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ROOF COATINGS TECHNICAL MANUAL

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INTRODUCTION

SOPREMA® ALSAN® coatings are highly reflective roof coatings that provide weather protection for new and existing roofing systems. ALSAN® coatings provide durable roof surfacings intended for watertight substrates. ALSAN® coatings and primers are low VOC, one-part materials that may be spray-applied, roller-applied or applied using brushes.

SOPREMA® ALSAN® COATING AC 401 is a water based acrylic elastomeric roof coating that provides a highly flexible surfacing for a variety of metal, single-ply, modified bitumen, smooth-surface asphalt built-up and other properly prepared roofing substrates. SOPREMA® ALSAN® COATING AC 401 accessories include ALSAN® ALL-PURPOSE CLEANER, ALSAN® coating primers and bleed blockers, ALSAN® COATING AC 401 FLASHING trowel-grade mastic, POLYFLEECE non-woven polyester reinforcement, and ALSAN® BUTYL FLEECE TAPE.

SOPREMA® ALSAN® COATING SIL 402 is a high solids silicone roof coating that provides a highly flexible surfacing resistant to ponding water, UV and natural weathering exposures. ALSAN® COATING SIL 402 is suitable for a variety of metal, single-ply, modified bitumen, smooth-surface asphalt built-up and other properly prepared roofing substrates. SOPREMA® ALSAN® COATING SIL 402 accessories include ALSAN® ALL-PURPOSE CLEANER, ALSAN® coating primers and bleed blockers, ALSAN® COATING AC 402 FLASHING brush/trowel-grade mastic, POLYFLEECE non-woven polyester reinforcement, and ALSAN® BUTYL FLEECE TAPE.

The "SOPREMA® ROOF COATINGS TECHNICAL MANUAL" is intended to offer guidance to SOPREMA® authorized contractors and design professionals. The manual provides specific instructions and details for SOPREMA® roof coatings and related accessories. Refer to applicable building codes, standards and roof coating industry publications for additional requirements and best-practice guidelines. Refer to current SOPREMA® product data sheets and safety data sheets for specific product data and product-related requirements. For additional information refer to www.soprema.us or contact SOPREMA® at 800.356.3521.

DISCLAIMER

This manual is intended for use by SOPREMA® authorized roofing contractors and design professionals in order to provide instructions and details for the application of SOPREMA® roof coatings when a SOPREMA® warranty will be requested upon project completion. The contents of this manual are consistent with good roofing practices, but are not specific to any particular project's needs and are not a substitute for professional design services. SOPREMA® bears no liability nor responsibility for the evaluation or design of any particular project.

The roofing material applicator is responsible for ensuring compliance with contract documents, project specifications, roofing industry standards and jurisdictional codes necessary to meet the requirements for specific project applications.

1 SUBSTRATES FOR ALSAN® ROOF COATINGS

1.1 SUBSTRATE EVALUATION, REPAIR AND CLEANING

General:

- SOPREMA®ALSAN® coating primers, bleed blockers, coatings and accessories are suitable for a variety of roofing substrates. Refer to Table 3.2a for an outline of coating materials and accessories.
- Before beginning work, evaluate conditions to ensure the project is appropriate for SOPREMA®ALSAN® coatings and related materials.
- Ensure the new coating materials are appropriate for the roofing substrate, building, occupancy, site, environment and weather conditions.
- Roofing, flashing and accessories must be watertight prior to applying new coating materials.
- Comply with all project-related health, safety and environmental requirements.
- Comply with all personal protective equipment (PPE) requirements when handling and applying SOPREMA® coating materials.
- Review project conditions and determine when and where conditions are appropriate to utilize the specified coatings and accessories. When conditions are determined to be unsafe or undesirable to proceed, take all necessary measures to prevent or eliminate the unsafe or undesirable exposures and conditions.
- Refer to product Safety Data Sheets (SDS) for health, safety, and environment related hazards, and take all necessary measures and precautions to comply with exposure requirements.

Evaluation:

- Examine project conditions to ensure conditions are satisfactory before installing new coating materials.
- Refer to Section 1.2 and Table 1.2a for substrate options, primer application and related requirements.
- For specific material storage, handling and application requirements, refer to Section 2.1 for silicone roof coatings and Section 2.2 for acrylic roof coatings.

- Moisture Survey:
  - The moisture survey may include a visual examination, test cuts, infrared cameras, capacitance meters, probes and/or other means as necessary to identify and replace all wet materials.
  - Complete a moisture survey to identify wet insulation for single-ply, modified bitumen and built-up roofing.
  - Ensure all wet materials have been replaced with appropriate dry materials before installing new coating materials.
- Ponding Water:
  - All roofing substrates should have positive slope and adequate roof drainage.
  - Ponding water is defined herein as isolated water accumulations that dissipate within 48 hours of precipitation.
  - ALSAN® COATING SIL 402 silicone coating may be applied to acceptable roofing substrates where ponding water exists.
  - ALSAN® COATING AC 401 acrylic coating should not be applied where ponding water exists. Treat ponding water areas with ALSAN® COATING SIL 402 silicone coating or SOPREMA® ALSAN® RS.
- Adhesion:
  - Ensure the new coating materials will properly adhere to all substrates.
  - Conduct 180 degree peel tests to examine adhesion.
  - Choose three (3) or more representative substrate areas to test.
  - Clean and prepare the substrates as specified and indicated herein, allow to fully dry.
  - Cut 1 in (2.54 cm) wide by 12 in (30.48 cm) long strips of POLYFLEECE fabric.

    - Apply primer where required, allow primer to fully dry.
    - Embed an 8 to 9 in (20.32 to 22.86 cm) long section of the strip into ALSAN® COATING AC 401 acrylic coating or ALSAN® COATING SIL 402 silicone coating. Leave a 3 to 4 in (7.62 to 10.16 cm) long portion un-adhered in order to grip and pull.
    - Allow sufficient time for the samples to cure. This may require 5 to 7 days or more based upon satisfactory environmental conditions.
    - Grip the un-adhered portion of the sample and pull 180 degrees, parallel with the surface. Use a small scale to measure results in pounds of resistance where quantitative results are desired.
    - Results should demonstrate strong resistance to peel. A strong bond will result in significant residual coating materials remaining on the substrate.
    - Samples that peel away easily from the substrate may indicate further preparation is needed, or alternate materials and/or application methods may be necessary.
    - Where quantitative measurements of peel resistance are desired, peel resistance of 1 in wide samples should exceed 2lb/in (0.35 N/mm) when tested. Wider fabric samples should measure no less than 2 pounds per lineal inch of fabric.
    - Refer to Roof Coating Adhesion Test – Instructional Video for more information.
- Weather:
    - Refer to each material product data sheet for specific weather-related requirements. For specific material storage, handling and application requirements, refer to Section 2.1 for silicone roof coatings and Section 2.2 for acrylic roof coatings.
    - Adjust storage, handling and the application of coating materials as necessary to accommodate varying conditions.
- Building, site and occupancy:
    - ALSAN® coatings are low VOC, low odor materials. Refer to safety data sheets for specific information related to safety and precautions.
    - Coordinate all work with the building owner's representative
        - Examine conditions that may impact the application/adhesion of new roof coating materials.
        - Examine all building equipment and rooftop equipment that may have an impact on the application of new coating materials such as HVAC equipment, intake and exhaust vents.
        - Examine equipment that discharges water, condensation, steam and other materials onto the work area.
    - Take all necessary measures necessary to ensure conditions are satisfactory during storage, handling and application of the new coating materials.

Repairs:

- Repair all damaged and deficient roofing, flashings and accessories to ensure conditions are watertight prior to applying new coating materials.
- Repairs vary for each roofing substrate type. Refer to the roofing manufacturer's published repair procedures and/or refer to roofing industry repair guidelines such as the *NRCA Guidelines for Roof Coatings,* or the *SPRI/NRCA Manual of Roof Inspection*, *Maintenance and Emergency Repair for Existing Single-ply Roofing Systems,* or the *Repair Manual for Low-slope Membrane Roof Systems* by the NRCA.
- Below are general repair requirements for each roofing substrate type.

    - Modified Bitumen/Built-up Roofing:
        - Comply with the roofing manufacturer's published repair and/or installation guidelines.
        - Remove all loose surfacing materials.
        - Seal all open and partially-open modified bitumen membrane and flashing laps and seams.

        - Repair or replace damaged modified bitumen membrane, flashings and accessories with like materials as necessary to ensure conditions are watertight and satisfactory to apply the new coating materials.

    - EPDM Roofing:
        - Comply with the EPDM roofing manufacturer's published repair and/or installation guidelines. Seal all open and partially open EPDM membrane and flashing laps and seams.
        - Repair or replace damaged EPDM membrane, flashings and accessories with like materials as necessary to ensure conditions are watertight and satisfactory to apply the new coating materials.

    - Aged TPO, CSPE, PVC and other approved thermoplastic single-ply roofing:
        - Comply with the single-ply roofing manufacturer's published repair and/or installation guidelines.
        - Seal all open and partially open membrane and flashing laps and seams.
        - Repair or replace damaged membrane, flashings and accessories with like materials as necessary to ensure conditions are watertight and satisfactory to apply the new coating materials.

    - Standing Seam and Lap Seam Metal Roofing:
        - Comply with the metal roofing manufacturer's published repair and/or installation guidelines.
        - Replace all damaged and deteriorated metal panels and other roofing components that are no longer water tight and/or not suitable for new coating materials.
        - Use a wire brush or mechanically abrade surfaces as necessary to remove all loose rust.
        - Replace all missing, stripped and deteriorated fasteners using new properly sized, corrosion resistant fasteners with EPDM-backed washers. New fasteners and washers should be sized larger than the old existing fasteners where appropriate.
        - Fasten all metal roofing and flashings at lapped seams as required to limit panel movement and prevent seams from opening when the seams are under foot traffic.
        - Repair or replace all damaged and deficient foam closures, pipe flashings and other metal roofing accessories.
        - Repair or replace all other damaged flashings and accessories with like materials as necessary to ensure conditions are watertight and satisfactory to apply the new coating materials.
    - Existing Coating:
        - Remove, repair or replace damaged coating. Replace flashings and accessories with like materials as necessary to ensure conditions are watertight and satisfactory to apply the new coating materials.

Cleaning:

- Cleaning requirements vary for each roofing substrate type. Refer to roofing manufacturer's published cleaning guidelines and/or roofing industry guideless where appropriate.
- Prior to cleaning, evaluate the roofing substrates, building, occupancy, site and environment to prevent leaks and other damages during cleaning. Adjust cleaning materials and methods as necessary.
- Use water and appropriate cleaning solutions to clean roofing substrates and ensure satisfactory adhesion of the new primers, coatings, sealants, mastics and all other new coating materials.

- ALSAN® ALL-PURPOSE CLEANER is a water-based surface cleaner used to dissolve and remove hard-to-remove dirt, oil and grease from various substrates.
- Do not use soap to clean roofing substrates.
- Comply with all jurisdictional requirements when using cleaners. Refer to material product data sheets and safety data sheets.

    - Modified Bitumen/Built-up Roofing:
        - Use a low pressure washer (less than 2,000 psi) to remove loose granules, dirt, biological growth and other residue as necessary to produce clean roof surfaces. Ensure pressure and water does not damage roofing substrates.
        - Apply ALSAN® ALL-PURPOSE CLEANER with a stiff bristle broom or brush to remove petroleum, grease or other contaminants to clean surfaces.
        - Remove all residual cleaner using clean water.
    - EPDM Roofing:
        - Use a low pressure washer (less than 2,000 psi) as approved by the local jurisdiction, to remove loose granules, dirt, biological growth and other residue as necessary to produce clean roof surfaces. Ensure pressure and water does not damage roofing substrates.
        - Apply ALSAN® ALL-PURPOSE CLEANER with a stiff bristle broom or brush to remove petroleum, grease or other contaminants to clean surfaces. Multiple applications may be required to sufficiently remove carbon black residue.
        - Pressure wash substrate using ALSAN® ALL-PURPOSE CLEANER or other appropriate cleaner as required.
        - Remove all residual cleaner using clean water.
    - Aged TPO, CSPE, PVC and other approved thermoplastic single-ply roofing:
        - Use a low pressure (less than 2,000 psi) pressure washer with a wide fan tip, and cleaner as approved by the local jurisdiction, to remove dirt, biological growth and all other residue necessary to produce clean roof surfaces. Ensure pressure and water do not damage roofing substrates.
        - Apply ALSAN® ALL-PURPOSE CLEANER with a stiff bristle broom or brush to remove petroleum, grease or other contaminants to clean surfaces.
        - Pressure wash substrate using ALSAN® ALL-PURPOSE CLEANER as required.
        - Remove all residual cleaner using clean water.
    - Standing Seam and Metal Lap Seam Roofing:
        - Use a low pressure (less than 2,000 psi) pressure washer with a wide fan tip, and cleaner as approved by the local jurisdiction, to remove dirt, biological growth and other residue as necessary to produce clean roof surfaces. Ensure water does not enter metal roofing laps and seams.
        - Apply ALSAN® ALL-PURPOSE CLEANER with a stiff bristle broom or brush to remove petroleum, grease or other contaminants to clean surfaces.
        - Pressure wash substrate using ALSAN® ALL-PURPOSE CLEANER as required.
        - Remove all residual cleaners using clean water.
    - Existing Coating:
        - Use a low pressure washer (less than 2,000 psi) as approved by the local jurisdiction, to remove loose granules, dirt, biological growth and other residue as necessary to produce clean roof surfaces. Ensure pressure and water does not damage roofing substrates.

- Apply ALSAN® ALL-PURPOSE CLEANER with a stiff bristle broom or brush to remove petroleum, grease or other contaminants to clean surfaces.
- Pressure wash substrate using ALSAN® ALL-PURPOSE CLEANER or other appropriate cleaner as required.
- Remove all residual cleaner using clean water.

Inspection:

- Before applying the new coating materials, inspect conditions to ensure the following are satisfactory:
  - Ensure all repairs have been made to provide satisfactory, watertight substrates.
  - Ensure all existing wet roofing materials have been identified, removed and replaced with new/dry materials.
  - Inspect all roofing substrates each day to ensure all substrates are clean and dry.
  - Confirm adhesion is satisfactory for the new coating materials on all prepared substrates.
  - Coordinate storage, handling and application of the new coating materials with the owner's representatives to ensure the building, site, occupancy and environmental conditions are satisfactory to begin work.
  - Each day, ensure weather conditions are satisfactory to store, handle and apply the new coating materials.
  - For specific application requirements, refer to Section 2.1 for silicone roof coatings and Section 2.2 for acrylic roof coatings.

1.2 PRIMERS FOR ALSAN® ROOF COATINGS

General:

- Refer to Table 3.2a for an outline of coating materials and accessories.
- ALSAN® COATING ASPHALT BLEED BLOCKING PRIMER is a water-based acrylic primer applied at 1 to 1½ gallon per 100 sq ft. The primer improves adhesion to bitumen substrates, and prevents discoloration of ALSAN® coatings. The primer is recommended for ALSAN® coatings applied over clean, prepared modified bitumen and built-up roofing substrates.
- ALSAN® COATING EPDM PRIMER is a water-based acrylic primer applied at 1/3 to ½ gallon per 100 sq ft. The primer improves adhesion to EPDM substrates, and prevents discoloration of ALSAN® coatings. The primer is recommended for ALSAN® coatings applied over clean, prepared EPDM roofing substrates.
- ALSAN® COATING SINGLE-PLY PRIMER is a water-based acrylic primer applied at 1/3 to ½ gallon per 100 sq ft. The primer improves adhesion to membrane substrates. The primer is recommended for ALSAN® coatings applied over clean, prepared, aged single-ply roofing substrates.
- ALSAN® COATING RUST INHIBITIVE PRIMER is a water-based acrylic primer applied at ½ to 1 gallons per 100 sq. ft. based upon condition of the rusted steel. The primer inhibits rust and improves adhesion to rusted steel substrates. The primer is recommended for ALSAN® coatings applied over clean, prepared rusted steel roofing substrates.

Primer Preparation:

- Refer to Section 1.1 for guidelines required to prepare substrates prior to applying primer and other new coating materials.

Primer Application:

- Refer to Table 1.2a for primer application rates.
- Evenly apply primer using a single-component airless sprayer, 1/4 to 1/2 in nap roller, or brush.
- Do not leave primed substrates exposed during periods of precipitation or other inclement weather.
- Apply the ALSAN® coating to primed substrates within 6 to 24 hours after priming.
- ALSAN® COATING ASPHALT BLEED BLOCKING PRIMER:
    - Weather and environmental conditions:
        - For long-term storage of ALSAN® COATING ASPHALT BLEED BLOCKING PRIMER, materials should be stored in original sealed containers at temperatures between 40°F (4.4°C) and 70°F (21°C) for a shelf life of 12 months from date of manufacturer.
        - ALSAN® COATING ASPHALT BLEED BLOCKING PRIMER must not be exposed to freezing temperatures during storage, handling and within 24 hours after application.
        - During application, the ambient temperature should be between 50°F (10°C) and 95°F (35°C).
        - For optimum application conditions, the substrate temperature should be between 50°F (10°C) and 120°F (49°C), and the ALSAN® COATING ASPHALT BLEED BLOCKING PRIMER material temperature should be between 40°F (4.4°C) and 70°F (20°C).
        - During cold weather, ALSAN® COATING ASPHALT BLEED BLOCKING PRIMER should be stored in a heated area to maintain the material temperature between 40°F (4.4°C) and 70°F (21°C) during application.
        - Conditions must be dry when applying ALSAN® COATING ASPHALT BLEED BLOCKING PRIMER.
        - Other ambient conditions such as sun, cloud cover, wind, humidity, and shade may impact the application and drying time of ALSAN® COATING ASPHALT BLEED BLOCKING PRIMER.

        - Monitor substrate and material temperatures, as well as all environmental conditions such as ambient temperature, moisture, sun, cloud cover, wind, humidity, and shade to ensure conditions remain satisfactory.
        - Ensure all materials and substrates remain above the dew point temperature to prevent condensation from forming during application. Ambient temperature should be well above the dew point temperature, with no dew, fog or condensation present.
        - ALSAN® COATING ASPHALT BLEED BLOCKING PRIMER is sufficiently dry and ready to apply coating within 6 hours, when conditions are at 77°F (25°C) at 50 percent relative humidity.
        - ALSAN® COATING ASPHALT BLEED BLOCKING PRIMER fully cures within 24hours when conditions are at 77°F (25°C) at 50 percent relative humidity.

- ALSAN® COATING EPDM PRIMER:
    - Weather and environmental conditions:
        - For long-term storage of ALSAN® COATING EPDM PRIMER, materials should be stored in original sealed containers at temperatures between 40°F (4.4°C) and 70°F (21°C) for a shelf life of 12 months from date of manufacturer.
        - ALSAN® COATING EPDM PRIMER must not be exposed to freezing temperatures during storage, handling and within 24 hours after application.
        - During application, the ambient temperature should be between 50°F (10°C) and 95°F (35°C).
        - For optimum application conditions, the substrate temperature should be between 50°F (10°C) and 120°F (49°C), and the ALSAN® COATING EPDM PRIMER material temperature should be between 40°F (4.4°C) and 70°F (20°C).
        - During cold weather, ALSAN® COATING EPDM PRIMER should be stored in a heated area to maintain the material temperature between 40°F (4.4°C) and 70°F (20°C) during application.
        - Conditions must be dry when applying ALSAN® COATING EPDM PRIMER.
        - Other ambient conditions such as sun, cloud cover, wind, humidity, and shade may impact the application and drying time of ALSAN® COATING EPDM PRIMER.
        - Monitor substrate and material temperatures, as well as all environmental conditions such as ambient temperature, moisture, sun, cloud cover, wind, humidity, and shade to ensure conditions remain satisfactory.
        - Ensure all materials and substrates remain above the dew point temperature to prevent condensation from forming during application. Ambient temperature should be well above the dew point temperature, with no dew, fog or condensation present.
        - ALSAN® COATING EPDM PRIMER is sufficiently dry and ready to apply coating within 6 hours, when conditions are at 77°F (25°C) at 50 percent relative humidity.
        - ALSAN® COATING EPDM PRIMER fully cures within 24 hours when conditions are at 77°F (25°C) at 50 percent relative humidity.

