*(**Specifier Note**: The purpose of this guide specification is to assist the specifier in correctly specifying New England Thinstones. The specifier needs to edit these guide specifications to fit the needs of each specific project. Contact New England Thinstones to assist in appropriate product selections. Throughout the guide specification, there are Specifier Notes to assist in the editing of the file. Specifier Notes should be deleted after editing has been completed. The term Architect is used throughout these guide specifications and may be revised to read "Design Professional"," Engineer", "Owner" or other appropriate designation as required for specific project.*

References have been made within the text of the specification to the current MasterFormat Section numbers and titles, the specifier needs to coordinate these numbers and titles with sections included for the specific project. Brackets [ ]; "AND/OR"; and "OR" have been used to indicate when a selection is required.

This guide is for New England Thinstones installed on a mortar setting bed with portland cement grout joints. This method of installation can be used for applications either outside or inside. Mortar, pointing mortar and waterproof membrane materials that are specified in this guide spec are products recommended for use by New England Thinstones for stone masonry veneer installation. If other grout and mortar products are used verify the use of those products with New England Thinstones.

SECTION 04 43 13
STONE MASONRY VENEER
New England Thinstones

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Thin stone masonry veneer set in mortar over an [exterior] [interior] substrate of [cast-in-place concrete] [concrete masonry units] [exterior grade sheathing] [cement board].

B. Mortar and pointing mortar.

*(**Specifier Note:** COORDINATE; Waterproofing membrane can be specified as a part of this section or, when used in conjunction with other building materials, can be specified in Division 07.)*

C. Waterproof Membrane.

*(**Specifier Note:** The Design Professional should coordinate related specification sections. The following are possible related sections requiring coordination Division 01 Section "Sustainable Design Requirements" for LEED/Sustainable general requirements, Division 04 "Unit Masonry" for masonry substrates, Division 05 "Cold-Formed Metal Framing" for support framing of Stone Masonry Veneer, Division 06 "Rough Carpentry" for support framing of Stone Masonry Veneer, Division 07 waterproof membrane section for transition and flashing components of waterproof membrane, Division 07 Section "Sheet Metal Flashing and Trim" for sheet metal copings,*

flashings, and reglets, Division 07 Section "Joint Sealants" for field-applied joint sealants and Division 09 interior sections for coordination of finish materials adjacent to stone masonry veneer.

*(**Specifier Note:** The CSI Construction Specifications Practice Guide recommends the inclusion of the date of the reference standard. In lieu of the inclusion of the date herein, the specifier may include the following statement in Section 01 42 00 – References: "The date of the standard is that in effect as of the date of receipt of bids for the project.")*

*(**Specifier Note**: COORDINATE References Article and delete reference standards that are deleted in the body of the spec during editing.*

1.2 REFERENCES

A. American National Standards Institute (ANSI):

1. ANSI A108 – Specification for the Installation of Ceramic Tile.
2. ANSI A108.01 – General Requirements: Subsurfaces and Preparations by Other Trades.
3. ANSI A108.02 – General Requirements: Materials, Environmental, and Workmanship.
4. ANSI A108.10 – Installation of Grout in Tilework.
5. ANSI A108.13 – Installation of Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone.
6. ANSI A118.4 – American National Standard for Latex-Portland Cement Mortar.
7. ANSI A118.9 – American National Standard Specifications for Test Methods and Specifications for Cementitious Backer Units.
8. ANSI A118.10 – Installation of Grout in Tilework.
9. ANSI A118.12 – American National Standard Specifications for Crack Isolation Membranes for Thin-Set Ceramic Tile and Dimension Stone Installation.

