

SECTION 07 27 00

AIR BARRIERS

PART 1 - GENERAL

1.01. GENERAL REQUIREMENTS

- A. The General Conditions, Supplementary Conditions, Instructions to Bidders, and Division 01- General Requirements shall be read in conjunction with and govern this Section.
- B. Read this Specification as a whole by all parties concerned. Each Section may contain more or less than the complete Work of any trade. The Contractor is solely responsible to make clear to the installing Subcontractor the extent of their Work.

1.02. SUMMARY

- A. This Section includes requirements for supplying labor, materials, tools, and equipment to complete the Work as shown on the Drawings Architectural Division as specified herein including, but not limited to, the following:
 - 1. Adhesive/Primer
 - 2. Self-Adhered Water Resistive Air Barrier
 - 3. Air Barrier/Thru-wall Flashing
 - 4. Sealant

1.03. RELATED REQUIREMENTS

- A. Section 06 10 00 – Rough Carpentry
- B. Section 07 41 13 – Self-Adhered Underlayment Membrane
- C. Section 07 92 10 – Joint Sealants

1.04. ALTERNATES

- A. Submit requests for alternates in accordance with Section 01 25 00
- B. Materials must meet the following criteria:
 - 1. Air leakage:
 - a. ASTM E2357: Pass
 - b. CAN/ULC-S742-11: Classification A1
 - c. CAN/ULC S741-08: Pass
 - 2. Water resistance:
 - a. AATCC TM127: Pass
 - b. ASTM E331: Pass

3. Nail Sealability:
 - a. AAMA 711-13, ASTM D1970: Pass
- C. Alternate submission format to include:
 1. Evidence that alternate materials meet or exceed performance characteristics of product requirements and documentation from an approved independent testing laboratory certifying that the performance of the system including auxiliary components exceed the requirements of the local building code.
 2. References clearly indicating that the Air Barrier Manufacturer has successfully completed projects of similar scope and nature on an annual basis for a minimum of ten (10) years.
 3. Air Barrier Manufacturer's guide specification.
 4. Air Barrier Manufacturer's complete set of technical data sheets for assembly.
 5. Air Barrier Manufacturer's complete set of details for assembly.
 6. Product certification confirming assembly components are supplied and warranted by a single source Air Barrier Manufacturer.
 7. LEED HPD declaration.
 8. Air Barrier Manufacturer statement that anticipated wall assembly compliance with NFPA 285.
 9. Sample warranty as specified.
- D. Submit requests for alternates to this specification a minimum of ten (10) working days prior to bid date. Include a list of twenty-five (25) projects executed over the past five (5) years.
- E. Issued addendums confirm acceptable alternates. Do not submit substitute materials after tender closing.

1.05. REFERENCES

- A. American Architectural Manufacturers Association (AAMA):
 1. AAMA 711-13 - Voluntary Specification for Self-Adhering Flashing Used for Installation of Exterior Wall Fenestration Products
 2. AAMA 2400-02 - Standard Practice for Installation of Windows with a Mounting Flange in Stud Frame Construction
- B. American Society for Testing and Materials (ASTM):
 1. ASTM D882 - Standard Test Method for Tensile Properties of Thin Plastic Sheeting
 2. ASTM D903 - Standard Test Method for Peel or Stripping Strength of Adhesive Bonds
 3. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials
 4. ASTM E96 - Standard Test Methods for Water Vapor Transmission of Materials
 5. ASTM E283 - Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen
 6. ASTM E330 - Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights, and Curtain Walls by Uniform Static Air Pressure Difference
 7. ASTM E331 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure

Difference

8. ASTM E2178 - Standard Test Method for Air Permeance of Building Materials
9. ASTM E2357 - Standard Test Method for Determining Air Leakage of Air Barrier Assemblies

C. National Fire and Protection Agency (NFPA):

1. NFPA 285 - Standard Fire Test Method for Evaluation Of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components

1.06. ADMINISTRATIVE REQUIREMENTS

A. Pre-installation meetings:

1. When required, and with prior notice, an Air Barrier Manufacturer representative will meet with the necessary parties at the jobsite to review and discuss project conditions as it relates to the integrity of the assembly.

