

TECHNICAL SUBMITTAL

PACKET | 2021

ELDORADO  STONE

A BCRAL Brand

SUBMITTAL PACKET

Welcome

COMPANY NAME:

.....

CONTACT NAME:

.....

PROJECT TITLE:

.....

STREET ADDRESS:

.....

CITY, STATE, ZIP:

.....

We would like to congratulate you on your upcoming project which incorporates adhered concrete masonry veneer products. Enclosed in this packet are the required Eldorado Stone submittal forms and technical documents. We have also enclosed additional support materials and installation details commonly requested by architects and contractors.

Visit eldoradostone.com/resources to view all digital materials available for download.

SUBMITTAL FORM

CARE & MAINTENANCE

TECHNICAL DATA SHEET

INSTALLATION GUIDELINES CSI

50 YEAR WARRANTY

3-PART SPEC

CERTIFICATE OF QUALITY

ICC EVALUATION REPORT

FREQUENTLY ASKED QUESTIONS

MATERIAL SAFETY DATA SHEET

As part of our commitment to service, we would like to recommend that you take advantage of our consulting services.

We have trained Technical Field Service representatives that will walk through your project with you prior to installation. This can help prevent improper installations and in some cases identify where additional stone or accessories may be needed.

Thank you again for choosing Eldorado Stone. Should you have any questions, please do not hesitate in contacting us. We are grateful for the opportunity to be a part of your project needs.

Sincerely,



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Sales Representative
Eldorado Stone, LLC

Submittal Form



Eldorado Stone Representative:

PROJECT DETAILS	ELDORADO STONE	
PROJECT NAME:	PROFILE:	COLOR:
PROJECT ADDRESS:	APPROX SQ FOOTAGE:	
CITY / STATE / ZIP:	MANUFACTURING LOCATION: -Mfg. Location-	

Please fill in all known information.

OWNER	ARCHITECT	BUILDER	MASON
COMPANY NAME:	COMPANY NAME:	COMPANY NAME:	COMPANY NAME:
CITY, STATE:	CITY, STATE:	CITY, STATE:	CITY, STATE:
CONTACT NAME:	CONTACT NAME:	CONTACT NAME:	CONTACT NAME:
CONTACT PHONE:	CONTACT PHONE:	CONTACT PHONE:	CONTACT PHONE:

PROJECT NOTES

Pre-Installation Project Team Meeting Scheduled? Y N Date Scheduled:

Your signature below acknowledges receipt of the Eldorado Stone “Submittal Packet” and the above information is accurate to the best of your knowledge.

Received By: _____ Date: _____

Company: _____ Phone: _____

Eldorado Stone Representative: _____ Date: _____

Email completed form to: **BoralStoneAnswers@boral.com**

Technical Data

Adhered Veneers & Wall Mounted Accessories

Eldorado Stone is designed to meet or exceed building code requirements. Independent testing confirms compliance with ICC-ES Acceptance Criteria 51, Standard Specification for Adhered Manufactured Stone Masonry Veneer Units.

Supporting test data is available upon request.

Local building codes may vary by area. Always check with your local building authorities before installing stone.

For additional technical information please visit: www.eldoradostone.com

Ingredients

Light weight aggregate ASTM C33, C330 & C331

Portland cement ASTM C150, ACI 318

Mineral oxide pigments ASTM C979

Code Acceptability & Certification

UL Registered

Mineral composition units

Surface burning characteristics

Flame Spread 0

Smoke Developed 0

ICC-ES ESR 1215

California Building Code

Florida Building Code

Los Angeles Research Report #25589

HUD Materials Release #910

Florida Product Approval FL 21143-R1



Shear Bond (Adhesion)

Greater than 50 psi shear bond strength

Absorption

ICC-ES Acceptance Criteria 51 & ASTM C140

Saturated Density - Weight per Square Foot

Weight less than 15 lbs. per sq. ft., saturated

Thermal Resistance

Tested in accordance with ASTM C177

R value: 0.62 (ft²-F-hr)/BTU at 1.5" thickness

Compressive Strength

Compressive strength is greater than 2100 psi

Wind Load Testing

Tested in accordance with ASTM E330 at

150 mph wind speed; passed

Freeze-thaw Durability

Less than 1.5 percent weight loss at 50 cycles; passed



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ELDORADO STONE®

50 YEAR LIMITED WARRANTY

1. Subject to the following terms, Eldorado Stone, LLC (ES) warrants to the original purchaser and subsequent owners that for 50 years from the date of sale its Eldorado Stone manufactured stone or brick veneer (collectively referred to in the remainder of this document as the “product” or the “products”) will not blister, peel, flake, delaminate or crack excessively, as a result of manufacturing defects when used on structures conforming to local building codes and installed in accordance with the National Concrete Masonry Association - Manufactured Stone Veneer written instructions issued before and closest in time to the beginning of the project. ES will at its option, either: (1) pay the reasonable replacement cost of the defectively manufactured products; (2) provide a replacement of the defective product or pay the reasonable cost for replacement product of a similar design; or (3) pay the reasonable cost for repair of the defective product. This limited warranty applies only to products constituting stone or brick veneer manufactured by Eldorado Stone; it does not apply to any other products or materials, including exterior walls, exterior wall envelopes, backing to which ES veneer is secured, or water-resistive barriers. The definition of “veneer” contained in the International Building Code is determinative for purposes of establishing what products constitute ES manufactured stone or brick veneer and are covered by this warranty.
2. This Limited Warranty is not limited to the original purchaser but covers the stone regardless of whether ownership of the building changes. This warranty runs with the transfer of the property to subsequent owners of the property into which the warranted products have been incorporated, but the warranty period as to such subsequent owners is limited to 15 years from the original date of the installation of the warranted product.
3. No warranty whatsoever is made with respect to the manufacture or performance of materials or components of construction not sold or manufactured by Eldorado, including but not limited to mortar, lath, weather resistant barriers, doors, windows, sealants, flashings, roofing, copings, sheathing and framing. Further, ES makes no warranties whatsoever with respect to aesthetics, design and engineering of the structure into which ES products are incorporated, or workmanship involved in the application of any ES products warranted hereunder. The ES product is not waterproof. The ES product should not be used on exterior or interior steps or risers. The ES product must be incorporated into a wall assembly designed by a building professional that contains adequate mechanisms for water management. ES has no responsibility for damage caused by moisture intrusion through the building envelope or around any of the building envelope components or by vapor transmission from the inside of the building to a moisture sensitive part of the wall assembly.

This warranty is effective for sales after April 1, 2018, and supersedes all previously published versions of this warranty. It shall remain effective until Eldorado Stone publishes a subsequent superseding version, at which time it shall have no further effect.



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50 YEAR LIMITED WARRANTY

4. This warranty covers only manufacturing defects in ES manufactured stone or brick veneer. ES' manufacturing process has been designed to imitate the random beauty and nature of real stone. As such, stone surfaces may contain small air holes or surface anomalies. These differences add to the overall character of the stone and are not considered manufacturing defects. Changes in the appearance of ES products caused by normal weathering or efflorescence, which is a natural phenomenon of all concrete products, are also not considered manufacturing defects. Normal weathering is defined as exposure to sunlight and extremes of weather and atmosphere, which will cause any colored surface to fade, chalk, or accumulate dirt or stains.
5. Without limiting anything else in this document, Eldorado disclaims and assumes no liability for:
 - a. improper use, application or installation of Eldorado's products,
 - b. use of ES products as part of improperly designed or constructed assemblies or buildings or with defective adjacent materials or assemblies;
 - c. failure to follow applicable specifications, instructions and construction details;
 - d. use of any sealing or coating on the stone other than one that is silane or siloxane based in strict compliance with sealant manufacturer's instructions;
 - e. other design or construction defects, deficiencies and failures on a building where ES' product is used;
 - f. undertaking on-site inspections or any on-site activities or making oral statements at the site;
 - g. any damage or injury whatsoever caused in whole or in part by acts of God, natural phenomenon or physical abuse such as but not limited to falling objects, projectiles, fire, earthquake, floods, windstorm, hail, tornadoes, lightning, hurricanes, other abnormal weather conditions, pests, chemical fumes, foreign substances in the air, misuse, vandalism, civil disobedience, war, damage caused by remodeling or renovation;
 - h. damage resulting from moisture intrusion, mold, settlement of building or other building or wall movement;
 - i. discoloration or deterioration due to airborne contaminants; or contact with any chemicals or paint; staining or oxidations;
 - j. any accumulation of water or moisture in wall assemblies;
 - k. negligence or accidents by any party or parties in maintaining the ES materials, including but not limited to use of pressure washer or harsh or acid chemicals of any nature, including vinegar, to clean;
 - l. replacement of stone if ES' product is mixed with other chemicals or materials not approved by ES in writing;
 - m. any cause beyond ES' control; and
 - n. any workmanship, aesthetics or other damage or injury not solely and directly caused by a manufacturing defect in ES's products as covered under this warranty.



