

Drainage EIFS (Continued)

PART 3 EXECUTION

3.01 SURFACE CONDITIONS & PREPARATION: The Contractor shall examine the areas and conditions under which work of this Section will be provided, shall correct conditions detrimental to timely and proper completion of the work, and shall NOT proceed until unsatisfactory conditions are corrected.

- A. Remove surface contaminants on concrete and concrete masonry surfaces.
- B. Apply conditioner by sprayer or roller to chalking or excessively absorptive surfaces.
- C. Replace weather-damaged sheathing and repair damaged or cracked surfaces.
- D. Level surfaces to comply with required tolerances.
- E. Repair cracks, spalls or damage in concrete or concrete masonry surfaces.

3.02 INSTALLATION:

- A. The Drainage EIFS manufacturer's most current installation instructions shall be followed completely, and shall be considered a part of this section as if the manufacturer's specification was included in its entirety. Contact EIFS manufacturer for their most current specification for the StoTherm Essence NEXT System specified.
- B. Install the work of this section in accordance with the shop drawings and with pertinent requirements of governmental agencies having jurisdiction, anchoring all components firmly into position straight, level, and plumb.
- C. The overall minimum base coat thickness shall be sufficient to fully embed the mesh within the base coat so that no mesh color shows through the dry base coat. If mesh color is visible, an additional skim coat of base coat is required to fully cover the color of mesh.
- D. EIFS substrate tolerance: Maximum variance from plane shall be 1/4" in 8-feet.

3.03 FIELD VISITS / OBSERVATIONS:

- A. EIFS manufacturer representative shall be invited to attend a pre-installation meeting. Upon request, periodic job-site observations of the EIFS Installation shall be performed by a representative of the EIFS Manufacturer and/or EIFS Distributor's representative. The EIFS manufacturer's representative shall be contacted to schedule the initial meeting and subsequent visits and shall be given at least one week's notice to schedule the visit.
- B. The intent of these specifications is to ensure the system is installed strictly in a manner that will be warranted by the EIFS manufacturer and insurable by property loss underwriters.

END OF SECTION

Thermal and Moisture Protection

SECTION 07590 - THERMOPLASTIC MEMBRANE ROOFING

- 1.1 SUMMARY
    - A. Mechanically fastened membrane roofing system.
    - B. Vapor retarder.
    - C. Roof insulation.
  - 1.2 SUBMITTALS
    - A. Product Data: For each type of product indicated.
    - B. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other Work.
      - 1. Base flashings and membrane terminations.
      - 2. Tapered insulation, including slopes.
      - 3. Insulation fastening patterns.
    - C. Installer Certificates: Signed by roofing system manufacturer certifying that Installer is approved, authorized, or licensed by manufacturer to install roofing system.
    - D. Manufacturer Certificates: Signed by roofing manufacturer certifying that roofing system complies with requirements specified in "Performance Requirements" Article.
      - 1. Submit evidence of meeting performance requirements.
    - E. Qualification Data: For Installer and manufacturer.
    - F. Product Test Reports: Based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency, for components of roofing system.
    - G. Warranties: Special warranties specified in this Section.
  - 1.3 QUALITY ASSURANCE
    - A. Exterior Fire-Test Exposure: Class A.
  - 1.4 WARRANTY
    - A. Manufacturer's Materials and Workmanship Warranty: 15 <Insert number> years.
    - B. Installer's Warranty: Two years.
  - 1.5 MATERIALS
    - A. Thermoplastic Polyolefin Roofing Membrane: White, fabric-reinforced thermoplastic sheet, 60 mils (1.5 mm) thick.
      - 1. Slopes less than or equal to 2:12, min. Solar Reflectance Index of 78.
      - 2. Slopes greater than 2:12, min. Solar Reflectance Index of 29.
    - B. Sheet Flashing: Unreinforced thermoplastic polyolefin.
    - C. Substrate Board: Perlite board.
    - D. Vapor Retarder: Polyethylene.
    - E. Roof Insulation: Polystyocyanurate board.
      - 1. Minimum Recycled Content: 30% post-consumer.
      - 2. Tapered Boards: 1/4 inch per 12 inches(1/48).
    - F. Walkways: Pads, Rolls, Rubber.
  - 1.6 INSTALLATION
    - A. Roof Insulation: Mechanically fastened and adhered.
    - B. Roofing Membrane: Mechanically fastened.
      - 1. Attachment Method for Mechanically Fastened: [In splice] [Through membrane].
  - 1.7 FIELD QUALITY CONTROL
    - A. Testing Agency: Owner engaged.
- END OF SECTION 07590

