

SECTION 07 24 19

DRAINABLE EXTERIOR INSULATION AND FINISH SYSTEM (EIFS)

PART 1 – GENERAL

1.01 GENERAL REQUIREMENTS

- A. All of the Contract Documents, including General and Supplementary Conditions and Division 1 General Requirements, apply to the work of this section.

1.02 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including the Division 1 Specification Sections, apply to this Section.
- B. Refer to other Divisions of these Specifications to determine the type and extent of work therein affecting the work of this trade, whether or not such work is specifically mentioned in this Section.
- C. Reference Drawings: The Work of this Section is shown on the Contract Drawings titled "Physical Education Building Exterior Renovations, Montgomery College, Germantown Campus, Germantown, MD".
- D. Provide a copy of applicable Drawings including Shop Drawings and Specifications at the site during work.

1.03 SUMMARY

- A. Provide labor, materials, equipment services and accessories necessary to furnish and install work on this Section, complete and functional as indicated in the Contract Documents and as specified herein.
- B. The scope of work specified herein includes, but is not limited to, the following:
 - 1. Provide drainable EIFS cladding assembly, including insulation, base coat, reinforcing, lamina, and all attendant accessories, over the existing stucco coating applied to the CMU exterior walls where shown on the Drawings.
 - 2. Provide drainable EIFS cladding assembly, including insulation, base coat, reinforcing, lamina, and all attendant accessories, over new exterior sheathing and metal framing at areas where the existing system was removed under Section 02 41 19 – Selective Demolition, including the upper and lower soffits, exterior beams, Weight Room addition, and other wall areas around the building as shown on the Drawings.
 - 3. Provide drainable EIFS cladding assembly with reduced insulation thickness, including insulation, base coat, reinforcing, lamina, and all accessories, over new exterior sheathing and metal framing at ventilated soffit areas as shown on the Drawings.

4. Construct an in-situ mockup of the work specified herein in coordination with mockups described in Section 01 45 00 – Mockups and related material Sections.

1.04 RELATED SECTIONS

- A. Coordinate the work of this Section with the work of other trades under this Contract, including, but not limited to, the following:

1. Section 02 41 19 – Selective Demolition
2. Section 04 20 00 – Unit Masonry
3. Section 04 22 00 – Concrete Unit Masonry
4. Section 04 72 00 – Cast Stone
5. Section 05 40 00 – Cold-Formed Metal Framing
6. Section 07 13 26 – Self-Adhered Sheet Waterproofing
7. Section 07 27 00 – Air and Water Barrier
8. Section 07 62 00 – Sheet Metal Flashing and Trim
9. Section 07 92 00 – Joint Sealants

1.05 REFERENCED DOCUMENTS

- A. ASTM Standards

1. ASTM B117 – Test Method for Salt Spray (Fog) Testing
2. ASTM C150 – Specification for Portland Cement
3. ASTM C297 – Test Method for Tensile Strength of Flat Sandwich Constructions in Flatwise Plane
4. ASTM C578 – Specification for Preformed, Cellular Polystyrene Thermal Insulation
5. ASTM D968 – Test Method for Abrasion Resistance of Organic Coatings by Falling Abrasive
6. ASTM D1784 – Specification for Rigid Polyvinyl Chloride (PVC) Compounds and Chlorinated Polyvinyl Chloride (CPVC) Compounds
7. ASTM D 2247 – Practice for Testing Water Resistance of Coatings in 100% Relative Humidity
8. ASTM D3273 – Test for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber

9. ASTM E84 – Test Method for Surface Burning Characteristics of Building Materials
10. ASTM E2430 – Standard Specification for Expanded Polystyrene (EPS) Thermal Insulation Boards for use in Exterior Insulation and Finish Systems (EIFS)
11. ASTM E2568 – Standard Specification for PB Exterior Insulation and Finish Systems