- ALSAN® COATING SINGLE-PLY PRIMER
    - Weather and environmental conditions:
        - For long-term storage of ALSAN® COATING SINGLE-PLY PRIMER, materials should be stored in original sealed containers at temperatures between 40°F (4.4°C) and 70°F (21°C) for a shelf life of 12 months from date of manufacturer.
        - ALSAN® COATING SINGLE-PLY PRIMER must not be exposed to freezing temperatures during storage, handling and within 24 hours after application.
        - During application, the ambient temperature should be between 50°F (10°C) and 95°F (35°C).

        - For optimum application conditions, the substrate temperature should be between 50°F (10°C) and 120°F (49°C), and the ALSAN® COATING SINGLE-PLY PRIMER material temperature should be between 40°F (4.4°C) and 70°F (20°C).
        - During cold weather, ALSAN® COATING SINGLE-PLY PRIMER should be stored in a heated area to maintain the material temperature between 40°F (4.4°C) and 70°F (20°C) during application.
        - Conditions must be dry when applying ALSAN® COATING SINGLE-PLY PRIMER.
        - Other ambient conditions such as sun, cloud cover, wind, humidity, and shade may impact the application and drying time of ALSAN® COATING SINGLE-PLY PRIMER.
        - Monitor substrate and material temperatures, as well as all environmental conditions such as ambient temperature, moisture, sun, cloud cover, wind, humidity, and shade to ensure conditions remain satisfactory.
        - Ensure all materials and substrates remain above the dew point temperature to prevent condensation from forming during application. Ambient temperature should be well above the dew point temperature, with no dew, fog or condensation present.
        - ALSAN® COATING SINGLE-PLY PRIMER is sufficiently dry and ready to apply coating within 6 hours, when conditions are at 77°F (25°C) at 50 percent relative humidity.
        - ALSAN® COATING SINGLE-PLY PRIMER fully cures within 24 hours when conditions are at 77°F (25°C) at 50 percent relative humidity.

- ALSAN® COATING RUST INHIBITIVE PRIMER
    - Weather and environmental conditions:
        - For long-term storage of ALSAN® COATING RUST INHIBITIVE PRIMER, materials should be stored in original sealed containers at temperatures between 40°F (4.4°C) and 70°F (21°C) for a shelf life of 12 months from date of manufacturer.
        - ALSAN® COATING RUST INHIBITIVE PRIMER must not be exposed to freezing temperatures during storage, handling and within 24 hours after application.
        - During application, the ambient temperature should be between 50°F (10°C) and 95°F (35°C).
        - For optimum application conditions, the substrate temperature should be between 50°F (10°C) and 120°F (49°C), and the ALSAN® COATING RUST INHIBITIVE PRIMER material temperature should be between 40°F (4.4°C) and 70°F (20°C).
        - During cold weather, ALSAN® COATING RUST INHIBITIVE PRIMER should be stored in a heated area to maintain the material temperature between 40°F (4.4°C) and 70°F (20°C) during application.
        - Conditions must be dry when applying ALSAN® COATING RUST INHIBITIVE PRIMER
        - Other ambient conditions such as sun, cloud cover, wind, humidity, and shade may impact the application and drying time of ALSAN® COATING RUST INHIBITIVE PRIMER.
        - Monitor substrate and material temperatures, as well as all environmental conditions such as ambient temperature, moisture, sun, cloud cover, wind, humidity, and shade to ensure conditions remain satisfactory.
        - Ensure all materials and substrates remain above the dew point temperature to prevent condensation from forming during application. Ambient temperature should be well above the dew point temperature, with no dew, fog or condensation present.
        - ALSAN® COATING RUST INHIBITIVE PRIMER is sufficiently dry and ready to apply coating within 6 hours, when conditions are at 77°F (25°C) at 50 percent relative humidity.
        - ALSAN® COATING RUST INHIBITIVE PRIMER fully cures within 24 hours when conditions are at 77°F (25°C) at 50 percent relative humidity.

Primer Inspection:

- Examine the primed areas to ensure the primer is evenly applied.

- Examine adhesion of the ALSAN® coating to primed areas. Refer to Section 1.1 for adhesion (peel) test requirements.
- Ensure primer is dry before applying ALSAN® coating as accessories. Primer drying and curing times vary based upon actual project conditions.

Table 1.2a Primers for ALSAN® Roof Coatings		
Substrate	**Primer Required**	**Coverage***
Modified Bitumen & Asphalt Built-up	ALSAN® COATING ASPHALT BLEED BLOCKING PRIMER	1 to 1½ gallon per 100 SF
EPDM	None	n/a
	ALSAN® COATING EPDM PRIMER	1/3 to ½ gallon per 100 SF
Aged PVC, CSPE, TPO	None	n/a
	ALSAN® COATING SINGLE-PLY PRIMER	1/3 to ½ gallon per 100 SF
Un-painted steel, Galvanized or Galvalume® with light surface rust	ALSAN® COATING RUST INHIBITIVE PRIMER	½ gallon per 100 SF
Un-painted steel, Galvanized or Galvalume® with heavy surface rust	ALSAN® COATING RUST INHIBITIVE PRIMER	½ to 1 gallons per 100 SF

*Coverage rates may vary based on substrate and project conditions. Refer to primer product data sheets for additional information.

2 ALSAN® ROOF COATINGS

2.1 ALSAN® COATING SIL 402 SILICONE ROOF COATING

General:

- Refer to Table 3.2a for an outline of coating materials and accessories.
- ALSAN® COATING SIL 402 is a high solids silicone roof coating that provides a highly flexible surfacing resistant to ponding water, UV and natural weathering exposures.
- ALSAN® COATING SIL 402 is suitable for a variety of metal, single-ply, modified bitumen, smooth-surface asphalt built-up, existing coatings and other properly prepared roofing substrates. Refer to Table 2.1a.
- ALSAN® COATING SIL 402 accessories include ALSAN® ALL-PURPOSE CLEANER, ALSAN® coating primers and bleed blockers, ALSAN® COATING SIL 402 FLASHING brush/trowel-grade mastic, POLYFLEECE non-woven polyester reinforcement, and ALSAN® BUTYL FLEECE TAPE.
- Refer to the PDS and SDS for additional information.
- For optimum long-term storage of ALSAN® COATING SIL 402, materials should be stored in original sealed containers at temperatures between 55°F (12.8°C) and 80°F (26.7°C) for a shelf life of 12 months from date of manufacturer.

Coating Preparation:

- Refer to Section 1.1 for guidelines required prior to applying new coating materials.
- Ensure conditions are satisfactory, and will remain satisfactory, during the application of new coating materials.
- Weather and environmental conditions:
    - ALSAN® COATING SIL 402 is a silicone-based material and is not subject to freezing; however, the material temperature should be stored between 55°F (12.8°C) and 80°F (26.7°C).
    - During cold weather, ALSAN® COATING SIL 402 and all accessory materials should be stored in a heated area to maintain the material temperature between 55°F (12.8°C) and 80°F (26.7°C) during application.
    - During application, the ambient temperature should be between 40°F (4.4°C) and 95°F (35°C).
    - For optimum application conditions, the substrate temperature should be between 40°F (4.4°C) and 120°F (48.9°C), and the ALSAN® COATING SIL 402material temperature should be between 55°F (12.8°C) and 80°F (26.7°C).
    - Other ambient conditions such as sun, cloud cover, wind, humidity, and shade may impact the application and cure time of ALSAN® COATING SIL 402.
    - Monitor substrate and material temperatures, as well as all environmental conditions such as ambient temperature, moisture, sun, cloud cover, wind, humidity, and shade to ensure conditions remain satisfactory.
    - Weather and substrate conditions must be dry when applying ALSAN® COATING SIL 402.
    - Ensure all materials and substrates remain above the dew point temperature to prevent condensation from forming during application. Ambient temperature should be well above the dew point temperature, with no dew, fog or condensation present.
    - ALSAN® COATING SIL 402 is tack-free in 1 to 2 hours when 77°F (25°C) at 50 percent relative humidity.
    - ALSAN® COATING SIL 402 cures between 12 to 18 hours when 77°F (25°C) at 50 percent relative humidity.
- Monitor weather to ensure conditions are satisfactory before, during and up to 24 hours after the application of new coating materials.
- Ensure primers, pre-coats, flashings and sealants are dry and ready to install subsequent materials. Plan accordingly to install materials in proper sequence.

- ALSAN® coating primers are dry and ready to apply subsequent sealants, flashings and coatings within 6 hours when conditions are 77°F (25°C) at 50 percent relative humidity.
- ALSAN® COATING SIL 402 and ALSAN® COATING SIL 402 FLASHING are tack-free, ready to apply subsequent materials within 1 to 2 hours when conditions are 77°F (25°C) at 50 percent relative humidity.
- ALSAN® BUTYL FLEECE TAPE may be coated immediately upon installation.

- Modified Bitumen and Built-up laps, flashings and sealants:
  - Ensure ALSAN® COATING ASPHALT BLEED BLOCKING PRIMER is dry before applying new coating and flashing materials. Refer to Section 1.2.
  - Pre-coat all modified bitumen side and end-laps using a brush, roller or sprayer. Apply 24 wet mils (1.5 gals/100 ft^2) of ALSAN® COATING SIL 402 to "fill-in" the step down along the laps.
  - Where specified or otherwise required, apply ALSAN® COATING SIL 402 FLASHING brush/trowel-grade mastic at membrane terminations such as roof penetrations and edge metal.
  - Refer to flashing detail guidelines indicated in Figures 2.1a through 2.1d.
- EPDM laps, flashings and sealants:
  - Where applicable, ensure ALSAN® COATING EPDM PRIMER is dry before applying new coating and flashing materials. Refer to Section 1.2.
  - For 60 mil and thicker EPDM, pre-coat laps using a brush, roller or sprayer. Apply 24 wet mils (1.5 gals/100 ft^2) of ALSAN® COATING SIL 402 to "fill-in" the step down along the laps.
  - Where specified or otherwise required, apply ALSAN® COATING SIL 402 FLASHING brush/trowel-grade mastic at membrane terminations such as roof penetrations and edge metal.
  - Refer to flashing detail guidelines indicated in Figures 2.1e through 2.1h.
- Aged TPO/CSPE/PVC laps, flashings and sealants:
  - Where applicable, ensure ALSAN® COATING SINGLE-PLY PRIMER is dry before applying new coating and flashing materials. Refer to Section 1.2.
  - For 60 mils and thicker single-ply, pre-coat laps using a brush, roller or sprayer. Apply 24 wet mils (1.5 gals/100 ft^2) of ALSAN® COATING SIL 402 to "fill-in" the step down along the laps.
  - Where specified or otherwise required, apply ALSAN® COATING SIL 402 FLASHING brush/trowel-grade mastic at membrane terminations such as roof penetrations and edge metal.
  - Refer to flashing detail guidelines indicated in Figures 2.1i through 2.1l.
- Standing Seam Metal laps, flashings and sealants:
  - Where applicable, ensure ALSAN® COATING RUST INHIBITIVE PRIMER is dry before applying new coating and flashing materials. Refer to Section 1.2.
  - Seal all horizontal (flat) lap seams, and roof flashing seams using 4 inch wide ALSAN® BUTYL FLEECE TAPE pre-coated with ALSAN® COATING SIL 402, or a apply a three-course application of ALSAN® COATING SIL 402 reinforced using POLYFLEECE.
  - Apply ALSAN® COATING SIL 402 FLASHING to seal all exposed fastener heads.
  - Where specified or otherwise required, apply ALSAN® COATING SIL 402 FLASHING brush/trowel-grade mastic to seal laps and flashing laps and terminations.
  - Refer to flashing detail guidelines indicated in Figures 2.1m through 2.1p.
- Metal Lap Panels laps, flashings and sealants:
  - Where applicable, ensure ALSAN® COATING RUST INHIBITIVE PRIMER is dry before applying new coating materials. Refer to Section 1.2.
  - Seal all horizontal (flat) lap seams, and roof flashing seams using 4 inch wide ALSAN® BUTYL FLEECE TAPE pre-coated with ALSAN® COATING SIL 402, or a apply a three-course application of ALSAN® COATING SIL 402 reinforced using POLYFLEECE.
  - Apply ALSAN® COATING SIL 402 FLASHING to seal all fastener heads.
  - Where specified or otherwise required, apply ALSAN® COATING SIL 402 FLASHING brush/trowel-grade mastic to seal laps and flashing laps and terminations.
  - Refer to flashing detail guidelines indicated in Figures 2.1q through 2.1t.

Coating Application:

- Ensure primers, pre-coats, flashings and sealants are dry, cured and ready to install ALSAN® COATING SIL 402.
- When ALSAN® COATING SIL 402 has been stored for long periods of time, mix the contents using a power mixer for 5 to 10 minutes to ensure a uniform consistency.
- Apply ALSAN® COATING SIL 402 up to 40 wet mils (2.5 gals/100 ft^2) in one single application. When total coating thickness is over 40 wet mils, multiple coats of ALSAN® COATING SIL 402 are recommended to prevent runs and sags. When multiple coats of ALSAN® COATING SIL 402 are required, apply all coats during the same day or within 24 hours.
- ALSAN® COATING SIL 402 is applied using rollers, brushes, or single component sprayers.
- Brush application:
    - Brushes are generally needed for small/confined areas, seams, touch-up work and flashings.
- Roller application:
    - Rollers include hand-held rollers with medium, 3/8 in nap. Apply ALSAN® COATING SIL 402 to ensure an even, uniform coating thickness.
- Spray application:
    - Refer to Coating Preparation, Weather and Environmental Conditions, for acceptable weather conditions.
    - When spray-applying ALSAN® COATING SIL 402 during cold weather, store materials in a heated area to maintain the material temperature at or above 65°F (18.3°C) during application.
    - When spraying ALSAN® COATING SIL 402, the spray tip should be located approximately 18 in above the roof substrate.
    - Spray techniques vary for each substrate. Ensure the minimum coating thickness is achieved at membrane laps, standing seams, metal panel ribs, roof penetrations, at fasteners, etc.
    - Hose size, length, weather conditions, ALSAN® COATING SIL 402 material temperature and other variables will affect spray pattern. Adjust application techniques as necessary to accommodate varying conditions to produce a uniform coating, and meet minimum thickness requirements.
    - To avoid runs and sag on steep slopes and vertical surfaces, multiple coats may be required.
- Spray equipment should include the following:
    - Minimum pump pressure: 4,000 psi (276 bar)
    - Minimum output: 3 gallons (11.3 liters) per minute
    - 5,000 psi (345 bar) reversible spray gun tip cleaning
    - Minimum pressure at gun head of 3,500 psi (241 bar)
    - Minimum tip orifice of 0.030 inches (0.76 millimeters)
    - Tip orifice fan of 50 degrees
    - Maximum high pressure hose length: 450 feet
    - Minimum high pressure hose diameter: ¾ inch (19 millimeters)

- ALSAN® COATING SIL 402 wet mil thickness requirements are based on the roofing substrate and SOPREMA warranty required. Refer to Table 2.1a for SOPREMA warranty terms, required coating thickness and approximate coverage rates.
- For ALSAN® COATING SIL 402 flashing detail guidelines, refer to Figures 2.1a through 2.1t.
- Clean tools, equipment and minor spills using Naptha or mineral spirits.

Coating Inspection:

- Measure the wet mil thickness during the application of ALSAN® COATING SIL 402 to ensure the minimum wet mil thickness is maintained throughout the project.

- After ALSAN® COATING SIL 402 has cured sufficiently, walk the roof and examine flashings, sealants and coating to ensure work has been completed as required. Repair all deficiencies.

Table 2.1a ALSAN® COATING SIL 402 Warranty Term & Roof Coating Thickness			
Substrate	**Warranty Term***	**Minimum Thickness**	**Approximate Coverage Rate**
Modified Bitumen & Built-up Roofing	10 years	32 wet mils/ 29 dry mils	2.0 gals/100 ft^2
	15 years	40 wet mils/ 36 dry mils	2.5 gals/100 ft^2
	20 years	2 coats @ 24 wet mils totaling 44 dry mils	2 coats @ 1.5 gals/100 ft^2 totaling 3.0 gals/100 ft^2
EPDM Roofing	10 years	32 wet mils/ 29 dry mils	2.0 gals/100 ft^2
	15 years	40 wet mils/ 36 dry mils	2.5 gals/100 ft^2
	20 years	2 coats @ 24 wet mils totaling 44 dry mils	2 coats @ 1.5 gals/100 ft^2 totaling 3.0 gals/100 ft^2
Aged TPO, PVC, CSPE Roofing	10 years	32 wet mils/ 29 dry mils	2.0 gals/100 ft^2
	15 years	40 wet mils/ 36 dry mils	2.5 gals/100 ft^2
	20 years	2 coats @ 24 wet mils totaling 44 dry mils	2 coats @ 1.5 gals/100 ft^2 totaling 3.0 gals/100 ft^2
Standing Seam Metal Roofing	10 years	24 wet mils/ 22 dry mils	1.5 gals/100 ft^2
	15 years	32 wet mils/ 29 dry mils	2.0 gals/100 ft^2
	20 years	2 coats @ 24 wet mils totaling 44 dry mils	2 coats @ 1.5 gals/100 ft^2 totaling 3.0 gals/100 ft^2
Metal Lap Panel Roofing	10 years	24 wet mils/ 22 dry mils	1.5 gals/100 ft^2
	15 years	32 wet mils/ 29 dry mils	2.0 gals/100 ft^2
	20 years	2 coats @ 24 wet mils totaling 44 dry mils	2 coats @ 1.5 gals/100 ft^2 totaling 3.0 gals/100 ft^2
Existing Coating	10 years	24 wet mils/ 22 dry mils	1.5 gals/100 ft^2

*Refer to www.SOPREMA.us for the SOPREMA® Standard Roof Coating Warranty, Form C100, or contact SOPREMA® at 800.356.3521 for more information.

Coating drawings and detail guidelines:

- SOPREMA® roof coating drawings and detail guidelines are provided as general guidelines and fundamental requirements for SOPREMA® roofing coating and flashing details.
- All detail drawings and related installation guidelines are provided by SOPREMA® for the sole purpose of issuing a SOPREMA® warranty. Accordingly, the drawings and detail guidelines are not offered, and should not be considered, as a substitute for professional design services.
- Refer to www.SOPREMA.us for SOPREMA® CAD drawings and customizable PDF drawing details.
- Contact SOPREMA® at 800.356.3521 for more information.

