.

C. Anchor roof edgings with manufacturer's required devices, fasteners, and fastener spacing to meet performance requirements.

3.6 ROOF EDGE DRAINAGE SYSTEM INSTALLATION

A. Provide Type 316 stainless steel fasteners only.

B. Install components to produce a complete roof edge drainage system according to manufacturer's written instructions. Coordinate installation of roof perimeter flashing with installation of roof edge drainage system.

C. Splash Pans: Install where downspouts discharge on low slope roofs. Set in asphalt roofing cement.

3.7 REGLET AND COUNTERFLASHING INSTALLATION

A. Coordinate installation of reglets and counterflashings with installation of base flashings.

B. Embedded Reglets: : Install reglets to receive flashings where flashing with embedded reglets is indicated on Drawings. Install at height so that inserted counterflashings overlap 4 inches (100 mm) over top edge of base flashings. Coordinate all Work to maintain the performance requirements of the substrate on or into the substrate hosting reglets.

C. Surface Mounted Reglets: Install reglets to receive flashings where flashing without embedded reglets is indicated on Drawings. Install at height so that inserted counterflashings overlap 4 inches (100 mm) over top edge of base flashings.

D. Counterflashings: Insert counterflashings into reglets or other indicated receivers; ensure that counterflashings overlap 4 inches (100 mm) over top edge of base flashings. Lap counterflashing joints a minimum of 4 inches (100 mm) and bed with butyl sealant. Fit counterflashings tightly to base flashings.

3.8 MISCELLANEOUS ACCESSORY INSTALLATION

A. Lightning Protection Mounting Brackets: Attach mounting brackets directly to solid wood blocking beneath roof specialty metals. Do not attach lightning protection mounting brackets, aerials, or cables directly to or through roof specialty metals. Provide stainless steel mounting brackets for all lightning protection to maintain the roof specialties warranty without issue.

3.9 CLEANING AND PROTECTION

A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.

B. Clean and neutralize flux materials. Clean off excess solder and sealants.

C. Remove temporary protective coverings and strippable films as roof specialties are installed. On completion of installation, clean finished surfaces, including removing unused fasteners, metal filings, pop rivet stems, and pieces of flashing. Maintain roof specialties in a clean condition during construction.

D. Replace roof specialties that have been damaged or that cannot be successfully repaired by finish touchup or similar minor repair procedures.

1. Replacement of copings, fascia or other items specified in this Section will be required if lightning protection is not properly coordinated, mounted and anchored. Seek direction from the Architect for any areas in question.

3.10 ROOF SPECIALTIES INSTALLER'S WARRANTY

A. WHEREAS_____ of _____, herein designated the "Roof Specialties Installer," has performed Roof Specialties and associated Work ("Work") on the following project:

1. Owner: _____.
2. Address: _____.
3. Building Name/Type: _____.
4. Address: _____.
5. Area of Work: _____.
6. Acceptance Date: _____.
7. Warranty Period: _____.
8. Expiration Date: _____.

B. AND WHEREAS Roof Specialties Installer has contracted (either directly with Owner or indirectly as a subcontractor) to warrant said work against leaks and faulty or defective materials and workmanship for designated Warranty Period of FIVE (5) Years.

C. NOW THEREFORE Roof Specialties Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period he will, at his own cost and expense, make or cause to be made such repairs to or replacements of said work as are necessary to correct faulty and defective work and as are necessary to maintain said work in a watertight condition.

D. This Warranty is made subject to the following terms and conditions:

1. Specifically excluded from this Warranty are damages to work and other parts of the building, and to building contents, caused by:
   a. lightning;
   b. peak gust wind speed exceeding 100 mph;
   c. fire;
   d. failure of Roof Specialties substrate, including cracking, settlement, excessive deflection, deterioration, and decomposition;
   e. faulty construction of parapet walls, copings, chimneys, skylights, vents, equipment supports, and other edge conditions and penetrations of the work; and
   f. activity on Roof Specialties Work by others, including construction contractors, maintenance personnel, other persons, and animals, whether authorized or unauthorized by Owner.
2. When Work has been damaged by any of foregoing causes, Warranty shall be null and void until such damage has been repaired by Roofing Installer and until cost and expense thereof have been paid by Owner or by another responsible party so designated.
3. Roof Specialties Installer is responsible for damage to work covered by this Warranty but is not liable for consequential damages to building or building contents resulting from leaks or faults or defects of Work.

4. During Warranty Period, if Owner allows alteration of Work by anyone other than Roof Specialties Installer, including cutting, patching, and maintenance in connection with penetrations, attachment of other work, and positioning of anything on roof specialties, this Warranty shall become null and void on date of said alterations, but only to the extent said alterations affect Work covered by this Warranty. If Owner engages Roof Specialties Installer to perform said alterations, Warranty shall not become null and void unless Roof Specialties Installer, before starting said work, shall have notified Owner in writing, showing reasonable cause for claim, that said alterations would likely damage or deteriorate work, thereby reasonably justifying a limitation or termination of this Warranty.
5. During Warranty Period, if original use of roof is changed and it becomes used for, but was not originally specified for, a promenade, work deck, spray-cooled surface, flooded basin, or other use or service more severe than originally specified, this Warranty shall become null and void on date of said change, but only to the extent said change affects work covered by this Warranty.
6. Owner shall promptly notify Roof Specialties Installer of observed, known, or suspected leaks, defects, or deterioration and shall afford reasonable opportunity for Roof Specialties Installer to inspect work and to examine evidence of such leaks, defects, or deterioration.
7. This Warranty is recognized to be the only warranty of Roof Specialties Installer on said Work and shall not operate to restrict or cut off Owner from other remedies and resources lawfully available to Owner in cases of roofing failure. Specifically, this Warranty shall not operate to relieve Roofing Installer of responsibility for performance of original work according to requirements of the Contract Documents, regardless of whether Contract was a contract directly with Owner or a subcontract with Owner's General Contractor.

E. IN WITNESS THEREOF, this instrument has been duly executed this _____ day of _____, _____.
   1. Authorized Signature: _____.
   2. Name: _____.
   3. Title: _____.

END OF SECTION

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