



Tile & Stone Installation Systems

Twenty-Five (25) Year Project Limited Warranty

Warranty # 260235

Clients of Elm Surfaces

PROJECT COVERED BY THIS WARRANTY:

Recipient Name:

Elm Surfaces

Recipient Address (Street):

1455 W. Hubbard Street

Recipient Address (City/State/ Zip Code):

Chicago, IL 60491

Recipient Phone/Fax/Email:

888-356-2019

Project Name:

Clients of Elm Surfaces

Project Address (Street):

Various locations

Project Address (City/State/Zip Code):

United States

Project Size (SF / m2):

TBD

Planned Job Completion Date: **On or before December 31, 2026**

Warranty Issuance Date: **March 9, 2026**

Issued By:

Shawn Mitcham, Technical Services

The individual signing above has the authority to bind MAPEI to the terms of this warranty. This warranty is effective only when the installation of our products does not exceed the Planned Job Completion Date specified above.

PRODUCT(S) COVERED BY THIS WARRANTY:

Surface Preparation Products:	Planitop® 330 Fast
Mortars:	Mapebond VM Mapebond VM Super Mapebond VM Lite
Grouts:	Mapebond VM Super Ultracolor® Plus FA Max Ultracolor® Plus FA
Sealants:	Mapesil™ T Plus

Miscellaneous Terms / Notes:

- FOR INTERIOR APPLICATIONS. Not to be used for installations within fireplaces or ovens.
- This annual warranty covers project installations through December 31, 2026 and may be renewed at that time.

In the event there is any conflict or inconsistency between the terms contained on this page and any other page of this warranty, the terms on this page shall control.



Tile & Stone Installation Systems

Twenty-Five (25) Year Project Limited Warranty

Warranty # 260235

Clients of Elm Surfaces

Warranty Coverage:

MAPEI Corporation ("MAPEI"), subject to the terms and conditions set forth below, warrants that our products will be free from manufacturing defects and will not fail under normal usage for the applicable warranty period stated in this Limited warranty ("warranty"), when the products purchased are used within their shelf life and according to (a) the technical data sheets and other written materials issued by MAPEI for the products (collectively, the "Product Literature") which are in effect at the time of the installation and (b) governmental regulations and codes, and standard industry practices. IN THE EVENT THERE IS ANY CONFLICT OR INCONSISTENCY BETWEEN THIS WARRANTY AND THE PROJECT DOCUMENTS (BID PROPOSALS, SPECIFICATIONS, CONTRACTS OR OTHERWISE) RELATING TO THIS PROJECT, THIS WARRANTY SHALL CONTROL AT ALL TIMES.

Exclusions from Warranty Coverage:

The following are specifically excluded from coverage under this warranty: structural failure, inadequate subflooring, or improper subfloor preparation; damages caused by Acts of God, including, but not limited to hurricane, flooding, earthquake or other types of natural disasters, or as a result of unforeseen circumstances; acts of negligence, or product misuse or abuse; failure to comply with our Product Literature, applicable building codes and regulations, and standard industry practices; variations of color, shade or texture from those shown on samples, product packaging or any other marketing materials; changes in color due to exposure to sunlight and age; subfloor moisture or water damage; normal wear and tear resulting from usage; efflorescence and shading inherent in all cementitious products; and cracking due to structural movement, excessive deflection or other failure of the substrate, including but not limited to substrate failures caused by Alkali Silica Reaction (ASR) or Near Surface Alkali Reaction (NSAR). It is expressly understood that your purchase of our product acknowledges that MAPEI is not responsible or liable under any circumstances for determining the suitability or compatibility of our products for the user's intended purpose.

Your Legal Rights:

This constitutes your entire express warranty for the products purchased. To the extent permitted by law, all other warranties, whether express or implied, including, but not limited to the implied warranties of **MERCHANTABILITY** and **FITNESS FOR A PARTICULAR PURPOSE** are EXCLUDED. ANY IMPLIED WARRANTIES ARISING BY OPERATION OF LAW ARE LIMITED IN DURATION TO THE TERM OF THIS WARRANTY. MAPEI WILL NOT PAY OR BE LIABLE UNDER ANY CIRCUMSTANCES FOR INCIDENTAL, CONSEQUENTIAL, SPECIAL OR EXEMPLARY DAMAGES, OR FOR LOST PROFITS OR BUSINESS INTERRUPTION LOSS. YET, SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU. No implied warranty can be modified by any course of dealing, course of performance or usage of trade. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. NO REPRESENTATION, PROMISE, AFFIRMATION OR STATEMENT BY ANY EMPLOYEE OR AGENT OF MAPEI WILL BE ENFORCEABLE AGAINST MAPEI UNLESS IT IS SPECIFICALLY INCLUDED IN THIS WARRANTY. This warranty: (a) shall commence on the date of purchase of our product and shall end as specified in this warranty; (b) is limited to the original purchaser and is nontransferable; and (c) applies only to purchases and installations of the products within the United States on or after April 27, 2022.

Filing a Claim:

To file a claim under this warranty, you must contact us, in writing, within fifteen (15) calendar days of the discovery of the alleged manufacturing defect in our products, at MAPEI Corporation, Attn: Technical Services Department, 1144 East Newport Center Drive, Deerfield Beach, Florida 33442. Proof of purchase must be submitted with any notice of claim. We have the right, without any obligation, to physically inspect, perform testing, and obtain samples at the site where the warranty claim occurred, or to engage an independent third party for those services before we determine the validity of your claim. In order to perform (or have performed) the services described in the prior sentence, the owner of the site consents to total access for such services and agrees to pay for those services and all related costs of MAPEI if the claim is invalid under this warranty. Your claim must be received and evaluated by us before any repair work is performed; otherwise, this warranty will be null and void. For the most up-to-date information regarding our warranty program and policy, please refer to our website at www.mapei.com/US-EN.

Your Exclusive Remedy:

If a MAPEI product is actually used in the installation and the product is proven defective within the applicable warranty period stated in this warranty, you will receive, as your sole remedy, MAPEI replacement product for only that specific portion of the original installation requiring replacement. If a MAPEI approved "system" of products is actually used in this project and any of those products are proven defective within the warranty time period, you will receive, as your sole remedy, MAPEI replacement product and reimbursement of your reasonable and substantiated material and labor costs for only that specific portion of the original installation requiring replacement, including flooring, not to exceed per square-foot cost of original installation.

All products shown must be installed according to their Technical Data sheets.

Technical Services Support Center

1-800-992-6273



Tile & Stone Installation Systems

Project Lifetime Warranty

Warranty # 260236

Clients of Elm Surfaces

PROJECT COVERED BY THIS WARRANTY:

Recipient Name: Elm Surfaces	Project Name: Clients of Elm Surfaces
Recipient Address (Street): 1455 W. Hubbard Street	Project Address (Street): Various Locations
Recipient Address (City/State/ Zip Code): Chicago, IL 60491	Project Address (City/State/Zip Code): United States
Recipient Phone/Fax/Email: 888-356-2019	Project Size (SF / m2): TBD

Planned Job Completion Date: **On or before December 31, 2026**

Warranty Issuance Date: **March 9, 2026**

Issued By:

Shawn Mitcham, Technical Services

The individual signing above has the authority to bind MAPEI to the terms of this warranty. This warranty is effective only when the installation of our products does not exceed the Planned Job Completion Date specified above.

PRODUCT(S) COVERED BY THIS WARRANTY:

Surface Preparation Products:	Planitop® 330 Fast
Mortars:	Mapebond VM Super Granirapid® System
Grouts:	N/A
Sealants:	N/A

Miscellaneous Terms / Notes:

- FOR EXTERIOR APPLICATIONS
- This annual warranty covers project installations through December 31, 2026 and may be renewed at that time.

In the event there is any conflict or inconsistency between the terms contained on this page and any other page of this warranty, the terms on this page shall control.



Tile & Stone Installation Systems

Project Lifetime Warranty

Warranty # 260236

Clients of Elm Surfaces

Warranty Coverage:

MAPEI Corporation ("MAPEI"), subject to the terms and conditions set forth below, warrants that our products will be free from manufacturing defects and will not fail under normal usage for the applicable warranty period stated in this Lifetime warranty ("warranty"), when the products purchased are used within their shelf life and according to (a) the technical data sheets and other written materials issued by MAPEI for the products (collectively, the "Product Literature") which are in effect at the time of the installation and (b) governmental regulations and codes, and standard industry practices. **FOR PURPOSES OF THIS WARRANTY A "LIFETIME" MEANS FOR SO LONG AS THE JOB INSTALLATION REMAINS UNCHANGED, WITHIN THE STATED FLOORING MANUFACTURER'S PERFORMANCE WARRANTY PERIOD FOR THE PRODUCT INSTALLED, AND IS PROPERLY MAINTAINED ACCORDING TO WRITTEN MANUFACTURER'S INSTRUCTIONS.** IN THE EVENT THERE IS ANY CONFLICT OR INCONSISTENCY BETWEEN THIS WARRANTY AND THE PROJECT DOCUMENTS (BID PROPOSALS, SPECIFICATIONS, CONTRACTS OR OTHERWISE) RELATING TO THIS PROJECT, THIS WARRANTY SHALL CONTROL AT ALL TIMES.

Exclusions from Warranty Coverage:

The following are specifically excluded from coverage under this warranty: structural failure, inadequate subflooring, or improper subfloor preparation; damages caused by Acts of God, including, but not limited to hurricane, flooding, earthquake or other types of natural disasters, or as a result of unforeseen circumstances; acts of negligence, or product misuse or abuse; failure to comply with our Product Literature, applicable building codes and regulations, and standard industry practices; variations of color, shade or texture from those shown on samples, product packaging or any other marketing materials; changes in color due to exposure to sunlight and age; subfloor moisture or water damage; normal wear and tear resulting from usage; efflorescence and shading inherent in all cementitious products; and cracking due to structural movement, excessive deflection or other failure of the substrate, including but not limited to substrate failures caused by Alkali Silica Reaction (ASR) or Near Surface Alkali Reaction (NSAR). It is expressly understood that your purchase of our product acknowledges that MAPEI is not responsible or liable under any circumstances for determining the suitability or compatibility of our products for the user's intended purpose.

Your Legal Rights:

This constitutes your entire express warranty for the products purchased. To the extent permitted by law, all other warranties, whether express or implied, including, but not limited to the implied warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE are EXCLUDED. ANY IMPLIED WARRANTIES ARISING BY OPERATION OF LAW ARE LIMITED IN DURATION TO THE TERM OF THIS WARRANTY. MAPEI WILL NOT PAY OR BE LIABLE UNDER ANY CIRCUMSTANCES FOR INCIDENTAL, CONSEQUENTIAL, SPECIAL OR EXEMPLARY DAMAGES, OR FOR LOST PROFITS OR BUSINESS INTERRUPTION LOSS. YET, SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU. No implied warranty can be modified by any course of dealing, course of performance or usage of trade. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. NO REPRESENTATION, PROMISE, AFFIRMATION OR STATEMENT BY ANY EMPLOYEE OR AGENT OF MAPEI WILL BE ENFORCEABLE AGAINST MAPEI UNLESS IT IS SPECIFICALLY INCLUDED IN THIS WARRANTY. This warranty: (a) shall commence on the date of purchase of our product and shall end as specified in this warranty; (b) is limited to the original purchaser and is nontransferable; and (c) applies only to purchases and installations of the products within the United States on or after April 27, 2022.