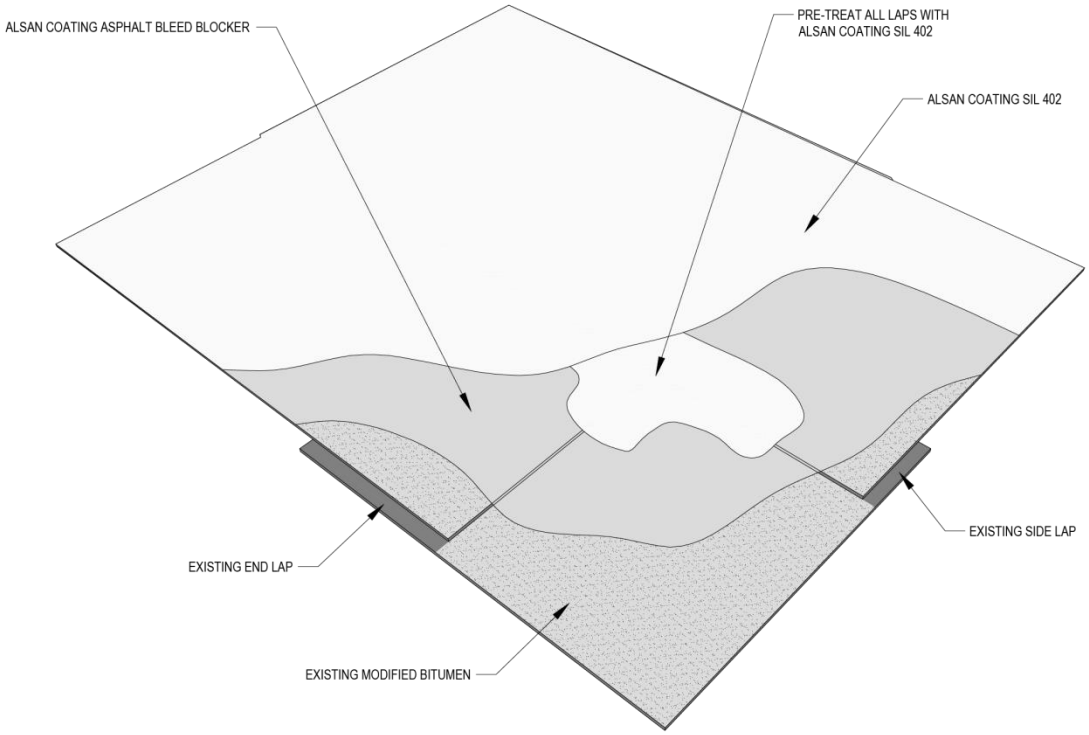

Figure 2.1a Silicone Roof Coating Over SBS Modified Bitumen, Side/End Laps

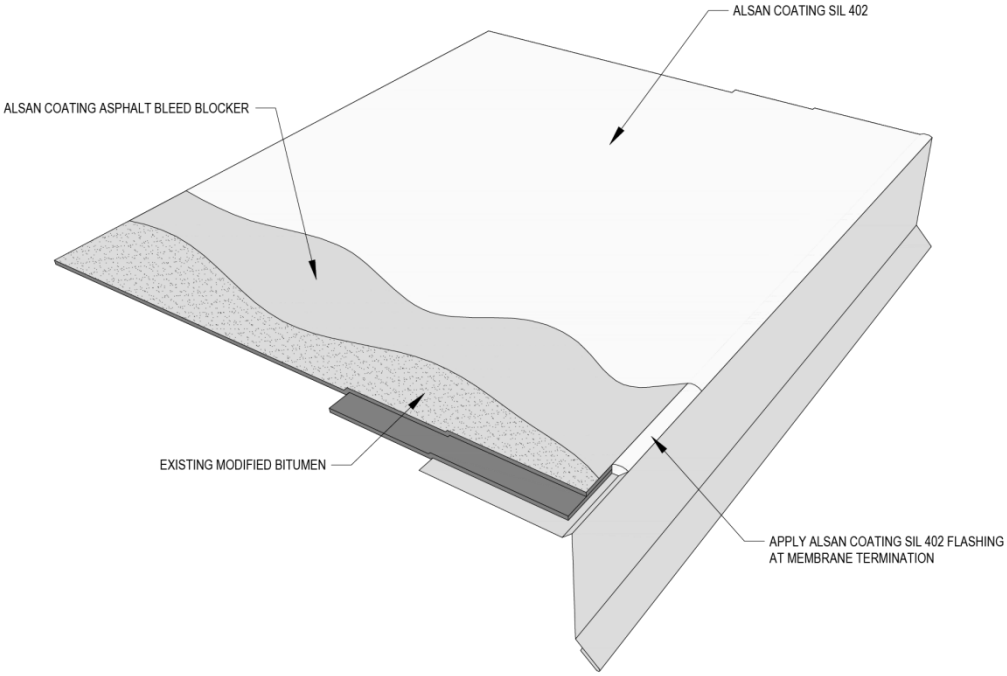

Figure 2.1b Silicone Roof Coating Over SBS Modified Bitumen, Edge

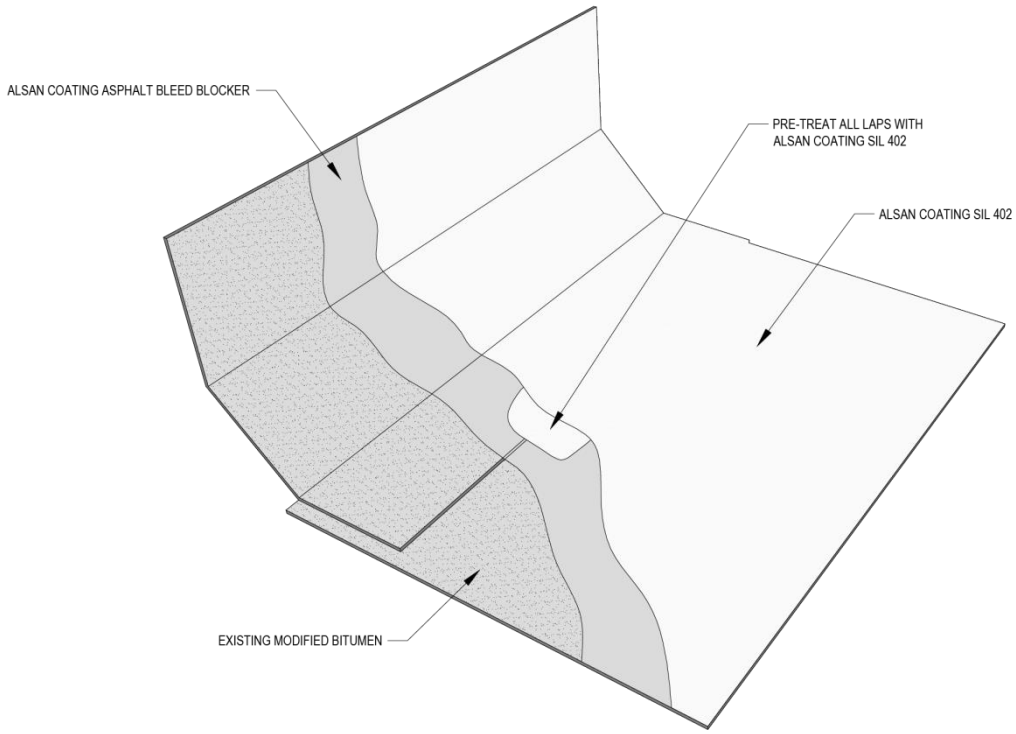

Figure 2.1c Silicone Roof Coating Over SBS Modified Bitumen, Wall/Curb

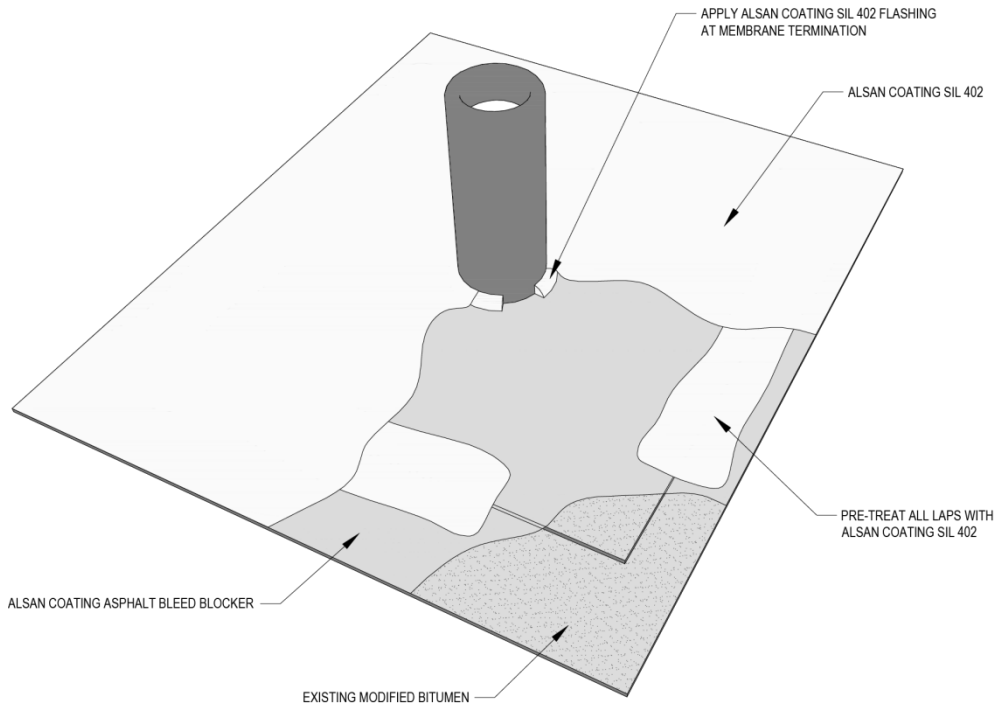

Figure 2.1d Silicone Roof Coating Over SBS Modified Bitumen, Penetration

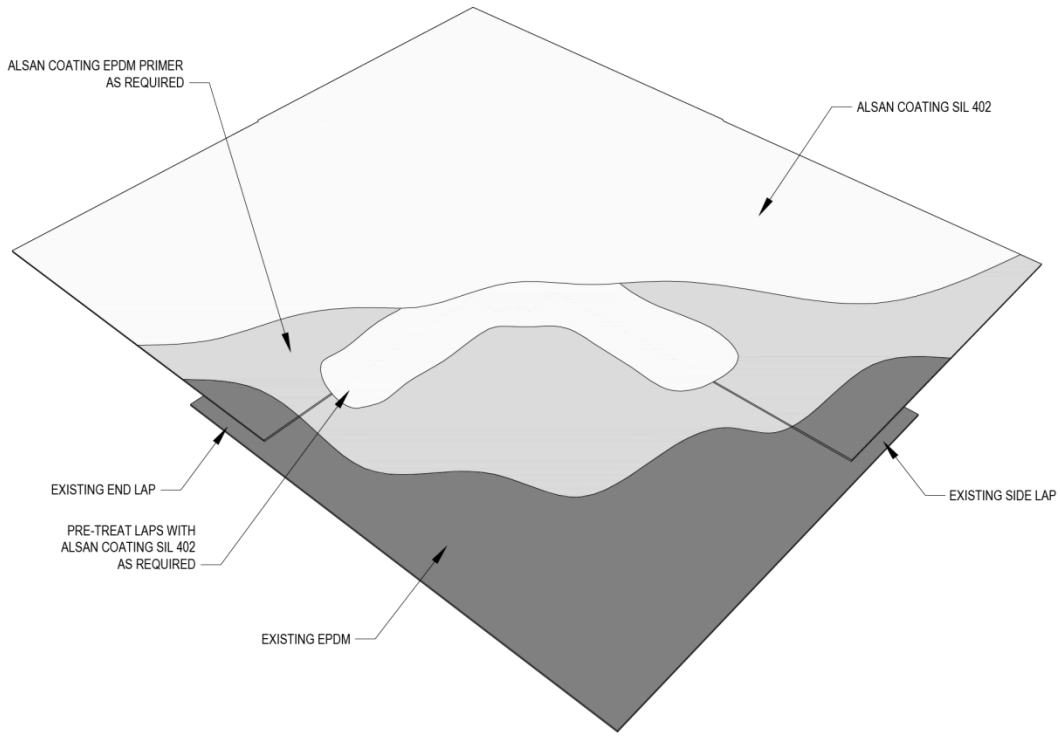

Figure 2.1e Silicone Roof Coating Over EPDM, Side/End Laps

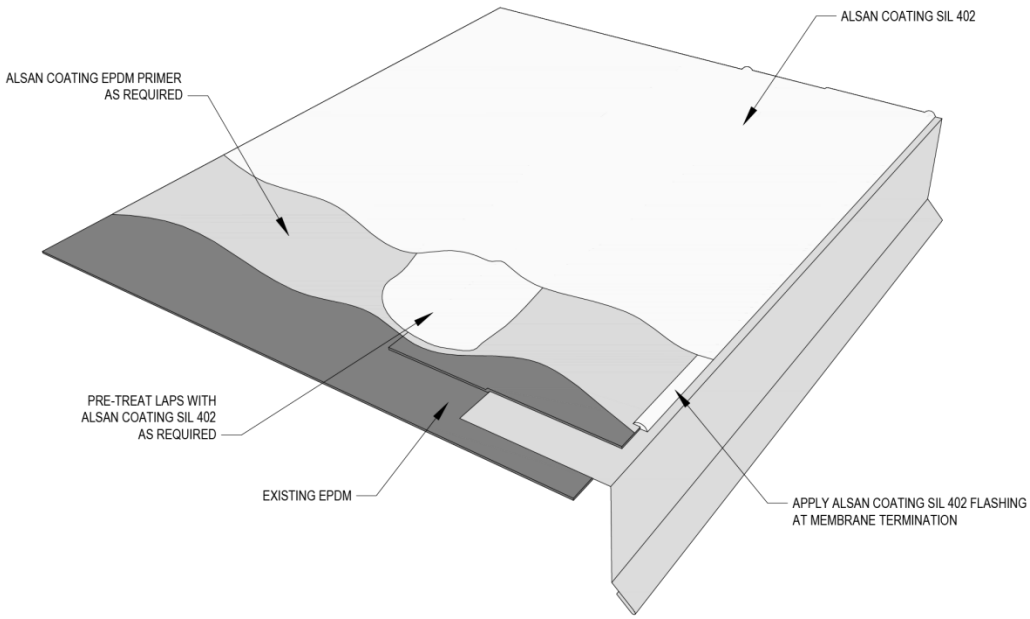

Figure 2.1f Silicone Roof Coating Over EPDM, Edge

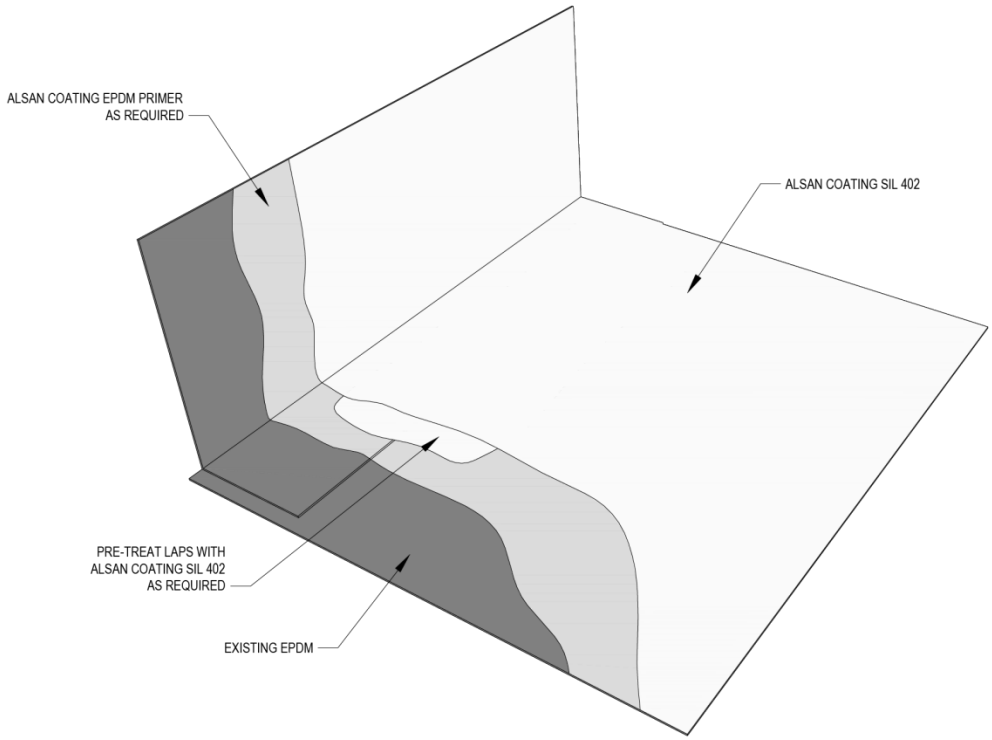

Figure 2.1g Silicone Roof Coating Over EPDM, Wall/Curb

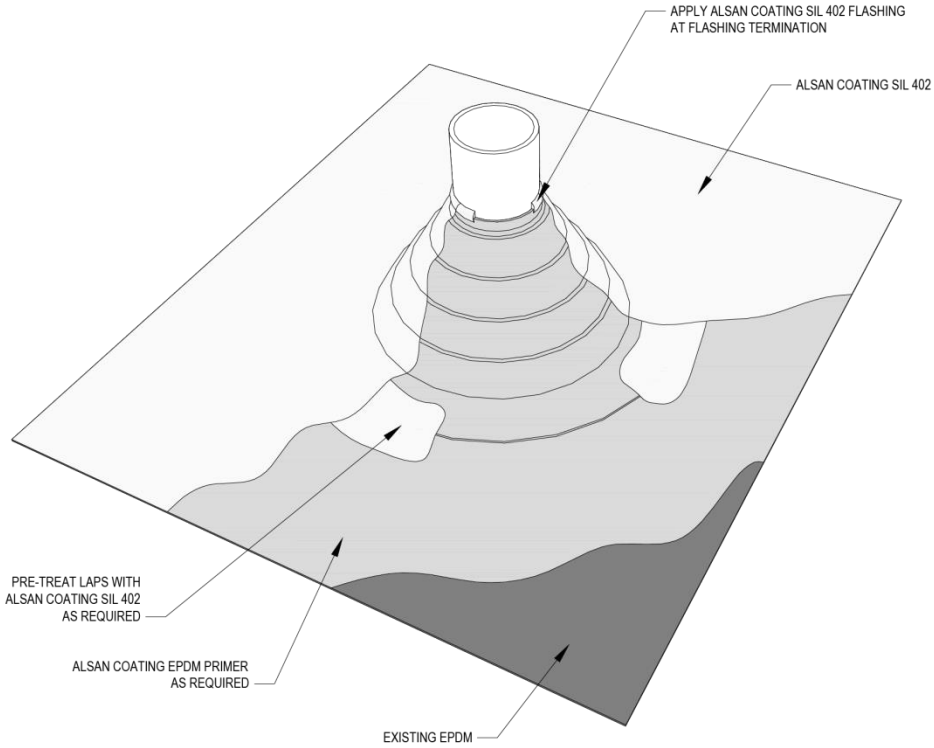

Figure 2.1h Silicone Roof Coating Over EPDM, Penetration

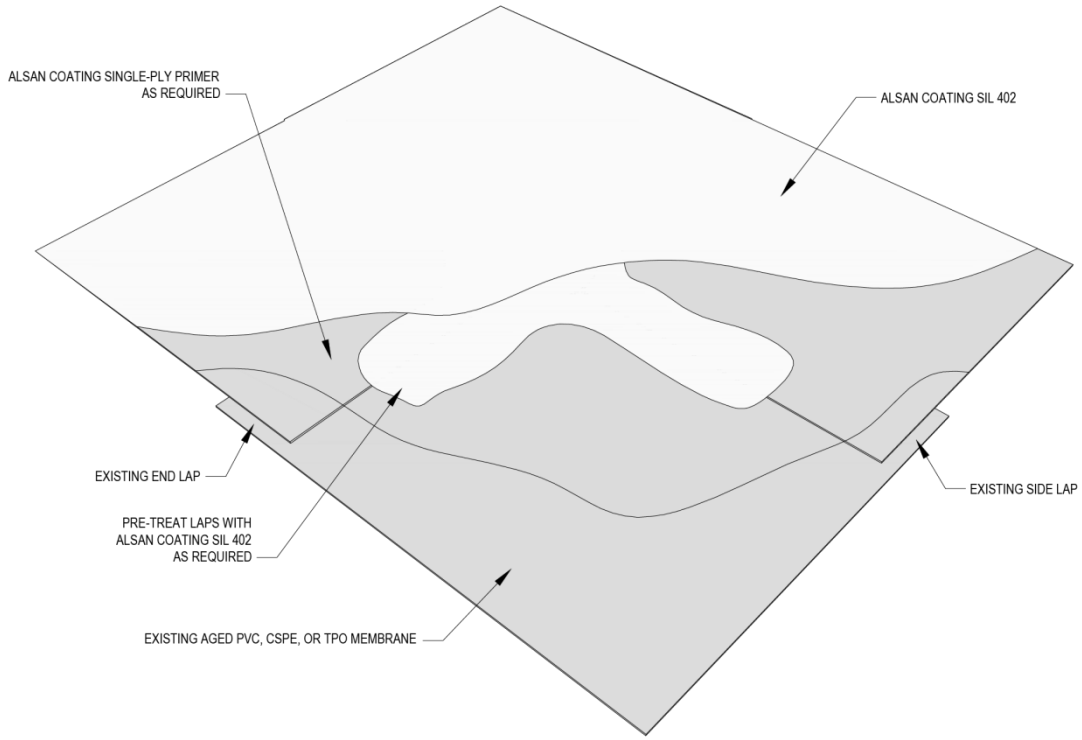

Figure 2.1i Silicone Roof Coating Over Aged TPO/CSPE/PVC, Side/End Laps

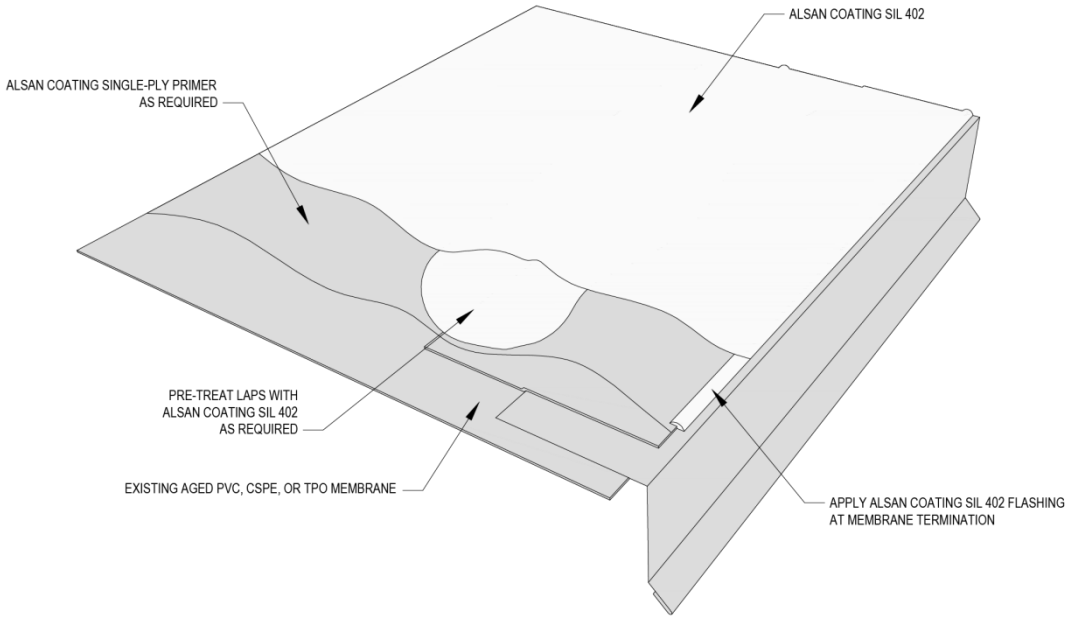

Figure 2.1j Silicone Roof Coating Over Aged TPO/CSPE/PVC, Edge

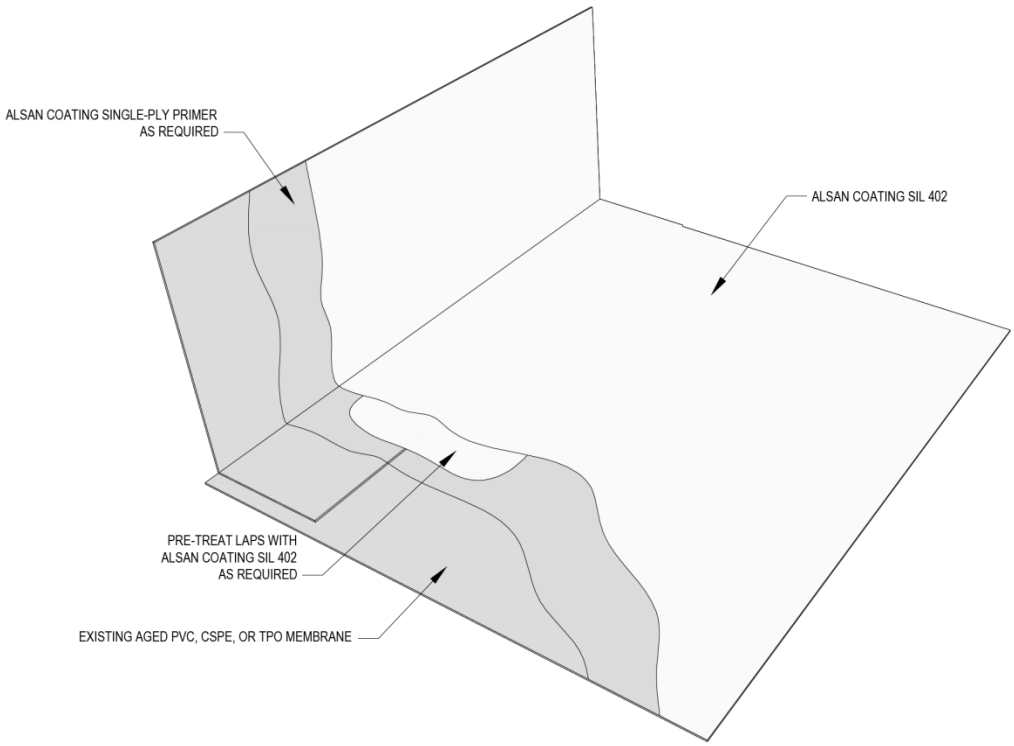

Figure 2.1k Silicone Roof Coating Over Aged TPO/CSPE/PVC, Wall/Curb

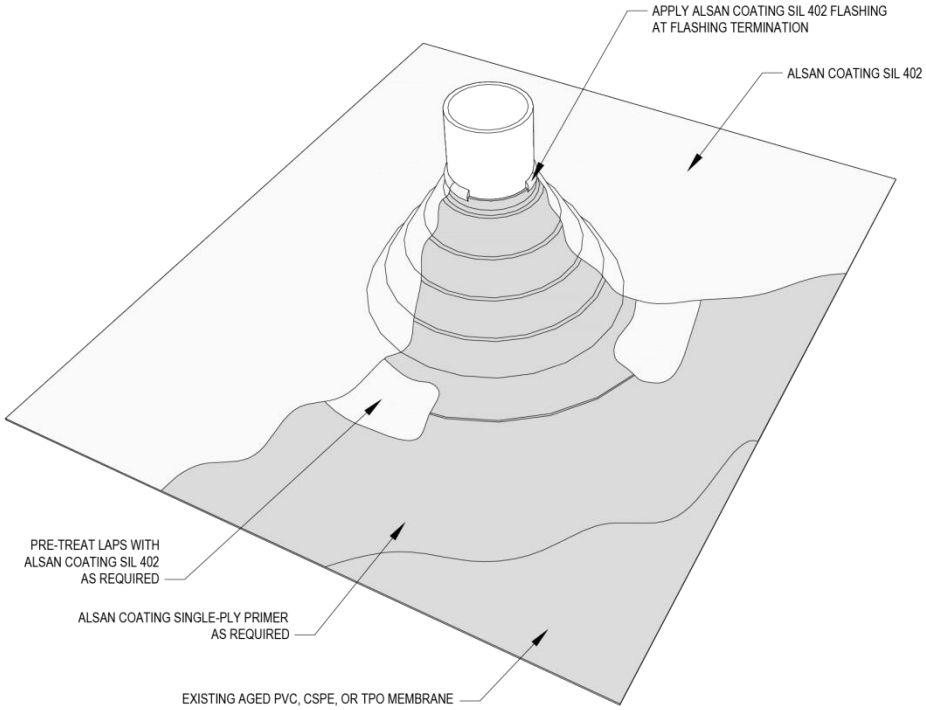

Figure 2.1l Silicone Roof Coating Over Aged TPO/CSPE/PVC, Penetration

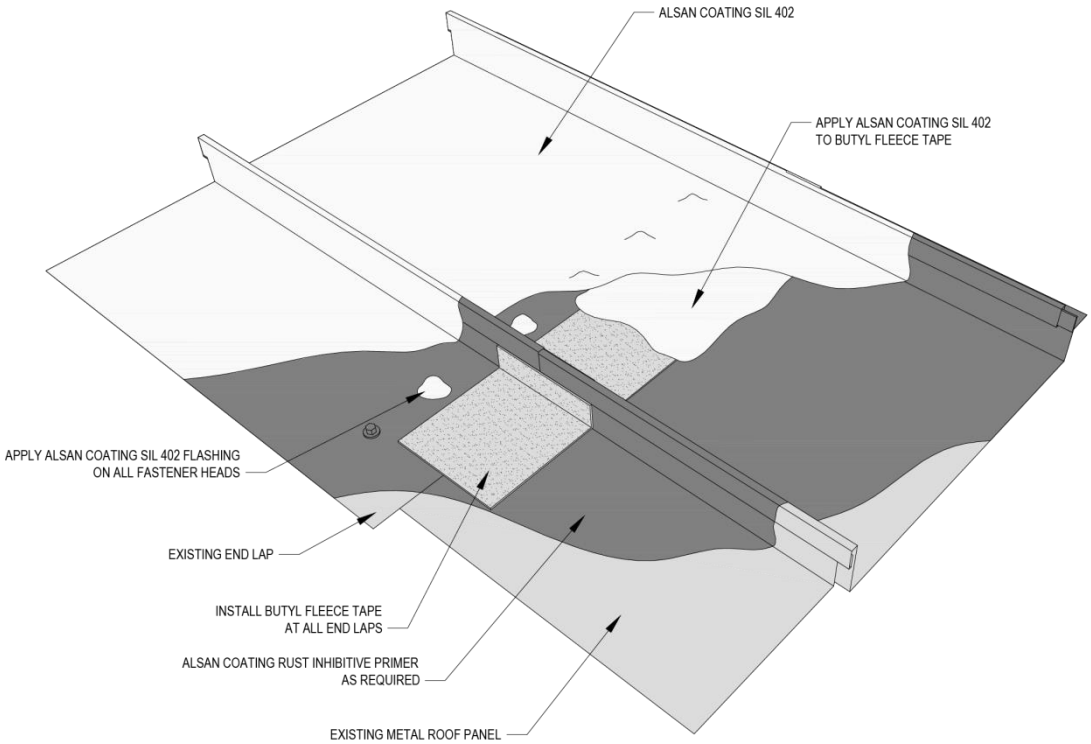

Figure 2.1m Silicone Roof Coating Over Standing Seam Metal, Side/End Laps

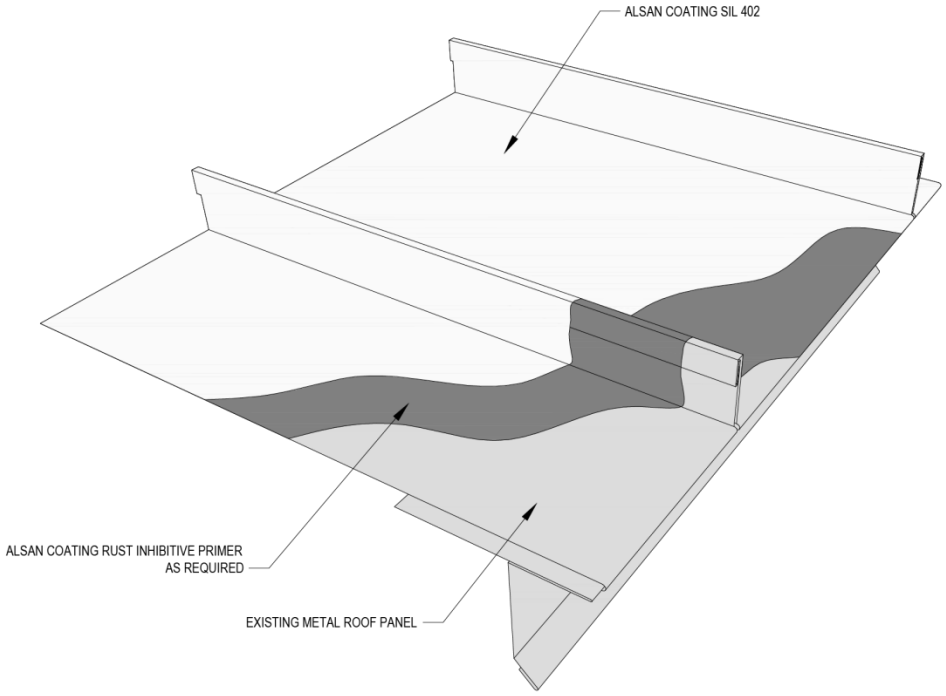

Figure 2.1n Silicone Roof Coating Over Standing Seam Metal, Side/End Laps

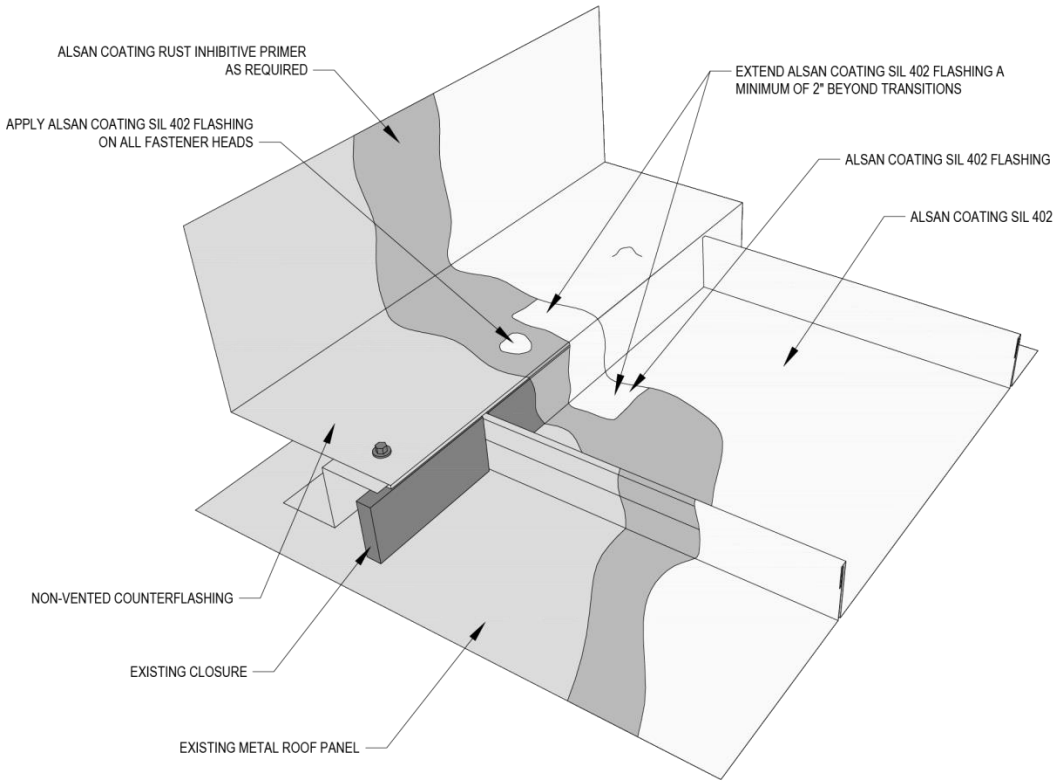

Figure 2.1o Silicone Roof Coating Over Standing Seam Metal, Wall/Curb

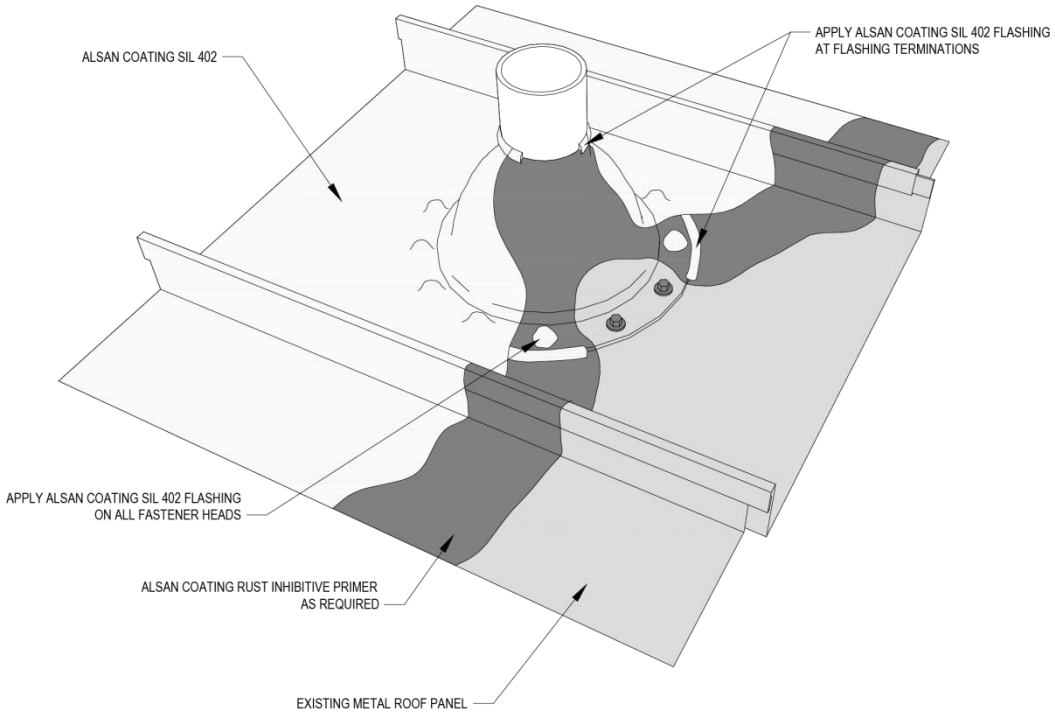

Figure 2.1p Silicone Roof Coating Over Standing Seam Metal, Penetration

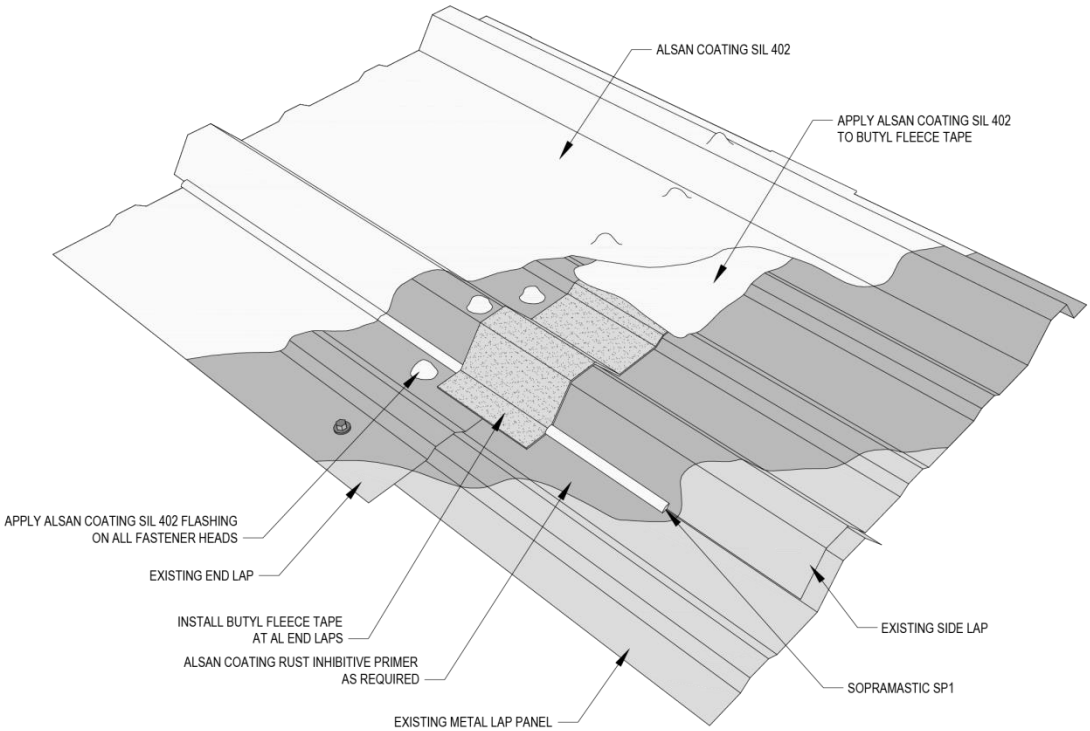

Figure 2.1q Silicone Roof Coating Over Metal Lap Panels, Side/End Laps

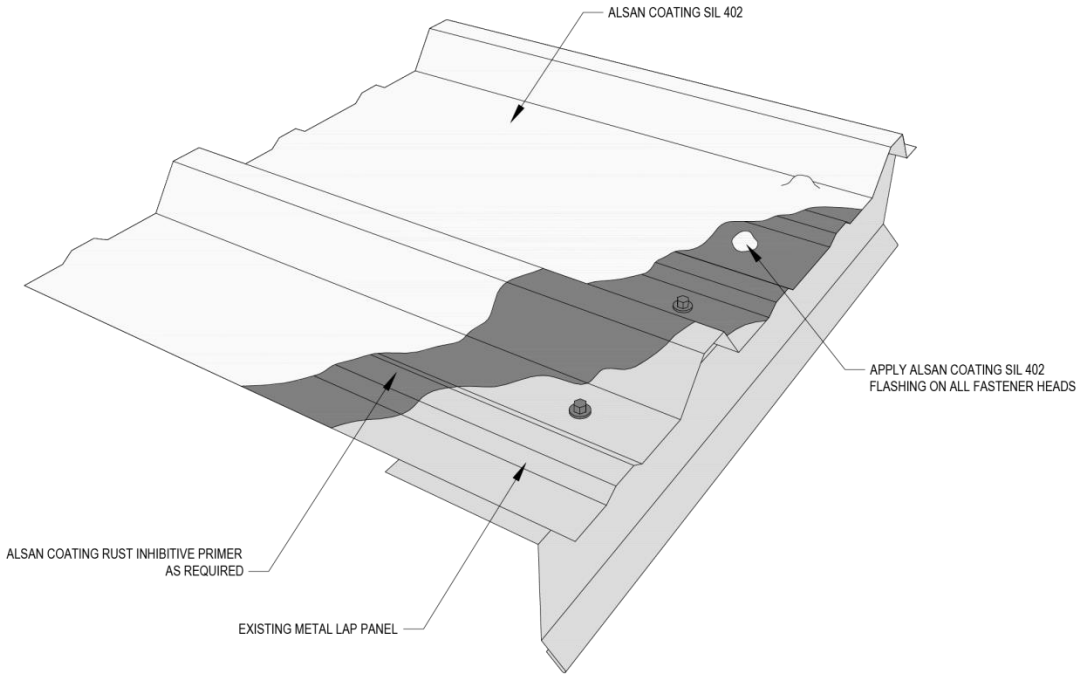

Figure 2.1r Silicone Roof Coating Over Metal Lap Panels, Edge

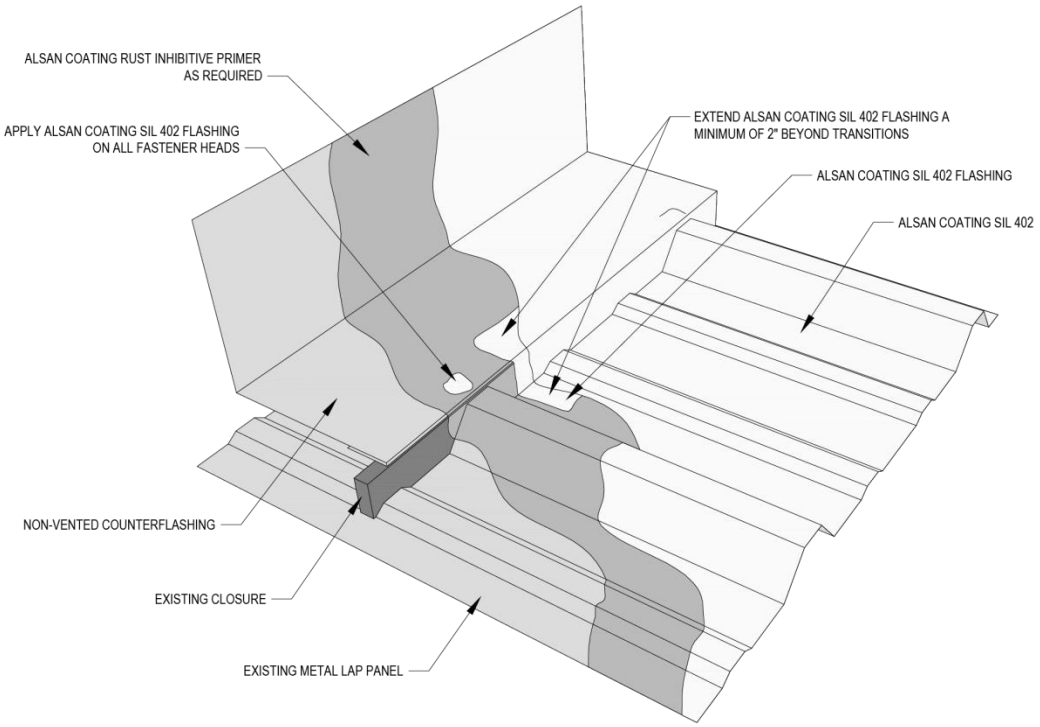

Figure 2.1s Silicone Roof Coating Over Metal Lap Panels, Wall/Curb

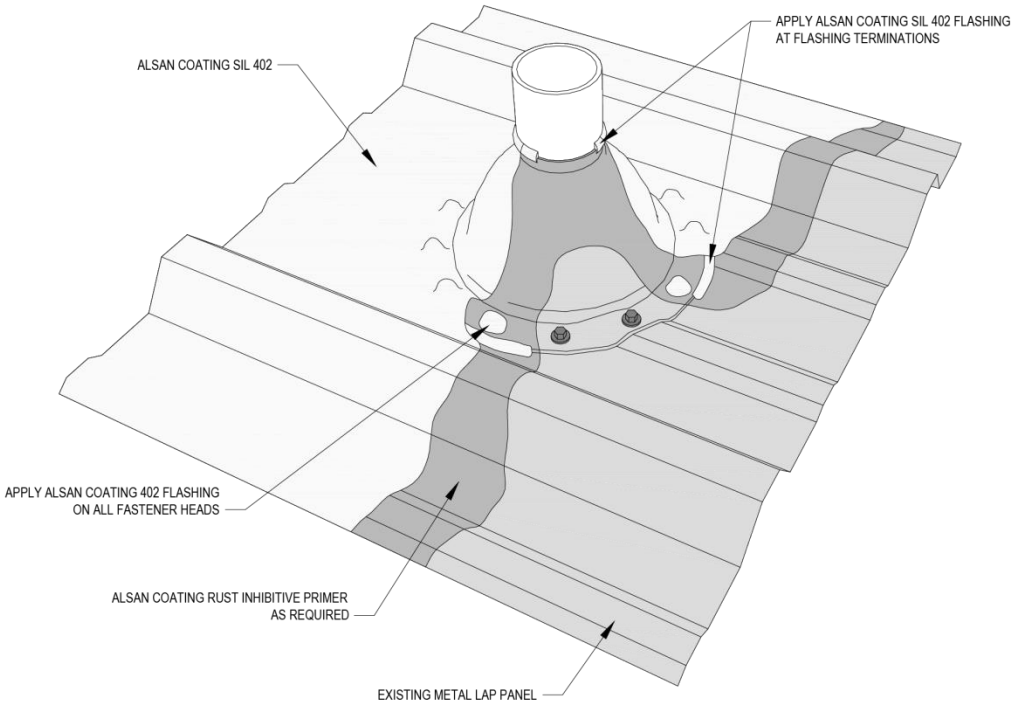

Figure 2.1t Silicone Roof Coating Over Metal Lap Panels, Penetration

2.2 ALSAN® COATING AC 401 ACRYLIC ROOF COATING

General:

- Refer to Table 3.2a for an outline of coating materials and accessories.
- SOPREMA ALSAN® COATING AC 401 is a water based acrylic elastomeric roof coating that provides a highly flexible surfacing for a variety of metal, single-ply, modified bitumen, smooth-surface asphalt built-up, existing coatings and other properly prepared roofing substrates. Refer to Table 2.2a.
- ALSAN® COATING AC 401 should not be applied to existing silicone coatings.
- ALSAN® COATING AC 401 accessories include ALSAN® ALL-PURPOSE CLEANER, ALSAN® coating primers and bleed blockers, ALSAN® COATING AC 401 FLASHING brush/trowel-grade mastic, POLYFLEECE non-woven polyester reinforcement, and ALSAN® BUTYL FLEECE TAPE.
- Refer to the PDS and SDS for additional information.
- For optimum long-term storage of ALSAN® COATING AC 401, materials should be stored in original sealed containers at temperatures between 55°F (12.8°C) and 80°F (26.7°C) for a shelf life of 24 months from date of manufacturer.

Coating Preparation:

- Refer to Section 1.1 for guidelines required prior to applying new coating materials.
- Ensure conditions are satisfactory, and will remain satisfactory, during the application of new coating materials.
- Weather and environmental conditions:
    - For optimum long-term storage of ALSAN® COATING AC 401, materials should be stored in original sealed containers at temperatures between 55°F (12.8°C) and 80°F (26.7°C) for a shelf life of 24 months from date of manufacturer.
    - The ALSAN® COATING AC 401 material and the ambient temperature should be between 50°F (10°C) and 95°F (35°C) during application.
    - The roof substrate temperature should be between 50°F (10°C) and 120°F (48.9°C).
    - ALSAN® COATING AC 401 acrylic coating and water-based accessories must not be exposed to freezing temperatures during storage, handling and within 24 hours of application.
    - During cold weather, ALSAN® COATING AC 401and all accessory materials should be stored in a heated area to maintain the material temperature between 55°F (12.8°C) and 80°F (26.7°C) during application.
    - Other ambient conditions such as sun, cloud cover, wind, humidity, and shade may impact the application and drying time of ALSAN® COATING AC 401.
    - Monitor substrate and material temperatures, as well as all environmental conditions such as ambient temperature, moisture, sun, cloud cover, wind, humidity, and shade to ensure conditions remain satisfactory.
    - Conditions must be dry when applying ALSAN® COATING AC 401.