1.07. SUBMITTALS

A. Provide the following requested information in accordance with Section 01 30 00 Submittal Procedures.

B. Action Submittals:

1. Product Data:
 - a. Air Barrier Manufacturer's guide specification
 - b. Air Barrier Manufacturer's complete set of technical data sheets for assembly
 - c. Air Barrier Manufacturer's complete set of guide details for assembly
2. Certificates:
 - a. Product certification confirming assembly components are supplied and warranted by a single source Air Barrier Manufacturer
 - b. LEED HPD declaration
3. Tests and Evaluation Reports:
 - a. NFPA 285 wall assembly compliance:
 1. Air Barrier Manufacturer statement that anticipated wall assembly complies with NFPA 285
4. Warranty:
 - a. Sample warranty as specified

1.08. QUALITY ASSURANCE

A. Single Source Responsibility:

1. Obtain air barrier and auxiliary materials including adhesive/primer, air barrier, flashings, and sealants from a single Air Barrier Manufacturer regularly engaged in the manufacturing and supply of the specified products.
2. Verify product compliance with federal, state, and local regulations.

B. Manufacturer Qualifications:

1. Air Barrier Manufacturer shall demonstrate qualifications to supply materials of this Section by certifying the following:
 - a. Air Barrier Manufacturer must not issue warranties for terms longer than they have been manufacturing and supplying specified products for similar scope of Work.
- C. Installer Qualifications:
 1. Perform Work in accordance with the Air Barrier Manufacturer's published literature and as specified in this Section.
 2. Maintain one (1) copy of the Air Barrier Manufacturer's installation instructions on site.
 3. At all times during the execution of the Work allow access to site by the Air Barrier Manufacturer representative.
 4. If meeting with the Air Barrier Manufacturer during project construction, contact the Air Barrier Manufacturer a minimum of two weeks prior to schedule meeting.

1.09. MOCK-UPS

- A. Mock-ups: Construct mock-ups to verify selections made under submittals as follows:
 1. Where directed by architect construct typical exterior wall section, six and one-half (6.5) feet by six and one-half (6.5) feet, , substrate materials, and adjacent materials including flashing, door frame, window frame, showing air barrier application details.
- B. Notify architect a minimum seven (7) days prior to mock-up construction.
- C. Review and acceptance of mock-ups does not constitute approval of deviations from the Contract Documents contained in mock-ups unless architect specifically notes such deviations in writing.
- D. Once reviewed by architect, acceptable mock-up can form a permanent part of the Work, and will form the basis for acceptance for the remainder of the project.
- E. Remove and replace materials found unacceptable at no additional cost to Owner.

1.10. DELIVERY, STORAGE, AND HANDLING

- A. Delivery of Materials:
 1. Deliver materials to the jobsite in undamaged and clearly marked containers indicating the name of the Air Barrier Manufacturer and product.
- B. Storage of Materials:
 1. Store materials as recommended by the Air Barrier Manufacturer and conform to applicable safety regulatory agencies. Refer to all applicable data including, but not limited to, Safety Data Sheet (SDS), Technical Data sheet (TDS), product labels, and specific instructions for personal protection.
 2. Keep solvents away from open flame or excessive heat.
 3. Store materials in original packaging.
 4. Protect rolls from direct sunlight until ready for use.

5. Refer to Air Barrier Manufacturer's product TDS.

C. Handling:

1. Refer to Air Barrier Manufacturer's product TDS.

1.11. SITE CONDITIONS

A. Environmental Requirements:

1. Do not perform Work during rain or inclement weather.
2. Do not perform Work on frost covered substrates or surfaces that are wet to touch.

B. Protection:

1. It is the responsibility of the installing Subcontractor to protect all surfaces not included in scope of Work from overspray including, but not limited to, windows, doors, adjacent areas, and vehicles.
2. Cap and protect exposed back-up walls against wet weather conditions during and after application of air barrier assembly.