SECTION 07610 - SHEET METAL ROOFING

- 1.1 SUMMARY
    - A. Standing-seam metal roofing.
  - 1.2 SUBMITTALS
    - A. Product Data: For each product indicated. Include details of construction relative to materials, dimensions of individual components and profiles, and finishes.
    - B. Shop Drawings: Show fabrication and installation layouts of sheet metal roofing, including plans, elevations, and keyed references to termination points. Distinguish between shop- and field-assembled work.
    - C. Warranties: Special warranties specified in this Section.
  - 1.3 QUALITY ASSURANCE
    - A. Sheet Metal Roofing Standard: SMACNA's "Architectural Sheet Metal Manual".
  - 1.4 WARRANTY
    - A. Installer's Materials and Workmanship: Two years.
    - B. Fluoropolymer Finishes: 20 years.
  - 1.5 MATERIALS
    - A. Roofing Sheet Metals:
      - 1. Metallic-Coated Steel Sheet: Aluminum-zinc alloy-coated steel sheet with smooth, flat surface.
        - a. Coil-Coated Finish: Two-coat fluoropolymer.
      - 2. Slopes less than or equal to 2:12, min. Solar Reflectance Index of 78.
      - 3. Slopes greater than 2:12, min. Solar Reflectance Index of 29.
    - B. Underlayment: Polyethylene sheet.
- END OF SECTION 07610

Thermal and Moisture Protection (Continued)

SECTION 07620 - SHEET METAL FLASHING AND TRIM

- 1.1 QUALITY ASSURANCE
    - A. Quality Standard(s): SMACNA's "Architectural Sheet Metal Manual".
  - 1.2 WARRANTY
    - A. Fluoropolymer Finishes: 20 years.
  - 1.3 MATERIALS
    - A. Sheet Metals:
      - 1. Stainless-Steel Sheet: 2D (dull, cold rolled) finish with smooth, flat surface.
      - 2. Metallic-Coated Steel Sheet: Zinc-coated (galvanized) steel sheet with smooth, flat surface.
        - a. Coil-Coated Finish: Two-coat fluoropolymer.
          - 1) Kynar 500
          - 2) Hylar 5000
      - 3. Metallic-Coated Steel Sheet: Zinc-coated (galvanized) steel corrugated sheet with smooth, flat surface.
        - a. Coil-Coated Finish: Two-coat fluoropolymer.
          - 1) Kynar 500
          - 2) Hylar 5000
    - B. Underlayment: Polyethylene sheet.
  - 1.4 PRODUCTS
    - A. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant, polyisobutylene plasticized, heavy bodied for hooked-type expansion joints with limited movement.
    - B. Polyurethane Sealant: moisture-curing, single-component non-sag polyurethane sealant.
    - C. Manufactured Flashing and Trim:
      - 1. Through-Wall Ribbed Sheet Metal Flashing and Counterflashing: Stainless steel.
      - 2. Reglets and Counterflashing: Galvanized steel.
        - a. Type: [Surface-mounted] [EIFS].
      - Accessories: [Flexible-flashing retainer] [Counterflashing wind-restraint clips]
    - D. Formed Roof Drainage Fabrications: Including [downspouts][parapet scuppers] [conductor heads] [and] [splash pans].
    - E. Formed Low-Slope Roof Fabrications: Including [fascia cap] [copings] [roof expansion-joint covers] [base flashing] [counterflashing] [flashing receivers] [roof-penetration flashing] [and] [roof-drain flashing].
    - F. Formed Wall Fabrications: Including [through-wall flashing] [opening flashings in frame construction] [and] [wall expansion-joint cover].
    - G. Miscellaneous Formed Fabrications: Including equipment support flashing.
- END OF SECTION 07620