B. EIMA (EIFS Industry Members Association) Standards and Publications

1. 101.01 Standard Test Method for Freeze Thaw Resistance of Exterior Insulation and Finish Systems (EIFS), Class PB (Modified ASTM C67)
2. 101.02 Standard Test Method for Resistance to Water Penetration of Exterior Insulation and Finish Systems (EIFS), Class PB (Modified ASTM E331)
3. 101.03 Standard Test Method for Determining Tensile Adhesion Strength of Exterior Insulation and Finish System (EIFS), and Components, Class PB (Modified ASTM C297)
4. 101.86 Standard Test Method for Resistance of Exterior Insulation and Finish Systems (EIFS), Class PB, to the Effects of Rapid Deformation (Impact) (Modified ASTM E2486)
5. 105.01 Standard Test Method for Alkali Resistance of Glass Fiber Reinforcing Mesh for Use in Exterior Insulation and Finishing Systems (EIFS), Class PB
6. 300.01 Standard Test Method for Determining Tensile Adhesion Properties of Sealants when used with Exterior Insulation and Finish Systems (EIFS), Class PB
7. EIMA Guide for use of Sealants With Exterior Insulation and Finish Systems (EIFS), Class PB
8. EIMA Guideline Specification for Exterior Insulation and Finish Systems (EIFS), Class PB
9. EIMA Guideline Specification for Expanded Polystyrene (EPS) Insulation Board

1.06 PERFORMANCE REQUIREMENTS

- A. EIFS cladding assembly must be designed to resist code-required wind loads. The structural attachment of these systems must be carefully detailed in conjunction with the air/water barrier membrane and integral through-wall flashing assemblies. Maintain a continuous drainage plane over the air/water barrier. Mechanically attach the drainage plane to the backup wall through air/water barrier with the specified fasteners and seal all penetrations watertight. Adhesive ribbons used to secure

insulation to the drainage plane must be oriented vertically and must be open at the bottom to allow drainage.

- B. EIFS assembly shall comply with all structural requirements of all applicable building codes. Refer to the Drawings for project-specific wind loads.

1.07 SUBMITTALS

- A. See Section 01 33 00 – Submittals for general submittal procedures.
- B. Submit the following items in time to allow for review by the Engineer and resubmittals, if needed, without delaying the work. Do not order materials or start work before receiving the Engineer's written approval.
 1. Product Data: For each component, submit information on the component materials, information on the construction and application details, information on the manufacturer's recommendations for application and use, test data substantiating that products comply with requirements, and material safety data sheets.
 2. Shop Drawings: After field measurement and documentation of all existing conditions, participate in the preparation of Shop Drawings, coordinated among all participatory trades, which establish and accommodate existing constraints and the variance in existing conditions. Provide complete shop drawings for each assembly indicated, including components, flashing, materials, dimensions, etc. and the specific requirements listed.
 - a. Show EIFS and flashing, together with fasteners, air/water barrier membrane, insulation, and other embedded items by related trades, to help ensure proper coordination of the work.
 - b. Shop drawings shall show all EIFS features including the location of building joints, articulations in the cladding and color.
 - c. Shop drawings shall show all fenestration systems and include details for integrating the EIFS assembly with the fenestration frames, flashing, and perimeter sealant joints.
 3. Samples: Submit samples of all components listed in Part 2 that will become part of the final assembly. Sample panels (min. 12 in x 12 in) of each color of EIFS finish coat. Contractor to coordinate color matching services with EIFS manufacturer.
 4. Product Test Reports: Submit test reports performed and prepared by a qualified testing agency that demonstrate the EIFS assembly fulfils the performance characteristics listed herein.
 5. Maintenance Data: For EIFS, to include in maintenance manuals.

6. Calculations or Standard Layout of fasteners and or adhesive ribbon spacing for insulation and/or metal lath attachment meeting the design wind loads shown on the Drawings.