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Your Exclusive Remedy:

If a MAPEI product is actually used in the installation and the product is proven defective within the applicable warranty period stated in this warranty, you will receive, as your sole remedy, MAPEI replacement product for only that specific portion of the original installation requiring replacement. If a MAPEI approved "system" of products is actually used in this project and any of those products are proven defective within the warranty time period, you will receive, as your sole remedy, MAPEI replacement product and reimbursement of your reasonable and substantiated material and labor costs for only that specific portion of the original installation requiring replacement, including flooring, not to exceed per square-foot cost of original installation.

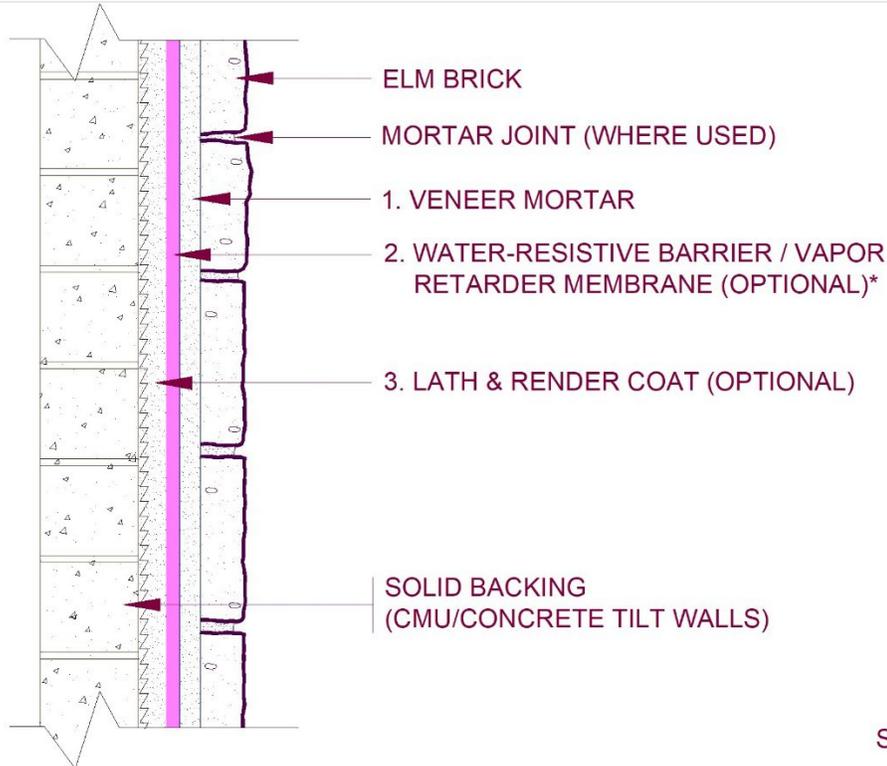
All products shown must be installed according to their Technical Data sheets.

Technical Services Support Center
1-800-992-6273

EXTERIOR WALLS: MSV-Figure 2

Render Coat with Lath (Optional)
Water Resistive Barrier
Solid Backing (CMU, Concrete Tilt Wall Panel)
Elm Brick

03.11.26



*VAPOR BARRIER, AIR BARRIER, WATER-RESISTIVE BARRIER, WATERPROOFING MEMBRANE, FLASHING AND INSULATION TYPE AND LOCATIONS TO BE DETERMINED BY THE PROJECT DESIGN PROFESSIONAL.

MAPEI Product Assembly

1. Veneer Mortar:

- A. *Granirapid*® System
- B. *Mapebond*® VM Lite
- C. *Mapebond*® VM Rapid
- D. *Mapebond*® VM Super
- E. *Mapebond*® VM †

2. Water-resistive Barrier / Vapor Retarder Membrane:

- A. *Mapelastic*® WP
- B. *Mapelastic*® WRP †

3. Render Coat with Lath (when needed):

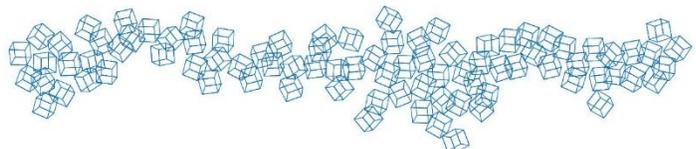
- A. *Modified Mortar Bed*
- **Flexible Sealant:**
 - A. *Mapesil*® T Plus
 - 1) With closed-cell backer rod and/or bond-breaker tape

† Cannot use Mapebond VM direct bond over Mapelastic WRB

CAD details and/or specifications are provided as guides. They are intended to assist in the proper detailing or specifying of a project. They are not to scale or intended for construction. The guide specification must be reviewed for code compliance and edited to make it project-specific. Drawings are based on the Tile Council of North America's (TCNA) Handbook for Ceramic, Glass, and Stone Tile Installation and the Terrazzo, Tile and Marble Association of Canada's (TTMAC) Tile Installation Manual. MAPEI products are listed as options and are substituted for TCNA's and TTMAC's listed ANSI and ISO (ISO 13007) standards. For natural stone tiles, refer to Natural Stone Institute, TCNA Natural Stone Tile Selection and Installation Guide and consult stone tile supplier for suitability. Please refer to the referenced handbooks and current data sheets for complete instructions and application limitations. Some installation methods and component materials may not be referenced. MAPEI encourages the user to consult all approved resources to ensure a complete assembly.



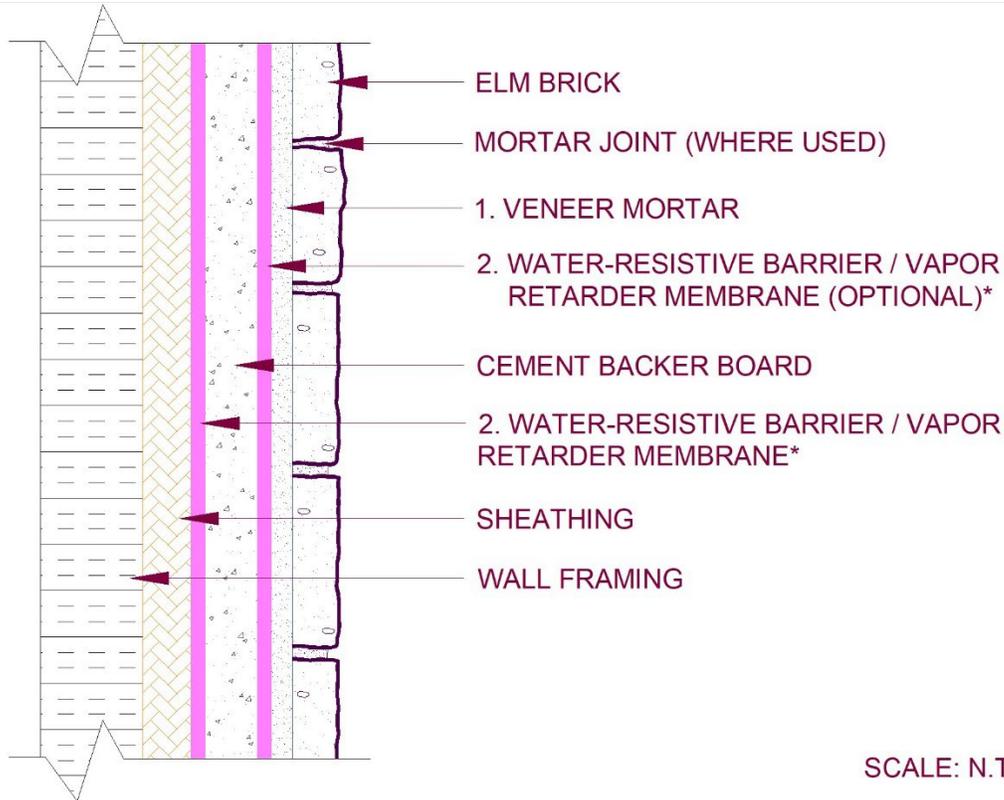
MAPEI Corporation
1144 E. Newport Center Drive
Deerfield Beach, FL 33442
Phone: 1-800-992-6273



EXTERIOR WALLS: MSV-Figure-4a-CBE

Sheathing/Cement Backer Board
Water Resistive Barrier
Elm Brick

03.11.26



*VAPOR BARRIER, AIR BARRIER, WATER-RESISTIVE BARRIER, WATERPROOFING MEMBRANE, FLASHING AND INSULATION TYPE AND LOCATIONS TO BE DETERMINED BY THE PROJECT DESIGN PROFESSIONAL.

MAPEI Product Assembly

1. Veneer Mortar:

- A. *Granirapid*® System
- B. *Mapebond*® VM Lite
- C. *Mapebond*® VM Rapid
- D. *Mapebond*® VM Super
- E. *Mapebond*® VM †

2. Water-resistive Barrier / Vapor Retarder Membrane:

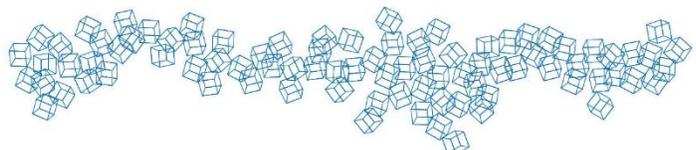
- A. *Mapelastic*® WP
- B. *Mapelastic*® WRP †

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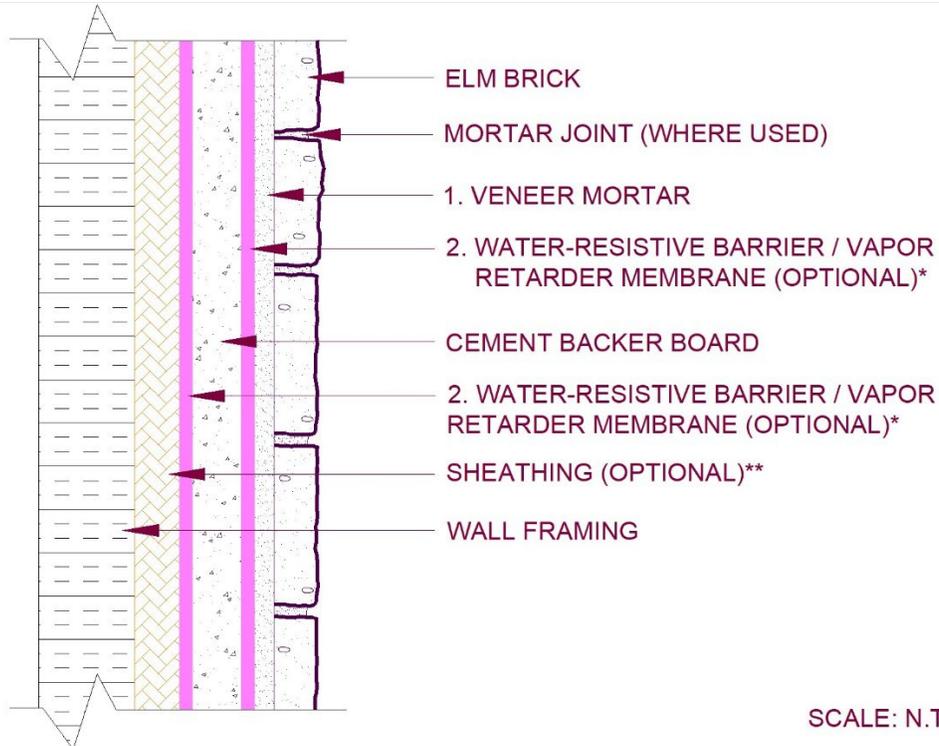
MAPEI Corporation
1144 E. Newport Center Drive
Deerfield Beach, FL 33442
Phone: 1-800-992-6273



INTERIOR WALLS: MSV-Figure-4a-CBI

Sheathing (Optional)/Cement Backer Board
Water Resistive Barrier (Optional)
Elm Brick

03.11.26



*VAPOR BARRIER, AIR BARRIER, WATER-RESISTIVE BARRIER, WATERPROOFING MEMBRANE, FLASHING AND INSULATION TYPE AND LOCATIONS TO BE DETERMINED BY THE PROJECT DESIGN PROFESSIONAL.