B. ASTM International (ASTM):

1. ASTM A240 – Standard Specification for Chromium and Chromium Nickel Stainless Steel Plate, Sheet and Strip for Pressure Vessels and for General Applications.
2. ASTM A653 – Standard Specification for Steel Sheet, Zinc Coated (Galvanized) or Zinc Iron Alloy Coated (Galvannealed) by the Hot Dip Process.
3. ASTM A666 – Standard Specification for Annealed or Cold Worked Austenitic Stainless Steel Sheet, Strip, Plate and Flat Bar.
4. ASTM C91 – Standard Test Method for Masonry Cement.
5. ASTM C847 – Standard Test Method for Metal Lath.
6. ASTM C1325 – Standard Test Method for Non Asbestos Fiber Mat Reinforced Cementitious Backer Units.
7. ASTM D227 – Standard Specification for Coal Tar Saturated Organic Felt Used in Roofing and Waterproofing.
8. ASTM D4397 – Standard Specification for Polyethylene Sheeting for Construction, Industrial and Agricultural Applications.

C. Leadership in Energy and Environmental Design (LEED)

D. Masonry Standards Joint Committee (MSJC)

1. ACI 530.1/ASCE 6/TMS 602 – Specification for Masonry Structures; Cold and hot weather requirements for mortar and grout.

E. National Concrete Masonry Association (NCMA)

1. TEK 10-2B – Control Joints for Concrete Masonry Walls – Empirical Method.

F. National Green Building Standard (NGBS)

G. The Brick Industry Association (BIA)

1. Technical Notes – 18A: Accommodating Expansion of Brickwork.

H. Tile Council of North America, Inc. (TCNA)

1.3 SUBMITTALS

A. Refer to Section [01 33 00 Submittal Procedures] [insert section number and title].

B. Product Data: For materials other than water and aggregates.

C. Samples of [stone masonry units,] [pointing mortar color,] [and] [sealant colors].

*(**Specifier Note**: DELETE LEED submittal requirements when project is not pursuing LEED certification.)*

D. LEED Submittals:

1. Material and Resources (MR)

a. Product Certificates for Credit MR 5: For products and materials required to comply with requirements for regionally manufactured materials. Include statement indicating cost, location of manufacturer, and distance to Project for each regionally manufactured material.

*(**Specifier Note**: COORDINATE; IEQ Credit is for interior applications of stone masonry veneer.)*

2. Indoor Environmental Quality (IEQ)

a. Product Data for Credit IEQ 4.1: For sealants, including printed statement of VOC content

*(**Specifier Note**: DELETE NGBS submittal requirements when project is not a residential project or project is not pursuing National Association of Home Builders certification. Credits are for NGBS for New Construction version 2008.)*

E. NGBS Submittals:

1. Practice 601 – Quality of Construction Materials and Waste

a. Practice 601.7: Provide a list of building materials that do not require additional site applied finishes. Include manufacturer's product literature showing type of finish applied to building materials.

*(**Specifier Note**: Verify location of New England Thinstones facility in relation to the project site when pursuing Practice 608.1.)*

2. Practice 608 – Indigenous Materials

a. Practice 608.1: Provide documentation indicating manufacturing location of indigenous materials that are extracted, processed, and manufactured within 500 miles of project site.

3. Practice 1001 – Building Owners' Manual for One- and Two-Family Dwellings

a. Practice 1001.1(20): Provide documentation indicating how to maintain and care for material.

F. Closeout Submittals:

1. Refer to Section [01 78 00 Closeout Submittals] [insert Section number and title].

1.4 QUALITY ASSURANCE

A. Mock-up:

1. Install mock-up using approved thin stone veneer including related accessories.

a. Mock-up size: [10 feet by 10 feet] [insert size].
b. Mock-up may [not] remain as part of the work.

B. Pre-installation Conference:

1. Refer to Section [01 31 19 Project Meetings] [insert section number and title].
2. Hold a pre-installation conference, prior to start of stone veneer installation. Attendees shall include Contractor, Architect, installer, Owner's Representative, and manufacturer's designated representative.
3. Review related project requirements and submittals, status of substrate work and preparation, areas of potential conflict and interface, availability of thin stone veneer and components, installer's qualifications, equipment, and coordinate methods, procedures and sequencing requirements for installation and protection.