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50 YEAR LIMITED WARRANTY

6. This limited express warranty is exclusive, the only warranty made by ES, and is in lieu of all other warranties or remedies of any nature whatsoever to the original or subsequent purchasers or users under any theory of liability, whether in contract, tort, statutory law or otherwise, except for actual economic damages for personal physical bodily injury. All other warranties, representations or remedies, whether oral, written, express or implied or imposed by law are disclaimed by ES and are waived by the purchaser, particularly the implied warranties of merchantability or fitness for a particular purpose or arising from a course of dealing, usage or trade practice, or any warranty against patent infringement or warranty for work performed in a workmanlike manner. Eldorado shall not be liable under any circumstances for any incidental, special, indirect or punitive damages to any party whatsoever, including but not limited to, loss of profits, damage to the building or its contents, and attorney's fees. This exclusion of damages includes, but is not limited to payments of any nature made because of actual or potential liability to others, damages to any other part of the structure to which the warranted products are incorporated or damage to any other property.
7. ES shall have no further obligation or liability of any kind, other than as stated in this document, and it is further agreed and understood that the price paid for ES stones is consideration for the limitation of ES liability hereunder.
8. Warranty coverage is limited to replacement or repair of defective materials as stated above only and does not cover labor to remove or install materials and does not cover the cost of shipping replacement product. The remedies contained herein shall be sole and exclusive.
9. ES's obligations under this warranty shall only begin if the owner notifies ES, in writing, within sixty (60) days of actual or constructive notice of the alleged defect. ES shall be allowed a reasonable period of time and authorization to remove samples, so as to perform any testing ES deems necessary to investigate and determine the cause of the defect. The Owner shall make temporary repairs in a timely manner to prevent further damage to the structure, contents of the building, and the ES stones until the cause of the defect is determined and permanent repair recommendations may be made.
10. ES' obligation to supply replacement stone pursuant to this Warranty shall become null and void if in the sole judgment of ES, any of the following events shall occur: (i) if after installation of the ES stones there are any alterations or repairs made to the building that affect any component of the wall assembly of which ES stones are a part in any way; (ii) if the Owner or any of Owner's tenants fail to use reasonable care in maintaining the ES stones before and after installation; (iii) if the ES stones are installed in a manner that causes them to be repeatedly or continuously wet, such as if installed in the direct path of a water sprinkler, pool, jacuzzi, or similar water device; or (iv) if the ES stones are installed in an area that exposes them to de-icing salts or other harsh chemicals.

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50 YEAR LIMITED WARRANTY

- II. Applicability of the Magnusson-Moss Act is hereby disclaimed.
12. Any provision of this warranty that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof or affecting the validity of enforceability of such provision in any other jurisdiction.
13. Eldorado's failure at any time to enforce any of the terms or conditions stated herein shall not be construed to be a waiver of such provisions.
14. This warranty shall be interpreted under the laws of the State of New York.
15. Neither the sales personnel nor other agents of Eldorado are authorized to make warranties about the merchandise described in this contract.

Oral statements by Eldorado employees or agents do not constitute warranties, shall not be relied upon by the building owner or any third party, and are not part of the contract for sale or warranty stated herein. No distributor, dealer, or representative of Eldorado Stone has the authority to change or modify this warranty either orally or in writing in any respect. The entire and final contract is embodied in this writing and no other warranties are given beyond those set forth in this writing.



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Eldorado Stone
C E R T I F I C A T E

O F

Quality



DATE:

ATTN:

PROJECT
TITLE:

PROJECT
CITY+STATE:

ARCHITECT:

STONE
PROFILE+COLOR:

GENERAL
CONTRACTOR:

MASONRY
CONTRACTOR:

*T*his letter is to certify that the product manufactured by Eldorado Stone, LLC for the project specified above will meet the Acceptance Criteria for Precast Stone Veneer set by ICC Evaluation Service, as specified in the Evaluation Report No. ESR-1215.

Sincerely,



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Rick Garagliano

Director of Quality
Eldorado Stone, LLC

FREQUENTLY ASKED QUESTIONS

Why is Eldorado Stone® considered *The Most Believable Architectural Stone Veneer in the World*™?

Believability. It's the most important ingredient of Eldorado Stone and the most compelling reason why so many architects, builders and homeowners choose Eldorado Stone. Eldorado's distinct process handcrafts molds and creates the natural color palettes that capture all the nuances of real stone. The warmth and richness of Eldorado Stone creates unique spaces of permanence, romance and beauty; inside and out. *The Most Believable Architectural Stone Veneer in the World*. Only from Eldorado Stone.

What is the difference between manufactured stone veneer and natural stone?

Manufactured stone veneer is cast from molds of real stone which makes it lighter than natural stone. Natural stone may require wall ties and footings, which, in turn, can increase installation cost and difficulty. Eldorado's architectural stone veneer is lighter weight, designed to adhere easily to a variety of structurally sound surfaces, and is capable of installations that would normally be very difficult and costly to achieve with natural stone.

What are the benefits of using manufactured stone?

Installed, manufactured stone is approximately 1/3 to 1/2 the cost of natural stone. Its light weight properties eliminate the need for wall ties or footings. Manufactured stone has a 2% (approximately) waste factor versus 10% or more for natural stone.

Where can I install Eldorado Stone?

Eldorado Stone can be applied to any structurally sound surface with the proper preparation. It fits nearly any building plan — large or small, interior or exterior, new residential or commercial projects — or on any remodel. For inspirational installations visit www.eldoradostone.com/imagine.



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FREQUENTLY ASKED QUESTIONS

Can I install Eldorado Stone myself?

In general, installation of Eldorado Stone can be installed by almost anyone. However, installation does require a fundamental understanding of stone masonry. Please review the *Installation Procedures* and *How to Install* at www.eldoradostone.com or contact Customer Service at 800.925.1491.

How does Eldorado Stone withstand freeze/thaw cycles?

Eldorado Stone products are tested for freeze/thaw durability. As with any installation, making sure to incorporate good building practices that include proper flashing and water diversion techniques will help ensure a successful installation.

How much does Eldorado Stone weigh?

Approximately 10-12 lbs. per square foot. Eldorado Stone qualifies as an adhered veneer because it weighs less than 15 lbs. per square foot.

Will Eldorado Stone fade?

The base color is blended throughout and permanent mineral oxide pigments are applied and absorbed when the veneer is cast. Color becomes an integral part of the veneer and, similar to natural stone, there are minimal noticeable color changes after years of weathering.

How important is a good stone installation?

As with any building material, the beauty of that product is greatly enhanced by how well it is installed. With Eldorado Stone, careful consideration regarding the type of profile and color selected, the actual installed stone “pattern”, and the type of grout technique used, are all very important factors to regard. It is always best to create a mock up board with the desired aesthetic appeal prior to installation on your project. For more information download the *Installation Procedures* and *Finishing Details* PDFs from www.eldoradostone.com.



What type of coverage can be expected?

Approximately 100 square feet per day. This varies depending upon the stone type used and the installers ability. Stacked Stone, for instance, sold in 4" modular component panels, is easy to install and will provide coverage of up to 200 square feet in a day. Conversely, Shadow Rock, with its irregular shapes and varying stone sizes, can provide coverage of 70- 80 square feet a day.

Where can I buy Eldorado Stone?

Eldorado Stone is sold by more than 1,000 authorized distributors throughout the U.S. and Canada. Please visit www.eldoradostone.com and select "Contact" to find a distributor near you.

Where can I find knowledgeable masons?

Your local Eldorado Stone distributor can recommend local masons that are familiar with Eldorado Stone products and installation.

Does Eldorado Stone meet building code requirements?

Eldorado Stone complies with all applicable Building Code requirements. A copy of the Eldorado Stone *Technical Data Sheet* is available online at www.eldoradostone.com.

Is Eldorado Stone combustible?

No. Eldorado Stone's listing by Underwriter's Laboratories shows zero fuel contributed and zero smoke developed. It can be installed as a façade to fireplaces and behind stoves. It is recommended the product is at least 18" away from any direct flame.

Can I install Eldorado Stone on overhead horizontal surfaces?

Please verify your installation with your building official and consult with an engineer for specific design issues on your project. There are grout and mortar manufacturers that will support their product's use in these installations. Eldorado Stone's *50 Year Limited Warranty* will still cover our veneer products for manufacturing defects.

FREQUENTLY ASKED QUESTIONS

Can I install Eldorado Stone near water?

It is not recommended for use below the water line in a pool, a fountain or below grade. A high quality penetrating and breathable sealer that is either silane or siloxane-based is recommended in areas where the stone may be subject to frequent water run off.

NOTE: A sealer may affect the stone color and may create a gloss or matte finish. Always test a small area beforehand.