    - Ensure all materials and substrates remain above the dew point temperature to prevent condensation from forming during application. Ambient temperature should be well above the dew point temperature, with no dew, fog or condensation present.
    - ALSAN® COATING AC 401 is sufficiently dry for a second coat within 6 hours when conditions are at 75°F (24°C) at 50 percent relative humidity.
    - ALSAN® COATING AC 401 fully cures in 30 days when conditions are at 75°F (24°C) at 50 percent relative humidity.

- Monitor weather to ensure conditions are satisfactory before, during and up to 24 hours after the application of new coating materials. Do not apply ALSAN® COATING AC 401 when temperatures will fall below 50°F (10°C).

- Ensure primers, pre-coats, flashings and sealants are dry and ready to install subsequent materials. Plan accordingly to install materials in proper sequence.
- When ALSAN® COATING AC 401 has been stored for long periods of time, mix the contents using a power mixer for 5 to 10 minutes to ensure a uniform consistency.
    - ALSAN® COATING primers are dry and ready to apply subsequent sealants, flashings and coatings within 6 hours when conditions are 77°F (25°C) at 50 percent relative humidity.
    - ALSAN® COATING AC 401 and ALSAN® COATING AC 401 FLASHING are dry and ready to apply subsequent materials within 6 hours when conditions are 75°F (24°C) at 50 percent relative humidity.
    - ALSAN® BUTYL FLEECE TAPE may be coated immediately upon installation.

- Modified Bitumen and Built-up flashings and sealants:
    - Ensure ALSAN® COATING ASPHALT BLEED BLOCKING PRIMER is dry before applying new coating and flashing materials. Refer to Section 1.2.
    - Where specified or otherwise required, apply ALSAN® COATING AC 401 FLASHING brush/trowel-grade mastic at membrane terminations such as roof penetrations and edge metal.
    - Pre-coat all modified bitumen side and end-laps using a brush, roller or sprayer. Apply 24 wet mils (1.5 gals/100 ft^2) of ALSAN® COATING AC 401 to "fill-in" the step down along the laps.
- EPDM flashings and sealants:
    - Where applicable, ensure ALSAN® COATING EPDM PRIMER is dry before applying new coating and flashing materials. Refer to Section 1.2.
    - Where specified or otherwise required, apply ALSAN® COATING AC 401 FLASHING brush/trowel-grade mastic at membrane terminations such as roof penetrations and edge metal.
    - For 60 mil and thicker EPDM side and end laps, pre-coat laps using a brush, roller or sprayer. Apply 24 wet mils (1.5 gals/100 ft^2) of ALSAN® COATING AC 401 to "fill-in" the step down along the laps.
- Aged TPO/CSPE/PVC flashings and sealants:
    - Where applicable, ensure ALSAN® COATING SINGLE-PLY PRIMER is dry before applying new coating and flashing materials. Refer to Section 1.2.
    - Where specified or otherwise required, apply ALSAN® COATING AC 401 FLASHING brush/trowel-grade mastic at membrane terminations such as roof penetrations and edge metal.
    - On membranes 60 mils or thicker, pre-coat all side and end laps by applying ALSAN® COATING AC 401 using a brush, roller, or sprayer at mils (1.5 gals/100 ft^2).
- Standing Seam Metal flashings and sealants:
    - Where applicable, ensure ALSAN® COATING RUST INHIBITIVE PRIMER is dry before applying new coating and flashing materials. Refer to Section 1.2.
    - Seal all horizontal (flat) lap seams, and roof flashing seams using 4 inch wide ALSAN® BUTYL FLEECE TAPE pre-coated with ALSAN® COATING AC 401, or a apply a three-course application of ALSAN COATING AC 401 reinforced using POLYFLEECE.
    - Apply ALSAN® COATING AC 401 FLASHING to seal all exposed fastener heads.
    - Where specified or otherwise required, apply ALSAN® COATING AC 401 FLASHING brush/trowel-grade mastic to seal laps and flashing laps and terminations.
    - Refer to flashing detail guidelines indicated in Figures 2.2a through 2.2d.
- Metal Lap Panels flashings and sealants:
    - Where applicable, ensure ALSAN® COATING RUST INHIBITIVE PRIMER is dry before applying new coating materials. Refer to Section 1.2.
    - Seal all horizontal (flat) lap seams, and roof flashing seams using 4 inch wide ALSAN® BUTYL FLEECE TAPE pre-coated with ALSAN® COATING AC 401, or a apply a three-course application of ALSAN COATING AC 401 reinforced using POLYFLEECE.
    - Apply ALSAN® COATING AC 401 FLASHING to seal all fastener heads.
    - Where specified or otherwise required, apply ALSAN® COATING AC 401 FLASHING brush/trowel-grade mastic to seal laps and flashing laps and terminations.

- Refer to flashing detail guidelines indicated in Figures 2.2e through 2.1h .

Coating Application:

- Ensure primers, pre-coats, flashings and sealants are dry, cured and ready to install ALSAN® COATING AC 401.