1.5 PROJECT CONDITIONS

*(**Specifier Note**: COORDINATE; retain two weather paragraphs below for exterior applications of stone masonry veneer.)*

A. Cold-Weather Protection: Do not use frozen materials or build on frozen mortar beds.

B. Exterior Weather Limitations for Mortar and Grout:

1. Cold-Weather Requirements: Comply with cold-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.
2. Hot-Weather Requirements: Comply with hot-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602. Do not apply mortar when substrate temperatures exceed 90 deg F.

*(**Specifier Note**: COORDINATE; retain paragraph below for interior applications of stone veneer.)*

C. Maintain interior ambient temperatures not less than 50 degrees F or more than 90 degrees F during installation and for a minimum of seven (7) days after completion.

1.6 WARRANTY

*(**Specifier Note**: COORDINATE; 25 year warranty is for installation of stone masonry veneer over exterior and interior concrete and masonry wall substrates. 15 year warranty is for installation of stone masonry veneer over exterior and interior sheathed wood and steel framed walls.*

A. Provide mortar manufacturer's standard warranty of installation systems, including setting mortar, pointing mortar and waterproof membrane, for a period of [25] [15] years. Warranty shall cover materials and labor.

PART 2 - PRODUCTS

2.1 STONE MASONRY VENEER

A. Manufacturer: New England Thinstones; www.Thinstones.com. 203-333-5300.

*(**Specifier Note**: DELETE or COORDINATE Substitution Limitations paragraph if substitutions are addressed in Section 01 21 00 – Substitution Procedures.)*

B. Substitution Limitations:

1. Submit written request for approval of substitutions to the Architect [a minimum of [14] days prior to the date for receipt of bids] [Insert time period]. Include the following information:

a. Name of the materials and description of the proposed substitute.
b. Drawings, cut sheets, performance and test data.

c. List of projects of similar scope.
d. Test reports indicating compliance with the performance criteria.
e. Other information necessary for evaluation.

2. After evaluation by Architect, approval will be issued via addendum. No verbal approval will be given.
3. Substitutions following award of contract are not allowed except as stipulated in Division 01 – General Requirements.

C. Product, provide the following:

*(**Specifier Note**: EDIT; Select stone and pattern to meet specific project requirements. Ledge pattern can be done either with mortar joints or installed dry stack method, with no mortar joints.)*

1. Stone: [Aspen] [Berkshire] [Byram Blue] [Cambridge Tan] [Canterbury] [Cedar Hill] [Chesterfield] [Grey Rose] [Liberty] [New England] [Old Country] [Oxford Blend] [Silver Ridge] [Winchester].

a. Pattern: [Ashlar] [Ledge] [Mosaic] [Square and Rectangle]

[OR]

2. Stone: Antique Moss.

a. Pattern: [Ledge] [Mosaic]

[OR]

3. Stone: [Alpine Blend] [River Rounds] [Rounds [Small] [Medium].

a. Pattern: Random

2.2 MORTAR SETTING MATERIALS

A. Mortar Bed: Polymer modified Portland cement with graded aggregates; factory prepared per ANSI A118.4.

1. Product: Laticrete International, Inc.; Premium Mortar Bed.

B. Thin Bed Mortar: Polymer modified mortar; factory prepared per ANSI A118.4.

1. Product: Laticrete International, Inc.; Masonry Veneer Mortar.

*(**Specifier Note**: DELETE; where stone is installed in a Ledge pattern, dry stack, without mortar joints, delete "Pointing Mortar" paragraph.*

C. Pointing Mortar:

1. Pointing Mortar: ASTM C91, factory prepared cementitious mortar. "Masonry Pointing Mortar" as manufactured by Laticrete International, Inc.
2. Mortar additive: Liquid used in place of water which inhibits staining caused by bacteria, mold and mildew. "Mortar Enhancer" as manufactured by Laticrete International, Inc.