**INTERNAL SHEATHING OPTIONAL WITH CEMENT BOARD ONLY WHEN FRAMING IS NON-STRUCTURAL

MAPEI Product Assembly

1. Veneer Mortar:

- A. *Granirapid*® System
- B. *Mapebond*® VM Lite
- C. *Mapebond*® VM Rapid
- D. *Mapebond*® VM Super
- E. *Mapebond*® VM †

2. Water-resistive Barrier / Vapor Retarder Membrane:

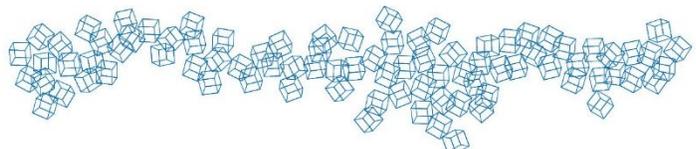
- A. *Mapelastic*® WP
- B. *Mapelastic*® WRP †

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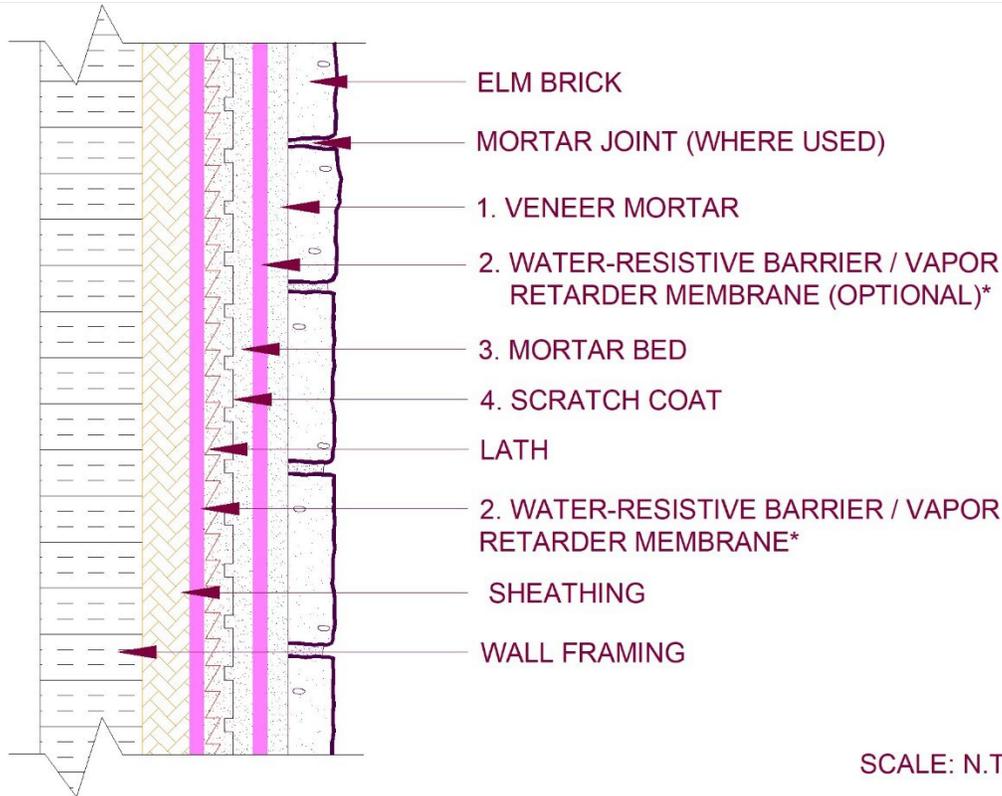
MAPEI Corporation
1144 E. Newport Center Drive
Deerfield Beach, FL 33442
Phone: 1-800-992-6273



EXTERIOR WALLS: MSV-Figure-4a-MBE

Sheathing/Mortar Bed
Water Resistant Barrier
Elm Brick

03.11.26



SCALE: N.T.S.

*VAPOR BARRIER, AIR BARRIER, WATER-RESISTIVE BARRIER, WATERPROOFING MEMBRANE, FLASHING AND INSULATION TYPE AND LOCATIONS TO BE DETERMINED BY THE PROJECT DESIGN PROFESSIONAL.

MAPEI Product Assembly

1. Veneer Mortar:

- A. *Granirapid*® System
- B. *Mapebond*® VM Lite
- C. *Mapebond*® VM Rapid
- D. *Mapebond*® VM Super
- E. *Mapebond*® VM †

2. Water-resistant Barrier / Vapor Retarder Membrane:

- A. *Mapelastic*® WP
- B. *Mapelastic*® WRP †

3. Mortar Bed:

- A. *Modified Mortar Bed*

4. Scratch Coat:

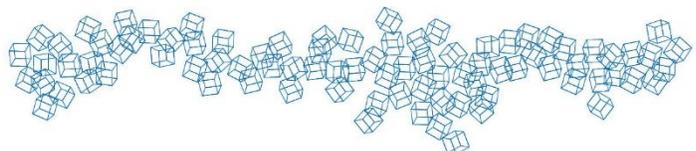
- A. *Modified Mortar Bed*

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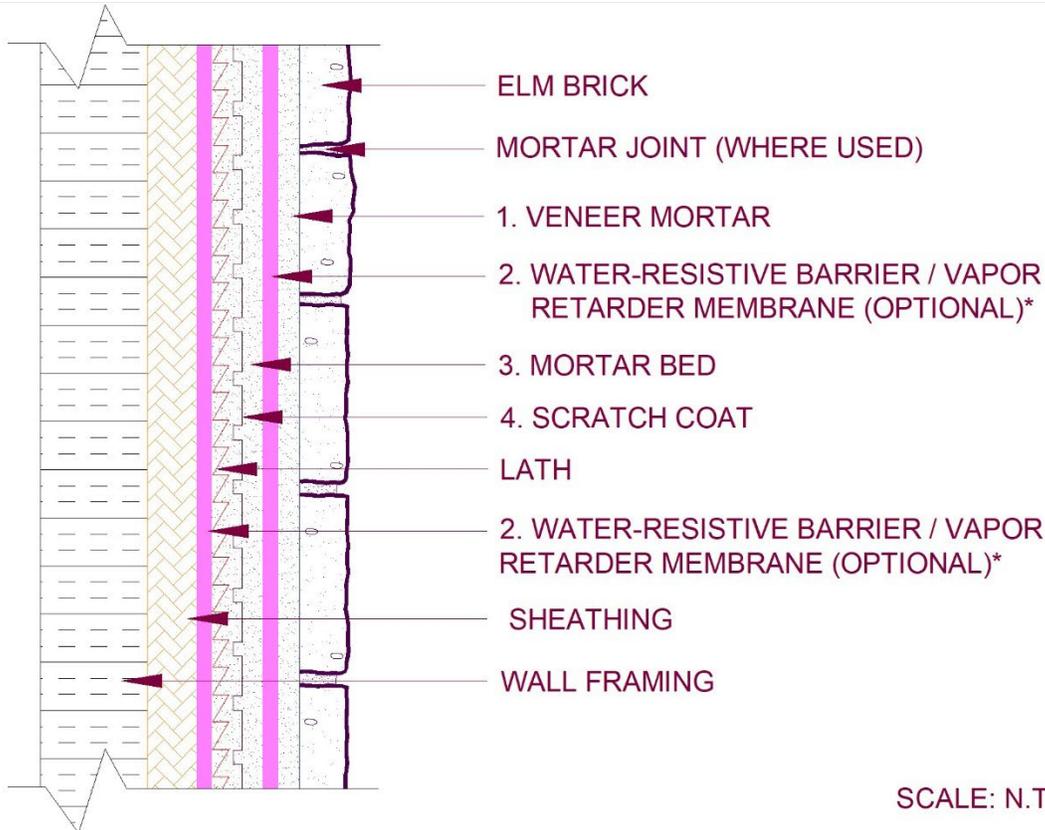
MAPEI Corporation
1144 E. Newport Center Drive
Deerfield Beach, FL 33442
Phone: 1-800-992-6273



INTERIOR WALLS: MSV-Figure-4a-MBI

Sheathing/Mortar Bed
Water Resistive Barrier (Optional)
Elm Brick

03.11.26



*VAPOR BARRIER, AIR BARRIER, WATER-RESISTIVE BARRIER, WATERPROOFING MEMBRANE, FLASHING AND INSULATION TYPE AND LOCATIONS TO BE DETERMINED BY THE PROJECT DESIGN PROFESSIONAL.

MAPEI Product Assembly

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2. Water-resistive Barrier / Vapor Retarder Membrane:

- A. *Mapelastic*® WP
- B. *Mapelastic*® WRP †

3. Mortar Bed:

- A. *Modified Mortar Bed*

4. Scratch Coat:

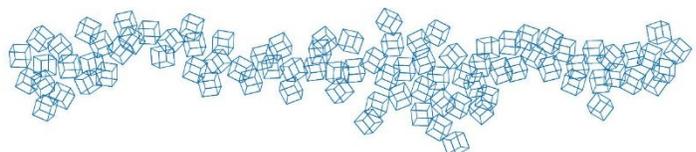
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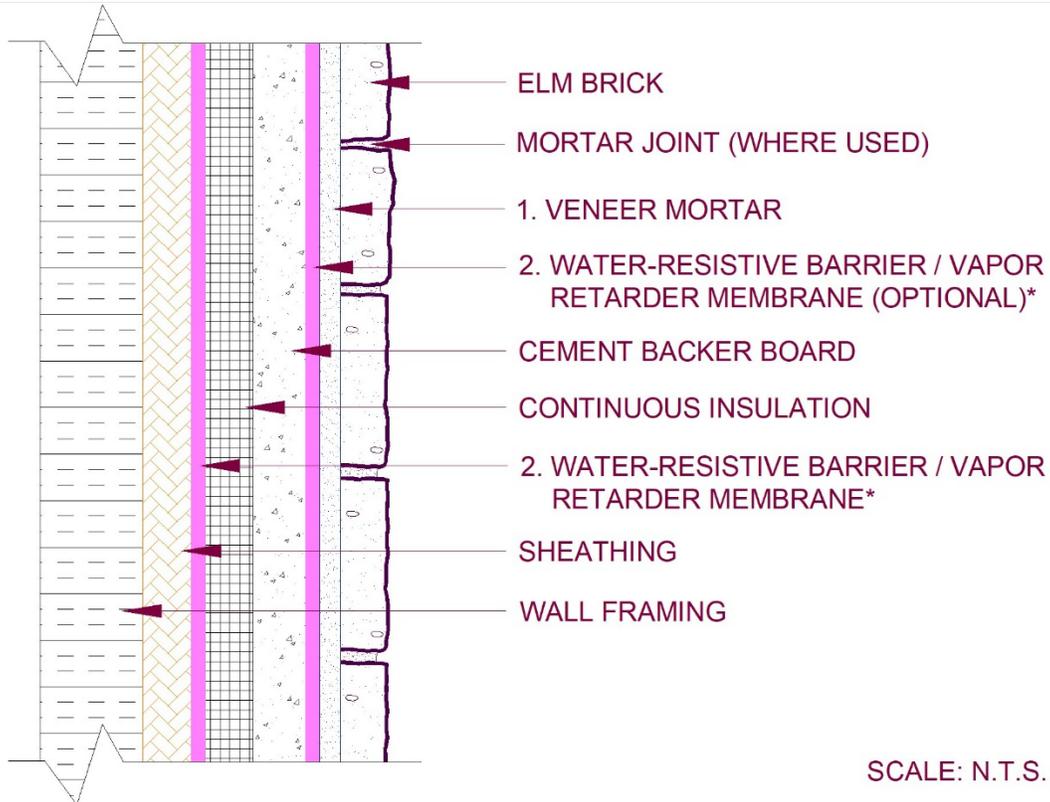
MAPEI Corporation
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Phone: 1-800-992-6273