How thick are the stones?

0.625" to 3.625" depending on the texture.

What's the thickness from the substrate to surface of the stone?

There will be (approximately) an additional 0.5"-1" of mortar thickness behind the stone. For example, if your stone profile is 2" thick, you can expect the total thickness from the substrate to the face of the stone to be (approximately) 2.5" - 3" thick.

What is the R-value of Eldorado Stone?

An average of 0.41 per inch of thickness.

What is the installed weight?

The installed weight will vary depending upon the profile chosen and the mortar, grout technique, lath and lath accessories used. Eldorado Stone can weigh up to 15 lb./sq.ft. If a specific weight is needed for a project we recommend having an engineer evaluate the system.

How many square feet will a bag of mortar cover?

A 94 lb. bag covers 8'-12' for the standard, full and overgrout applications and 10'-14' for the drystack applications.

What happens if Eldorado Stone is damaged?

Small chips and cracks can be repaired using our *Color Touch-Up Kit* which includes easy-to-follow instructions. These kits are available from Customer Service at 800.925.1491. *Touch-Up Kits* are not made for coloring aggregate exposed by cutting stones. The best installers will bury cuts into transitions and/or hide them with mortar when grouting.



How do I clean the Eldorado Stone ?

To clean dirt or other particles first try a simple soft bristle brush. If necessary use a solution of mild detergent with water and scrub the surface with a soft bristle brush. Rinse with clean water to remove any cleaning solution that might remain on the surface. If the stone has a white stain deposit (efflorescence) please contact Customer Service at 800.925.1491 for recommendations. Never use wire brushes, acid cleaners, power washers, bleach, paint remover or any other type of concrete cleaner.

How do I clean efflorescence?

When efflorescence occurs, as it does with many masonry products, it is the usually the result of moisture migration through the masonry substrate. Once the moisture is on the masonry surface, it evaporates, depositing dissolved salts in the form of efflorescence. Efflorescence naturally disappears over time as long as the moisture source is controlled or eliminated. If the stain will not wash off, do not apply chemicals or cleaners to the stone. Call Eldorado customer service to discuss optional solutions.

Can I seal Eldorado Stone?

It is not required to seal Eldorado Stone. A sealer will provide added protection and will usually be easier to clean if the surface becomes dirty. If you choose to use a sealer for added protection use only a silane or siloxane-based penetrating, breathable masonry sealer.

NOTE: A sealer may affect the stone color and may create a gloss or matte finish. Always test a small area beforehand.

What about protection against graffiti?

In many areas, Eldorado Stone is considered a protection against graffiti. The color blends and uneven textures are not the best canvas for graffiti “artists.” However, if you should choose to use an anti-graffiti coating please speak directly to the manufacturer of the anti-graffiti coating product and ask your contractor to submit a test prior to installation. There are urethane and wax-based sealers that can damage the surface or cause it to “yellow.” Other sealers may encourage additional efflorescence on the stone’s surface. No type of coating should be applied until the stone has been on the wall for at least 14 to 28 days.

FREQUENTLY ASKED QUESTIONS

Does Eldorado Stone require movement joints?

Expansion joints normally pass completely through a wall. Control joints normally are on the surface of the wall and relieve strain on the skin of the wall. Terminate the veneer installation where control and expansion joints occur in the substrate. Do not span these joints with veneer because this will lead to cracking. Expansion joints in a building must be specified by the architect or engineer. The architect or engineer should consider the ASTM C 1063 control joint requirements when determining the location of control joints on any structure. Normally the weakest point on a wall is immediately above and below penetrations.

How do I install Eldorado Stone when there is an expansion joint?

Treat each section as a “separate” installation. Do not span movement joints with the veneer.

What is Eldorado Stone’s recommendation regarding flashing around windows and doors?

To maintain the weather-resistance of the exterior wall on which the stone products are installed, a rigid, corrosion-resistant flashing — and a means of drainage — should be installed at all penetrations and terminations of the veneer cladding. Flashing type and locations shall be in accordance with the requirements of the applicable code.

Please reference the *Finishing Details* PDF on our website. Also refer to ASTM E2112 and any information from your Window and Door manufacturer.

What kind of Weather Resistive Barrier (WRB) can I use?

It is recommended to use two separate layers of WRB in all applications where WRB is specified.* The WRB must meet the requirements of ICC-ES AC 308 *Acceptance Criteria for Water-Resistive Barriers*. When using Grade D paper, a 60 minute rating is recommended. Felt paper must be clearly marked that it meets the requirements of ASTM D 226 for #15 or #30 asphalt saturated felt.** It is acceptable to use one layer of housewrap covered by a second layer of WRB meeting the requirements above. The WRB should be free of tears or holes.

* It is acceptable to use one layer of WRB on interior applications.

** Felt meeting ASTM D 4869 or non-ASTM #15 felt is not recommended for use behind veneer.



Should I use a rainscreen drainage plane system?

Eldorado Stone veneer does not require the use of a rainscreen drainage plane system for all applications. However, some building codes now require the use of rainscreen drainage plane systems behind cladding materials such as manufactured veneer. If you are installing veneer in these areas, or wish to provide additional protection against entrapped moisture, download the *Installation Procedures* PDF from www.eldoradostone.com for more detailed information.

What is the fire rating of Eldorado Stone?

Eldorado Stone has been tested for fire hazard and shows zero flame spread and zero smoke developed. Since Eldorado Stone is non-combustible there is no fire rating.

Can we install Eldorado Stone around a fireplace?

Eldorado Stone can be installed around a fireplace. The veneer has to be a minimum of 18" from any open flame. Download the *Installation Procedures* PDF from www.eldoradostone.com for more detailed information.

What measures should be taken for hot/cold weather installations?

For cold weather installations ambient temperature should be 40°F or higher at the time Eldorado Stone veneer is applied. If the temperature is below 40°F, mortar should be heated between 40°F – 120°F (not to exceed 140°F). Any mortar that freezes should be discarded. Wall surfaces may need to be covered and heated after installation of veneer to avoid freezing the mortar. See section 2104.3 of the International Building Code (IBC) for additional cold weather requirements.

Applications in hot weather conditions should follow the requirements in section 2104.4 of the IBC. Mortar should be kept under 120°F and be used within 2 hours of initial mixing.

Does Eldorado Stone need a ledge detail at the bottom for structural support or can it hang freely?

No footings or support ledges are needed. The product is an adhered veneer and is supported on the wall by the bond of the mortar to the stone and scratch coat.

FREQUENTLY ASKED QUESTIONS

What measures should be taken for applications over 30 feet?

Eldorado Stone can be installed on any structurally sound surface. For all applications up to 30' in height we recommend following our *Installation Procedures*. Unless special construction techniques accommodates differential movement — which is approved by a code official — there is a 30' height limit for installations over wood-frame construction. For installations over non wood-framed sheathing (e.g., steel studs, concrete walls, etc.) there's no specific height limitation. However, Eldorado Stone recommends that you consult with a building code official regarding any project exceeding 30' in height.

What kind of wind-load testing has been applied to Eldorado Stone veneer?

Eldorado Stone has tested grouted and dry-stacked applications in accordance with: ASTM E330, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference (Modified)*. Wall samples were subjected to positive and negative structural load tests at 57.6 psf (150 mph wind speed) and 60 psf (153 mph wind speed) pressure differentials. After completion of each load a visual inspection revealed no visible damage or cracking.

Where can I learn more about Eldorado Stone?

Contact your Architectural Representative, visit www.eldoradostone.com or talk to your local distributor to find out more about the many inspirational and technical attributes that make Eldorado Stone *The Most Believable Architectural Stone Veneer in the World™*.



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Care & Maintenance

Thank you for choosing Eldorado Stone for your project! Eldorado Stone products are virtually maintenance free.

CLEANING

To clean dirt or other particles first try a simple soft bristle brush. If necessary use a solution of mild detergent with water and scrub the surface with a soft bristle brush. Rinse with clean water to remove any cleaning solution that might remain on the surface. If the stone has a white stain deposit (efflorescence) please contact Customer Service at (800) 925-1491 for recommendations. Never use wire brushes, acid cleaners, power washers, bleach, paint remover or any other type of concrete cleaner.

EFFLORESCENCE

When efflorescence occurs, as it does with many masonry products, it is the usually the result of moisture migration through the masonry substrate. Once the moisture is on the masonry surface, it evaporates, depositing dissolved salts in the form of efflorescence. Efflorescence naturally disappears over time as long as the moisture source is controlled or eliminated. If the stain will not wash off, do not apply chemicals or cleaners to the stone. Call Eldorado customer service to discuss optional solutions.

PROTECTIVE TREATMENT

It is not required to seal Eldorado Stone. A sealer will provide added protection and will usually be easier to clean if the surface becomes dirty. If you choose to use a sealer for added protection use only a silane or siloxane-based penetrating, breathable masonry sealer.