- Apply ALSAN® COATING AC 401 up to 24 wet mils (1.5 gals/100 ft^2) in one single application.
- When coating thickness is over 24 wet mils, multiple coats of ALSAN® COATING AC 401 are required. When multiple coats of ALSAN® COATING AC 401 are required, apply all coats during the same day or within 24 hours. Allow approximately 6 hours to dry between coats when conditions are 75°F (24°C) at 50 percent relative humidity. Drying time varies based on project conditions.
- ALSAN® COATING AC 401 is applied using rollers, brushes, or single component sprayers.
- Brush application:
  - Brushes are generally needed for small/confined areas, seams, touch-up work and flashings.
- Roller application:
  - Rollers include hand-held rollers with medium, 3/8 in nap. Apply ALSAN® COATING AC 401 to ensure an even, uniform coating thickness.
- Spray application:
  - Refer to Coating Preparation, Weather and Environmental Conditions, for acceptable weather conditions.
  - When spray-applying ALSAN® COATING AC 401 during cold weather, store materials in a heated area to maintain the material temperature at or above 65°F (18.3°C) during application.
  - When spraying ALSAN® COATING AC 401 the spray tip should be located approximately 18 in above the roof substrate.
  - Spray techniques vary for each substrate. Ensure the minimum coating thickness is achieved at membrane laps, standing seams, metal panel ribs, roof penetrations, at fasteners, etc.
  - Hose size, length, weather conditions, ALSAN® COATING AC 401 material temperature and other variables will affect spray pattern. Adjust application techniques as necessary to accommodate varying conditions to produce a uniform coating, and meet minimum thickness requirements.
- Spray equipment should include the following:
  - Minimum pump pressure: 4,000 psi (276 bar)
  - Minimum output: 3 gallons (11.3 liters) per minute
  - 5,000 psi (345 bar) reversible spray gun tip cleaning
  - Minimum pressure at gun head of 3,500 psi (241 bar)
  - Minimum tip orifice of 0.030 inches (0.76 millimeters)
  - Tip orifice fan of 50 degrees
  - Maximum high pressure hose length: 450 feet
  - Minimum high pressure hose diameter: ¾ inch (19 millimeters)

- ALSAN® COATING AC 401 wet mil thickness requirements are based on the roofing substrate and SOPREMA warranty required. Refer to Table 2.2a for SOPREMA® warranty terms, required coating thickness and approximate coverage rates.
- For ALSAN® COATING AC 401 flashing detail guidelines, refer to Figures 2.2a through 2.2h.
- Clean tools, equipment and minor spills using clean water.

Coating Inspection:

- Measure the wet mil thickness during the application of ALSAN® COATING AC 401 to ensure the minimum wet mil thickness is maintained throughout the project.
- After ALSAN® COATING AC 401 has cured sufficiently, walk the roof and examine flashings, sealants and coating to ensure work has been completed as required. Repair all deficiencies.

Table 2.2a ALSAN® COATING AC 401 Warranty Term & Roof Coating Thickness			
Substrate	**Warranty Terms***	**Minimum Thickness**	**Coverage Rate**
Modified Bitumen & Built-up Roofing	5 years	2 coats @ 16 wet mils totaling 17 dry mils	2 coats @ 1.0 gals/100ft^2 totaling 2.0 gals/100ft^2
	10 years	2 coats @ 24 wet mils totaling 25 dry mils	2 coats @ 1.5 gals/100ft^2 totaling 3.0 gals/100ft^2
EPDM Roofing	5 years	2 coats @ 16 wet mils totaling 17 dry mils	2 coats @ 1.0 gals/100ft^2 totaling 2.0 gals/100ft^2
	10 years	2 coats @ 24 wet mils totaling 25 dry mils	2 coats @ 1.5 gals/100ft^2 totaling 3.0 gals/100ft^2
Aged TPO, PVC, CSPE Roofing	5 years	2 coats @ 16 wet mils totaling 17 dry mils	2 coats @ 1.0 gals/100ft^2 totaling 2.0 gals/100ft^2
	10 years	2 coats @ 24 wet mils totaling 25 dry mils	2 coats @ 1.5 gals/100ft^2 totaling 3.0 gals/100ft^2
Standing Seam Metal	5 years	2 coats @ 16 wet mils totaling 17 dry mils	2 coats @ 1.0 gals/100ft^2 totaling 2.0 gals/100ft^2
	10 years	2 coats @ 24 wet mils totaling 25 dry mils	2 coats @ 1.5 gals/100ft^2 totaling 3.0 gals/100ft^2
Metal Lap Panels	5 years	2 coats @ 16 wet mils totaling 17 dry mils	2 coats @ 1.0 gals/100ft^2 totaling 2.0 gals/100ft^2
	10 years	2 coats @ 24 wet mils totaling 25 dry mils	2 coats @ 1.5 gals/100ft^2 Totaling 3.0 gals/100ft^2
Existing Coating**	5 years	2 coats @ 16 wet mils totaling 17 dry mils	2 coats @ 1.0 gals/100ft^2 totaling 2.0 gals/100ft^2
	10 years	2 coats @ 24 wet mils totaling 25 dry mils	2 coats @ 1.5 gals/100ft^2 totaling 3.0 gals/100ft^2

*Refer to www.SOPREMA.us for the SOPREMA® Standard Roof Coating Warranty, Form C100, or contact SOPREMA® at 800.356.3521 for more information.
**ALSAN® COATING AC 401 should not be applied to existing silicone coatings.