C. Complete preparation Work prior to installing air barrier.

D. Ground all equipment during operations.

1.12. WARRANTY

A. Manufacturer's Single Source Warranty; choose from the following:

1. Product Warranty:
 - a. Manufacturer must warrant the material against product defect for a period of one (1) year from date of purchase.
2. Assembly Warranty:
 - a. Manufacturer must warrant the assembly against product defect for a period of twelve (12) years from the date of substantial completion.

PART 2 - PRODUCTS

2.01. MANUFACTURERS

A. Air Barrier and auxiliary materials shall comply with the following system requirements:

1. Obtain air barrier and auxiliary materials as a single-source from the Air Barrier Manufacturer to ensure total system compatibility and integrity.
2. Air leakage:
 - a. ASTM E2357: Pass
 - b. CAN/ULC-S742-11: Classification A1
 - c. CAN/ULC S741-08
3. Water resistance:
 - a. AATCC TM127: Pass
 - b. ASTM E331: Pass
4. Nail Sealability:
 - a. AAMA 711-13, ASTM D1970: Pass

- B. Acceptable Manufacturers:
1. Henry® Company
999 N. Sepulveda Blvd. Suite 800
El Segundo, CA 90245
(800) 486-1278
www.henry.com
 2. Or Approved Equal

2.02. MATERIALS

- A. Primary Sheet-Applied, Vapor Permeable Water Resistive Air Barrier (Basis of Design):
1. Self-adhered vapor permeable, water resistive air barrier consisting of a reinforced, modified polyolefin tri-laminate film surface and patented permeable adhesive technology with split-back poly-release film; having the following typical physical properties:
 - a. Basis of design: Henry® Blueskin® VP160 Self-Adhered Water Resistive Air Barrier (or approved equal)
 - b. Color: Blue
 - c. Thickness: 23 mils (0.58 mm)
 - d. Water Vapor Permeance (ASTM E96): 29 perms
 - e. Air Leakage of Air Barrier Assemblies (ASTM E2357): Pass
 - f. Air Permeance (ASTM E2178): Pass
 - g. Nail Sealability (ASTM D1970): Pass
 - h. Dry Tensile Strength (ASTM D882):
 1. 41 lbf /182N MD
 2. 29 lbf /129N CD
 - i. Surface Burning Characteristics (ASTM E84):
 1. Flame Spread: Class A
 2. Smoke Development: Class A
 - j. Low Application Temperature: 20 degrees F (-7 degrees C)
- B. Assembly Auxiliary Materials:
1. Adhesives/Primers:
 - a. Standard VOC adhesive:
 1. Synthetic rubber based quick setting adhesive; having the following typical physical properties:
 - a. Basis of design: Henry® Blueskin® Adhesive (or approved equal).
 - b. Color: Blue
 - c. Maximum VOC: 450 g/L
 - d. Drying time (initial set): 30 minutes
 - e. Low Application Temperature: 10 degrees F (-12 degrees C)
 - b. Low VOC adhesive:
 1. Synthetic rubber based quick setting adhesive with low VOC content; having the following typical physical properties:
 - a. Basis of design: Henry® Blueskin® LVC Adhesive (or approved equal).
 - b. Color: Blue
 - c. Maximum VOC: <240 g/L