Note: A sealer may affect the stone color and may create a gloss or matte finish. Always test a small area beforehand.



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INSTALLATION GUIDELINES

Eldorado Stone endorses and supports the National Concrete Masonry Association - Manufactured Stone Veneer (NCMA-MSV) Installation Guidelines. The mission of the NCMA organization is to advance the growth of the manufactured masonry veneer products industry through proactive technical, advocacy, and awareness efforts.

One of the most important projects completed by the NCMA Technical Committee was the development of a highly detailed and carefully researched installation guide. The latest version of that guide can be downloaded at www.eldoradostone.com/resources. These guidelines are intended to share over 50 years of knowledge, experience and understanding regarding the proper installation of manufactured stone veneer products. For any specific or unique installation questions or challenges, including:

- Traditional masonry installation methods
- Installation over cement board using polymer modified mortar
- Installation over thick foam; fastener selection
- Installation of large format profiles

Please contact Eldorado Stone's Technical Support Service directly at 800.925.1491.



Note: It is important to recognize that Eldorado Stone and Brick veneer products are an adhered veneer or façade which are attached directly to a cementitious substrate for purposes of providing ornamentation and a first layer of weatherization protection. Adhered Concrete Masonry Veneers are not intended as a structural product or a waterproofing element. Most importantly, the real subject matter expert is your local building department and the local building code. Your local building code will supersede all other written or verbal installation guides provided by Eldorado Stone or the NCMA. Go to ncma.org/manufactured-stone-veneer for more information about the NCMA.



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Installation Guide and Detailing Options for **Compliance with ASTM C1780**

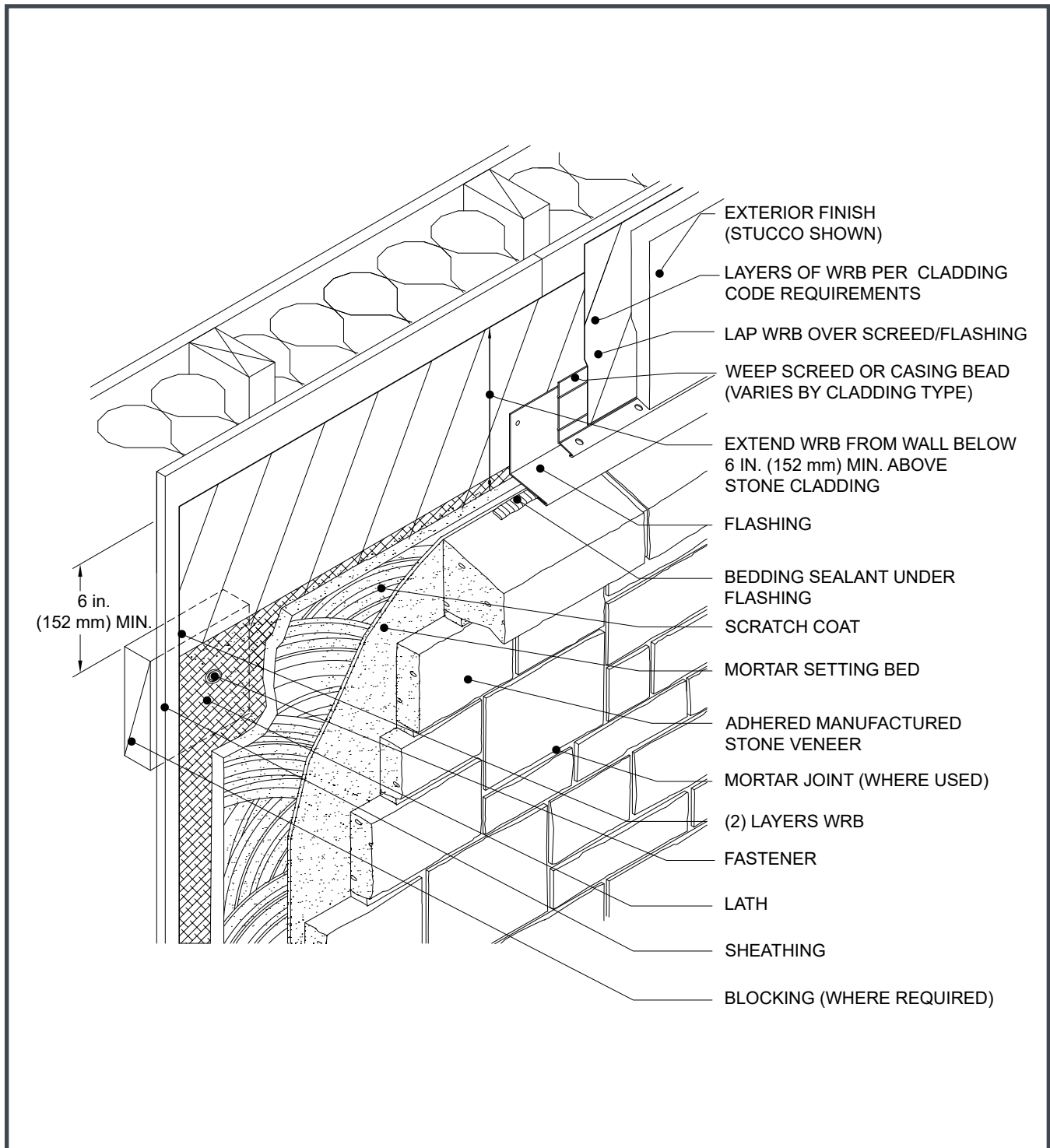
For Adhered Manufactured Stone Veneer 5th Edition, 4th Printing

NATIONAL
CONCRETE MASONRY
ASSOCIATION



N C M A M S V

Figure 3. Wall Assembly Transition



LONE STAR STONE
"The Natural Choice"

NITTERHOUSE
STONE
MANUFACTURED STONE

NORSE
BUILDING PRODUCTS INC.