1.08 MOCKUPS:

- A. Build in situ mockup of typical wall assembly with EIFS to demonstrate aesthetic effects, quality of materials, sequencing, and execution. Mockups shall include all typical exterior wall components, including air/water barrier, insulation, through-wall flashing, and other wall components.
 1. Notify the Engineer at least 7 days before construction of the sample so that the Engineer may have a representative present during the construction of the sample. Do not start work until the Engineer has approved the mockup.
 2. Rebuild samples as many times as required to meet the Engineer's approval at no additional cost to the Owner or delay in the project schedule.
 3. Keep approved sample areas in a cleaned and finished condition throughout the duration of the project. Reproduce samples accurately in construction using identical materials and quality of workmanship. Mockups will be used to measure standards of workmanship, finish, color, and appearance. Approved samples will be used as a standard for completed work and can remain as part of the finished work.

1.09 QUALITY ASSURANCE

- A. Engage experienced EIFS installers to perform work of this Section. The Contractor shall have completed work similar in material, design, and extent to that indicated for this Project with a record of successful in-service performance, for a period of at least 5 yrs. The contractor shall staff the work of this Section with only qualified personnel experienced in the application of this system.
- B. Obtain each type of material from a single manufacturer for the duration of the project.
- C. Conduct a quality control program that includes, but is not limited to, the following:
 1. Inspection of materials to assure conformity with contract requirements, and that materials are new and undamaged.
 2. Establishment of procedures for executing the work.
 3. Inspecting surface preparation prior to material application.
 4. Inspection of work in progress to ensure work is being done in accordance with established procedures, manufacturer's instructions, and specific Engineer instructions.
 5. Inspection of work completed and prompt correction of defective work.

- D. Work in conjunction with the other trades employed on the project by promptly completing the work of this Section as required to meet the project schedule and so as not to impede other trades. Coordinate the work of this Section with other trades so the intent of the Drawings and Specifications is carried out. Coordinate with other trades to maximize efficient use of scaffolding, to minimize disruption to the building, and to avoid unnecessary traffic over areas of completed work or existing to remain building components.

1.10 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to the site only in manufacturer's original containers, clearly marked with legible, intact labels with manufacturer's name and brand name and identifying contents of containers.
- B. All materials to be new. Do not use products beyond the expiration of their shelf life. Handle all materials to prevent damage. Place materials on pallets. Use waterproof and fireproof canvas tarpaulins (not plastic) to cover all stored materials top to bottom.
- C. Protect and store all materials in original, unopened, labeled containers and packaging and in compliance with manufacturer's directions. Comply with manufacturer's recommendations for minimum and maximum time and temperature limits for storage.
- D. Promptly remove from the site all materials rejected by the Engineer or exposed to any moisture anywhere, at any time, during transportation, storage, handling, or installation.
- E. Do not stockpile materials or equipment to overload any building or site component.
- F. Materials shall be marked with the date of manufacture and shelf life. Do not use products beyond the expiration of their shelf life. Store flammable materials in a cool, dry, protected area away from sparks and open flames.

1.11 PROJECT CONDITIONS

- A. Field Measurements: Verify site conditions and dimensions by field measurements before material installation and indicate measurements on Shop Drawings. Notify the Engineer immediately of inconsistency between the conditions found and those shown in the Contract Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work. Consider the special conditions associated with repairs to existing construction when measuring for shop drawings.
- B. Protect the building and its contents from risks associated with the work in this Section. Schedule and execute work without exposing adjacent building areas to water, dust, and debris, or materials used by this Contractor. Protect adjacent areas from damage and stains with appropriate barriers and masking. Repair damage as a result of the work of this Section to its condition at the start of work, or if such cannot be determined, to its original condition. Clean stains by approved means.
- C. Protect the work from damage such as impact, marring of the surfaces and other damage.

- D. Materials may be skin irritants or sensitizers. Accordingly, advise applicator to avoid contact with eyes and skin, inhalation of vapors, and ingestion. Use protective and safety equipment on site. Heed label warnings by manufacturers. Make application in accordance with applicable safety laws.
- E. Compliance with OSHA and other safety laws and regulations is the exclusive responsibility of the contractor, his subcontractor(s), consultants and servants.
- F. Coordination requirements: Coordinate sheet metal flashing installation with other trades, such as waterproofing and sealant, to help ensure proper installation sequencing for assemblies.