D. Flashing Mortar: ANSI A118.10, multi-component, factory prepared, epoxy based waterproofing. "Latapoxy Waterproof Flashing Mortar" as manufactured by Laticrete International, Inc.

E. Water: Potable.

2.3 MORTAR MIXES

A. General: Comply with referenced standards and with manufacturers' written instructions Discard mortars and grout if they have reached their initial set before being used.

B. Mortar Bed: Mix fortified mortar and water to a creamy consistency, per manufacturer's instructions.

C. Thin Bed Mortar: Mix thin bed mortar and water to a creamy consistency, per manufacturer's instructions.

*(**Specifier Note**: DELETE; where stone is installed in a Ledge pattern, dry stack, without mortar joints, delete "Pointing Mortar" paragraph.*

D. Pointing Mortar: Mix pointing mortar with mortar additive per manufacturer's instructions.

E. Flashing Mortar: Mix per manufacturer's instructions.

2.4 MEMBRANES

*(**Specifier Note**: Waterproof membrane can be provided in this section or in Division 07, coordinate location.)*

*(**Specifier Note**: Waterproof membrane is to be used when thin stone veneer is to be applied to exterior walls of habitable spaces.)*

A. Waterproof Membrane: ANSI A118.10 and A118.12, load-bearing, single component, self curing rubber polymer.

1. Product: Laticrete International, Inc.; Air and Water Barrier.

[OR]

B. [Waterproof Membrane: Refer to Section [07 14 00 Fluid-Applied Waterproofing] [insert Section number and title].]

*(**Specifier Note**: The cleavage membrane is not intended as and impermeable membrane, its purpose is to separate the mortar bed from the substrate to prevent the two from bonding. The cleavage membrane also protects the substrate from moisture and vapor inherent in the mortar bed.)*

C. Cleavage Membrane: [15 pound non-perforated roofing felt complying with ASTM D227] [4 mil polyethylene film complying with ASTM D4397].

*(**Specifier Note**: COORDINATE; use Edge Molding for interior applications at the junction of the wall surface and floor.)*

D. Edge Molding: Fabricated from [aluminum] [galvanized steel], provide perforated flanges.

*(**Specifier Note**: COORDINATE; BIA Technical Note 18A, TCNA and NCMA TEK 10-2B have recommendations for expansion joints in masonry veneer. Typically expansion joints are located at horizontal floor and ceiling lines, changes in substrate material, inside corners and wall openings. It is the Design Professional's responsibility to determine where expansion joints should be located, based on this information, and indicate locations on the Drawings.*

E. Expansion Joint: Fabricated from [aluminum] [galvanized steel], 2 piece construction with slip-joint and square edge reveal, provide perforated flanges.

2.5 FLASHING MATERIALS

*(**Specifier Note**: Stainless steel Type 316 is more resistant to corrosion, use in humid or coastal areas.)*

A. Sheet Metal Flashing: Stainless steel, 2D finish and not less than 0.025 inch thick, meeting requirements of ASTM A240 or ASTM A666, Type [304] [316].

2.6 ACCESSORIES

*(**Specifier Note**: EDIT; to suit specific project requirements. Expanded-Metal Lath is used in conjunction with a mortar bed when applied to concrete, masonry or exterior sheathing substrates. Refer to PART 3 – EXECUTION; Article titled "Installation* - Reinforced Leveling Mortar Bed Method" *for installation methods using metal lath for reinforced mortar beds.)*

A. [Expanded-Metal Lath: ASTM C 847 with ASTM A 653/A 653M, G60, hot-dip galvanized zinc coating.

1. Diamond-Mesh Lath: Self-furring, 3.4 lb/sq. yd.]

*(**Specifier Note**: Cement board can be specified in this section or in Division 09, coordinate location. Only use cement board that is rated for exterior use. Refer to PART 3 – EXECUTION; Article titled "Installation – Cement Board Method" for installation methods using cement board as a substrate.)*

B. Cement Board: Cementitious panels with glass mesh reinforcement, both faces, exterior grade meeting the requirements of ASTM C1325 or ANSI A118.9.