- d. Drying time (initial set): 30 minutes
- e. Low Application Temperature: 10 degrees F (-12 degrees C)
2. Polymer emulsion water based quick setting adhesive with low VOC content; having the following typical physical properties:
 - a. Basis of design: Henry® Aquatac™ Primer (or approved equal).
 - b. Color: Aqua
 - c. Maximum VOC: 50 g/L
 - d. Drying time (initial set): 30 minutes
 - e. Low Application Temperature: 25 degrees F (-4 degrees C)
- c. Aerosol spray adhesive:
 1. Quick drying spray adhesive used to prepare construction surfaces for the application of flashings; having the following typical physical properties:
 - a. Basis of design: Henry® Blueskin® Spray Prep Adhesive (or approved equal).
 - b. Color: Clear amber
 - c. Solids by weight: 35%
 - d. Drying time (initial set): 3 minutes
 - e. Low Application Temperature: -10 degrees F (-23 degrees C)
 - d. Quick setting primers:
 1. Synthetic rubber based quick setting adhesive with low VOC content; having the following typical physical properties:
 - a. Basis of design: Henry® Blueskin® LVC Spray Primer (or approved equal).
 - b. Color: Blue
 - c. Maximum VOC: 250 g/L
 - d. Dry time: 1-3 minutes
 - e. Low Application Temperature: 40 degrees F (4.4 degrees C)
2. Liquid-Applied Flashing:
 - a. Moisture-curing single component elastomeric liquid-applied flashing using a highly advanced Silyl-Terminated Polyether (STPE) polymer curing to a monolithic membrane; having the following typical physical properties:
 1. Basis of design: Henry® Air-Bloc® LF Liquid-Applied Flashing (or approved equal).
 2. Color: Blue
 3. Air Permeance (ASTM E2178): Pass
 4. Water Vapor Permeance (ASTM E96): 21.8 perms @ 25 mils
 5. Air Leakage of Air Barrier Assemblies (ASTM E2357): Pass
 6. Water Resistance (AC212/ASTM D2247): Pass
 7. Nail Sealability (AAMA 711): Pass
 8. Surface Burning Characteristics (ASTM E84):
 - a. Flame Spread: Class A
 - b. Smoke Development: Class A
 9. Elongation (D412): 264%
 10. Low Application Temperature: 20 degrees F (-7 degrees C)
3. Self-Adhered Flashing:
 - a. Non-Vapor Permeable Flashing:
 1. Non-vapor permeable, self-adhered water resistive air and vapor barrier consisting of a synthetic butyl compound integrally laminated

- to a white engineered polypropylene film surface; having the following typical physical properties:
- a. Basis of design: Henry[®] Blueskin[®] Butyl Flash (or approved equal).
 - b. Color: White
 - c. Thickness: 14 mils (0.36 mm)
 - d. Water Vapor Permeance (ASTM E96): 0.14 perms
 - e. Nail Sealability (ASTM D1970): Pass
 - f. Elongation (ASTM D412): 825% minimum
 - g. Low Application Temperature: 25 degrees F (-4 degrees C)
2. Non-vapor permeable, self-adhered water resistive air and vapor barrier consisting of an SBS rubberized asphalt compound integrally laminated to a high strength polyethylene with surface layer of metallic aluminum film; having the following typical physical properties:
 - a. Basis of design: Henry[®] Metal Clad[®] Self-Adhered Water Resistive Air Barrier (or approved equal).
 - b. Color: Metallic Aluminum
 - c. Thickness: 45 mils (1.14 mm)
 - d. Water Vapor Permeance (ASTM E96): 0.014 perms
 - e. Nail Sealability (ASTM D1970): Pass
 - f. Elongation (ASTM D412): 85%
 - g. Low Application Temperature: 20 degrees F (-7 degrees C)
 3. Non-vapor permeable, self-adhered water resistive air and vapor barrier consisting of an SBS rubberized asphalt compound integrally laminated to a blue engineered thermoplastic film surface; having the following typical physical properties:
 - a. Basis of design: Henry[®] Blueskin[®] SA Self-Adhered Water Resistive Air Barrier (or approved equal).
 - b. Color: Blue
 - c. Thickness: 40 mils (1 mm)
 - d. Water Vapor Permeance (ASTM E96): 0.86 perms
 - e. Nail Sealability (ASTM D1970): Pass
 - f. Elongation (ASTM D412-modified): 200% minimum
 - g. Low Application Temperature: 41 degrees F (5 degrees C)
 4. Low temperature non-vapor permeable, self-adhered water resistive air and vapor barrier consisting of an SBS rubberized asphalt compound integrally laminated to a blue engineered thermoplastic film surface; having the following typical physical properties:
 - a. Basis of Design: Henry[®] Blueskin[®] SALT Low Temp Self-Adhered Water Resistive Air Barrier (or approved equal).
 - b. Color: Blue
 - c. Thickness: 40 mils (1 mm)
 - d. Water Vapor Permeance (ASTM E96): 0.86 perms
 - e. Nail Sealability (ASTM D1970): Pass
 - f. Elongation (ASTM D412-modified): 200% minimum
 - g. Low Application Temperature: 10 degrees F (-12 degrees C)
- b. Vapor Permeable Flashing:
 1. Self-adhered water resistive vapor permeable air barrier consisting of a reinforced modified polyolefin tri-laminate film surface and patented adhesive technology with split-back poly-release film; having the following typical physical properties:

- a. Basis of design: Henry® Blueskin® VP160 Self-Adhered Water Resistant Air Barrier (or approved equal).
 - b. Color: Blue
 - c. Thickness: 23 mils (0.58 mm)
 - d. Water Vapor Permeance (ASTM E96): 29 perms
 - e. Nail Sealability (ASTM D1970): Pass
 - f. Low Application Temperature: 20 degrees F (-7 degrees C)
4. Sealants:
- a. Building Envelope Sealant:
 1. Moisture cure, medium modulus polymer modified sealing compound; having the following typical physical properties:
 - a. Basis of design: Henry® 925 BES Sealant (or approved equal).
 - b. Color: Varies
 - c. Elongation: 450 - 550%.
 - b. Termination Sealant:
 1. One-part high performance synthetic rubber sealant; having the following typical physical properties:
 - a. Basis of design: Henry® 212 All Purpose Crystal Clear Sealant (or approved equal).
 - b. Color: Clear
 - c. Elongation: 200% minimum
- C. Additional Materials:
1. Thru-Wall Flashing:
 - a. Non-vapor permeable self-adhered through-wall flashing consisting of an SBS rubberized asphalt compound integrally laminated to a yellow engineered thermoplastic film surface; having the following typical physical properties:
 1. Basis of design: Henry® Blueskin® TWF Thru-Wall Flashing (or approved equal).
 2. Color: Yellow
 3. Thickness: 40 mils (1.0 mm)
 4. Water Vapor Permeance (ASTM E96): 0.03 perms
 5. High Temperature Stability - Flow Resistance (ASTM D5147): Pass
 6. Low Application Temperature: 40 degrees F (4 degrees C)

PART 3 - EXECUTION

3.01. EXAMINATION

- A. Verification of Conditions:
1. Verify substrates to receive Work and surrounding adjacent surfaces are in accordance with Air Barrier Manufacturer's installation guide and as specified in this Section prior to installation of self-adhered air barrier assembly.
 2. Continuous substrate:
 - a. Existing substrate must be continuous and secured prior to application of air barrier.
 - b. Securely fasten sheathing panels and install flush to ensure a continuous substrate in accordance with Air Barrier Manufacturer's installation guide and as specified in this Section.
 - c. Fastener penetrations must be set flush with sheathing and fastened into solid backing.

- d. Refer to Air Barrier Manufacturer's details.
 3. Strike masonry joints flush.
 4. Concrete surfaces shall be smooth and without large voids, spalled areas or sharp protrusions. Refer to Air Barrier Manufacturer's details for substrate gap limitations.
 5. Remove concrete forms and allow new concrete to cure for a minimum of fourteen (14) days.
 6. Curing compounds or release agents used in concrete construction must be resin based without oil, wax or pigments.
 7. Do not install air barrier over substrates that are wet to touch.
- B. Notify Contractor in writing of any conditions that are not acceptable.
- C. The installing contractor shall examine and determine that surfaces and conditions are ready to accept the Work of this Section in accordance with the Air Barrier Manufacturer's installation guide and as specified in this Section. Commencement of Work or any parts thereof shall mean installer's acceptance of the substrate.
- D. Do not apply air barrier until substrate and environmental conditions are in accordance with Air Barrier Manufacturer's installation guide and as specified in this Section.

3.02. PREPARATION

- A. All surfaces must be sound, dry, clean, and free of oil, grease, dirt, excess mortar, frost, laitance, loose and flaking particles, or other contaminants.
- B. Protect adjacent surfaces not included in scope of Work to prevent spillage and overspray.
- C. Cap and protect exposed back-up walls against wet weather conditions during and after application of the air barrier assembly.