EXTERIOR WALLS: MSV-Figure-4b-CBE

Sheathing/Cement Backer Board
Continuous Insulation
Water Resistive Barrier
Elm Brick

03.11.26



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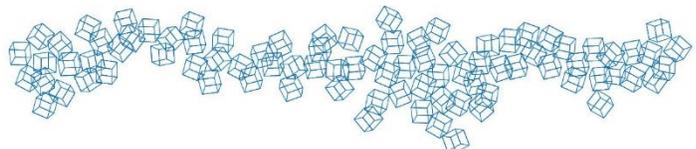
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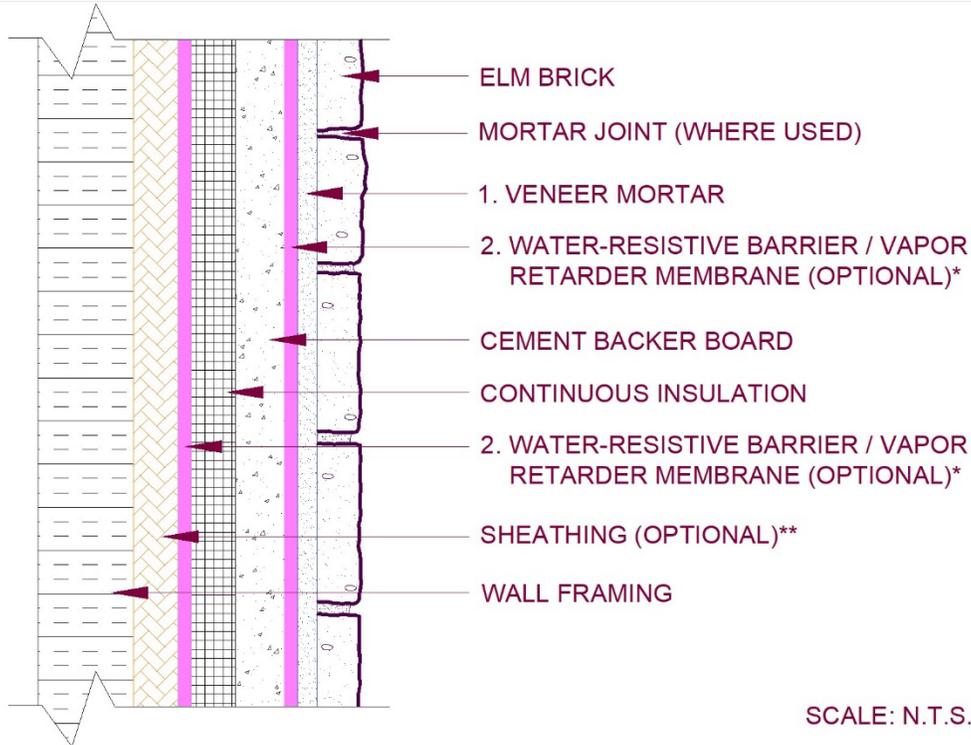
MAPEI Corporation
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Phone: 1-800-992-6273



INTERIOR WALLS: MSV-Figure-4b-CBI

Sheathing (Optional)/Cement Backer Board
Continuous Insulation
Water Resistive Barrier (Optional)
Elm Brick

03.11.26



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- E. *Mapebond*® VM †

2. Water-resistive Barrier / Vapor Retarder Membrane:

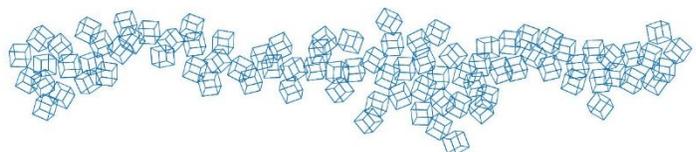
- A. *Mapelastic*® WP
- B. *Mapelastic*® WRP †

† Cannot use Mapebond VM direct bond over Mapelastic WRB

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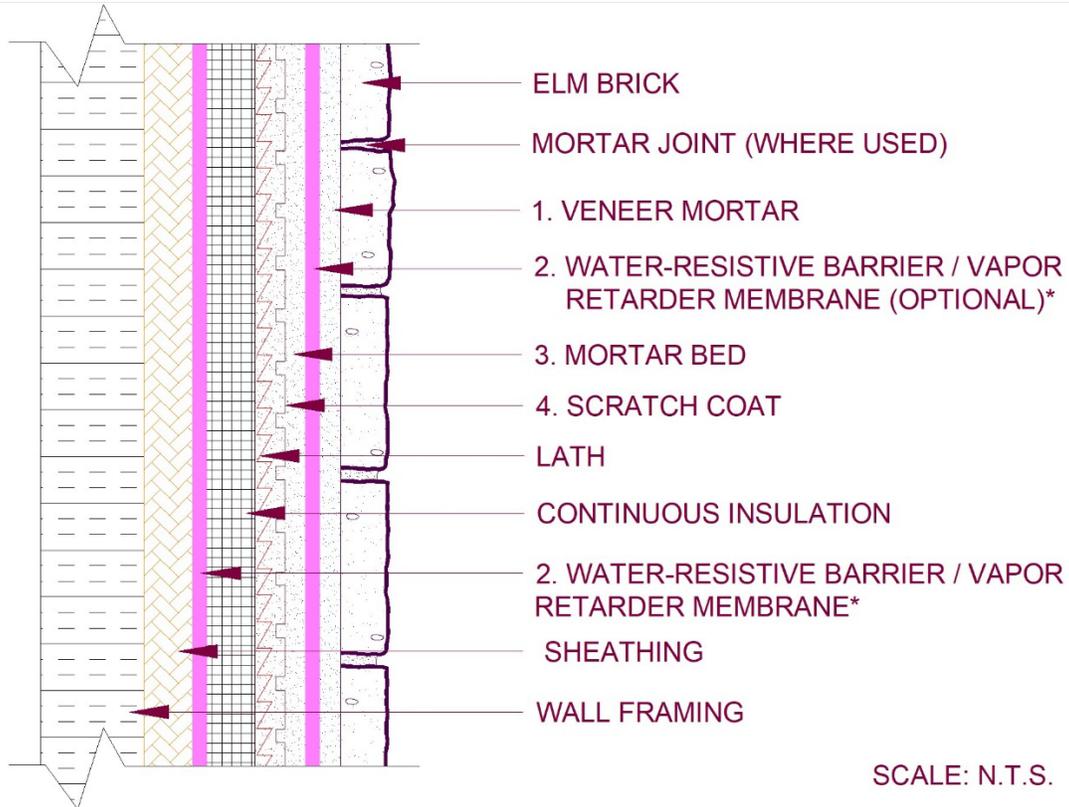
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Deerfield Beach, FL 33442
Phone: 1-800-992-6273



EXTERIOR WALLS: MSV-Figure-4b-MBE

Sheathing/Mortar Bed
Continuous Insulation
Water Resistive Barrier
Elm Brick

03.11.26



*VAPOR BARRIER, AIR BARRIER, WATER-RESISTIVE BARRIER, WATERPROOFING MEMBRANE, FLASHING AND INSULATION TYPE AND LOCATIONS TO BE DETERMINED BY THE PROJECT DESIGN PROFESSIONAL.

MAPEI Product Assembly

1. Veneer Mortar:

- A. *Granirapid*® System
- B. *Mapebond*® VM Lite
- C. *Mapebond*® VM Rapid
- D. *Mapebond*® VM Super
- E. *Mapebond*® VM †

2. Water-resistive Barrier / Vapor Retarder Membrane:

- A. *Mapelastic*® WP
- B. *Mapelastic*® WRP †

3. Mortar Bed:

- A. *Modified Mortar Bed*

4. Scratch Coat:

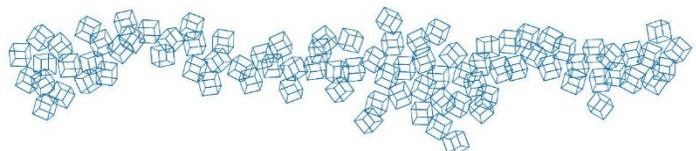
- A. *Modified Mortar Bed*

† Cannot use Mapebond VM direct bond over Mapelastic WRB

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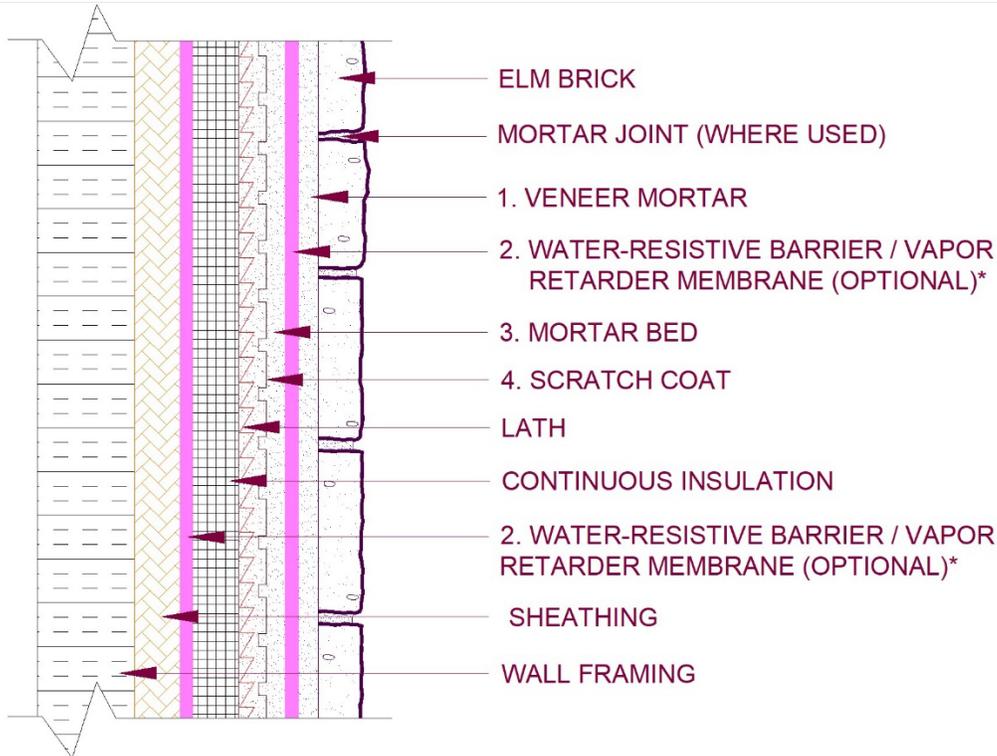
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INTERIOR WALLS: MSV-Figure-4b-MBI

Sheathing/Mortar Bed
Continuous Insulation
Water Resistive Barrier (Optional)
Elm Brick

03.11.26



SCALE: N.T.S.

*VAPOR BARRIER, AIR BARRIER, WATER-RESISTIVE BARRIER, WATERPROOFING MEMBRANE, FLASHING AND INSULATION TYPE AND LOCATIONS TO BE DETERMINED BY THE PROJECT DESIGN PROFESSIONAL.