[OR]

C. [Cement Board: Refer to [Section 09 28 00 – Backing Boards and Underlayments] [insert Section number and title].]

D. Cement board joint tape: 2 inch wide alkali resistant reinforcing mesh.

*(**Specifier Note**: Sealant maybe specified in this section or in Division 07, coordinate location.)*

E. Sealant: A single component neutral cure silicone joint sealant; Grade – Non-sag; non-traffic exposure; Class 25.

1. Product: Laticrete International, Inc.; Latasil.
2. Backer Rod and bond breaker tape as recommended by sealant manufacturer.
3. Sealant Primer as recommended by sealant manufacturer.
4. Color: [As selected by Architect from manufacturer's standard color line] [insert color].

[OR]

F. [Sealant: [Refer to Section 07 92 00 – Joint Sealants] [insert Section number and title].]

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that substrates are complete and ready for the work of this Section.

B. Concrete and masonry substrates:

1. Verify that concrete surfaces have a wood float finish.
2. Verify that surfaces are free of dust, dirt, oil, curing compounds and efflorescence.
3. Surfaces should be cured a minimum of 28 days at 70 degrees F.

C. Substrate tolerances: Maximum of 1/16 inch in 1 foot, with a maximum of 1/32 between adjoining edges.

*(**Specifier Note**: COORDINATE; When waterproofing membrane is provided under this section delete paragraph verifying completion of membrane installation.)*

D. [Verify that waterproofing membrane work is complete and ready for the work of this Section.]

*(**Specifier Note**: DELETE; weather barrier installation verification if no weather barrier is required based on project requirements.)*

E. Verify that weather barrier installation is complete and ready for the work of this Section.

F. Beginning of installation means acceptance of surface conditions.

3.2 FLASHING INSTALLATION

A. Install flashing to direct water to building exterior.

B. Install flashing plumb and level, using longest practical lengths to minimize number of lap joints.

C. Secure flashing to substrate using screw fasteners.

D. Form neat and aligned 4 inch lap joints in horizontal flashing, seal laps with flashing mortar.

3.3 STONE VENEER INSTALLATION - GENERAL

A. Install stone veneer in accordance with ANSI A108 and as indicated below.

B. Install lathing and mortar bed in accordance with ANSI A108.01 and as indicated below.

C. Use manufacturer's standard stone veneer corner units at all outside corners.

D. Do not install chipped or cracked stone veneer.

E. Expansion Joints:

1. Layout expansion joints prior to beginning installation of stone masonry veneer.
2. Place expansion joints where indicated on Drawings and in accordance with BIA Technical Note 18A, TCNA EJ171 and NCMA TEK 10-2B.
3. Saw-cut stones to maintain continuous and straight horizontal and vertical expansion joints.
4. Fill expansion joints with sealant as recommended by sealant manufacturer.

3.4 INSTALLATION - DIRECT BOND METHOD

A. Direct bond method over concrete surfaces

1. Install stone veneer in accordance with TCNA Installation Method W202E and Laticrete Architectural Guidebook v2.0.5; Execution Statement Number MVIS-E102.

*(**Specifier Note**: DELETE membrane Article if membrane is provided under Division 07 or if stone veneer is being installed over walls of basements or crawl spaces that are not habitable.)*

2. Waterproof Membrane:

   a. Pre-treat cracks, joints, penetrations with material as approved by waterproofing manufacturer. Allow to dry.
   b. Install two coats of waterproofing to comply with ANSI A108.1, ANSI A108.13 and manufacturer's written instructions to produce waterproof membrane of uniform thickness and bonded securely to substrate.
   c. Allow membrane to cure a minimum of 2 hours at 70 degrees F and 50 percent relative humidity.