3.03. INSTALLATION

- A. Ensure substrate is ready to receive air barrier in accordance with Air Barrier Manufacturer's installation guide and as specified in this Section.
- B. Temperature limitation:
 1. Primary air barrier:
 - a. Substrate temperature must be above 20 degrees F (-7 degrees C) and rising.
 2. Auxiliary products:
 - a. Temperature limitations may vary. Refer to Air Barrier Manufacturer's product TDS for product specific temperature limitations.
- C. Application of flashing:
 1. Self-adhered flashing:

- a. Where required install adhesive/primer recommended by Air Barrier Manufacturer continuously at rate recommended ensuring complete substrate coverage of anticipated flashing installation area.
 1. Allow adhesive/primer to cure to a tacky film prior to application of flashing.
 2. Primed areas not covered by end of day must be re-primed prior to installation of flashing.
 - b. Measure and cut self-adhered flashing to ensure adequate length to achieve continuous coverage of desired installation.
 - c. Peel protective film from self-adhered flashing and align top of membrane verifying proper positioning prior to complete film removal and flashing placement.
 - d. Press self-adhered flashing firmly into place by applying hand pressure to the middle of the membrane and working the pressure to the edges; eliminating wrinkles and air bubbles.
 - e. Install self-adhered flashings in shingle fashion to eliminate reverse laps.
 - f. Where required, prime laps at rate recommended by Air Barrier Manufacturer to ensure complete coverage of anticipated lap installation.
 - g. Lap adjoining edges a minimum of two (2) inches.
 - h. Roll flashing and laps with countertop roller to obtain thorough adhesion.
 - i. Seal reverse laps at self-adhered flashing with sealant. Sealant recommendations may vary due to product or sequence of construction. Refer to Air Barrier Manufacturer details for recommended sealant.
2. Liquid-applied flashing:
- a. Apply a uniform film of aerosol spray adhesive to raw edges of gypsum sheathing at rate recommended by Air Barrier Manufacturer completely encapsulating loose gypsum core at the cut edge of gypsum sheathing.
 - b. Allow adhesive to cure to a tacky film prior to application of liquid-applied flashing.
 - c. Apply flashing in accordance with and at rate recommended by Air Barrier Manufacturer.
 - d. Spread flashing to achieve a monolithic membrane over substrate requiring flashing.
 - e. Allow flashing to cure prior to subsequent installations.
- D. Detailing/Flashing:
1. Complete detailing and flashing installations per Air Barrier Manufacturer's installation guide, details, and this specification.
 2. Refer to Air Barrier Manufacturer details for further clarification and installation procedures including, but not limited to, the following:
 - a. Inside corners
 - b. Outside corners
 - c. Pipe penetrations
 - d. Shelf angles

- e. Wall to foundation transitions
 - f. Reverse laps
 - g. Construction joints
 - h. Rough openings:
 - 1. Install rough opening details per Window Manufacturer's installation guide details and in accordance with ASTM E2112.
 - 2. Wall assemblies containing a vapor retarder on the interior wall assembly:
 - a. Extend flashing into rough opening to ensure sufficient membrane for connection with vapor retarder and provide a continuous air barrier assembly.
3. Transitions:
- a. Contact Air Barrier Manufacturer to coordinate transition of self-adhered air barrier to adjacent areas including, but not limited to, the following:
 - 1. Roof to air barrier
 - 2. Air barrier to vertical or horizontal waterproofing
 - 3. Fastener penetrations
- E. Application of Primary Sheet-Applied Vapor Permeable Water Resistive Air Barrier:
- 1. Where required, install adhesive/primer recommended by Air Barrier Manufacturer continuously and at rate recommended by Air Barrier Manufacturer to ensure complete substrate coverage of anticipated flashing installation area.
 - a. Allow adhesive/primer to cure to a tacky film prior to application of air barrier.
 - b. Primed areas not covered by end of day must be re-primed prior to installation of air barrier.
 - 2. Peel protective film from primary air barrier and align top of verifying proper positioning prior to complete film removal and placement.
 - 3. Press primary air barrier firmly into place by applying hand pressure to the middle of the membrane and working the pressure to the edges; eliminating wrinkles and air bubbles.
 - 4. Install primary air barrier in shingle fashion to eliminate reverse laps.
 - 5. For lap adhesion enhancements, install standard or low VOC adhesive continuously and at rate recommended by Air Barrier Manufacturer to ensure substrate coverage of anticipated flashing installation area.
 - a. Allow adhesive/primer to cure to a tacky film prior to subsequent primary air barrier installation.
 - 6. Horizontal applications:
 - a. Horizontal seams: two (2) inch minimum.
 - b. Vertical seams: three (3) inch minimum.
 - 7. Roll primary air barrier and laps with countertop roller to obtain thorough adhesion.
 - 8. Seal permanent reverse laps of primary air barrier with termination sealant.