SECTION 07720 - ROOF ACCESSORIES

- 1.1 SUMMARY
    - A. Roof curbs.
    - B. Copings.
  - 1.2 SUBMITTALS
    - A. Shop Drawings: Show layouts of manufactured roof specialties, including plans and elevations. Identify factory-vs. field-assembled work. Include the following:
      - 1. Details for fastening, joining, supporting, and anchoring manufactured roof specialties including fasteners, clips, cleats, and attachments to adjoining work.
      - 2. Details for expansion and contraction.
    - B. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, verifying compliance of copings with performance requirements.
  - 1.3 QUALITY ASSURANCE
    - A. Sheet Metal Standard: SMACNA's "Architectural Sheet Metal Manual."
  - 1.4 WARRANTY
    - A. Special Warranty on Painted Finishes: 20 years from date of Substantial Completion.
  - 1.5 PRODUCTS
    - A. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant, polyisobutylene plasticized, heavy bodied for hooked-type expansion joints with limited movement.
    - B. Polyurethane Sealant: moisture-curing, single-component non-sag polyurethane sealant.
    - C. Roof Curbs: Provide metal roof curbs, internally reinforced and capable of supporting superimposed live and dead loads, including equipment loads and other construction to be supported on roof curbs. Fabricate with welded or sealed mechanical corner joints, with integral metal cant and integral formed mounting flange at perimeter bottom. Coordinate dimensions with rough-in information or Shop Drawings of equipment to be supported.
      - 1. Factory insulate curbs with 1-1/2-inch-(38-mm-) thick, cellulosic-fiber board insulation.
      - 2. Curb height may be determined by adding thickness of roof insulation and minimum base flashing height recommended by roofing membrane manufacturer. Fabricate units to minimum height of 12 inches(300 mm), unless otherwise indicated.
    - D. Copings: Manufactured coping system consisting of formed-metal coping cap in section lengths not exceeding 12 feet(3.6 m), concealed anchorage, concealed splice plates with same finish as coping caps, mitered corner units, and end cap units.
      - 1. Coping Caps: Face leg hooked to continuous cleat with back leg fastener exposed, fabricated from the following exposed metal:
        - a. Prepainted, Zinc-Coated Steel.
    - E. Preformed Flashings: Aluminum.
    - F. Finishes:
      - 1. Prepainted, Metallic-Coated Steel: High performance organic coating.
      - 2. Stainless Steel: 2D.
      - 3. Aluminum: [Mill finish] [Baked enamel] [Clear anodic] [Color anodic] [High-performance organic coating].
  - 1.6 FABRICATION
    - A. Conditions: [Welded] [Sealed].
- END OF SECTION 07720