MAPEI Product Assembly

1. Veneer Mortar:

- A. *Granirapid*® System
- B. *Mapebond*® VM Lite
- C. *Mapebond*® VM Rapid
- D. *Mapebond*® VM Super
- E. *Mapebond*® VM †

2. Water-resistive Barrier / Vapor Retarder Membrane:

- A. *Mapelastic*® WP
- B. *Mapelastic*® WRP †

3. Mortar Bed:

- A. *Modified Mortar Bed*

4. Scratch Coat:

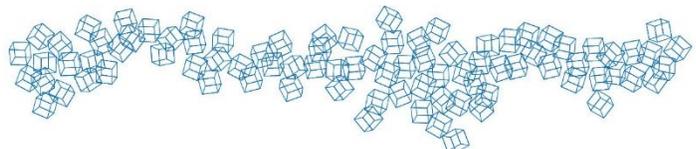
- A. *Modified Mortar Bed*

† Cannot use Mapebond VM direct bond over Mapelastic WRB

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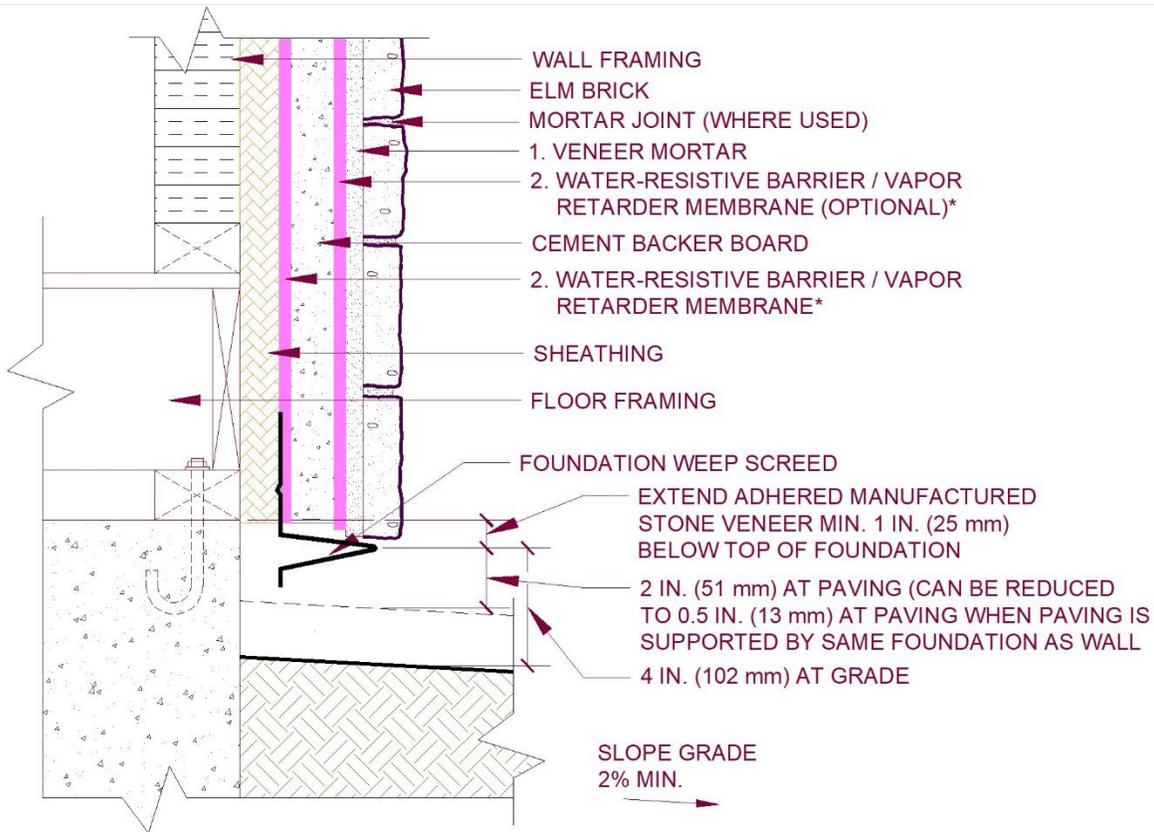
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EXTERIOR WALLS: MSV-Figure-5a-CB-Foundation Wall Base

Sheathing/Cement Backer Board
Water Resistant Barrier
Elm Brick

03.11.26



SCALE: N.T.S.

*VAPOR BARRIER, AIR BARRIER, WATER-RESISTIVE BARRIER, WATERPROOFING MEMBRANE, FLASHING AND INSULATION TYPE AND LOCATIONS TO BE DETERMINED BY THE PROJECT DESIGN PROFESSIONAL.

MAPEI Product Assembly

1. Veneer Mortar:

- A. *Granirapid*® System
- B. *Mapebond*® VM Lite
- C. *Mapebond*® VM Rapid
- D. *Mapebond*® VM Super
- E. *Mapebond*® VM †

2. Water-resistant Barrier / Vapor Retarder Membrane:

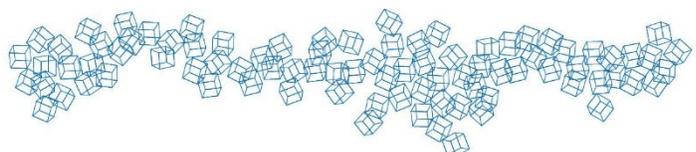
- A. *Mapelastic*® WP
- B. *Mapelastic*® WRP †

† Cannot use Mapebond VM direct bond over Mapelastic WRB

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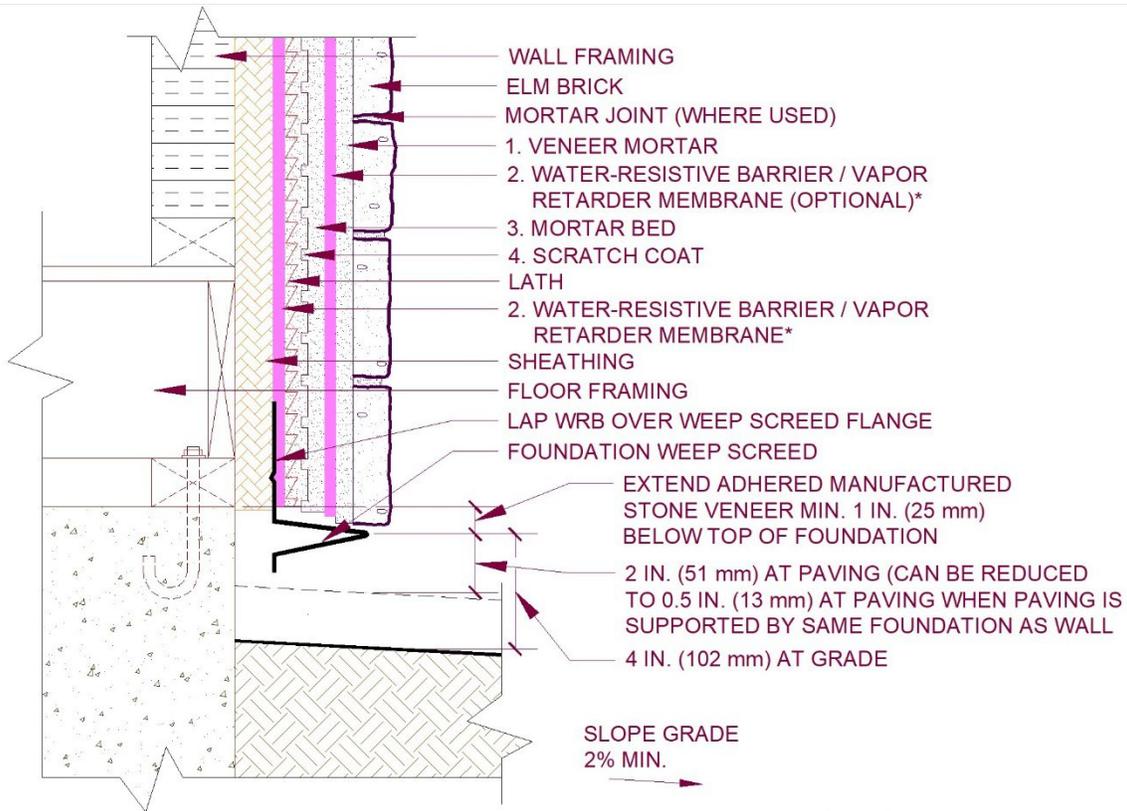
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EXTERIOR WALLS: MSV-Figure-5a-MB-Foundation Wall Base

Sheathing/Mortar Bed
Water Resistive Barrier
Elm Brick

03.11.26



SCALE: N.T.S.

*VAPOR BARRIER, AIR BARRIER, WATER-RESISTIVE BARRIER, WATERPROOFING MEMBRANE, FLASHING AND INSULATION TYPE AND LOCATIONS TO BE DETERMINED BY THE PROJECT DESIGN PROFESSIONAL.

MAPEI Product Assembly

1. Veneer Mortar:

- A. *Granirapid*® System
- B. *Mapebond*® VM Lite
- C. *Mapebond*® VM Rapid
- D. *Mapebond*® VM Super
- E. *Mapebond*® VM †