Prestige
STONE PRODUCTS LLC

ProVia
THE PROFESSIONAL WAY

SUNSET
STONE

TEXAS STONE
DESIGNS INC.
INTEGRITY • QUALITY • SERVICE

VENEERSTONE
Producers of Quality Manufactured Stone & Thin Brick

Figure 4a. Typical Frame Wall Section

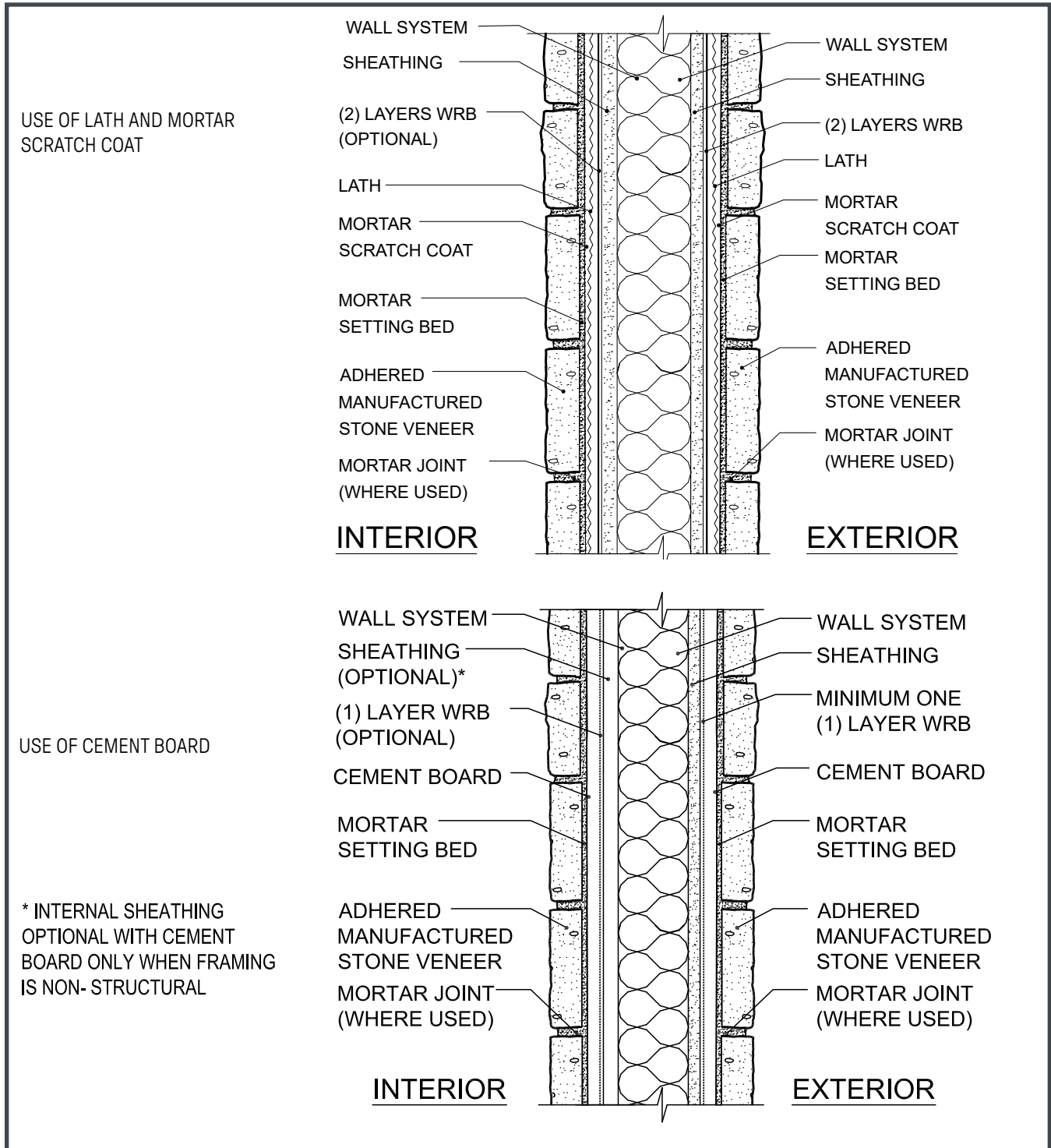


Figure 4b. Typical Wall Frame Section with Continuous Rigid Insulation

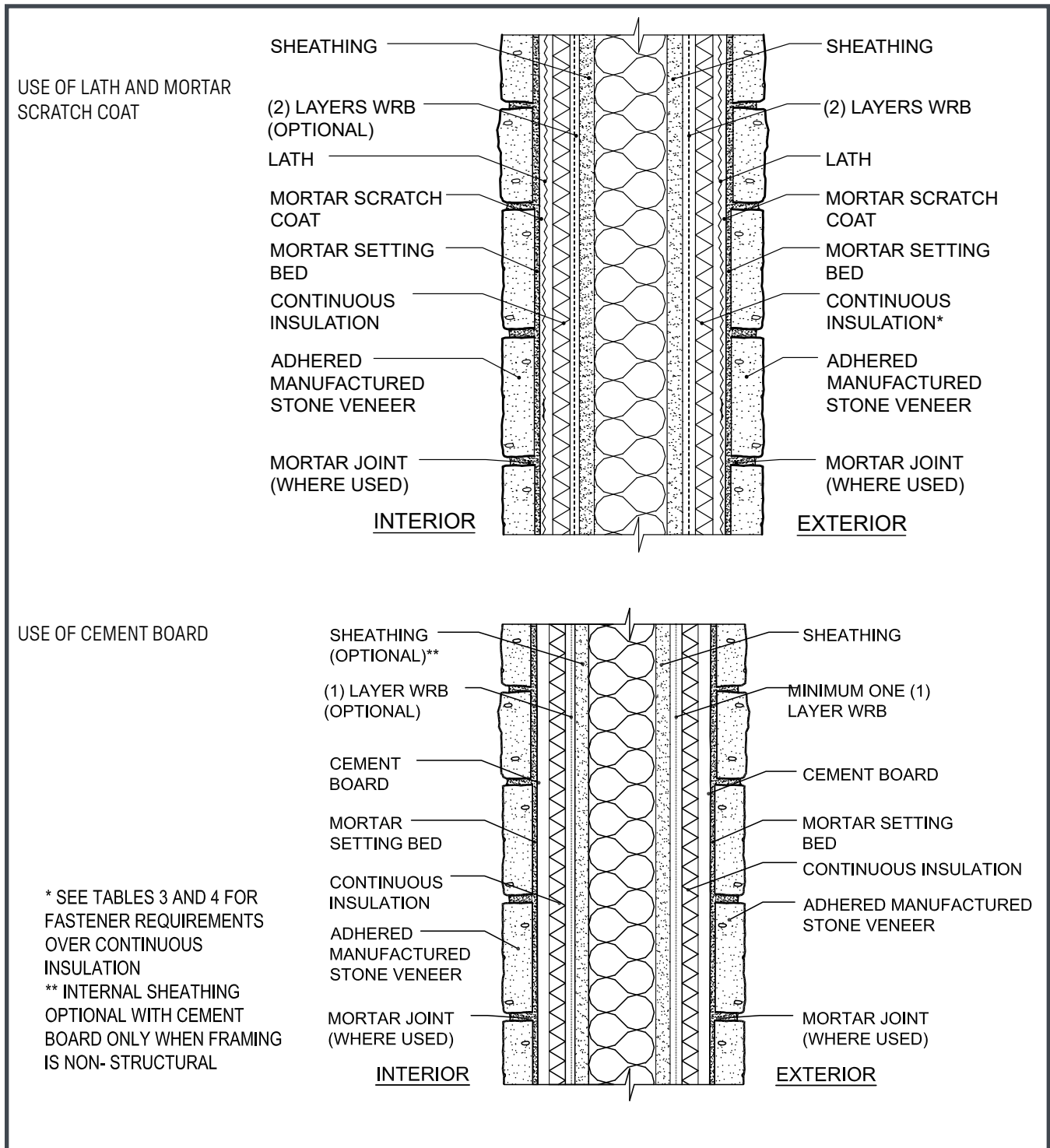


Figure 5a. Foundation Wall Base

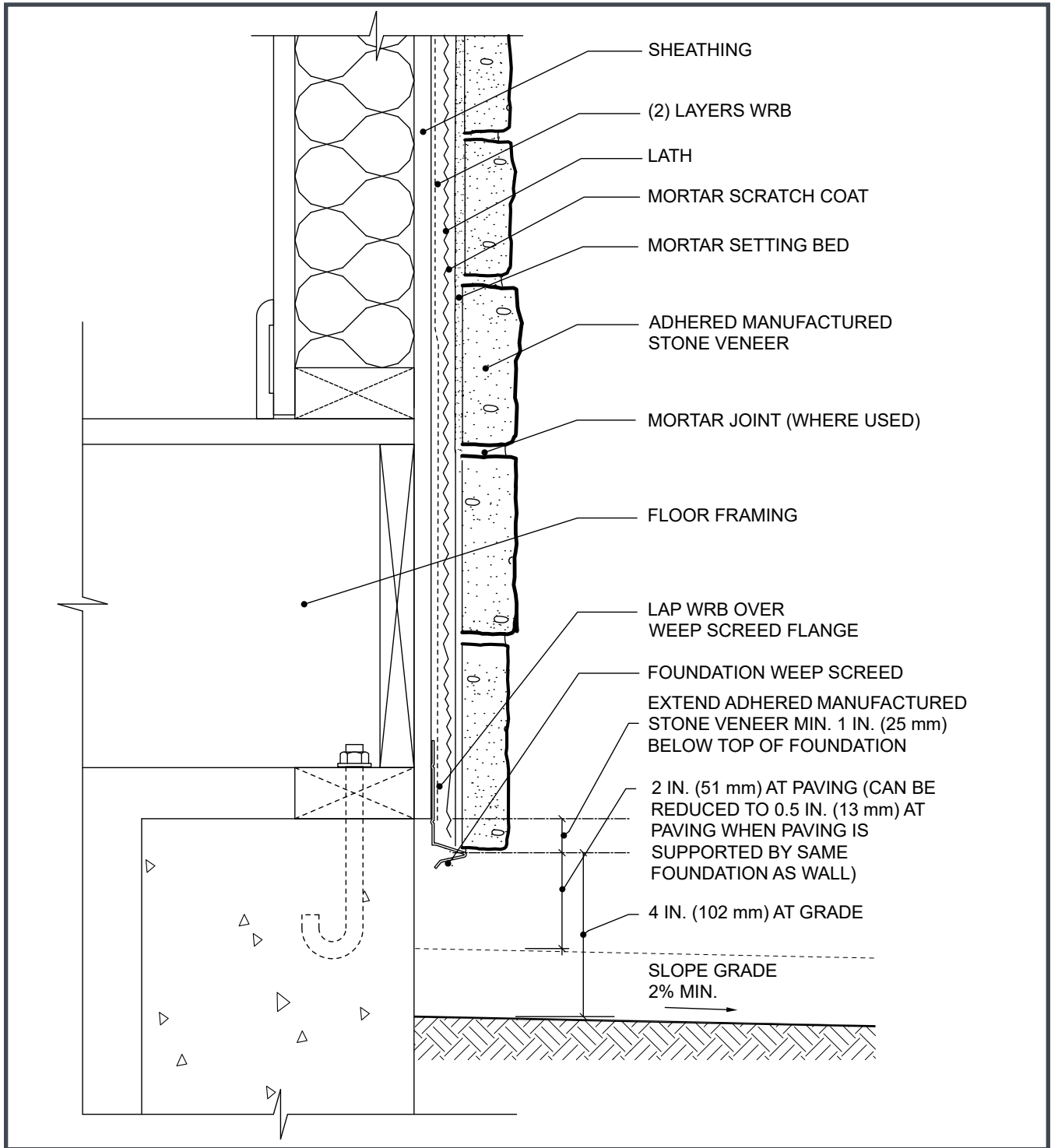
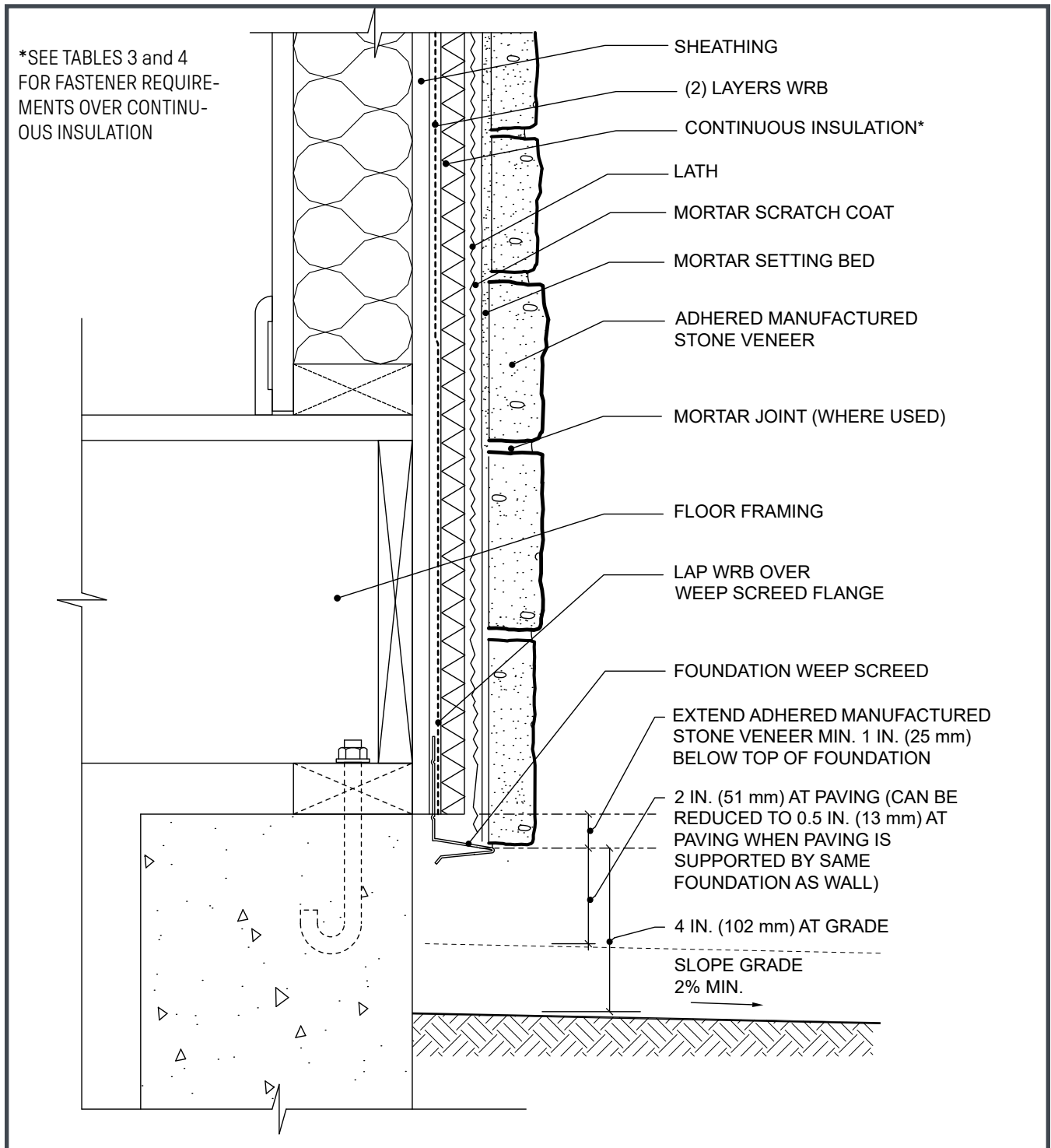