1.12 WARRANTY

- A. **Applicator Warranty:** Guarantee work under this section in a document stating that if, within 2 yrs after the Date of Substantial Completion of the Work, any of the work of this Section is found to be defective or not in accordance with the Contract Documents, the Applicator shall, at its sole cost and expense, correct it promptly after receipt of a written notice from the Owner to do so, unless the Owner has previously given the Applicator a written acceptance of such condition. Also, state that the Applicator shall bear costs incurred by the Owner, including reasonable attorney's fees, court costs, and expert witness and consultant fees, to enforce Applicator's compliance with the obligations of this Guarantee. The obligations of this Guarantee shall run directly to the Owner and its successors and assigns, and may be enforced by the Owner and its successors and assigns against the Applicator, shall survive the termination of the Contract, and shall not be limited by conditions other than this contract.
- B. **Manufacturer's Warranty:** Provide EIFS manufacturer's standard warranty for EIFS assembly and accessory components.

PART 2 – PRODUCTS

2.01 MANUFACTUER

- A. EIFS components and accessories must be obtained as a single-source from the manufacturer to ensure total system compatibility and integrity. If an alternate system is used, all accessory materials are subject to review and approval by the Engineer. Alternate components must meet or exceed the performance requirements of the basis-of-design, include a dedicated lath drainage plane, and incorporate an approved air/water barrier membrane.
 - 1. Basis-of-Design System: StoTherm Rainsceen II
Sto Corporation
 - 2. Alternate Manufacturer: Dryvit
Parex

2.02 DRAINABLE EIFS CLADDING ASSEMBLY

- A. Drainable EIFS cladding system: Provide a complete, drainable, exterior insulation and finish system (drainable EIFS), consisting of the design and system components listed below. Obtain materials from the same manufacturer and as required by the EIFS manufacturer to provide a complete warrantable system. System shall be consist of the following components and design, listed from interior to exterior:
1. Lath mechanically fastened through air/water barrier membrane and exterior sheathing to steel stud backup wall framing
 2. EPS insulation board adhered to lath with vertical ribbons of adhesive and mechanically fastened at salient building corners to steel stud framing (with "Wind-lock" fasteners)
 3. Reinforced EIFS basecoat
 4. Colored EIFS finish coat
- B. Adhesive Installed in Vertical "Ribbons": Sto BTS Plus, one-component, polymer modified, cement-based adhesive.
- C. EPS Insulation Board: Polystyrene, ASTM C578 Type II, extruded or expanded type; minimum average density 1.5 pcf; hot wire cut to special shapes indicated, maintaining tolerances necessary to achieve tolerances specified for finished installation. Insulation shall have the following thicknesses, as shown in the drawings:
1. 4 in. thick: To be used on typical exterior building walls and upper soffits, as shown on the Drawings
 2. 1 in. thick: To be used on soffits vented to the exterior, as shown on the Drawings
- D. EIFS Base Coat: Sto RFP, one component non-cementitious, fiber reinforced acrylic base coat.
- E. EIFS Embedded Reinforcing Mesh: All mesh to be manufactured by Sto, interwoven, open-weave glass fiber fabric with alkaline resistant coating.
1. Field Application Mesh (for use within the field of the wall): Sto Intermediate Mesh (High-Impact mesh) -- nominal 11.2 oz/sq yd (380 g/m²), high impact, interwoven, open weave glass fiber fabric with alkaline resistant coating for compatibility with Sto materials.
 2. Detail Mesh (for use at trims, reveals, or other architectural features): Sto Detail Mesh, 4.5 oz/sq yd.
 3. Corner Mat Mesh (for use at inside and outside corners): Sto pre-created, heavy-duty corner mesh, 6.25 oz/sq yd.