2. Water-resistive Barrier / Vapor Retarder Membrane:

- A. *Mapelast*® WP
- B. *Mapelast*® WRP †

3. Mortar Bed:

- A. *Modified Mortar Bed*

4. Scratch Coat:

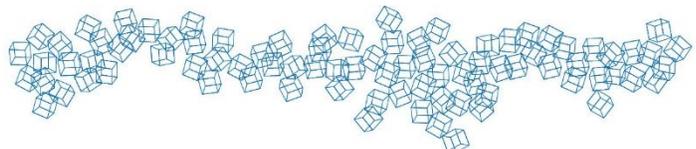
- A. *Modified Mortar Bed*

† Cannot use Mapebond VM direct bond over Mapelast WRP

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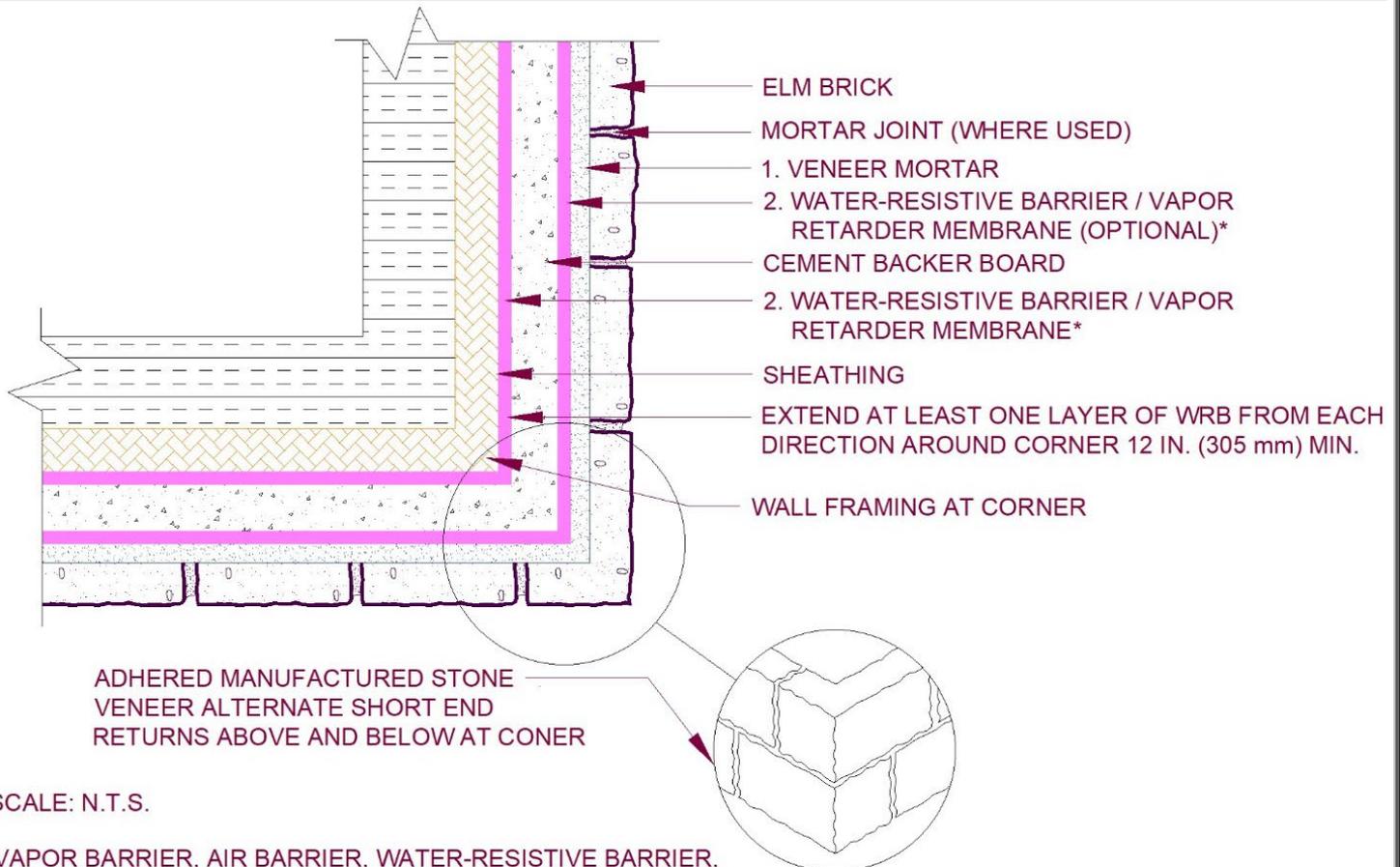
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EXTERIOR WALLS: MSV-Figure-9a-CB-Outside Corner

Sheathing/Cement Backer Board
Water Resistive Barrier
Elm Brick

03.11.26



SCALE: N.T.S.

*VAPOR BARRIER, AIR BARRIER, WATER-RESISTIVE BARRIER, WATERPROOFING MEMBRANE, FLASHING AND INSULATION TYPE AND LOCATIONS TO BE DETERMINED BY THE PROJECT DESIGN PROFESSIONAL.

MAPEI Product Assembly

1. Veneer Mortar:

- A. *Granirapid*® System
- B. *Mapebond*® VM Lite
- C. *Mapebond*® VM Rapid
- D. *Mapebond*® VM Super
- E. *Mapebond*® VM †

2. Water-resistive Barrier / Vapor Retarder Membrane:

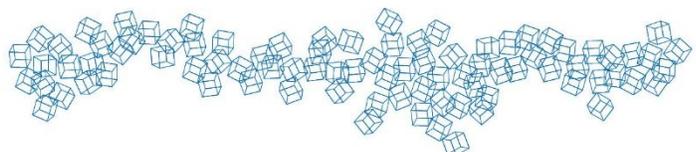
- A. *Mapelastic*® WP
- B. *Mapelastic*® WRP †

† Cannot use Mapebond VM direct bond over Mapelastic WRB

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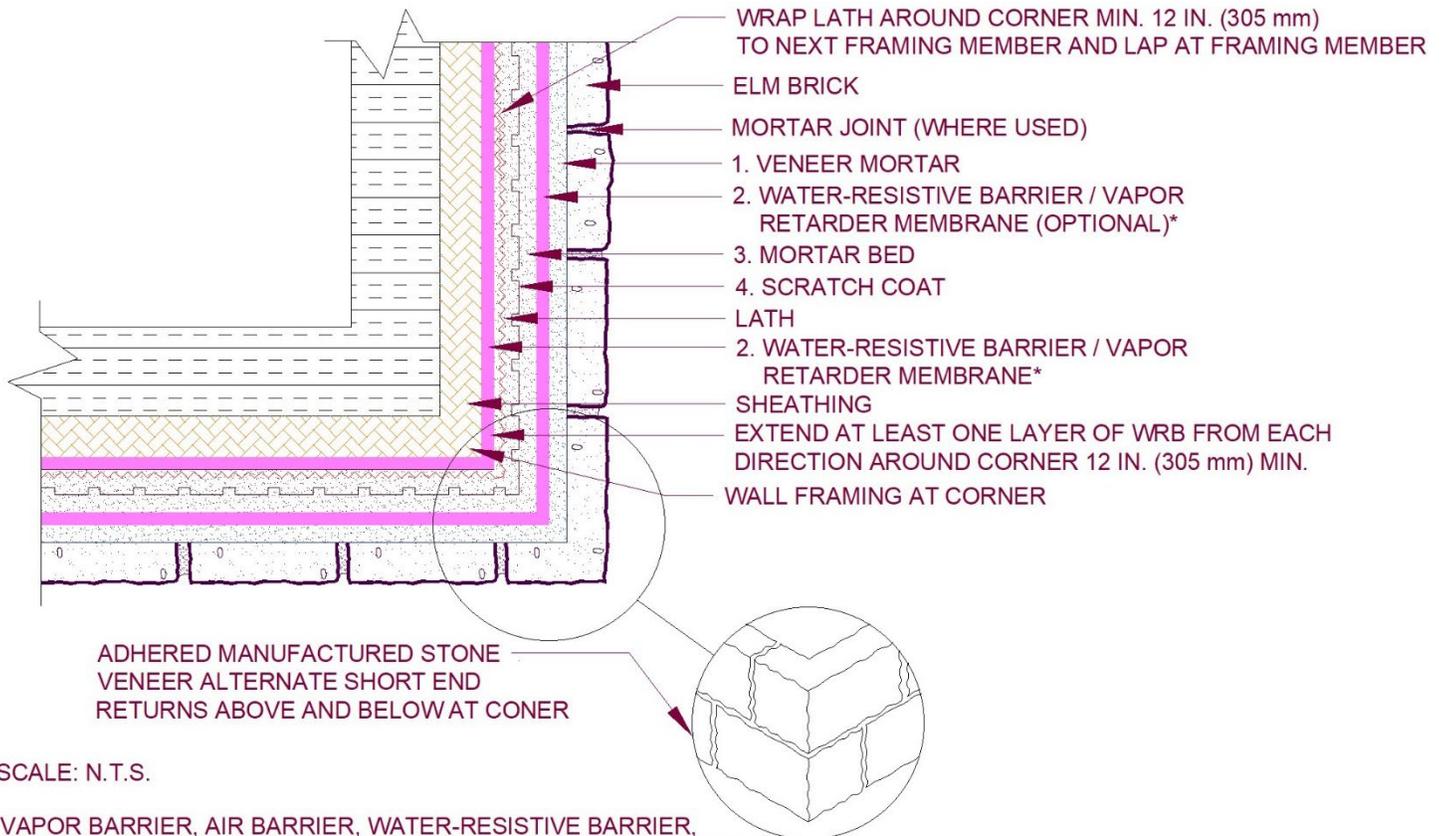
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EXTERIOR WALLS: MSV-Figure-9a-MB-Outside Corner

Sheathing/Mortar Bed
Water Resistant Barrier
Elm Brick

03.11.26



SCALE: N.T.S.

*VAPOR BARRIER, AIR BARRIER, WATER-RESISTIVE BARRIER, WATERPROOFING MEMBRANE, FLASHING AND INSULATION TYPE AND LOCATIONS TO BE DETERMINED BY THE PROJECT DESIGN PROFESSIONAL.

MAPEI Product Assembly

1. Veneer Mortar:

- A. *Granirapid*® System
- B. *Mapebond*® VM Lite
- C. *Mapebond*® VM Rapid
- D. *Mapebond*® VM Super
- E. *Mapebond*® VM †

2. Water-resistive Barrier / Vapor Retarder Membrane:

- A. *Mapelastic*® WP
- B. *Mapelastic*® WRP †

3. Mortar Bed:

- A. *Modified Mortar Bed*

4. Scratch Coat:

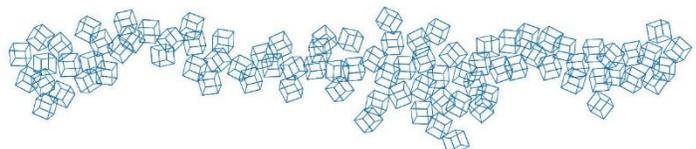
- A. *Modified Mortar Bed*

† Cannot use Mapebond VM direct bond over Mapelastic WRB

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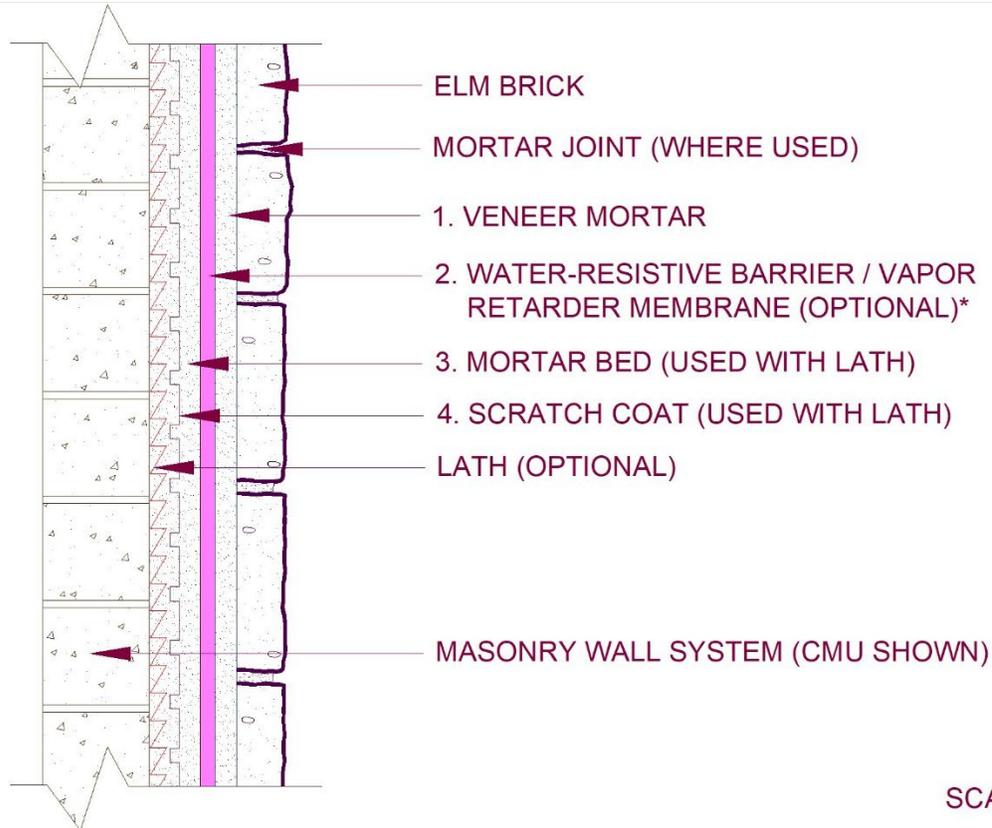
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EXTERIOR WALLS: MSV-Figure-46a-MBE

Mortar Bed
Water Resistive Barrier (Optional)
Masonry Wall System
Elm Brick

03.11.26



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MAPEI Product Assembly

1. Veneer Mortar:

- A. *Granirapid*® System
- B. *Mapebond*® VM Lite
- C. *Mapebond*® VM Rapid
- D. *Mapebond*® VM Super
- E. *Mapebond*® VM †

2. Water-resistive Barrier / Vapor Retarder Membrane:

- A. *Mapelastic*® WP
- B. *Mapelastic*® WRP †

3. Mortar Bed:

- A. *Modified Mortar Bed*

4. Scratch Coat:

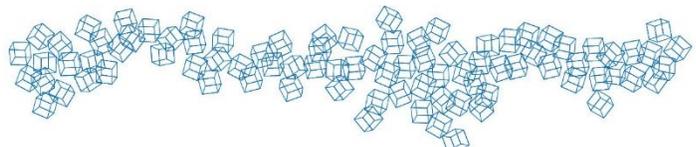
- A. *Modified Mortar Bed*

† Cannot use Mapebond VM direct bond over Mapelastic WRB

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SECTION 04 73 00
MANUFACTURED STONE VENEER

PART 1 GENERAL

1.01 SUMMARY

- A. Scope of Work: Provide manufactured stone, installation materials and accessories as indicated on drawings, as specified herein, and as needed for complete and proper installation.
- B. Related Documents: Provisions within General and Supplementary General Conditions of the Contract, Division 1 – General Requirements, and the Drawings apply to this Section.