Coating drawings and detail guidelines:

- SOPREMA® roof coating drawings and detail guidelines are provided as general guidelines and fundamental requirements for SOPREMA® roofing coating and flashing details.
- All detail drawings and related installation guidelines are provided by SOPREMA® for the sole purpose of issuing a SOPREMA® warranty. Accordingly, the drawings and detail guidelines are not offered, and should not be considered, as a substitute for professional design services.
- Refer to www.SOPREMA.us for SOPREMA® CAD drawings and customizable PDF drawing details.
- Contact SOPREMA® at 800.356.3521 for more information.

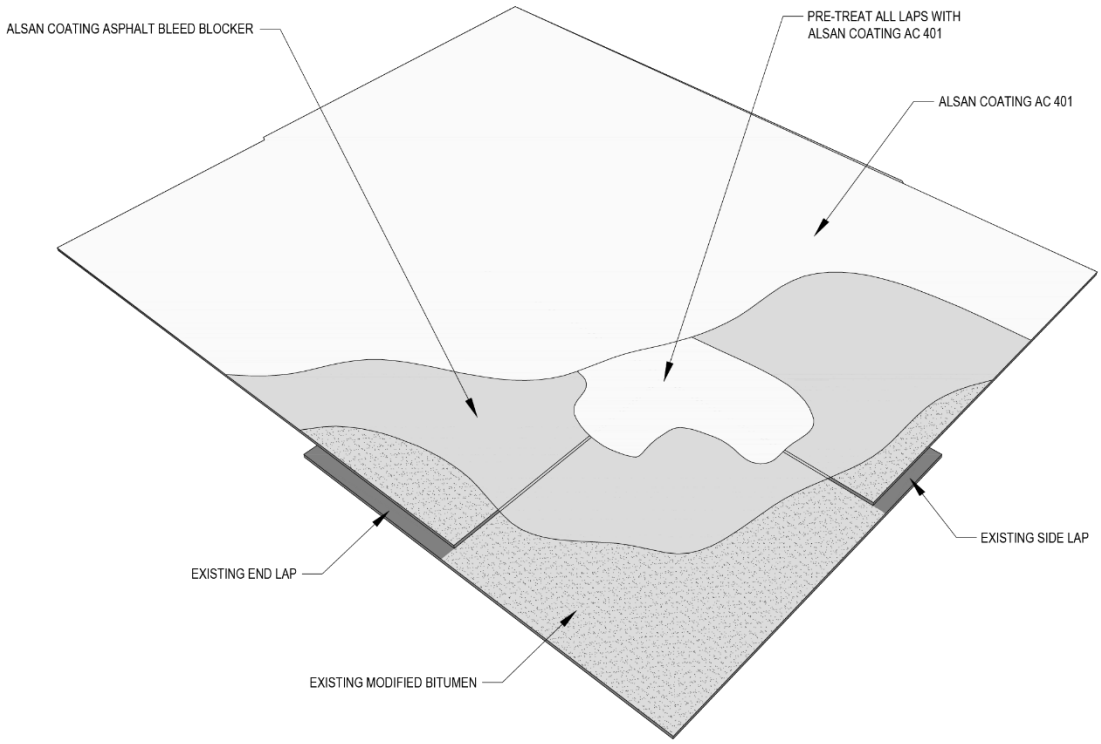

Figure 2.2a Acrylic Roof Coating Over SBS Modified Bitumen, Side/End Laps

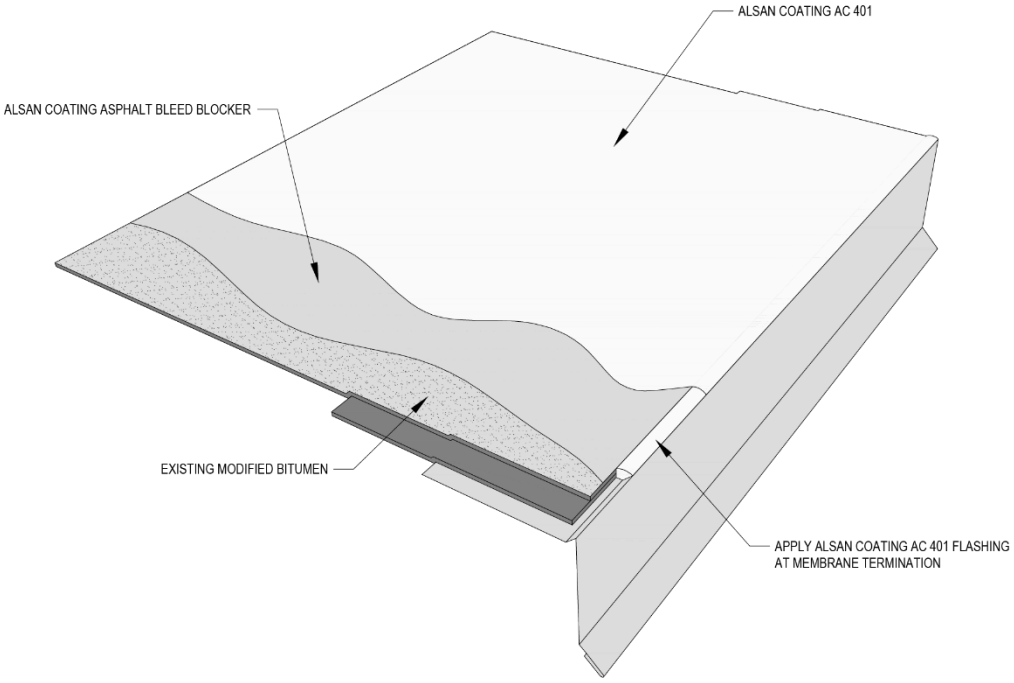

Figure 2.2b Acrylic Roof Coating Over SBS Modified Bitumen, Edge

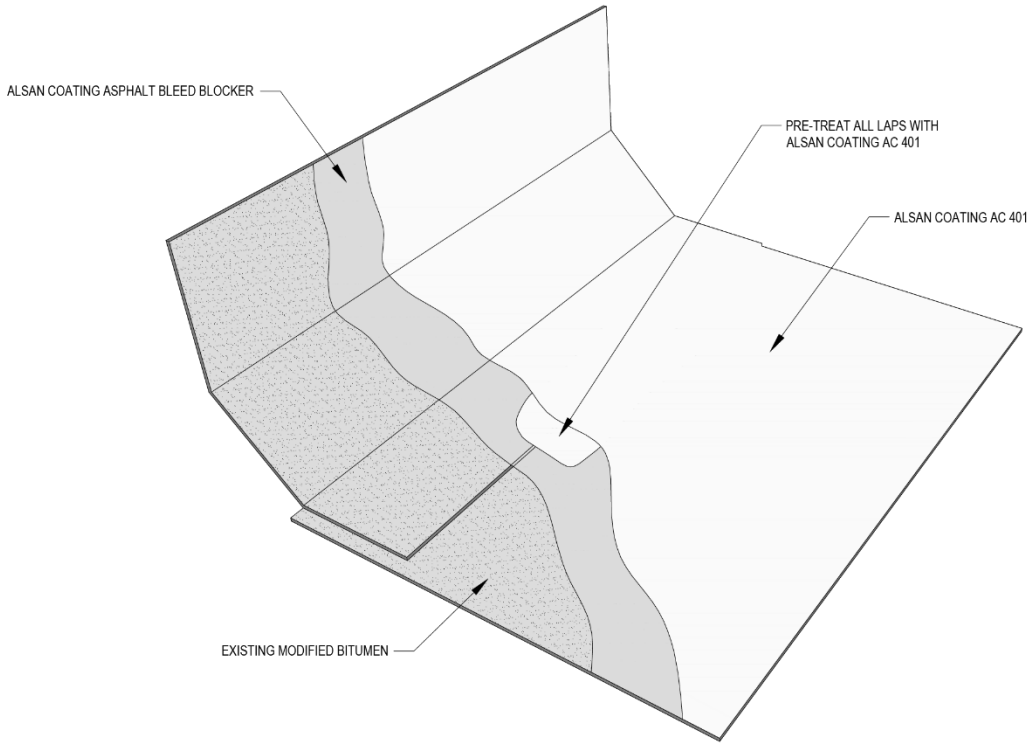

Figure 2.2c Acrylic Roof Coating Over SBS Modified Bitumen, Wall/Curb

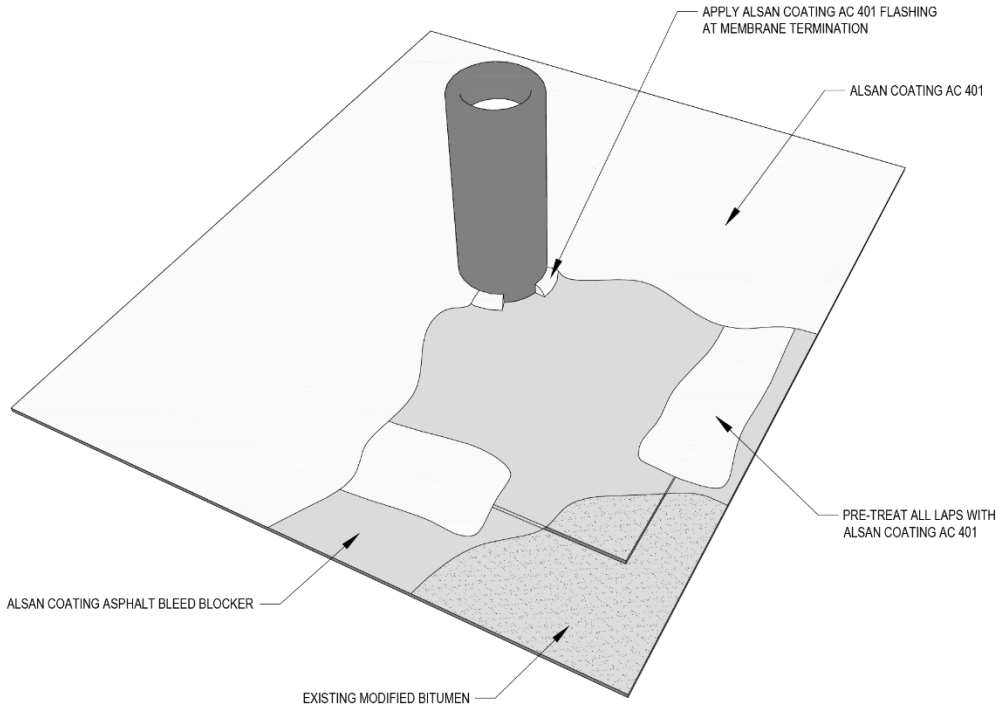

Figure 2.2d Acrylic Roof Coating Over SBS Modified Bitumen, Penetration

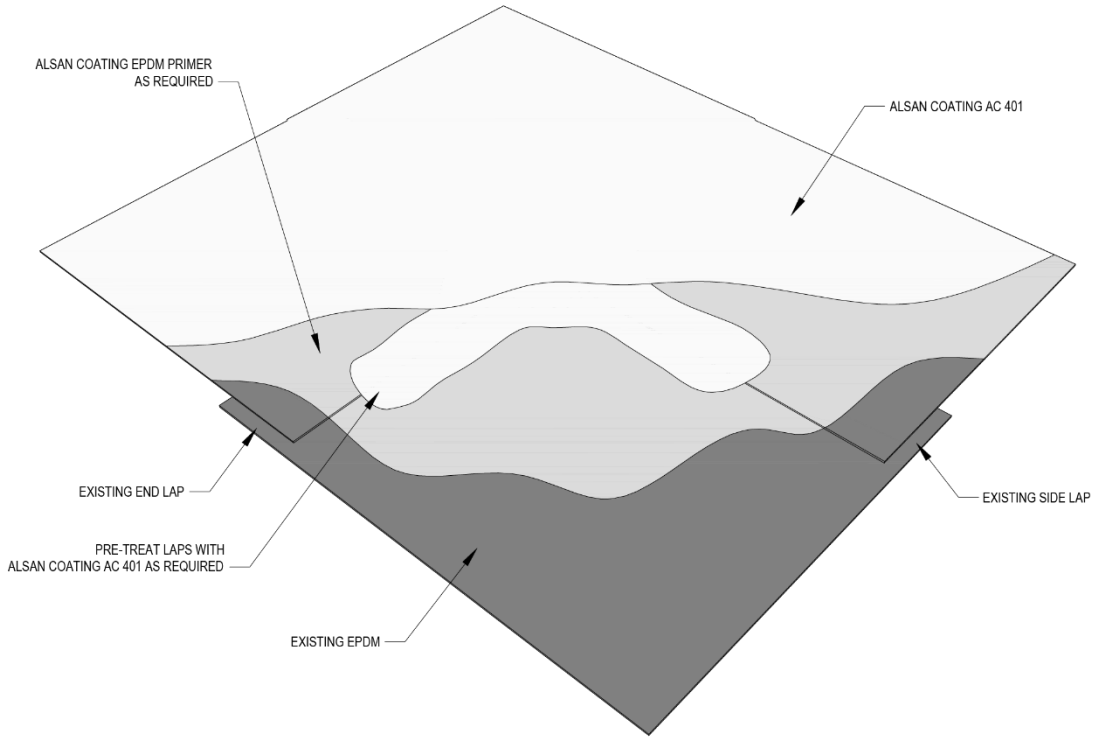

Figure 2.2e Acrylic Roof Coating Over EPDM, Side/End Laps

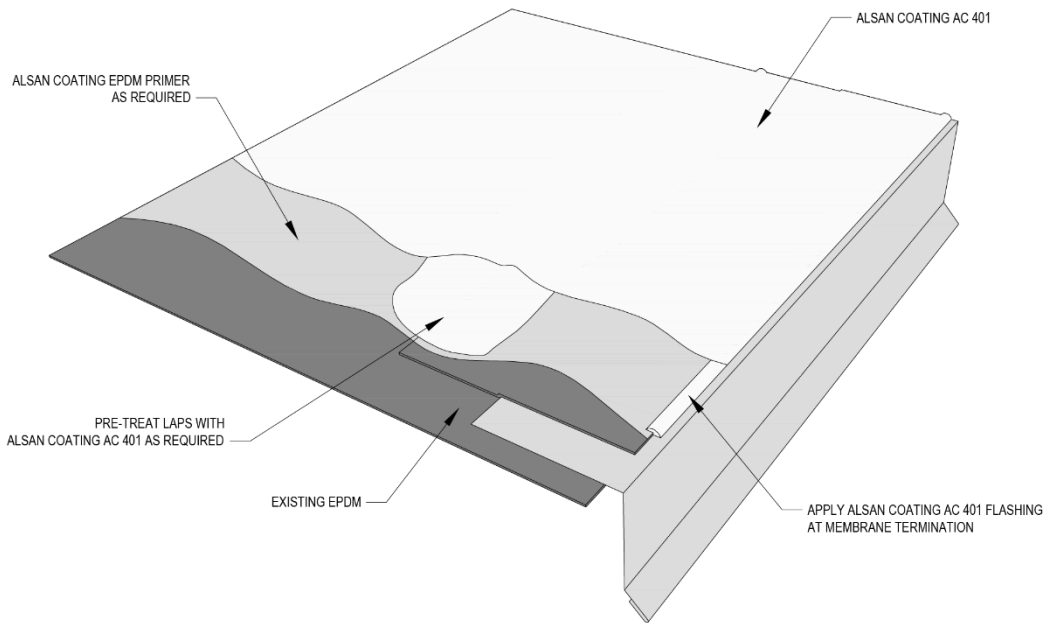

Figure 2.2f Acrylic Roof Coating Over EPDM, Edge

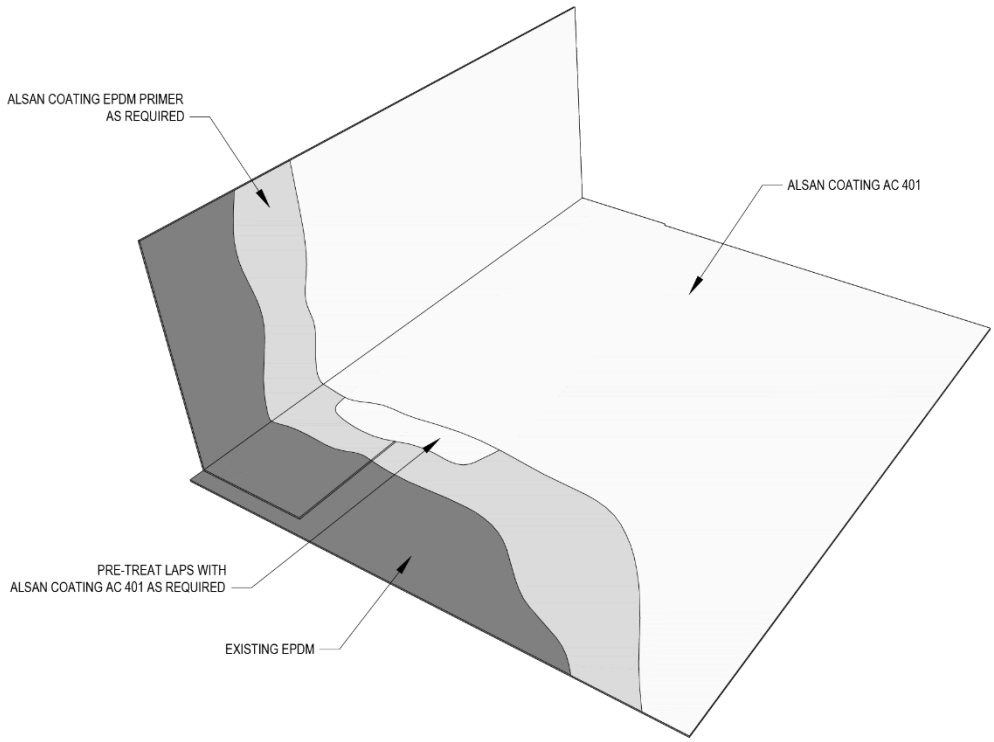

Figure 2.2g Acrylic Roof Coating Over EPDM, Wall/Curb

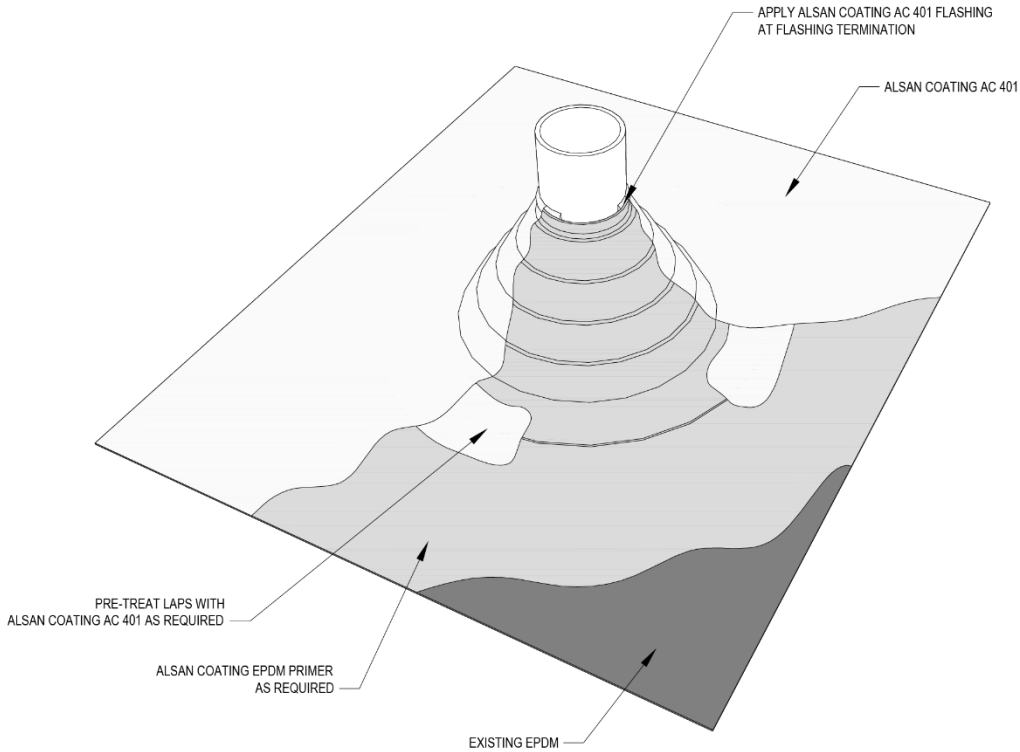

Figure 2.2h Acrylic Roof Coating Over EPDM, Penetration

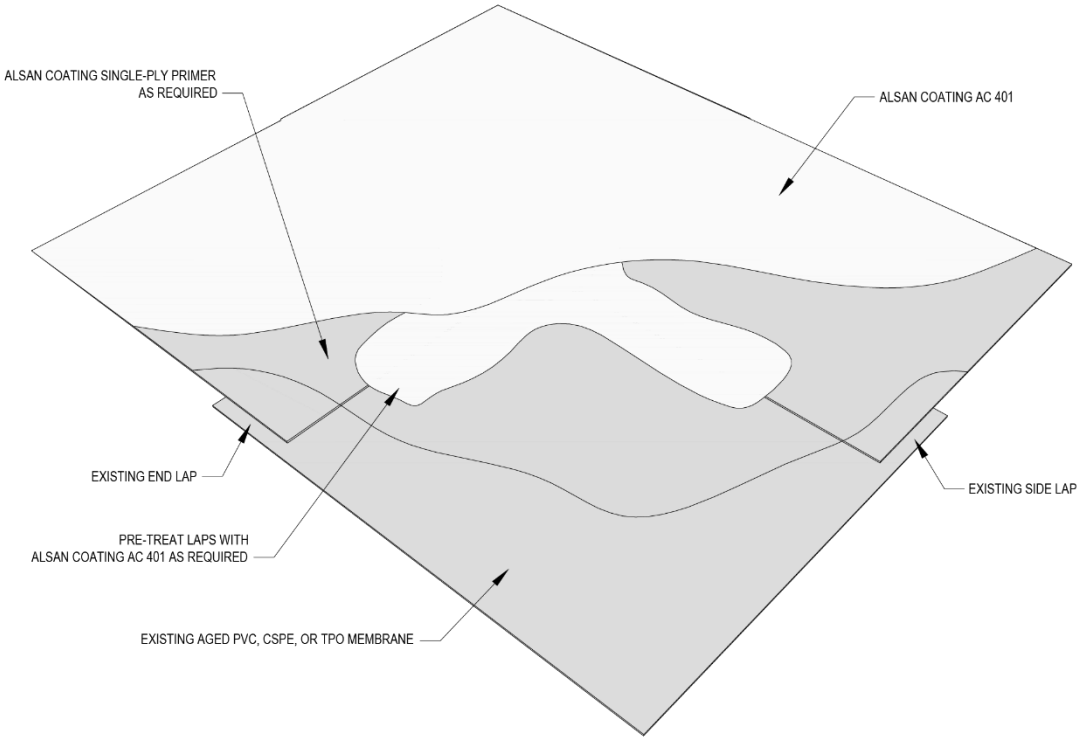

Figure 2.2i Acrylic Roof Coating Over TPO/CSPE/PVC, Side/End Laps

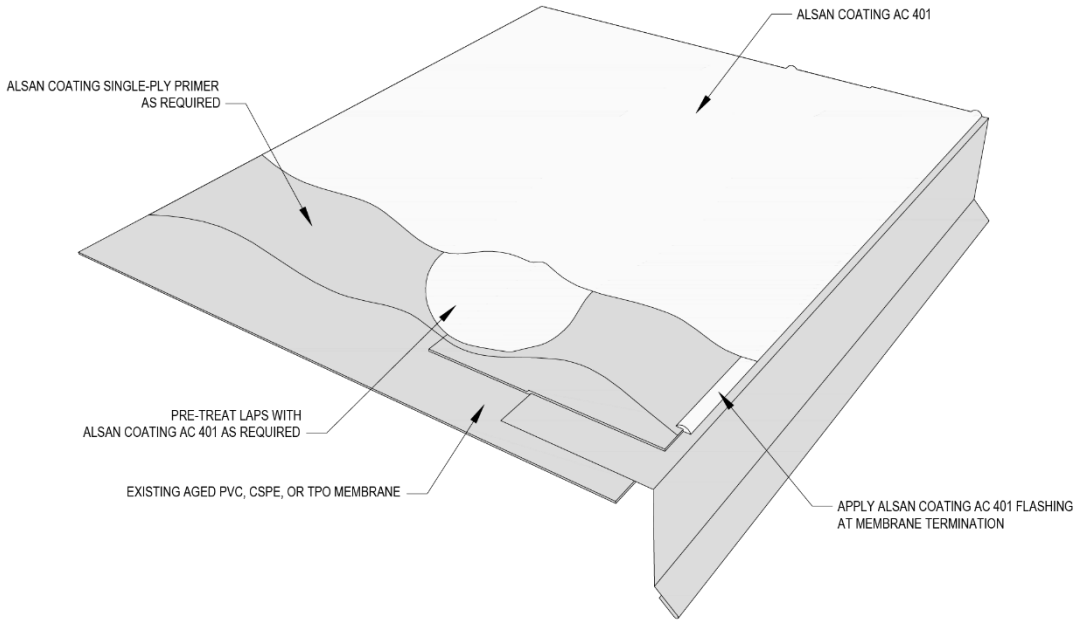

Figure 2.2j Acrylic Roof Coating Over TPO/CSPE/PVC, Edge

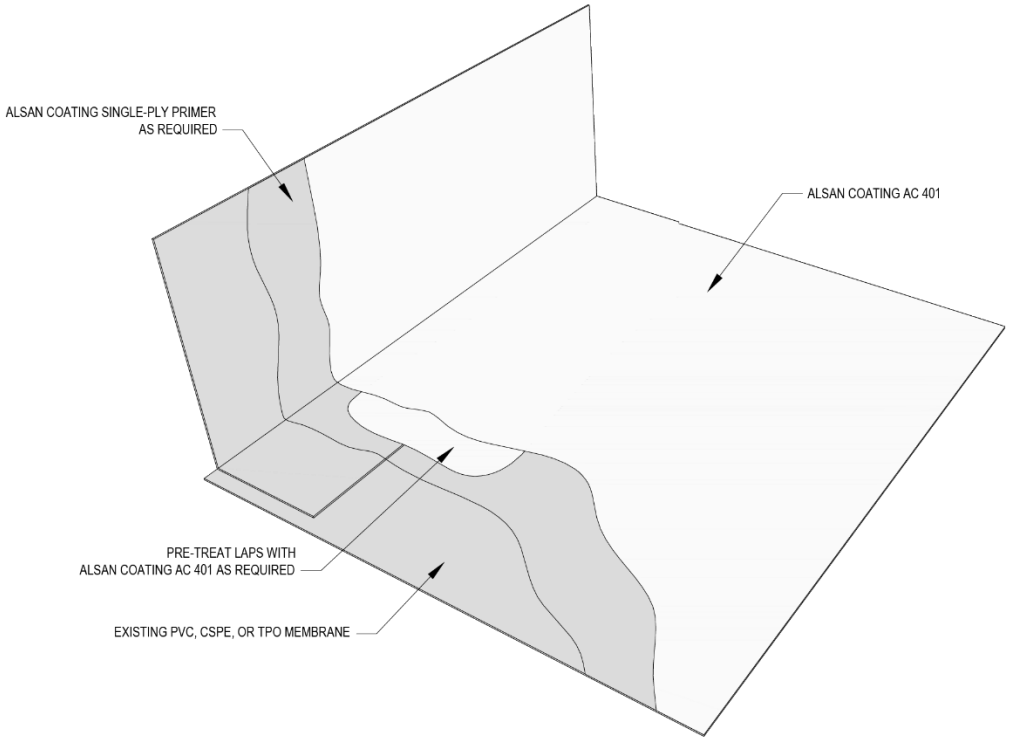

Figure 2.2k Acrylic Roof Coating Over TPO/CSPE/PVC, Wall/Curb

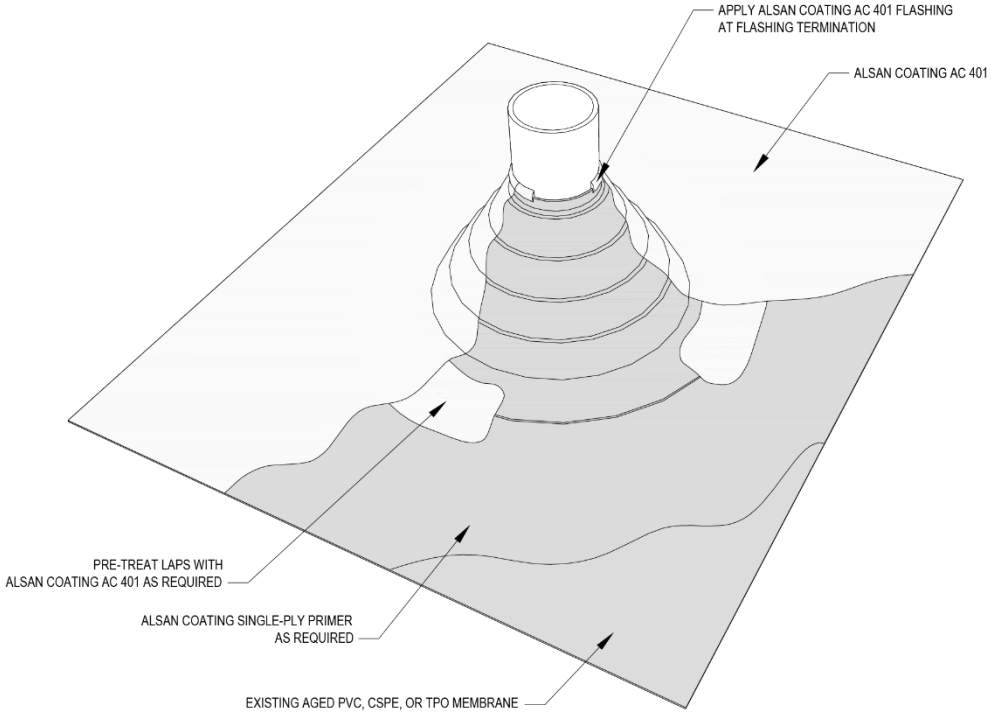

Figure 2.2l Acrylic Roof Coating Over TPO/CSPE/PVC, Penetration

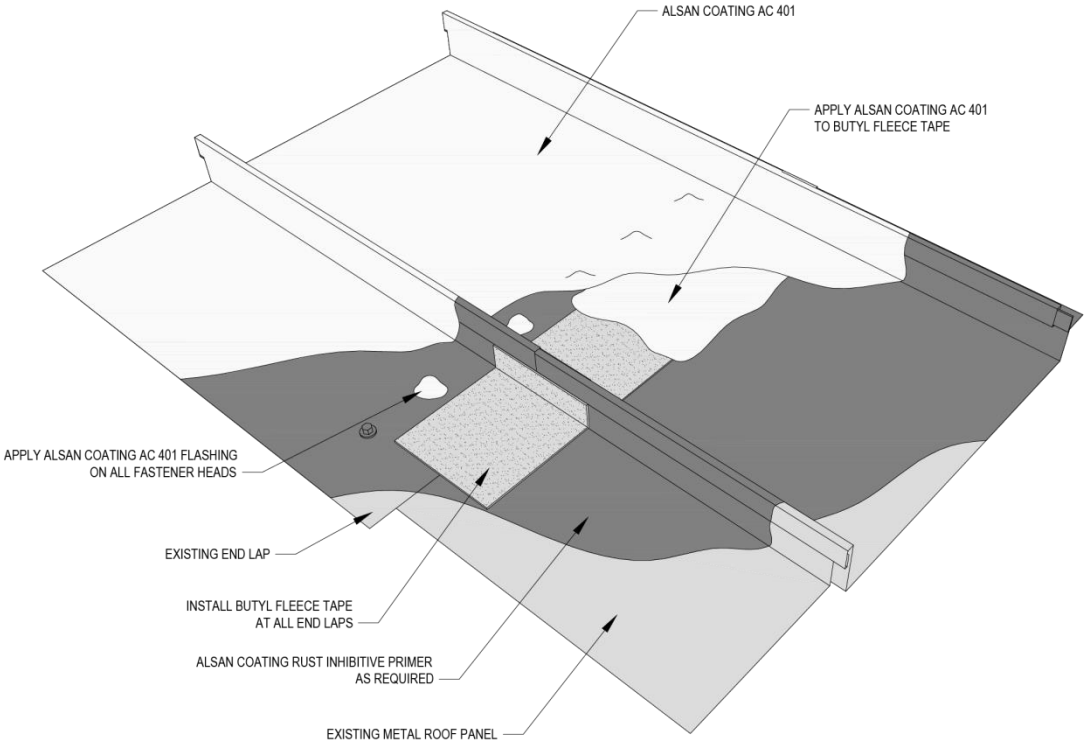

Figure 2.2m Acrylic Roof Coating Over Standing Seam Metal, Side/End Laps

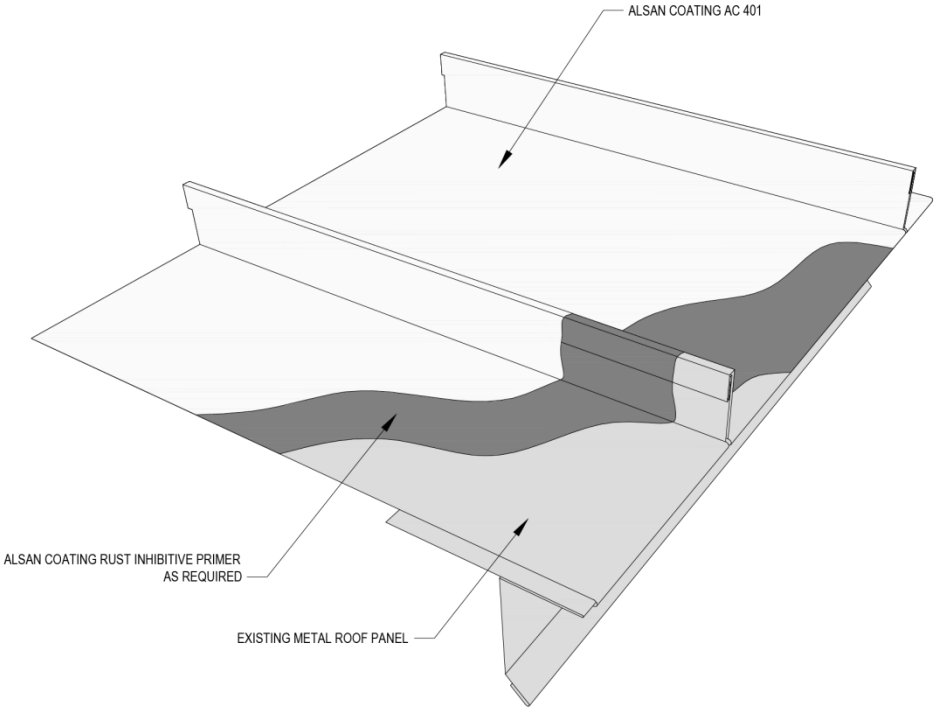

Figure 2.2n Acrylic Roof Coating Over Standing Seam Metal, Edge

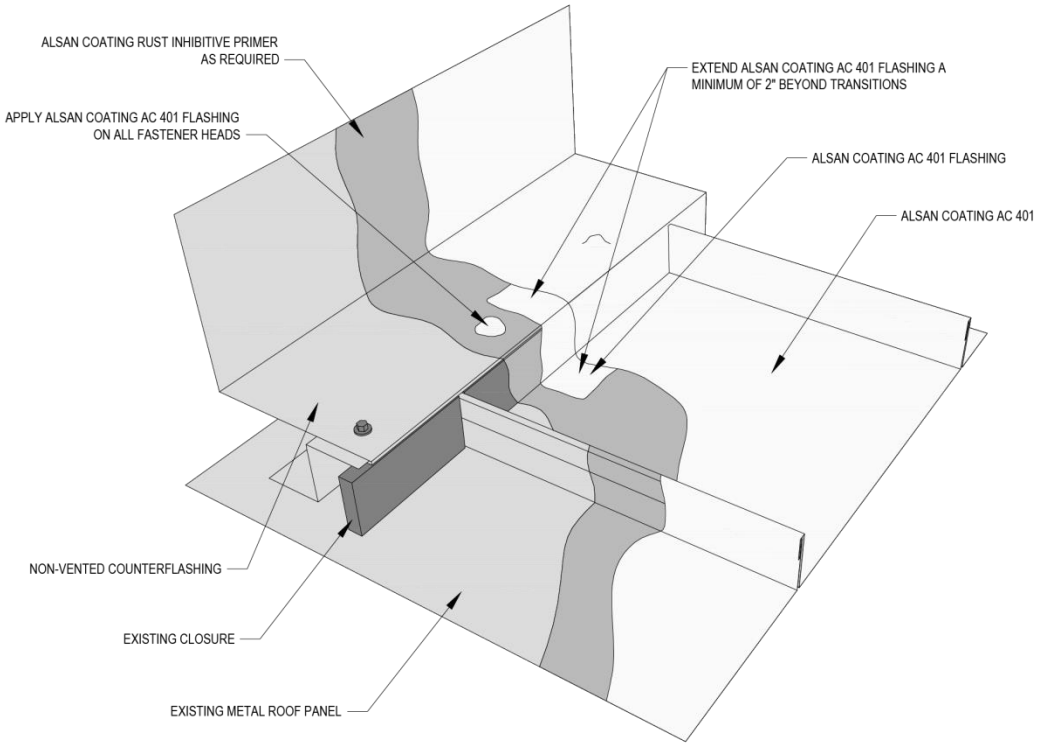

Figure 2.2o Acrylic Roof Coating Over Standing Seam Metal, Wall/Curb

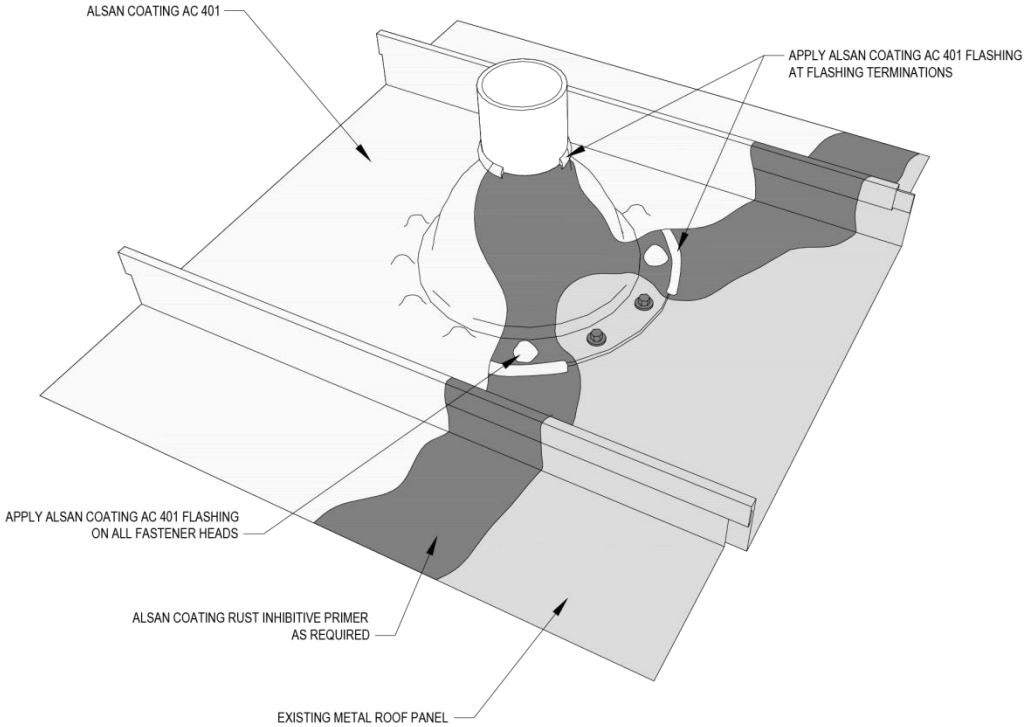

Figure 2.2p Acrylic Roof Coating Over Standing Seam Metal, Penetration

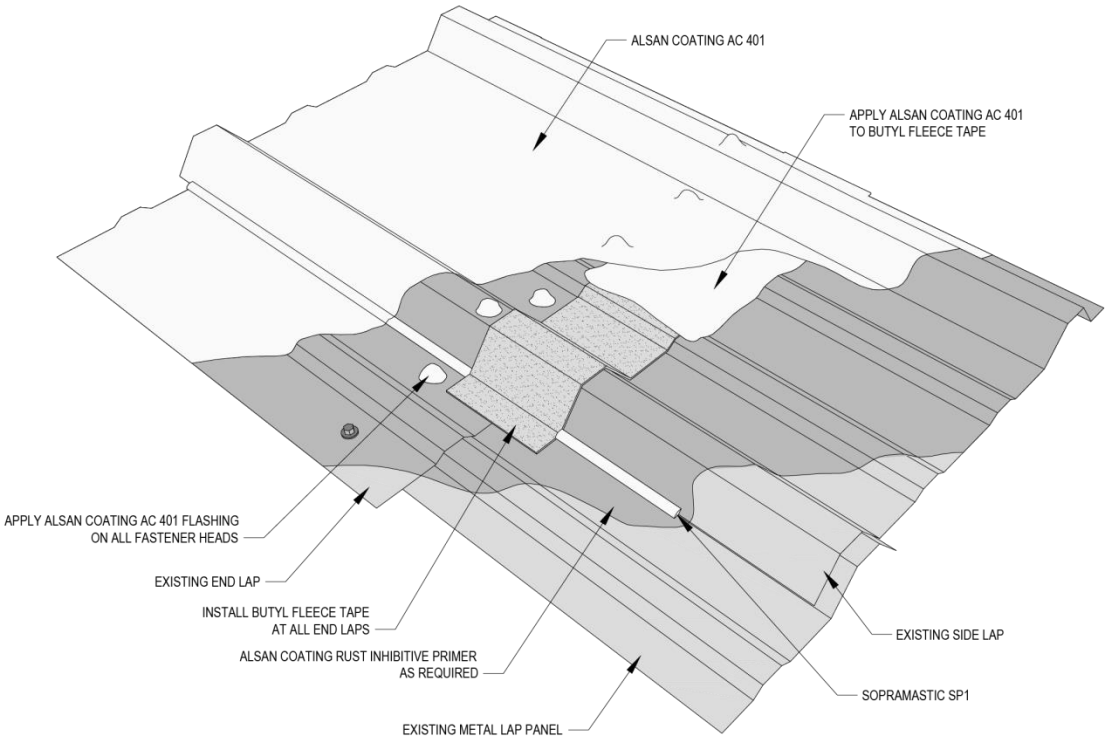

Figure 2.2q Acrylic Roof Coating Over Metal Lap Panels, Side/End Laps

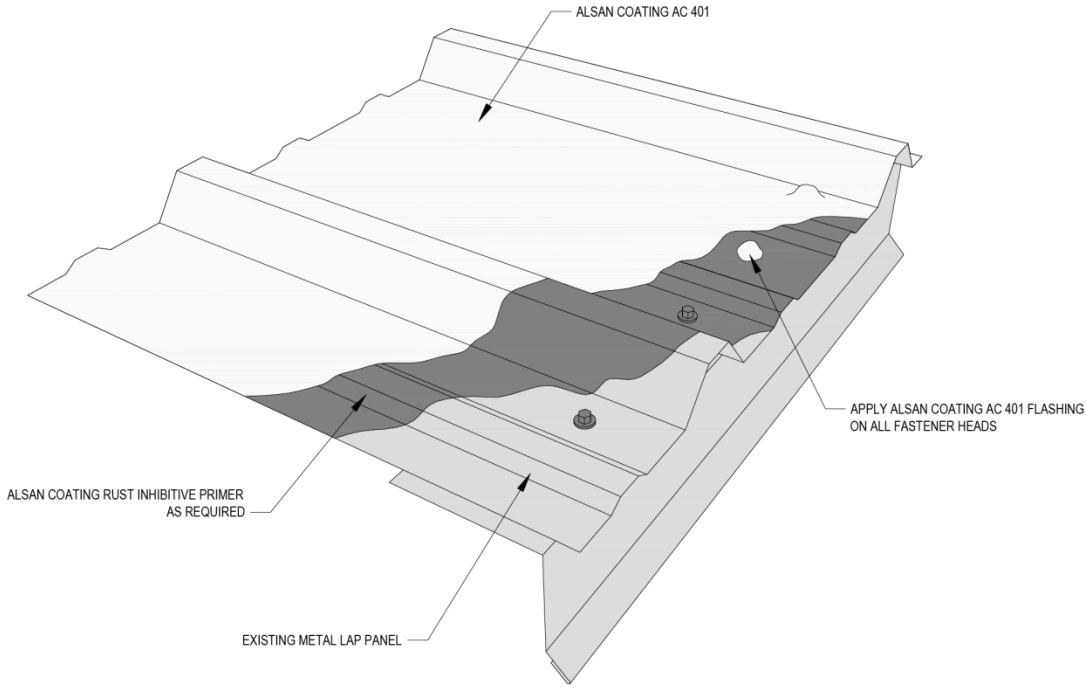

Figure 2.2r Acrylic Roof Coating Over Metal Lap Panels, Edge

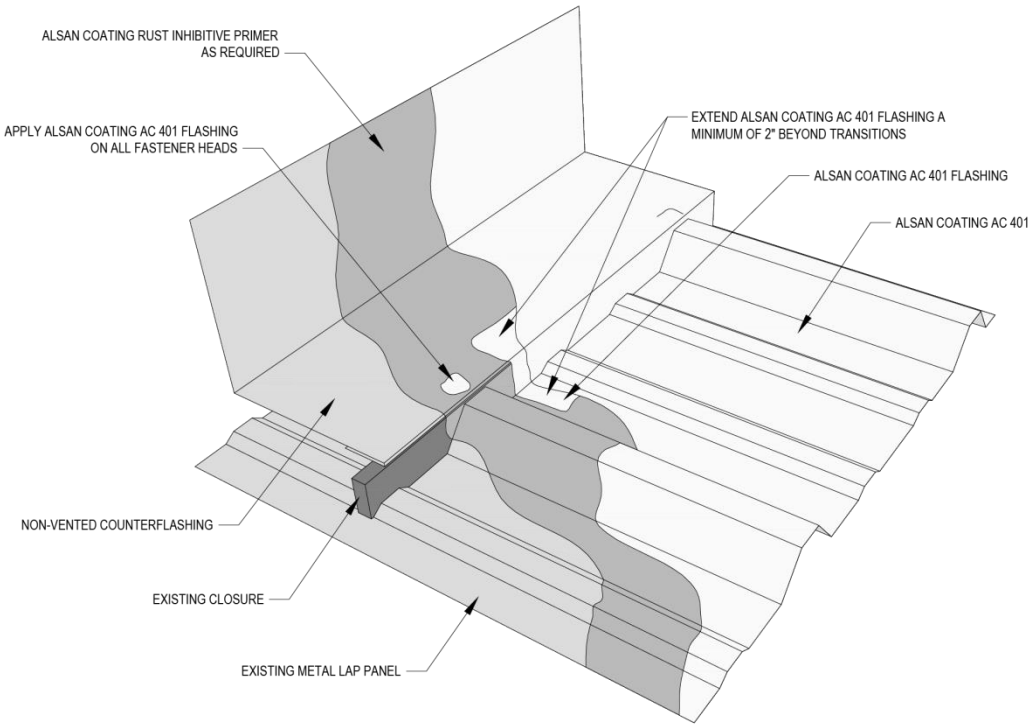

Figure 2.2s Acrylic Roof Coating Over Metal Lap Panels, Wall/Curb

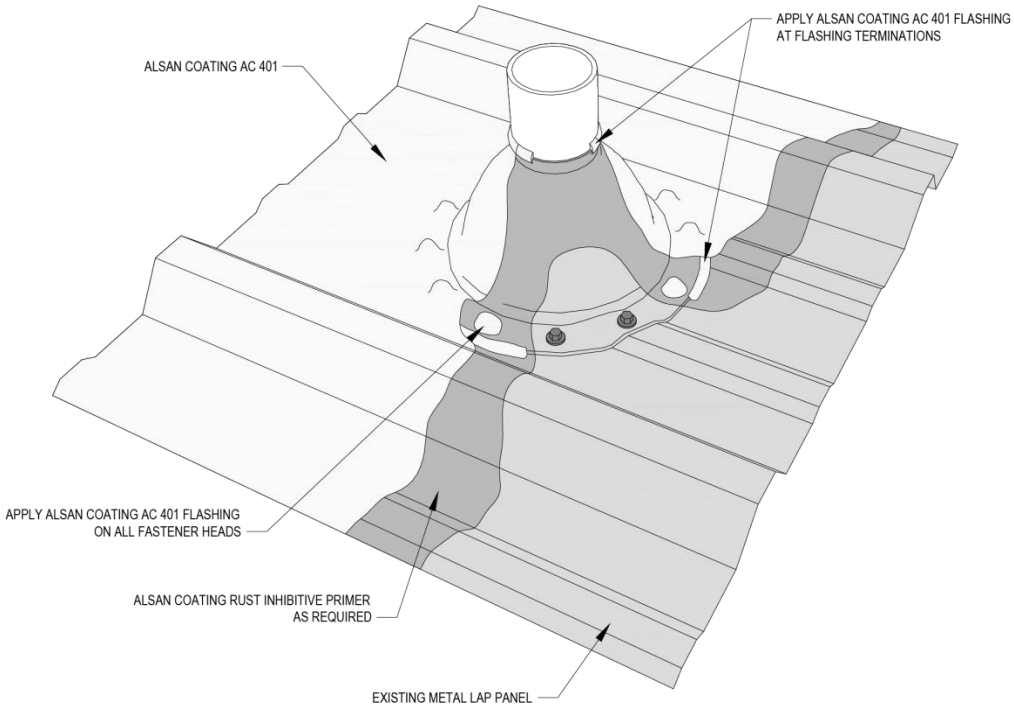

Figure 2.2t Acrylic Roof Coating Over Metal Lap Panels, Penetration

3 MISCELLANEOUS

3.1 WALKWAYS

General:

- Refer to Table 3.2a for an outline of coating materials and accessories.
- ALSAN® COATING SIL WALKWAY GRADE is yellow in color, used to create non-skid walkways on SOPREMA® acrylic and silicone roof coatings.
- ALSAN® COATING SIL WALKWAY GRANULES are yellow granules broadcasted into ALSAN® COATING SIL WALKWAY GRADE to create non-skid walkways.
- Refer to the PDS and SDS for additional information.

Preparation:

- Ensure the roof coating has cured sufficiently to apply ALSAN® COATING SIL WALKWAY GRADE.
- Refer to Section 1.1 for preparation guidelines.
- Mark areas to receive walkways.

Application:

- Light traffic areas:
  - Brush, roll or spray-apply 24 wet mils (1.5 gals/100ft^2) of ALSAN® COATING SIL WALKWAY GRADE at designated walkway area.
  - Immediately broadcast 40 lbs/square of ALSAN® COATING SIL WALKWAY GRANULES in the wet walkway coat until refusal and allow to cure.
- Heavy traffic areas:
  - Brush, roll or spray-apply 40 wet mils (2.5 gals/100ft^2) of ALSAN® COATING SIL WALKWAY GRADE at designated walkway area.
  - Immediately broadcast 60 lbs/square of ALSAN® COATING SIL WALKWAY GRANULES in the wet walkway coat until refusal and allow to cure.