3. Lay out stone veneer prior to placement on substrate to minimize cutting of stone veneer. Take into account openings, movement joints, and offsets.
4. Apply thin bed mortar with appropriate notched trowel, over waterproof membrane, to thickness recommended by mortar manufacturer. Apply only as much mortar as can be covered with stone veneer while mortar is wet and tacky.
5. Back-butter stone masonry veneer.
6. Set stone veneer to ensure full bedding and flatness.
7. Remove excess mortar, do not allow mortar to dry on face of stone veneer.
8. Allow stone veneer to set until firm.

3.5 INSTALLATION – REINFORCED LEVELING MORTAR BED METHOD

A. Reinforced leveling mortar bed over [concrete surfaces] [masonry surfaces] [framed wall and exterior grade sheathing]:

*(**Specifier Note**: COORDINATE; execution statement numbers as follows: Concrete surfaces – MVIS-E101; masonry surfaces – MVIS E104; framed wall and exterior grade sheathing – MVIS-101.)*

1. Install stone veneer in accordance with TCNA Installation Method W201E and Laticrete Architectural Guidebook v2.0.5; Execution Statement Number [MVIS-E101] [MVIS- E104] [MVIS-101].
2. Install Cleavage Membrane per the requirements of ANSI A108.02.
3. Place metal lath over cleavage membrane; install in accordance with ANSI A108.01.
4. Apply scratch coat over metal lath, followed by a leveling coat to provide a mortar bed which is plumb and true. Install mortar bed in accordance with ANSI A108.01. Allow mortar bed to cure.

*(**Specifier Note**: DELETE waterproof membrane paragraph if membrane is provided under Division 07 or if stone veneer is being installed over concrete or masonry walls of basements or crawl spaces that are not habitable.)*

5. Waterproof Membrane:

    a. Pre-treat cracks, joints, penetrations with material as approved by waterproofing manufacturer. Allow to dry.
    b. Install two coats of waterproofing to comply with ANSI A108.1, ANSI A108.13 and manufacturer's written instructions to produce waterproof membrane of uniform thickness and bonded securely to substrate.
    c. Allow membrane to cure a minimum of 2 hours at 70 degrees F and 50 percent relative humidity.

6. Lay out stone veneer prior to placement on substrate to minimize cutting of stone veneer. Take into account openings, movement joints, and offsets.
7. Apply thin bed mortar with appropriate notched trowel, over waterproof membrane, to thickness recommended by mortar manufacturer. Apply only as much mortar as can be covered with stone veneer while mortar is wet and tacky.
8. Back-butter stone masonry veneer.
9. Set stone veneer to ensure full bedding and flatness.
10. Remove excess mortar, do not allow mortar to dry on face of stone veneer.
11. Allow stone veneer to set until firm.

3.6 INSTALLATION – UNREINFORCED LEVELING MORTAR BED

A. Unreinforced leveling mortar bed over concrete or concrete masonry unit surfaces:

1. Install stone veneer in accordance with Laticrete Architectural Guidebook v2.0.5; Execution Statement Number MVIS-E103.
2. Apply scratch coat over masonry surfaces, followed by a leveling coat to provide a mortar bed which is plumb and true. Allow mortar bed to cure.

*(**Specifier Note**: DELETE waterproof membrane paragraph if membrane is provided under Division 07 or if stone veneer is being installed over walls of basements or crawl spaces that are not habitable.)*

3. Waterproof Membrane:

    a. Pre-treat cracks, joints, penetrations with material as approved by waterproofing manufacturer. Allow to dry.
    b. Install two coats of waterproofing to comply with ANSI A108.1, ANSI A108.13 and manufacturer's written instructions to produce waterproof membrane of uniform thickness and bonded securely to substrate.
    c. Allow membrane to cure a minimum of 2 hours at 70 degrees F and 50 percent relative humidity.