SECTION 07841 - THROUGH-PENETRATION FIRESTOP SYSTEMS

- 1.1 SUMMARY
    - A. This Section includes through-penetration firestop systems for penetrations through fire-resistance-rated constructions, including both empty openings and openings containing penetrating items.
  - 1.2 PERFORMANCE REQUIREMENTS
    - A. Provide through-penetration firestop systems with the following ratings determined per [ASTM E 814] [or] [UL 1479].
      - 1. F-Rated Systems: F-ratings equaling or exceeding fire-resistance rating of constructions penetrated.
      - 2. T-Rated Systems: For penetrations located outside wall cavities and outside fire-resistance-rated shaft enclosures.
      - 3. L-Rated Systems: Where through-penetration firestop systems are indicated in smoke barriers.
  - 1.3 SUBMITTALS
    - A. Product Data: For each type of product indicated.
  - 1.4 QUALITY ASSURANCE
    - A. Installer Qualifications: A firm approved by FMG according to FMG 4991, "Approval of Firestop Contractors."
    - B. Fire-Test-Response Characteristics: Tested per ASTM E 814 by [UL] [OPLT] [ITS]
  - 1.5 MANUFACTURERS
    - A. VOC Content of Interior Sealants: Provide interior sealants and sealant primers that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
      - 1. Sealants: 250 g/L.
      - 2. Sealant Primers for Nonporous Substrates: 250 g/L.
      - 3. Sealant Primers for Porous Substrates: 775 g/L.
    - B. Products: Subject to compliance with requirements, provide one of the through-penetration firestop systems indicated for each application in the Through-Penetration Firestop System.
  - 1.6 MATERIALS
    - A. Accessories: [Permanent forming/damming/backing materials] [temporary forming materials] [substrate primers] [collars] [and] [steel sleeves] as needed to comply with performance requirements.
  - 1.7 INSTALLATION
    - A. Identification: Preprinted metal or plastic labels, permanently attached.
  - 1.8 FIELD QUALITY CONTROL
    - A. Inspection of Installed Firestop Systems: By Owner-engaged agency according to ASTM E 2174 requirements.
  - 1.9 THROUGH-PENETRATION FIRESTOP SYSTEM SCHEDULE
    - A. Firestop Systems for Metallic Pipes, Conduit, or Tubing:
      - 1. Type of Fill Materials:
        - a. Intumescent putty.
    - B. Firestop Systems for Nonmetallic Pipe, Conduit, or Tubing:
      - 1. Type of Fill Materials:
        - a. Intumescent putty.
    - C. Firestop Systems for Insulated Pipes:
      - 1. Type of Fill Materials:
        - a. Intumescent putty.
    - D. Firestop Systems for Miscellaneous Electrical Penetrants:
      - 1. Type of Fill Materials:
        - a. Intumescent putty.
    - E. Firestop Systems for Miscellaneous Mechanical Penetrants:
      - 1. Type of Fill Materials:
        - a. Latex sealant.
    - F. Firestop Systems for Groupings of Penetrants:
      - 1. Type of Fill Materials: As one or more of the following:
        - a. Latex sealant.
        - b. Intumescent wrap strips.
- END OF SECTION 07841

Composite Wall Panels

COMPOSITE WALL PANELS074243 - 3  
SECTION 074243 - COMPOSITE WALL PANELS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
  - 1. Exterior panelized fiber-cement rainscreen cladding system and accessories.

1.2 DEFINITIONS

- A. DBVR: Drained and back-ventilated rainscreen system; designed to drain and dry cavity entering water through drainage channels, weeps, and air ventilation.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
  - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of panel and accessory.
- B. Sustainable Design Submittals:
  - 1. Product Data: For recycled content, indicating postconsumer and preconsumer recycled content and cost.
  - 2. Laboratory Test Reports: For ceilings and walls, indicating compliance with requirements for low-emitting materials.
- C. Shop Drawings:
  - 1. Include details of panel dimensions, profiles, edge conditions, joints, corners, anchorages, attachment assembly, trim, flashings, closures, and accessories, and special details.
  - 2. Accessories: Include details of the flashing, trim, and anchorage, at a scale of not less than 1-1/2 inches per 12 inches

- D. Samples for Verification: For each type of exposed finish required, prepared on Samples of size indicated below.
  - 1. Composite Panels: 12 inches long by actual panel width. Include fasteners, closures, and other composite panel accessories. Submit custom color samples in paint manufacturer's standard size.

1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Product Test Reports: For each product, tests performed by a qualified testing agency.
  - 1. Composite Manufacturer's Material Test Reports: Certified test reports showing compliance with specific performance or third-party listing documenting compliance to comparable code sections IBC 1404.16.1 and IBC 1703.5.
  - 2. Composite Panel System Fabricator's Certified System Test Reports: Certified system test reports showing system compliance with specific performance or third-party listing documenting compliance code section. Base performance requirements on composite panel system type provided.
    - a. DBVR System: Tested to AAMA 509.
- C. Field quality-control reports.
- D. Sample Warranties: For special warranties.

1.5 CLOSEOUT SUBMITTALS

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

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by composite panel fabricator.
- B. Deliver components, composite panels, and other manufactured items so as not to be damaged or deformed. Package composite panels for protection during transportation and handling.
- C. Unload, store, handle, and erect composite panels in a manner to prevent bending, cracking, warping, twisting, and surface damage.
- D. Stack composite panels on platforms or pallets no more than two pallets high, covered with suitable weathertight and ventilated covering.
- E. Store composite panels to ensure dryness, with positive slope for drainage of water. Do not store composite panels in contact with other materials that might cause staining, denting, or other surface damage. Ensure panels are fully dry before installation.