- Remove loose granules.

Inspection:

- Measure the wet mil thickness during the application to ensure the minimum wet mil thickness is maintained throughout the project.
- After ALSAN® COATING SIL WALKWAY GRADE has cured sufficiently, walk the roof and examine conditions to ensure work has been completed as required. Repair all deficiencies.

3.2 ALSAN® COATING MATERIALS AND ACCESSORIES

General:

- For Refer to Table 3.2a for ALSAN® roof coating materials, accessories and an basic application information.
- Refer to the Product Data Sheets and Safety Data Sheets for additional product information.

Table 3.2a ALSAN® Coating Materials and Accessories

Product*	Application**
ALSAN® ALL-PURPOSE CLEANER is a water-soluble surface cleaner used to dissolve and remove dirt, oil and grease from roofing substrates.	Apply ALSAN® ALL-PURPOSE CLEANER to roofing substrates and scrub surfaces clean using a stiff brush or broom. Multiple applications may be required for aged EPDM and other hard-to-clean surfaces. Remove all residual cleaner and contaminants using clean water. Allow up to 24 hours for substrates to fully dry before applying new coating materials. Drying time varies based on project conditions.
ALSAN® COATING ASPHALT BLEED BLOCKING PRIMER is a water-based acrylic primer applied to clean, dry modified bitumen and smooth built-up roofing surfaces. The primer improves adhesion and prevents discoloration of coatings.	Apply a uniform coat of ALSAN® COATING ASPHALT BLEED BLOCKING PRIMER using brushes, rollers or spray-equipment at 1 to 1½ gallon per 100 sq ft. Allow approximately 6 hours for primer to fully dry before applying subsequent coating materials. Application rates and drying time vary based on project conditions.
ALSAN® COATING EPDM PRIMER is a water-based acrylic primer applied to clean, dry EPDM roofing surfaces. The primer improves adhesion and prevents discoloration of coatings.	Apply a uniform coat of ALSAN® COATING EPDM PRIMER using brushes, rollers or spray-equipment at 1/3 to 1/2 gallon per 100 sq ft. Allow approximately 6 hours for primer to fully dry before applying subsequent coating materials. Application rates and drying time vary based on project conditions.
ALSAN® COATING SINGLE PLY PRIMER is a water-based acrylic primer applied to clean, dry, aged TPO, PVC, CSPE and other approved single-ply roofing surfaces. The primer improves adhesion of coatings.	Apply a uniform coat of ALSAN® COATING SINGLE PLY PRIMER using brushes, rollers or spray-equipment at 1/3 to 1/2 gallon per 100 sq ft. Allow approximately 6 hours for primer to fully dry before applying subsequent coating materials. Application rates and drying time vary based on project conditions.
ALSAN® COATING RUST INHIBITIVE PRIMER is a water-based acrylic primer used to treat surface rust on clean, dry un-painted steel, Galvanized or Galvalume® roofing. The primer improves adhesion and prevents discoloration of coatings.	Apply a uniform coat of ALSAN® COATING RUST INHIBITIVE PRIMER using brushes, rollers or spray-equipment at 1/2 gallon per 100 sq ft for light surface rust, and 1 gallon per 100 sq ft for heavier surface rust. Allow approximately 6 hours for primer to fully dry before applying subsequent coating materials. Application rates and drying time vary based on project conditions.
ALSAN® COATING AC 401 is a water-based acrylic elastomeric roof coating that provides a highly flexible surfacing for a variety of metal, single-ply, modified bitumen, smooth-surface asphalt built-up and other properly prepared roofing substrates.	Apply ALSAN® COATING AC 401 using brushes, rollers or spray-equipment up to 24 wet mils thick. When multiple coats of ALSAN® COATING AC 401 are required, apply all coats during the same day or within 24 hours. Allow approximately 6 hours to dry between coats. ALSAN® COATING AC 401 fully cures within 30 days. Drying and curing times vary based on project conditions.