1.02 SECTION INCLUDES

- A. Thin Brick Veneer.
- B. Adhered manufactured stone masonry veneer (AMSMV).
- C. Installation Materials; Air and water barriers, veneer bonding mortars, and sealants.
- D. Flashing, flashing adhesives and flashing accessories.

1.03 RELATED SECTIONS

- A. Section 03 30 00 – Cast-in-Place Concrete.
- B. Section 04 20 00 – Unit Masonry (CMU wall substrates).
- C. Section 04 71 00 – Thin Brick Masonry Veneer
- D. Section 05 40 00 – Cold-Formed Metal Framing
- E. Section 06 10 00 – Rough Carpentry
- F. Section 06 11 20 – Framing and Sheathing
- G. Section 07 25 00 – Weather Barriers: Water-resistive barrier over sheathing
- H. Section 07 62 00 – Sheet Metal Flashing and Trim
- I. Section 07 92 00 – Joint Sealants
- J. Section 09 21 16 – Backer Board Assemblies
- K. Section 09 24 00 – Portland Cement Plastering
- L. Section 10 30 00 – Fireplaces and Stoves

1.04 REFERENCES

- A. American National Standards Institute (ANSI):
 - 1. ANSI A118.4 and A118.15 Specifications for Latex-Portland Cement Mortar.
 - 2. ANSI A118.15 – Specifications for Improved Modified Latex-Portland Cement Mortar.

- B. American Iron and Steel Institute (AISI) Specification for the Design of Cold-Formed Steel Structural Members
- C. ASTM International (ASTM):
 1. A153/A153M – Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2023.
 2. C140/C140M – Standard Test Methods for Sampling and Testing Concrete Masonry units and Related Units; 2023.
 3. C150 – Standard Specification for Portland Cement Mortar.
 4. C190 – Method of Test for Tensile Strength of Hydraulic Cement Mortars.
 5. C270 – Standard Specification for Mortar for Unit Masonry.
 6. C482 – Standard Test Method for Bond Strength of Tile to Portland Cement Paste.
 7. C794 – Standard Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants.
 8. C841 – Standard Specification for Installation of Interior Lathing and Furring.
 9. C847 – Standard Specification for Metal Lath.
 10. C926 – Standard Specification for Application of Portland Cement-Based Plaster.
 11. C932 – Standard Specification for Surface-Applied Bonding Compounds for Exterior Plastering.
 12. C1002 – Standard Specification for Steel Self-Piercing Tapping Screws for Application of Cementitious Backer units or Metal Plaster Bases to Wood Studs or Steel Studs.
 13. C1063 – Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster.
 14. C1088 – Standard Specification for Thin Veneer Brick Units.
 15. C1325 – Standard Specification for Non-Asbestos Fiber-Mat Reinforced Cementitious Backer Units.
 16. C1329 – Standard Specification for Portland Cement.
 17. C1670 – Standard Specification for Adhered Manufactured Stone Masonry Veneer (AMSMV).
 18. C1714/C1714M – Standard Specification for Preblended Dry Mortar Mix for unit Masonry.
 19. C1780 – Standard Practice for Installation Methods for Cement-Cased Adhered Masonry Veneer.
 20. D226 – Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
 21. D227 – Standard Specification for Coal-Tar Saturated Organic Felt Used in Roofing and Waterproofing.
 22. E136 – Standard Test Method for Assessing Combustibility of Materials Using a Vertical Tube Furnace at 750 Degrees C.
 23. E330/E330M – Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
 24. E2556/2556M – Standard Specification for Vapor Permeable Flexible Sheet Water-Resistive Barriers Intended for Mechanical Attachment.
- D. ICC-ES AC51 – Acceptance Criteria for Adhered Manufactured Stone Masonry Veneer.
- E. ICC AC 38 – Acceptance Criteria for Water Resistive Barriers.
- F. CMHA (AMSV) – Installation Guide and Detailing Options for Compliance with ASTM C1780 for Adhered Manufactured Stone Veneer.
- G. NCMA TEK 20-01 – Key Installation Checkpoints for Manufactured Stone Veneer.
- H. TMS 402/602 – Building Code Requirements and Specification for Masonry Structures.

1.05 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 – Administrative Requirements.
- B. Product Data: Manufacturer's technical information for each product specified.

1. Certification that each product meets or exceeds specified requirements.
 2. Preparation instructions.
 3. Storage and handling requirements and recommendations.
 4. Installation guidelines.
 5. Cleaning and maintenance methods.
 6. Proof of warranty.
- C. Shop Drawings: Submit elevations and cross-section details showing proper installation methods.
- D. Submit samples: Under provisions of Section(s) (01 43 00) (01 43 39).
1. Standard sample board with selected stone profile and color should be submitted for each product selected. Sample board should be 3' x 3'.
 2. Selection of approved grout colors and styles (if applicable).
- J. LEED Submittals: Provide documentation of how the requirements of credit will be met.
- K. Closeout Submittals: Provide manufacturer's warranty and maintenance recommendations

1.06 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Company specializing in manufacturing the types of products specified in this section, with a minimum 10 years of documented experience.
- B. Installation Materials Manufacturer (single source responsibility): Company specializing in air and water barriers, mortars, joint sealants and other installation materials with ten a minimum 10-year warranty for the veneer installation system. Obtain installation materials from single source manufacturer to ensure consistent quality and full compatibility.
- C. Installer Qualifications: Company specializing performing work of type specified, with at least five years of documented experience.

1.07 PRE-INSTALLATION CONFERENCE

- A. Convene at least 3 weeks prior to commencing work of this section.
- B. Require attendance of installation material manufacturer, manufactured stone supplier, stone installer and installers of related work. Discuss conformance with requirements of specification and job site conditions. Representatives of owner, architect, general contractor, Stone or Masonry subcontractor, Stone or Masonry Manufacturer, Installation System Manufacturer and any other parties who are involved in the scope of this installation must attend the meeting.
- C. Meeting agenda includes but is not limited to:
1. Tile and installation material compatibility.
 2. Surface prep
 3. Maintenance and cleaning products and methods.
 4. Grouting procedure (if applicable).

1.08 DELIVERY, STORAGE AND HANDLING

- A. Coordination of on-site delivery and storage should be arranged in advance to avoid work delays.
- B. Store and handle stone products in accordance with the manufacturer's recommendations.
- C. Deliver and store all materials in original containers with seals unbroken and labels intact until time of use. Prevent damage or contamination to materials by water, freezing, foreign matter and other causes.

- D. Protect setting materials from freezing and overheating in accordance with manufacturer's instructions.
- E. Store tile and installation materials on elevated platforms, under cover and in a dry location and protect from contamination, dampness, freezing and overheating.
- F. Do not use frozen materials unless specifically allowed by manufacturer.
- G. Deliver and store materials on site at least 24 hours before work begins.
- H. Provide heated and dry storage facilities on site.

1.09 SEQUENCING AND SCHEDULING

- A. Coordinate installation of tile work with related work.
- B. Proceed with tile work only after vents, piping, and other projections through the vertical substrate have been installed and when substrate construction and framing of openings have been completed.

1.10 WARRANTY

- A. The contractor shall warrant the work of this Section to be in accordance with the Contract Documents and free from faults and defects in materials and workmanship for a period as determined by local or project requirements.
- B. The single source manufacturer of waterproofers, mortars, grouts and accessory installation materials shall provide a written ten (10) year warranty upon request from the installer, which covers materials and labor referenced in the MAPEI System Warranty, for a period of ten (10) years.

1.11 ENVIRONMENTAL REQUIREMENTS

- A. Comply with requirements of referenced standards and recommendations of material manufacturers for environmental conditions before, during, and after installation.
- B. Maintain materials and surrounding air temperature to a minimum 40 degrees F (5 degrees C) prior to, during, and 48 hours after completion of masonry work.
- C. Maintain materials and surrounding air temperature to a maximum 90 degrees F (32 degrees C) prior to, during, and 48 hours after completion of stone/masonry work.

1.12 MAINTENANCE

- A. See section 01 78 00 – Closeout submittals for additional warranty requirements.

PART 2 PRODUCTS

2.01 MANUFACTURED STONE MANUFACTURER(S)

- A. Manufactured stone veneer unit meeting ASTM C1670/C1670M, and per the following requirements:
 - 1. Manufacturer:
 - 2. Size:
 - 3. Thickness:
 - 4. Color:
 - 5. Pattern:
 - 6. Finish:

2.02 INSTALLATION MATERIALS MANUFACTURER

- A. Acceptable Manufacturer: MAPEI Corporation, 1144 E. Newport Center Drive, Deerfield Beach, FL 33442, USA. Toll-Free Tel.: 1-800-992-6273. Fax: 954-246-8805 . Email: TechServiceRequests@mapei.com . Web: www.mapei.us.
- B. Acceptable Manufacturer: MAPEI Inc., 2900 Francis-Hughes, Laval, QC, H7L 3J5, Canada; Toll-Free Tel: 1-800-361-9309; Fax: 450-901-0196; Email: ; TservicesCA@mapei.ca; Web: www.mapei.ca.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 – Product Requirements.
- D. Substitutions: Not permitted.