- 4. Ultra-High Impact Mesh – nominal 15 oz/yd², ultra-high impact, double strand, interwoven, open-weave glass fiber fabric with alkaline resistant coating.
- F. EIFS Primer: Sto Primer, acrylic based primer, for use with Sto acrylic-based finish coat.
- G. EIFS Finish Coat: Stolit acrylic-based textured wall coating. Color to match existing stucco at Equipment Yard or as approved by Owner.
- H. Mechanical Fasteners for Insulation (at locations determined by the manufacturer to achieve wind resistance): Wind-Devil 2 fastener with 2-in. dia. plate. Use type ST-5 screw for anchoring into steel studs.

2.03 AIR/WATER BARRIER MEMBRANE

- A. Refer to Section 07 27 00 – Air and Water Barriers. EIFS manufacturer's proprietary vapor impermeable air barrier(s) are not appropriate.

2.04 DRAINAGE PLANE

- A. Expanded Metal Lath: Small diamond mesh size (10,000 meshes per sq yd) cut from copper bearing steel sheets. Approximate size of mesh in long direction, 0.675 in. center-to-center. Approximate size of mesh in short direction, 0.2 to 0.3 in. center-to-center.
 - 1. Self-furring: Dimples at 1-1/2 in. o.c. each way with 1/4 in. indentations.
 - 2. Weight: 3.4 lbs/sq yd.
 - 3. Material: SS304, stainless steel
 - a. Add alternate: provide add alternate pricing for G90, hot-dipped galvanized.
 - 4. Acceptable products and manufacturers:
 - a. Alabama Metal Industries Corporation (AMICO)
 - b. CEMCO
 - c. Diamond Mesh, Western

2.05 ACCESSORIES

- A. Fasteners for Lath: All fasteners and fastener accessories shall be stainless steel; electroplated galvanized fasteners are unacceptable. Fasteners used with galvanized lath alternates shall be galvanized. All fasteners products shall be reviewed by the EIFS manufacturer and all fastener spacing shall be determined by the manufacturer.
 - 1. Screws (used for attachment to metal framing): Self-drilling and self-tapping with a 0.120-in. dia. shank, with either Philips pan or flat head profile. Coordinate head profile with EIFS insulation board adhesion requirements.

2. Expansion anchors (used for attachment to concrete and CMU): Nylon Nailin, manufactured by Powers Fasteners, pin drive anchor with a body formed from engineered nylon and stainless steel nails.
 3. Washers: At each fastener, install a stainless steel washer, minimum 1 in. outside diameter, on each side of the lath to provide a gasket seal around the penetration through the air/water barrier; lath fasteners with protruding teeth are not acceptable.
 4. Tie wire: Stainless steel, as recommended by manufacturer.
- B. Soffit vents: EIFS Soffit Vent by Alabama Metal Industries Corporation (AMICO), continuous rigid pvc (polyvinyl chloride) vent with 3 in. wide opening, insect screen, and attachment flange, for use in lower soffits as shown on the Drawings.
- C. EIFS Accessories and Trim (where required): stainless steel, or as approved by Engineer.
- D. Backer rod and sealant: Refer to Section 07 92 00 – Joint Sealants.
1. Provide control joints in the EIFS assembly with backer rod and sealant at spacing not to exceed the manufacturer's recommended limit or as shown on the drawings, whichever is less.
 2. Sealant joints must be applied to the base coat prior to installing the finish coat over EIFS.

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Verify all site conditions and dimensions by field measurement in consideration of the special conditions associated with repairs to existing construction. Notify the Engineer immediately of any inconsistency between the conditions found and those shown in the Contract Drawings.
- B. Report deviations from the requirements of project specifications or other conditions that might adversely affect the EIFS installation to the General Contractor and the Engineer.

3.02 GENERAL EIFS INSTALLATION

- A. EIFS workmanship is to comply with all applicable recommendations provided by EIMA, details and recommendations provided by the manufacturer, and as prescribed in these Specifications; where the documents conflict, the Drawings and Specification shall control and where not enough information is provided, assume the more stringent of recommendations shall govern. Do not proceed with EIFS installation until all associated backup waterproofing and flashings are installed. Coordinate work to incorporate all upturned legs and ends of flashing into EIFS work.