Product*	Application**
ALSAN® COATING SIL 402 is a high solids silicone roof coating that provides a highly flexible surfacing resistant to ponding water, UV and natural weathering exposures. ALSAN® COATING SIL 402 is suitable for a variety of metal, single-ply, modified bitumen, smooth-surface asphalt built-up and other properly prepared roofing substrates.	Apply ALSAN® COATING SIL 402 using brushes, rollers or spray-equipment up to 40 wet mils thick. When multiple coats of ALSAN® COATING SIL 402 are required, apply all coats during the same day or within 24 hours. ALSAN® COATING SIL 402 is tack-free, ready to apply subsequent coats within 1 to 2 hours. ALSAN® COATING SIL 402 fully cures within 12 to 18 hours. Tack-free time and cure time varies based on project conditions.
ALSAN® BUTYL FLEECE TAPE consists of butyl-adhesive tape with a non-woven polyester fleece top surface.	Apply ALSAN® BUTYL FLEECE TAPE where specified or otherwise required to reinforce metal roofing lap seams and flashings, then pre-coat the fleece using a minimum of 24 wet mils of ALSAN® COATING AC 401 or ALSAN® COATING SIL 402. Allow pre-coat to dry/cure before applying subsequent coat(s) of ALSAN® COATING AC 401 or ALSAN® COATING SIL 402.
POLYFLEECE is a non-woven polyester reinforcing fabric used to reinforce ALSAN® COATING AC 401, ALSAN® COATING SIL 402, ALSAN® COATING AC 401 FLASHING or ALSAN® COATING SIL 402 FLASHING.	Cut POLYFLEECE to conform to conditions. Embed POLYFLEECE into wet ALSAN® COATING AC 401 or ALSAN® COATING SIL 402 where specified or otherwise required to reinforce seams and flashings before applying the roof coating. Remove wrinkles and fully embed POLYFLEECE using a brush, roller, trowel or gloved-hands as required.
ALSAN® COATING AC 401 FLASHING is a brush/trowel-grade mastic used to seal roofing fasteners, seams and flashings.	Apply ALSAN® COATING AC 401 FLASHING to fasteners, laps, seams and roof terminations where specified and/or required to address existing roofing substrate conditions prior to applying ALSAN® coating. POLYFLEECE may be used to reinforce ALSAN® COATING AC 401 FLASHING where specified or otherwise required. Allow ALSAN® COATING AC 401 FLASHING 6 hours to dry before applying subsequent materials. Drying time varies based on project conditions.
ALSAN® COATING SIL 402 FLASHING is a silicone brush/trowel-grade mastic used to seal roofing fasteners, seams and flashings.	Apply ALSAN® COATING SIL 402 FLASHING to fasteners, laps, seams and roof terminations where specified and/or required to address existing roofing substrate conditions prior to applying ALSAN® coatings. POLYFLEECE may be used to reinforce ALSAN® COATING SIL 402 FLASHING where specified or otherwise required.
ALSAN® COATING SIL WALKWAY GRADE is a yellow silicone coating applied over existing ALSAN® COATING AC 401 acrylic or ALSAN® COATING SIL 402 silicone coating to delineate rooftop walkways and caution areas.	Apply ALSAN® COATING SIL WALKWAY GRADE using brushes, rollers or spray-equipment up to 24 wet mils thick for light traffic and 40 wet mils for heavier traffic areas. To produce non-skid surfaces, broadcast ALSAN® COATING SIL WALKWAY GRANULES into the wet walkway coat. Re-coat where additional surface protection is required for heavy traffic.
ALSAN® COATING SIL WALKWAY GRANULES are yellow granules used with ALSAN® COATING SIL WALKWAY GRADE to delineate rooftop walkways and caution areas.	Broadcast 40 to 60 lbs/square ALSAN® COATING SIL WALKWAY GRANULES into wet ALSAN® COATING SIL WALKWAY GRADE to produce a non-skid walkway surface. Re-coat where additional surface protection is required for heavy traffic.

*Refer to www.SOPREMA.us for product data sheets (PDS) or safety data sheets (SDS).
**Refer to additional preparation and application guidelines, and detail drawings included herein. Contact SOPREMA® at 800.356.3521 for more information.