2.03 INSTALLATION MATERIALS – SUBSTRATE PREP

- A. Portland Cement Mortar Installation Materials
 1. Cleavage Membrane: Asphalt felt, ASTM D 226, Type I (No. 15); or polyethylene sheeting, ASTM D 4397, 4.0 mils (0.1 mm) thick.
 2. Reinforcing Wire Fabric: Galvanized, welded wire fabric, 2 inches by 2 inches (5 cm by 5 cm) by 0.062-inch (1.57 mm) diameter; comply with ASTM A185 and ASTM A82 except for minimum wire size.
 3. Expanded Metal Lath: Diamond-mesh lath complying with ASTM C847.
 - a. Base Metal and Finish for Interior Applications: Uncoated or zinc-coated (galvanized) steel sheet, with uncoated steel sheet painted after fabrication into lath.
 - b. Base Metal and Finish for Exterior Applications: Zinc-coated (galvanized) steel sheet.
 - c. Configuration over Studs and Furring: Flat.
 - d. Configuration over Solid Surfaces: Self furring.
 - e. Weight: 2.5 lbs./sq. yd. (1.4 kg/m²).
 - f. Weight: 3.4 lbs./sq. yd. (1.8 kg/m²)
 4. Polyester reinforcing fabric: for use with MAPEI's air and water resistive barriers.
 5. Factory Blended Polymer-Modified Thick-Bed and Render Mortar.
 - a. Product: **MAPEI, Modified Mortar Bed**.
 - b. Product: **MAPEI, Planitop 330 Fast**

2.04 INSTALLATION MATERIALS – WATER RESISTIVE BARRIER

- A. Manufacturer's standard product recommended by the manufacturer for the application indicated. Include reinforcement and accessories recommended by manufacturer. Supply one of the following MAPEI membranes:
 1. Fluid-Applied Membrane: Advanced liquid-rubber; extremely quick-drying, premium waterproofing and crack-isolation membrane complying with ANSI A118.10 and ANSI A118.12 and ASTM E96 Procedure A and B rated for use with ANSI A118.4 and ANSI A118.15 rated veneer mortars.
 - a. Product: **MAPEI Mapelastic WP**.
 2. Fluid-Applied Membrane: Water Resistive, Vapor-Permeable, Air Barrier allowing the passage of water vapor, ABAA evaluated, ICC ES AC212 and NFPA285 compliant for use with ANA+SI A118.15 rated veneer mortars only.
 - a. Product: **MAPEI Mapelastic WRB**.
- B. Polyester Reinforcing Fabric: Strong, absorbent, flexible, alkali resistant, polyester reinforcing fabric for use with MAPEI's air and water barriers. Meets ASTM D5034 for strength and elongation. Meets ASTM D737 for air permeability.
 1. Product: **MAPEI, Reinforcing Fabric**.

- C. Butyl-Based Sealing Tape: Superior long-term grip, butyl-based waterproof sealing tape with extremely aggressive grip; Meets ASTM D3330 for peel strength and ASTM D1970 for Tensile strength and elongation.
1. Product: **MAPEI, Mapetape BB.**

2.05 INSTALLATION MATERIALS – MORTARS

- A. Modified Dry-Set Cement Mortar, Non-Sag, for Large and Heavy Tile: ANSI A118.4HTE, ANSI A138.1, and ISO 13007 C2TE.
1. Product: **MAPEI, MAPEI Mapebond VM.**
- B. Improved Modified Dry-Set Cement Mortar, Non-Sag, for Large and Heavy Tile: ANSI A118.4HTE, ANSI A118.15HTE, and ISO 13007 C2TES1P1.
1. Product: **MAPEI, Mapebond VM Super.**
- C. Improved Modified Dry-Set Cement Mortar, for Large and Heavy Tile, Non-Sag, Rapid-Setting: ANSI A118.4HTF, ANSI A118.11, ANSI A118.15HTF, and ISO 13007 C2TFS1P1.
1. Product: **MAPEI, Mapebond VM Rapid.**
- D. Improved, Lightweight, Modified Dry-Set Cement Mortar, for Large and Heavy Tile: ANSI A118.4HTE, ANSI A118.15HTE and ISO 13007 C2TES1P1.
1. Product: **MAPEI Mapebond VM Lite.**
- E. Improved Modified Dry-Set Cement Mortar for Large and Heavy Tile, Stone or brick Veneer, Rapid-Setting: ANSI A118.4F, ANSI A118.11, ANSI A118.15F, and ISO C2FS2P2.
1. Product: **MAPEI, Granirapid System.**

2.06 INSTALLATION MATERIALS – GROUT AND POINTING MORTAR

- A. High-Performance Cement Grout: For grout joints from 1/16 inch to 3/4 inch (1.5 mm to 19 mm) and meeting ANSI A118.7 and ISO 13007 CGWAF.
1. Product: **MAPEI, Ultracolor Plus FA Grout.**

2.07 INSTALLATION MATERIALS – JOINT SEALANTS

- A. 100% Silicone Sealant: Heavy-traffic expansion and movement joints, horizontal and vertical complying with ASTM standards; ASTM: Meets C920, Type S, Grade NS, Class 25, Use T1, T2, NT, I, M, G, A and O, and conforms to C794 adhesion properties, (#23 Clear color meets ASTM C920, Type S, Grade NS, Class 50, Use NT).
1. Product: **MAPEI, Mapesil T Plus.**
- B. Polyurethane Sealant: One-component, non-sag, elastomeric polyurethane sealant, fast-track, moisture-cured, horizontal and vertical, complying with ASTM standards; ASTM: Meets C920, Type S, Grade NS, Class 35, Uses NT, T, M, G, A and O. Meets TT-S-00230C, Type II, Class A, and AAMA 808.3-92.
1. Product: **MAPEI, Mapeflex P1 FT.**
- C. Joint Sealant Accessory: Water-based, innovative finishing spray solution for smoothing of sealants, suitable for silicone, polyurethane, acrylic and latex caulks; For use with applying MAPEI joint sealants.
1. Product: **MAPEI UltraCare Smooth Silicone.**

2.08 STONE, TILE AND MASONRY SEALERS

- A. Premium Color-Enhancing Penetrating Sealer: Enhances the natural colors of stone and provides maximum protection. Safe for use on all interior and exterior natural-stone surfaces (marble, limestone, sandstone, slate, granite, travertine, etc.) as well as cementitious grout. Can also be used as a pre-grouting sealer (grout release).

1. Product: **MAPEI, UltraCare Enhancing Plus Stone Sealer.**

2.09 STONE, TILE AND MASONRY CLEANERS

- A. High-Alkaline Cleaner: Highly concentrated and degreaser that quickly removes waxes, grease, oil, light soap scum, mildew and algae stains. For areas that have been neglected or subject to heavy use.
 1. Product: **MAPEI, UltraCare Heavy-Duty Stone, Tile & Grout Cleaner.**

2.10 MIXES

- A. Proportion and mix materials in accordance with manufacturer's most current written instructions and applicable ANSI standards.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Do not begin the installation process until substrates have been properly prepared. Notify architect of any unsatisfactory substrate conditions before proceeding.
- B. If substrate surface is questionable, bonding tests should be performed before installation to assess adhesion and confirm proper bonding strength.
- C. Verify roofs use proper water displacement methods to direct moisture away from the installed stone veneer.
- D. Flashing must be installed at wall penetrations and terminations of the stone veneer. Assure that all flashing and kickouts are corrosion resistant, integrated with the water resistive barrier properly (when used), and installed in accordance with the local building code requirements.
- E. Verify that backup wall system construction complies with AMSV manufacturer's instructions, CMHA, NCMA (AMSV), NCMA TEK 20-01, ASTM C1780 and ICC-ES AC51.
- F. Verify that substrates to receive mortar scratch coat or setting bed comply with AMSV manufacturer's instructions, NCMA (AMSV), NCMA TEK 20-01, ASTM C1780 and ICC-ES AC51:
 1. Concrete Masonry: Verify joints are cut flush and surface is ready to receive mortar setting bed. Verify no bituminous or water repellant coatings exist on masonry surface.
 2. Concrete: Verify surfaces are flat, honeycombs are filled flush, and surface is ready to receive mortar setting bed. Verify no bituminous, water repellant, or form release agents exist on concrete surfaces that are detrimental to mortar setting bed.
 3. Metal Lath and Accessories: Verify lath is flat, secured to substrate, and joint and surface perimeter accessories are in place.
 4. Cement Board: Cement board must comply with ASTM C1325 and must be evaluated for interior or exterior use in accordance with ICC-ES AC376 based on desired applications. When using cement board, only modified mortars complying with ANSI A118.4 or ANSI A118.15 should be used as the setting bed mortar. Exterior cement board substrates must have seams treated with modified mortars complying with ANSI A118.4 or ANSI A118.15 mortars and MAPEI's Reinforcing Fabric 4" wide version. Interior substrates require the 2" wide version of MAPEI's Reinforcing Fabric.

3.02 PREPARATION

- A. Clean all surfaces thoroughly prior to installation.
- B. Use manufacturer's surface preparation recommendations to achieve best results.
- C. Dampen masonry surfaces to reduce excessive suction.

3.03 INSTALLATION – WATER-RESISTIVE BARRIER

- A. Where required by AMSV manufacturer's instructions per NCMA (AMSV), NCMA TEK 20-01, ASTM C1780 or ICC-ES AC51, install 2 layers of water-resistive barrier in accordance with MAPEI's water-resistive barrier instructions. Integrate water-resistive barrier with all flashing accessories, adjacent water-resistive barriers, doors, windows, penetrations, and all cladding transitions.
- B. Apply water-resistive barrier horizontally with upper layer lapped over lower layer minimum 2 inches (51mm).

3.04 INSTALLATION – SCRATCH COAT

- A. Apply mortar scratch coat of ½ inch (12.5 mm) nominal to cover metal lath in accordance with ASTM C926. Scratch surface when somewhat firm. If scratch coat dries before applying setting bed mortar and AMSV, moisten scratch coat by misting it with water.

3.05 INSTALLATION – ADHERED MASONRY STONE VENEER

- A. Product should be pulled from a variety of boxes and blended on site during installation to ensure a consistent overall project color on the wall.
- B. When rendering materials are needed, they must be from the supplier of the setting materials. for improved warranty and single-source responsibility.
- C. Install adhered stone masonry product with a MAPEI modified dry-set mortar complying with ANSI A118.4 or ANSI A118.15 rated mortar. When installing over MAPEI Mapelastc WRB, install adhered masonry veneer with only a MAPEI ANSI A118.15 modified dry-set mortar. Do not use an ANSI A118.4 rated mortar.
- D. Windows, Doors and Wall Openings: Butt AMSV units to wall opening.
- E. Sills: Install sills where located on drawings.
- F. Caps: Install all capstones where located on drawings.
- G. Install movement joints where differential movement is expected at areas where dissimilar materials meet, at change in plane and in accordance with NCMA.
- H. Seal all joints at wall openings and penetrations with Mapesil T Plus silicone joint sealant.

3.06 INSTALLATION – MASONRY FLASHINGS

- A. Whether or not specifically indicated, install masonry flashing to divert water to exterior at all locations where downward flow of water will be interrupted.

3.07 CUTTING AND FITTING

- A. Cut and fit for pipes and conduit. Coordinate with other sections of work to provide correct size, shape, and location.

3.08 CLEANING

- A. Remove excess mortar and mortar smears as work progresses.
- B. Clean adhered masonry stone veneer in accordance with manufacturer's installation instructions. Use only water to clean while mortar is still fresh.
- C. After mortar clean heavily soiled surfaces with cleaning solution such as MAPEI Ultracare Heavy Duty Stone, Tile & Grout Cleaner.

- D. Efflorescence can be cleaned by lightly scrubbing the face of the stone with a soft bristle brush and water. In some cases, for more difficult efflorescence stains, use MAPEI's Ultracare Acidic Tile & Grout Cleaner.

3.09 PROTECTION

- A. Touch-up, repair or replace damaged stone before completion of a project. For small repairs, use MAPEI's Mapebond HSA gunnable repair adhesive.
- B. Protect installations from impact, vibration and heavy hammering on adjacent and opposite walls for 72 hours. Without damaging completed work, provide protective boards at exposed external corners that are subject to damage by construction activities.
- C. If using a pointing mortar, do not install it until after 12-24 hours.
- D. Protect installation from rain for 72 hours after installation, and from freezing for 21 days.
- E. Protect from freezing and total water immersion for at least 21 days after installation.

END OF SECTION