Figure 5b. Foundation Wall Base Over Continuous Rigid Insulation



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STONE

NORSE
BUILDING PRODUCTS INC.

Prestige
STONE PRODUCTS LLC

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THE PROFESSIONAL WAY

SUNSET
STONE

TEXAS STONE
DESIGNS INC.
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Producers of Quality Manufactured Stone & Thin Brick

Figure 6. Foundation Wall Base – AMSV Overlapping Foundation

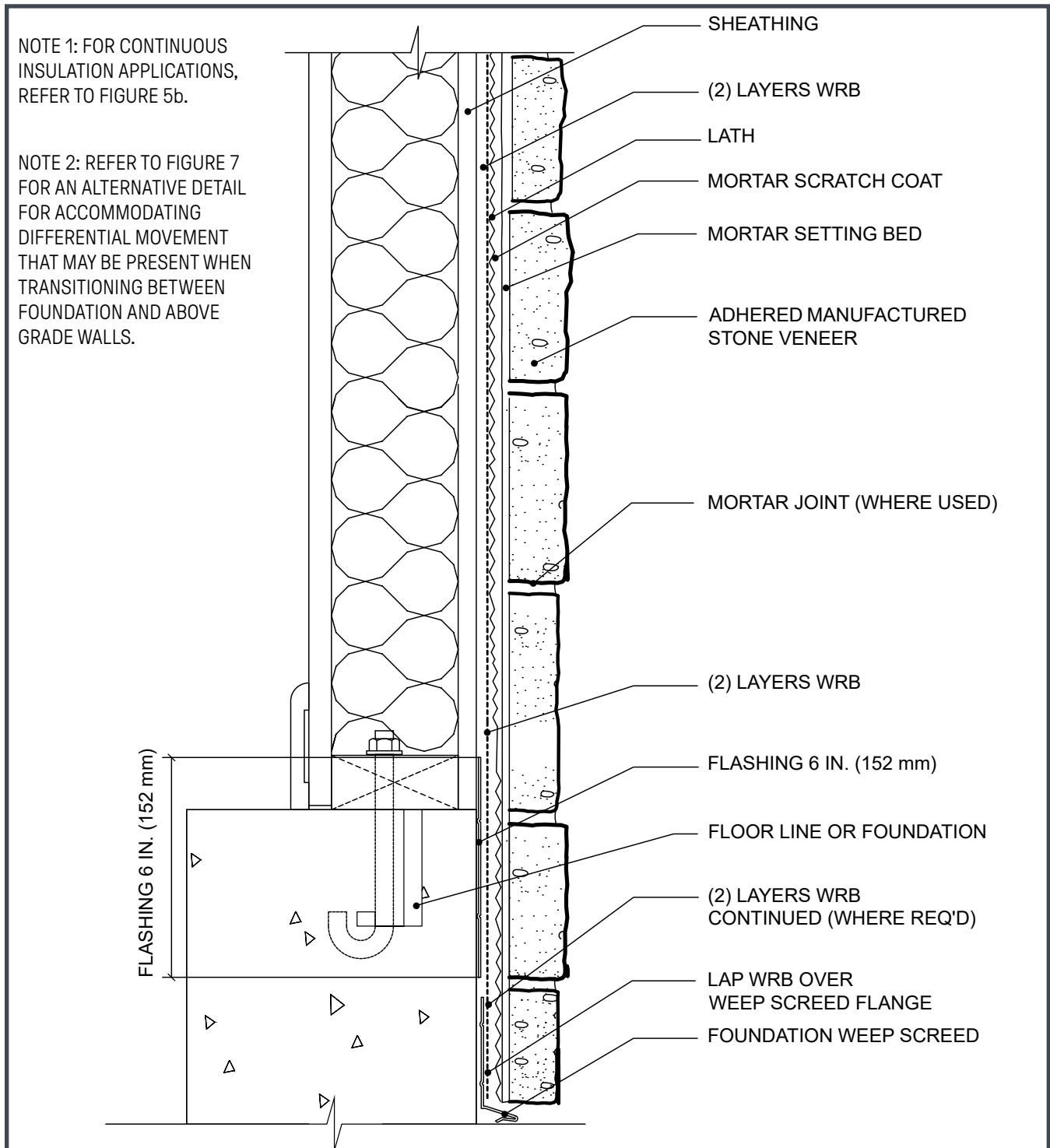
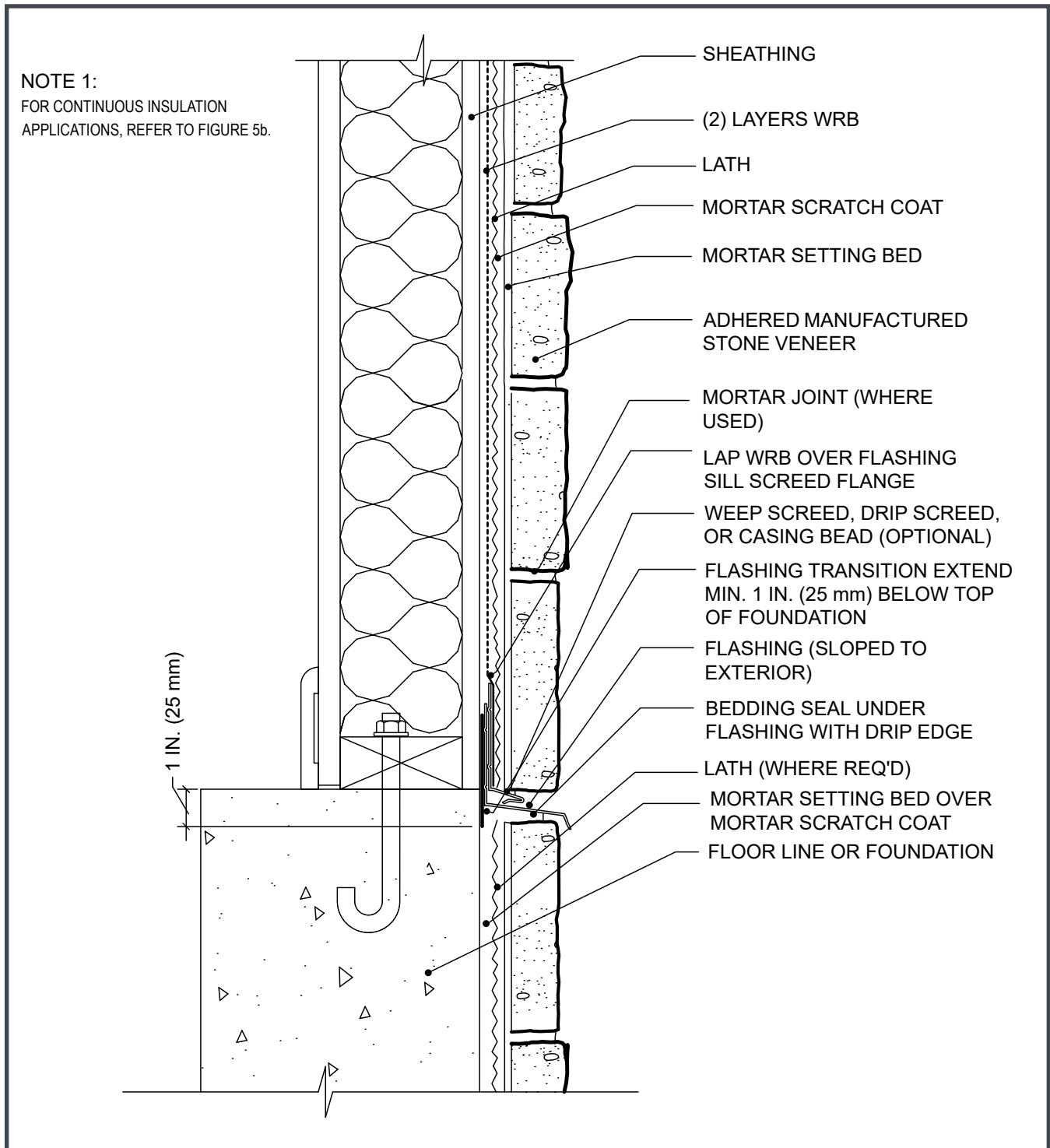