- B. Mix all EIFS components according to manufacturer's recommended quantities, proportions, consistencies, and mixing times.
- C. Air/Water Barrier: See Section 07 27 00 – Air and Water Barrier.
- D. Lath
 - 1. Coordinate installation of lath with installation of exterior sheathing and wall waterproofing membrane. Mechanically fasten expanded metal lath through waterproofing membrane to existing steel stud framing and CMU backup wall. Apply metal lath taut with long dimensions of diamonds perpendicular to supports.
 - 2. Attach all fasteners through a stainless steel washer set directly against the air/water barrier, through the expanded lath, and through a stainless steel washer set against the outside face of the lath. Inboard washer shall sit flush against the air/water barrier to create a gasket seal. Apply mastic or an approved sealant over all abandoned fastener penetrations (shiners) and all fastener attachments that do not gasket against the membrane.
 - 3. Install fasteners into metal wall studs at 16 in. o.c. in the field of the wall, or as required by the manufacturer, whichever is less. Ensure that fasteners engage framing.
 - 4. DO NOT LAP ENDS OR SIDES OF LATH. Butt ends and sides of consecutive sheets of lath and secure with 18 ga tie wire at 6 in. o.c.
- E. Starter Track
 - 1. Strike a level line at the base of the wall to mark where the top of the starter track terminates.
 - 2. Attach the starter track even with the line into the structure at a maximum of 16 in. o.c. or as determined by the manufacturer, whichever is less.
 - 3. Butt sections of starter track together. Miter cut outside corners and abut. Snip front flange of one inside corner piece (to allow EPS Board to be seated inside of track) and abut.
 - 4. Install Starter Track at other EIFS terminations as designated on detail drawings: beneath window sills with concealed flashing.
- F. Splice Strips for Starter Track and Flashing
 - 1. Starter Track, Window/Door Head Flashing: install 2 in. wide diagonal splice strips of detail mesh at ends of head flashings. Install minimum of 4 in. wide splice strips of detail mesh between back flange of starter track and head flashings. Center the mesh so it spans evenly between the back flange of the Starter Track or flashing and the sheathing. Embed the mesh in the wet joint compound and trowel smooth.

2. Apply waterproof coating over the splice strip when the joint compound is dry.

G. Backwrapping

1. "Back wrap" all insulation board edges with detail mesh at bases of walls and at all EIFS terminations prior to installation of insulation on building walls. Mesh must be wide enough to adhere a 4 in. strip of mesh to the back of insulation board, fully wrap board edge, and extend a min. 4 in. onto the exterior face of the insulation board.

H. Adhesive Application and Installation of Insulation Board

1. Rasp the interior lower face of insulation boards to provide a snug friction fit into the Starter Track.
2. Apply adhesive to back of insulation board with a stainless steel trowel; fully coat back of board. Strike back of board with a 5/8 in. x 5/8 in. square-notched, stainless steel trowel to obtain uniform ribbons of adhesive. Ribbons of adhesive must be uniform and parallel to the short dimension of the board, so ribbons are vertical when boards are set in place. Adhesive ribbons shall be continuous and aligned between insulation boards for increased drainage.
3. Immediately place insulation boards into mesh in a running bond pattern with the long dimension of the board horizontal. Apply firm, constant pressure over the entire board surface to ensure uniform contact of the adhesive with the substrate, or keying of the adhesive with the metal lath.
4. If adhesive develops a "skin" before insulation is applied over substrate, immediately remove adhesive and replace with fresh material. Do not install any insulation board with cured or semi-cured adhesive.
5. Bridge joints in drainage mat and substrate by a minimum of 8 in. Interlock insulation board at all inside and outside corners. Cut insulation board in an L-shaped pattern to fit snugly around openings – do not align board joints with corners of openings.
6. Butt all board joints tightly; holidays are not allowed. Prevent adhesive from entering board joints. Fill any open joints solid with slivers of insulation board.
7. Remove individual boards periodically while the adhesive is still wet to check for satisfactory contact with the substrate and the back of the insulation board, and for spacing between ribbons of adhesive. An equal amount of adhesive must be on the substrate and the board when they are removed, as an indication of adequate adhesion.