1.7 FIELD CONDITIONS

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

1.8 COORDINATION

- A. Coordinate composite panel installation with rain drainage work, flashing, trim, construction of soffits, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.

1.9 WARRANTY

- A. Warranty on Panel Material: Manufacturer agrees to replace fiber cement that fails within specified warranty period.
  - 1. Warranty Period: [15] [20] years from date of Substantial Completion.
- B. Special Warranty on Panel Finishes: Manufacturer agrees to repair finish or replace composite panels that show evidence of deterioration of factory-applied finishes within specified warranty period.
  - 1. Finish Warranty Period: 15 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- B. Physical Performance: Provide composite panel system in accordance with ASTM C1186.
  - 1. Wet Flexural Strength: Result: 1418 psi (9777 kPa), Lower Limit: 1015 psi (6998 kPa).
  - 2. Water Tightness: No water droplets observed on any specimen.
  - 3. Freeze-Thaw: No damage or defects observed.
  - 4. Warm Water: No evidence of cracking, delamination, swelling, or other defects observed.
  - 5. Heat-Rain: No crazing, cracking, or other deleterious effects, or surface or joint changes observed in any specimen.
- C. Structural Performance: Provide composite panel systems capable of withstanding the effects of the following loads, based on testing in accordance with ASTM E330/E330M:
  - 1. Design Wind Loads: Minimum [58 psf (2.78 kPa)]
  - 2. Deflection Limits: For wind loads, panel deflection no greater than L/120 of the span.
- D. Thermal Expansion: Maximum 0.00000318 deg F to minus 1 (0.00000724 deg C to minus 1) when tested in accordance with ASTM E228.
- E. Air Leakage: 1.53 cfm/sq. ft. (7.78 L/s/sq. m) or less in accordance with AAMA5094.
  - 1. Test-Pressure Difference: [2.86 lbf/sq. ft. (137 Pa)] [6.24 lbf/sq. ft. (300 Pa)].
- F. Surface-Burning Characteristics: Provide composite panels that meet the following values when tested in accordance with ASTM E84:
  - 1. Flame-Spread Index: Zero.
  - 2. Smoke-Developed Index: 5.
- G. Fire Resistance: Composite panel wall assembly passes ASTM E119.
- H. Ignition Resistance: Composite panel passes NFPA 268.

2.2 COMPOSITE WALL PANELS

- A. Composite Wall Panel Systems: Provide factory-formed and -assembled, composite wall panels fabricated from a pressed, stamped, and autoclaved mix of Portland cement, fly ash, silica, recycled rejects, and wood fiber bundles; formed into profile for installation method indicated. Include attachment assembly components and accessories required for weathertight system.

- 1. Basis-of-Design Product: Subject to compliance with requirements, provide Nichiha Architectural Wall Panels; Architectural Wall Panels or an equal comparable product.

B. Textured, Wood Plank Composite Wall Panels

- 1. Panel Dimensions: [17'-7 7/8 by 71'-9 1/16 inches (455 by 1818 mm)] [17'-7 7/8 by 119'-5 1/16 inches (455 by 3030 mm)] [As indicated on Drawings].
- 2. Panel Thickness: [5/8 inch (16 mm)] [As indicated on Drawings].
- 3. Panel: Factory sealed on all six sides.
- 4. Profiles: as indicated on Drawings
- 5. Color: as indicated on Drawings
- 6. Accessory Components: Manufactured corners [with 3-1/2-inch (89-mm) returns] [as indicated on Drawings].
- C. Lightly Textured, Matte Composite Wall Panels -<Insert drawing designation>:
  - 1. Panel Dimensions: [17'-7 7/8 by 71'-9 1/16 inches (455 by 1818 mm)] [As indicated on Drawings].
  - 2. Panel Thickness: [5/8 inch (16 mm)] [As indicated on Drawings].
  - 3. Panel: Factory sealed on all six sides.
  - 4. Profiles: None.
  - 5. Color: As indicated on Drawings.
  - 6. Accessory Components: Manufactured corners [with 3.5-inch (89-mm) returns] [as indicated on Drawings].
- D. Concrete-Textured, Matte Composite Wall Panels.
  - 1. Panel Dimensions: As indicated on Drawings.
  - 2. Panel Thickness: As indicated on Drawings.
  - 3. Panel: Factory sealed on all six sides.
  - 4. Profiles: None.
  - 5. Color: Standard.
  - 6. Accessory Components: Manufactured corners [with 3-1/2-inch (89-mm) returns] [as indicated on Drawings].