4. Apply thin bed mortar with appropriate notched trowel, over waterproof membrane, to thickness recommended by mortar manufacturer. Apply only as much mortar as can be covered with stone veneer while mortar is wet and tacky.
5. Back-butter stone masonry veneer.
6. Set stone veneer to ensure full bedding and flatness.
7. Remove excess mortar, do not allow mortar to dry on face of stone veneer.
8. Allow stone veneer to set until firm.

3.7 INSTALLATION – CEMENT BOARD METHOD

A. Cement Board over framed wall and exterior grade sheathing:

1. Install stone veneer in accordance with TCNA Installation Method W244E and Laticrete Architectural Guidebook v2.0.5; Execution Statement Number MVIS-101CBB.
2. Install Cleavage Membrane over exterior grade sheathing per the requirements of ANSI A108.02.
3. Install cement board per cement board manufacturer's printed instructions and in accordance with ANSI A118.9. Tape all board joints and embed tape in thin bed mortar.

*(**Specifier Note**: DELETE membrane Article if membrane is provided under Division 07 section.)*

4. Waterproof Membrane:

   a. Pre-treat cracks, joints, penetrations with material as approved by waterproofing manufacturer. Allow to dry.
   b. Install two coats of waterproofing to comply with ANSI A108.1, ANSI A108.13 and manufacturer's written instructions to produce waterproof membrane of uniform thickness and bonded securely to substrate.
   c. Allow membrane to cure a minimum of 2 hours at 70 degrees F and 50 percent relative humidity.

5. Apply thin bed mortar with appropriate notched trowel, over waterproof membrane, to thickness recommended by mortar manufacturer. Apply only as much mortar as can be covered with stone veneer while mortar is wet and tacky.
6. Back-butter stone masonry veneer.
7. Set stone veneer to ensure full bedding and flatness.
8. Remove excess mortar, do not allow mortar to dry on face of stone veneer.
9. Allow stone veneer to set until firm.

B. Cement Board over framed interior wall:

1. Install stone veneer in accordance with TCNA Installation Method W244C.
2. Install cement board per cement board manufacturer's printed instructions and in accordance with ANSI A118.9. Tape all board joints and embed tape in thin bed mortar.

3. Apply thin bed mortar with appropriate notched trowel to thickness recommended by mortar manufacturer. Apply only as much mortar as can be covered with stone veneer while mortar is wet and tacky.
4. Back-butter stone masonry veneer.
5. Set stone veneer to ensure full bedding and flatness.
6. Remove excess mortar, do not allow mortar to dry on face of stone veneer.
7. Allow stone veneer to set until firm. Minimum 24 hours at 70 degrees F.

*(**Specifier Note**: COORDINATE; if installing stone veneer using the dry stack method, without mortar joints, delete "Pointing Stone Veneer" article. Installing stone veneer in a dry stack method is done using the "Ledge" stone pattern.*

3.8 POINTING STONE VENEER

A. Verify that joints to be grouted are free of dirt, debris, and wedges or spacers.

B. Surface temperature must be between 40 and 90 degrees F prior to grouting.

C. Dampen surfaces prior to grouting.

D. Grout joints as soon as possible after initial set of setting bed and in compliance with ANSI A108.10.

E. Apply grout using pointing bag, force grout into joints taking care not to get grout on adjacent stone surfaces. Strike joints clean after initial set using striking or joint tool.

F. Remove excess grout using masonry brush or sponge, do not over wash grout joint.

G. Grout joints at sheet metal flashing by applying Flashing Mortar to seal joint between stone veneer and sheet metal flashing. Apply Flashing Mortar in accordance with manufacturer's instructions.

H. Cure grout by maintaining in a damp condition for seven days unless otherwise recommended by grout manufacturer.

3.9 PROTECTION

A. Protect completed work minimum 72 hours or until mortar bed and grout have fully cured.

B. Protect portland cement based mortars and grouts from direct sunlight, radiant heat, forced ventilation (heat and cold), and drafts until cured to prevent premature evaporation of moisture.

END OF SECTION