I. Slivering and Rasping of Insulation Board Surface

1. After insulation boards are firmly adhered to the substrate, fill any open joints in the insulation board layer with slivers of insulation or spray foam. Use spray foam that is identified by the spray foam manufacturer as suitable for this use.

2. Rasp the insulation board surface to achieve a smooth, even surface and to remove any UV-damaged insulation.

J. Completion of Backwrapping

1. Complete the backwrapping procedure by applying base coat to exposed edges of insulation board and approximately 4 in. onto the face of the insulation board. Pull mesh tight around the board and embed it in the base coat with a stainless steel trowel. Use a corner trowel for clean, straight lines. Smooth any wrinkles or gaps in the mesh.

K. Base Coat and Reinforcing Mesh Application

1. At corners of all penetrations in EIFS, install minimum 9 in. x 12 in. diagonal strips of detail mesh. Embed strips in wet base coat adhesive and trowel from center to edges to avoid wrinkles in the mesh.
2. Apply base coat over insulation board to a thickness of approximately 1/8 in., or thick enough to fully embed mesh. Work horizontally or vertically in strips of 40 in. and immediately embed mesh in wet base coat by troweling from center to edge of mesh. Allow base coat to dry. Mesh must be fully embedded in base coat so that mesh color is not visible. Re-skim with additional base coat if mesh color is visible.
 - a. Armor Mat Ultra-High Mesh: Butt mesh at seams
 - b. Standard and Intermediate Mesh Application: Overlap mesh minimum 2-1/2 in. at mesh seams and at overlaps of detail mesh. Feather seams and edges. Double-wrap all inside and outside corners with minimum 2-1/2 in. overlap in each direction. Alternate corner treatment – embed corner mat in base coat, allow to dry, then overlap up to corner with field mesh.
3. Complete back wrapping procedure by applying base coat to exposed board edges and 4 in. onto face of insulation board. Pull mesh tight around board edge and embed in base coat with stainless steel trowel. Use a corner trowel for clean, straight lines. Smooth any gaps or wrinkles in mesh.
4. Allow base coat to dry thoroughly before applying primer or finish.

L. Primer Application

1. Apply primer evenly with brush, roller or proper spray equipment over the clean, dry base coat and allow to dry thoroughly before applying finish.

M. Finish Coat Application

1. Apply finish directly over the base coat or primed base coat when dry. Apply finish by spraying or troweling with a stainless steel trowel, depending on the finish specified. Follow these general rules for application of finish:

- a. Avoid application in direct sunlight.
- b. Apply finish in a continuous application, and work to an architectural break in the wall.
- c. Weather conditions affect application and drying time. Hot or dry conditions limit working time and accelerate drying. Adjustments in the scheduling of work may be required to achieve desired results; cool or damp conditions extend working time and retard drying and may require added measures of protection against wind, dust, dirt, rain and freezing. Adjust work schedule and provide protection.
- d. Do not install separate batches of finish side-by-side
- e. Do not apply finish into or over sealant joints. Apply finish to outside face of wall only.
- f. Do not apply finish over irregular or unprepared surfaces, or surfaces not in compliance with the requirements of the project specifications.

N. Protection

- 1. Provide protection of installed materials from water infiltration into or behind them.
- 2. Provide protection of installed materials from dust, dirt, precipitation, freezing and continuous high humidity until they are fully dry.

3.03 CLEAN-UP

- A. At the time of Substantial Completion, thoroughly clean all items of work (newly installed, repaired, or painted components). Clean the building and site of all dust, dirt, and debris related to the work.

3.04 MAINTENANCE

- A. Provide the Owner with a detailed manual of the required wall system maintenance, including information regarding the necessary frequency of inspections and common visual evidence of system defects.

END OF SECTION