2.3 MISCELLANEOUS MATERIALS

- A. Miscellaneous Metal Subframing and Furring: ASTM C645, cold-formed, metallic-coated steel sheet with ASTM A653/A653M, G90 (Z275) hot-dip galvanized coating designation or ASTM A792/A792M, Class A250 (Class A241150) aluminum-zinc-alloy coating designation unless otherwise indicated. Provide Fabricator's standard sections as required for support and alignment of composite panel system.
- B. Panel Accessories: Provide components required for a complete, weathertight panel system including trim, copings, fascia, mullions, sills, corner units, clips, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of composite panels unless otherwise indicated.
- C. Flashing and Trim: Provide [anodized] [galvanized] [or] [PVC-coated] aluminum flashing and trim as required to seal against weather and to provide finished appearance. Locations include, but are not limited to, bases, drips, sills, joints, corners, endwalls, framed openings, nakes, fasciae, parapet caps, soffits, reveals, and fillers.
  - 2. Aluminum Trim: Formed with 0.040-inch (1.00-mm) thick, coil-coated aluminum sheet facings.
  - 3. Color: [As indicated by manufacturer's designations] [As selected by Architect from manufacturer's full range] [As indicated on drawing schedule].
- D. Panel Fasteners: Provide corrosion-resistant fasteners as required for construction method used.
- E. Panel Sealants: ASTM C920, Class 35; elastomeric polyurethane or silicone sealant; of type, grade, class, and use classifications required to seal joints in composite panels and remain weathertight; and as recommended in writing by composite panel manufacturer.

Composite Wall Panels (Continued)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, composite panel supports, and other conditions affecting performance of the Work.
  - 1. Examine wall sheathing to verify that sheathing joints are supported by framing or blocking and that installation is within flatness tolerances required by composite panel manufacturer.
    - a. Verify that air- or water-resistive barriers have been installed over sheathing or backing substrate to prevent air infiltration or water penetration.
- B. Examine roughing-in for components and assemblies penetrating composite panels to verify actual locations of penetrations relative to seam locations of composite panels before installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Miscellaneous Supports: Install subframing, furring, and other miscellaneous panel support members and anchorages in accordance with composite panel manufacturer's written instructions.