Figure 7. Foundation Wall - Transition to AMSV Continuing Down Foundation



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Figure 8a. Cladding Transition

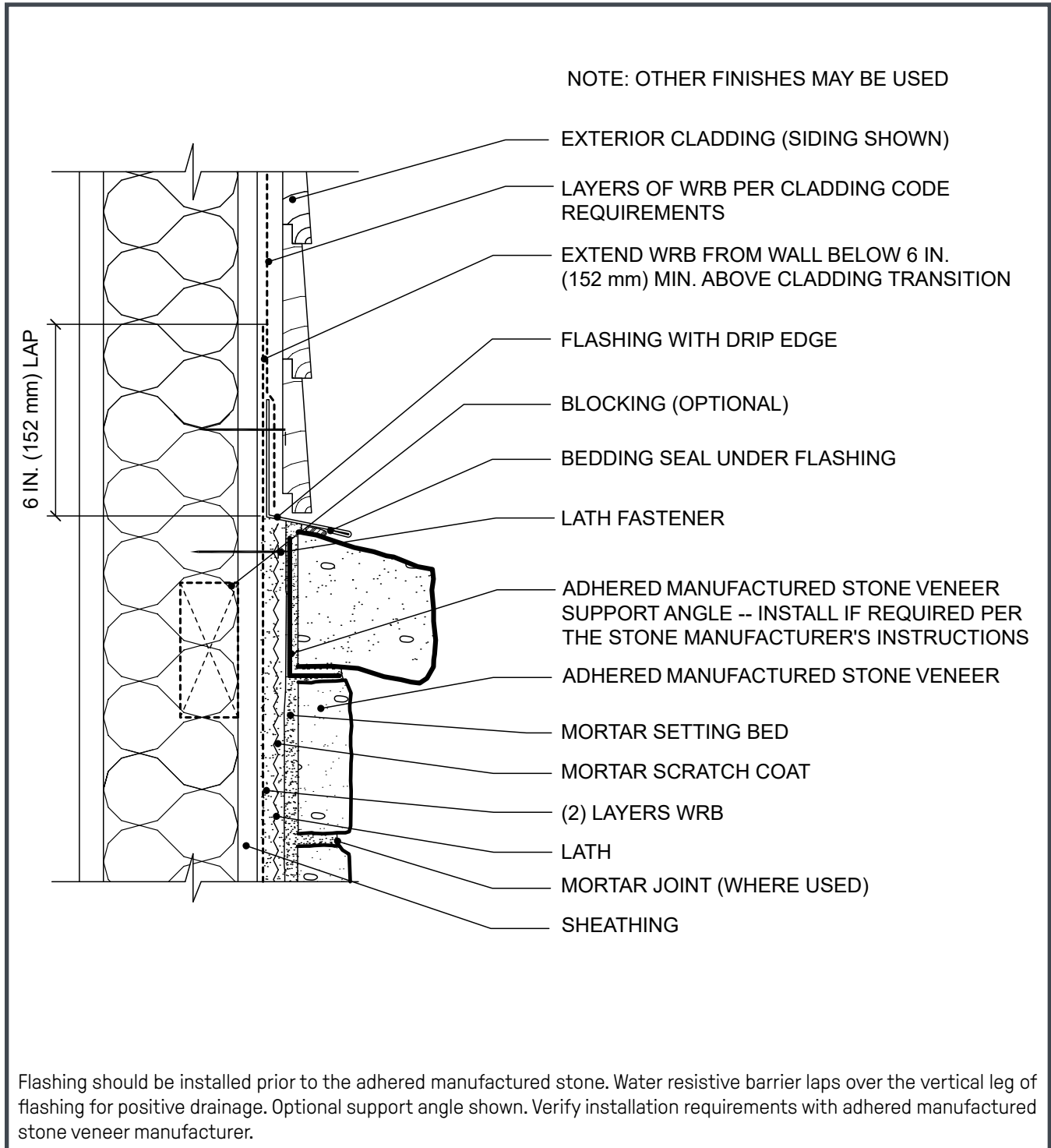
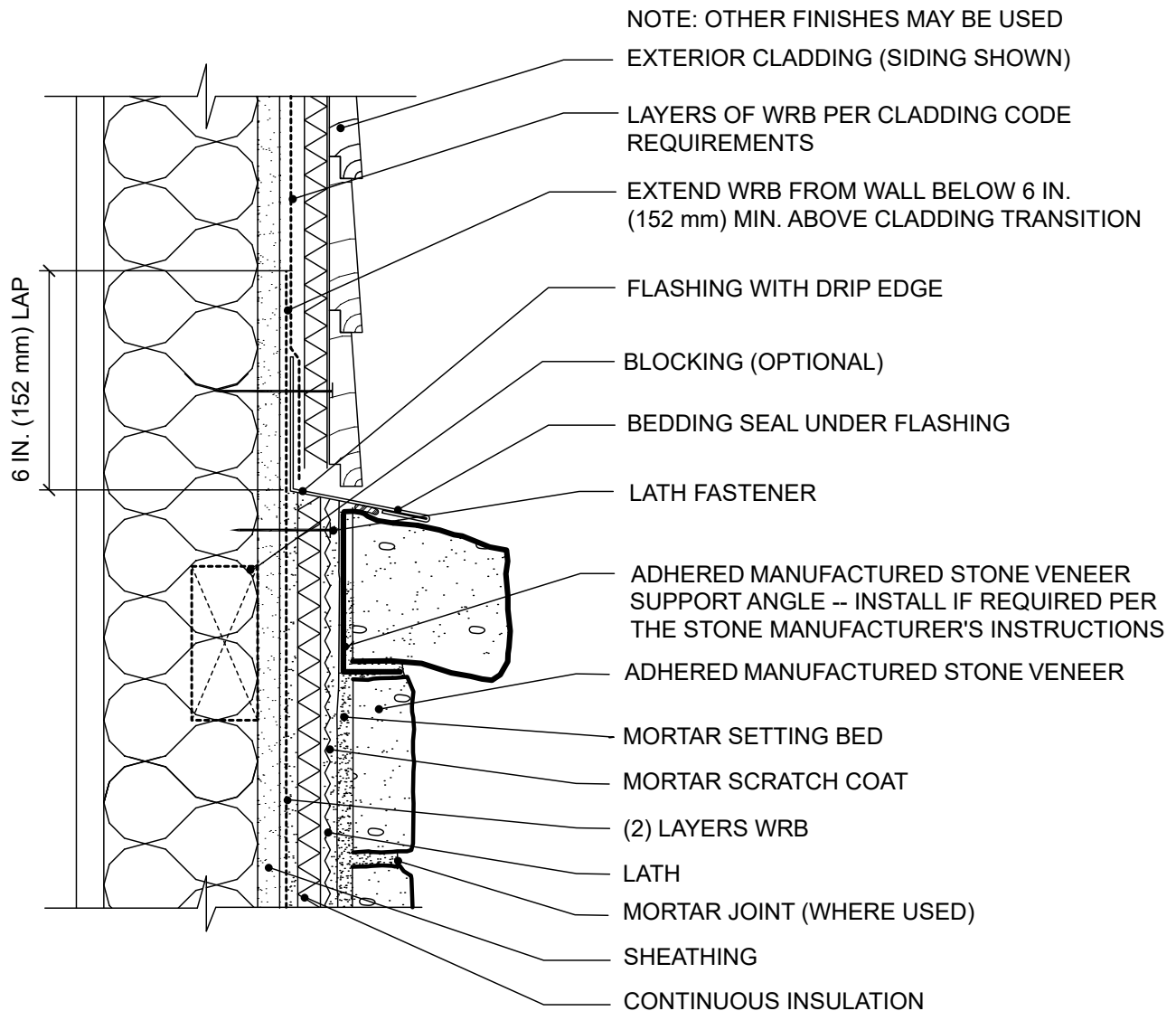