- F. Special Considerations:
1. Contact Air Barrier Manufacturer to verify product and installation requirements.
 2. Wall assemblies identified as special conditions and requiring supplemental detailing may include, but are not limited to, any of the following:
 - a. Panelized wall assemblies.
 - b. Sloped wall assemblies.
 - c. Rainscreen cladding systems permitting permanent direct exposure to bulk water onto the primary air barrier within a completed wall assembly.
 - d. Claddings impeding drainage and/or promoting hydrostatic pressure:
 1. Horizontal Z-girts or furring strips installed directly onto air barrier in a manner to encourage water collection.
- G. Fastener Penetrations Through Primary Air Barrier:
1. It is the responsibility of the installer penetrating the air barrier assembly to install fasteners and components in accordance with the Air Barrier Manufacturer's installation guide and as specified in this Section.
 2. Installation requirements:
 - a. Drill fasteners and components with sufficient compression to maintain continuity in the air barrier assembly.
 - b. Refer to "Self-tapping fasteners" and/or "Pre-drilled fasteners".
 3. Supplemental sealant:
 - a. Penetrations that do not meet installation requirements require the addition of termination sealant at point of insertion through the air barrier to maintain continuity in the air barrier assembly.
 4. Self-tapping fasteners:
 - a. Fastener head/assembly component must be larger in diameter than the fastener shank.
 - b. Install fastener head/assembly component to provide a continuous compression firmly against the air barrier creating a gasketing seal without damaging the membrane.
 - c. Do not install fastener components through the air barrier over unsupported areas of the substrate such as sheathing joints.
 - d. Remove overdriven fasteners, improperly installed fasteners, defective/broken fasteners, or fasteners not properly fastened into the building structure beyond the air barrier membrane and seal the vacated hole with termination sealant prior to the installation of the exterior cladding.
 5. Pre-drilled fastening assemblies:
 - a. Fastening head/assembly component must be larger in diameter than predrilled hole.
 - b. Install fastening head/assembly component to provide a continuous compression firmly against the air barrier creating a gasketing seal without damaging the membrane.

- c. Do not install fastening components through air barrier over unsupported areas of the substrate such as sheathing joints.
- d. Seal improperly drilled and/or vacated holes with termination sealant prior to the installation of the exterior cladding.

3.04. FIELD QUALITY CONTROL

- A. Final Observation and Verification:
 - 1. Owner's representative, General Contractor, or Air Barrier Manufacturer shall complete the final inspection of the air barrier assembly as required by warranty.
 - a. Contact Air Barrier Manufacturer for warranty issuance requirements.
- B. Install cladding as soon as practical after application. Air barrier assembly not designed for permanent UV exposure. Refer to Air Barrier Manufacturer's product TDS for product limitations.

3.05. CLEANING

- A. As the Work proceeds, and upon completion, promptly clean up and remove from the premises all rubbish and surplus materials resulting from the foregoing Work.
- B. Clean soiled surfaces, spatters, and damage caused by Work of this Section.
- C. Check area to ensure cleanliness and remove debris, equipment, and excess material from the site.

END OF SECTION - 07 27 00