3.3 COMPOSITE PANEL INSTALLATION

- A. General: Install composite panels in accordance with Fabricator's written instructions in orientation, sizes, and locations indicated on Drawings. Install panels perpendicular to supports unless otherwise indicated. Anchor composite panels and other components of the Work securely in place, with provisions for thermal and structural movement.
    - 1. Shim or otherwise plumb substrates receiving composite panels.
    - 2. Flash or seal composite panels at perimeter of all openings. Fasten flashing with manufacturer-approved fasteners. Do not begin installation until air- or water-resistive barriers and flashings that will be concealed by composite panels are installed.
    - 3. Install screw fasteners in predrilled holes.
    - 4. Locate and space fastenings in uniform vertical and horizontal alignment.
    - 5. Install flashing and trim as composite panel work proceeds.
    - 6. Provide weathertight escutcheons for pipe- and conduit-penetrating panels.
  - B. Fasteners:
    - 1. Composite Panels: Use hot-dip galvanized, ceramic-coated, or stainless steel fasteners for surfaces exposed to the exterior; use galvanized-steel fasteners for surfaces exposed to the interior.
  - C. Attachment Assembly, General: Install attachment assembly required to support composite wall panels and to provide a complete weathertight wall system, including subgirts, perimeter extrusions, tracks, drainage channels, panel clips, and anchor channels.
    - 1. Include attachment to supports, panel-to-panel joinery, panel-to-dissimilar-material joinery, and panel-system joint seals.
  - D. Panel Installation: Attach composite wall panels to supports at locations, at spacings, and with fasteners recommended in writing by Fabricator to achieve performance requirements specified.
    - 1. DBVR Rainscreen System: Install using Fabricator's standard assembly with horizontal channel that provides support and secondary drainage assembly, draining at base of wall. Attach composite wall panels by placing panel clips to supports at locations, at spacings, and with fasteners recommended in writing by Fabricator.
      - a. Track-Support Installation: Install support assembly at locations, at spacings, and with fasteners recommended in writing by manufacturer. Use Fabricator's standard horizontal [tracks] [drain channels] that provide support and secondary drainage assembly.
    - b. Panel Installation:
      - 1) Attach composite wall panels by interlocking panel edges with Fabricator's standard clips.
      - c. Joint Sealing: Seal all joints in accordance with AAMA 509. Do not apply sealants to joints unless otherwise indicated.
  - E. Accessory Installation: Install accessories with positive anchorage to building and weathertight mounting, and provide for thermal expansion. Coordinate installation with flashings and other components.
    - 1. Install components required for a complete composite panel assembly including trim, copings, corners, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items. Provide types indicated by composite panel Fabricator; or, if not indicated, provide types recommended in writing by composite system Fabricator.
  - F. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, or SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints, and seams that are permanently weathertight.
    - 1. Install exposed flashing and trim that is without buckling and tool marks and that is true to line and levels indicated, with exposed edges folded back to form bents. Install sheet metal flashing and trim to fit substrates and to result in waterproof performance.
    - 2. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 ft. (3 m) with no joints allowed within 24 inches (605 mm) of corner or intersection. Where lapped expansion provisions cannot be used or would not be sufficiently waterproof, form expansion joints of intermeshing hooked flanges, not less than 1 inch (25 mm) deep, filled with mastic sealant (concealed within joints).
  - 3.4 ERECTION TOLERANCES
    - A. Site Verifications of Conditions:
      - 1. Verify that conditions of substrate previously installed under other Sections are acceptable for composite system installation. Provide documentation indicating detrimental conditions to composite system performance.
      - 2. Once conditions are verified, composite system installation tolerances are as follows:
        - a. Shim and align composite wall panel units within installed tolerance of 1/4 inch in 20 ft. (6 mm in 6 m), non-accumulative, on level, plumb, and location lines as indicated, and within 1/8-inch (1-mm) offset of adjoining faces and of alignment of matching profiles.
  - 3.5 FIELD QUALITY CONTROL
    - A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.
    - B. Fabricator's Field Service: Engage a factory-authorized service representative to test and inspect completed composite wall panel installation, including accessories.
    - C. Composite wall panels will be considered defective if they do not pass test and inspections.
    - D. Additional tests and inspections, at Contractor's expense, are performed to determine compliance of replaced or additional work with specified requirements.
    - F. Prepare test and inspection reports.
  - 3.6 CLEANING AND PROTECTION
    - A. Remove temporary protective coverings, if any, as composite panels are installed, unless otherwise indicated in manufacturer's written installation instructions. On completion of composite panel installation, clean finished surfaces as recommended by composite panel manufacturer. Maintain in a clean condition during construction.
    - B. After composite panel installation, clear weep holes and drainage channels of obstructions, dirt, and sealant.
    - C. Replace composite panels that have been damaged or have deteriorated beyond successful repair by field touchup or similar minor repair procedures.
- END OF SECTION 074243

CASCO

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Starbucks & Medical Office

155 S.W. MO-150 HWY  
LEE'S SUMMIT, MO 64802

No. Description  
Owner Review

CONSTR. DOC. & REVISIONS

Date  
05/12/20

ARCHITECTURAL  
CERTIFICATE OF AUTHORITY  
#000329 12/31/21

KEYMA L.  
BULLOCK  
NUMBER  
A-200401669  
ARCHITECT

PROFESSIONAL OF RECORD  
BULLOCK, KEYMA L.  
License NO. 200401669  
Expiration Date 12/31/20

Drawn By/Checked By: RMT/MSD  
Project Number 320488  
Permit Date 06-17-20

SPECIFICATIONS

G012