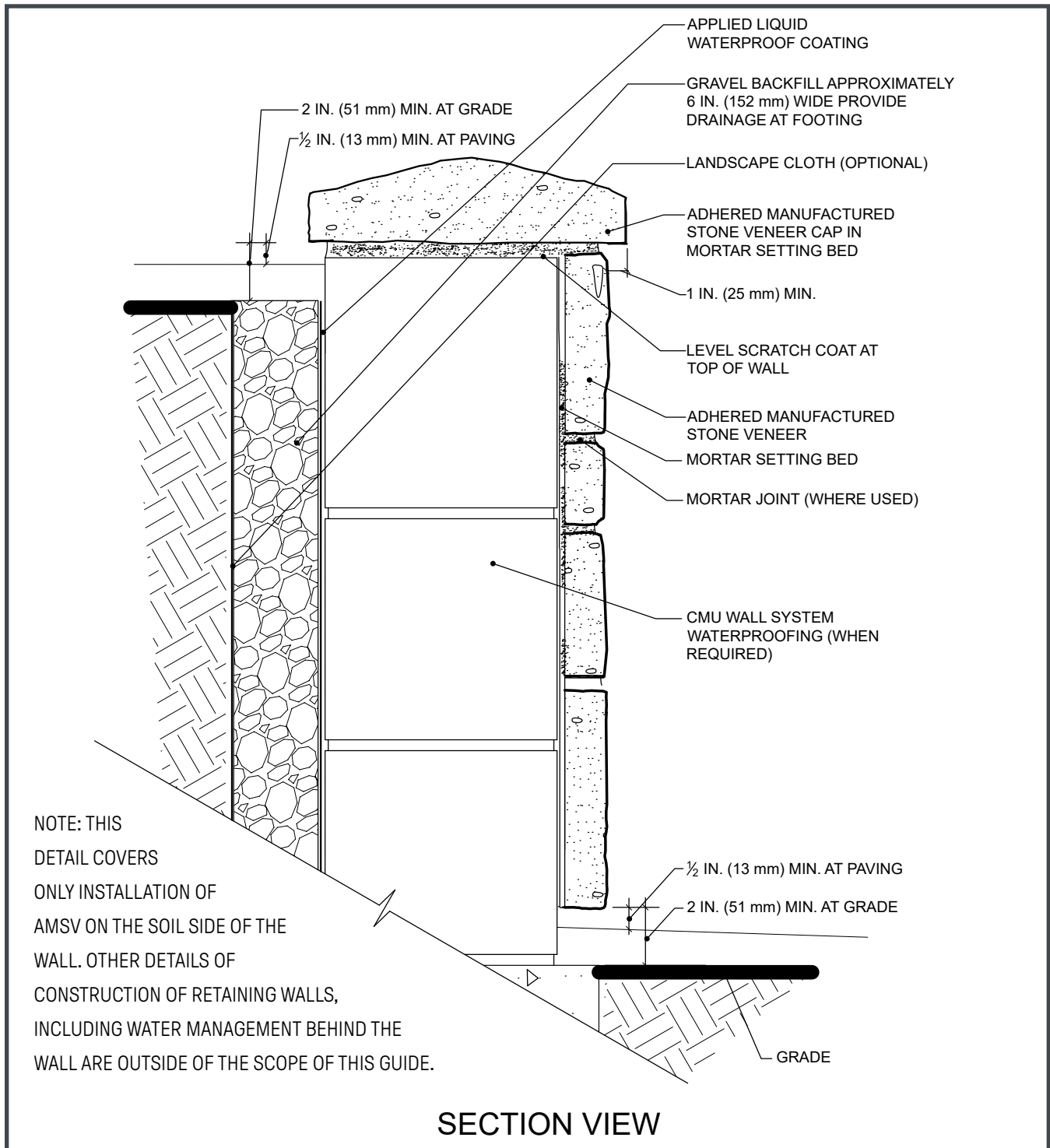
Figure 8b. Cladding Transition Over Continuous Rigid Insulation



Flashing should be installed prior to the adhered manufactured stone. Water resistive barrier laps over the vertical leg of flashing for positive drainage. Optional support angle shown. Verify installation requirements with adhered manufactured stone veneer manufacturer.



Figure 39. Retaining Wall (CMU)



NCMA MSV

MANUFACTURED STONE VENEER

For additional information or questions on the
items contained here, please contact NCMA at:
(703) 713-1900

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website: www.eldoradostone.com

CSI – 3 PART SPEC

SECTION 04 73 00 MANUFACTURED MASONRY VENEER

GENERAL NOTES TO SPECIFIER:

THIS SPECIFICATION SECTION HAS BEEN PREPARED TO ASSIST DESIGN PROFESSIONALS IN THE PREPARATION OF PROJECT OR OFFICE MASTER SPECIFICATIONS. IT FOLLOWS GUIDELINES ESTABLISHED BY THE CONSTRUCTION SPECIFICATIONS INSTITUTE (CSI), AND THEREFORE MAY BE USED WITH MOST MASTER SPECIFICATION SYSTEMS WITH MINOR EDITING.

EDIT CAREFULLY TO SUIT PROJECT REQUIREMENTS. MODIFY AS NECESSARY AND DELETE ITEMS THAT ARE NOT APPLICABLE. VERIFY THAT REFERENCED SECTION NUMBERS AND TITLES ARE CORRECT. (NUMBERS AND TITLES REFERENCED ARE BASED ON *MASTERFORMAT*, 2004 EDITION).

THIS SECTION ASSUMES THE PROJECT MANUAL WILL CONTAIN COMPLETE DIVISION 1 DOCUMENTS INCLUDING SECTIONS 01 25 13–PRODUCT SUBSTITUTION PROCEDURES, 01 33 00–SUBMITTAL PROCEDURES, 01 62 00–PRODUCT OPTIONS, 01 66 00–PRODUCT STORAGE AND HANDLING REQUIREMENTS, 01 74 00–CLEANING AND WASTE MANAGEMENT, 01 77 00–CLOSEOUT PROCEDURES, AND 01 78 00–CLOSEOUT SUBMITTALS. CLOSE COORDINATION WITH DIVISION 1 SECTIONS IS REQUIRED. IF THE PROJECT MANUAL DOES NOT CONTAIN THESE SECTIONS, ADDITIONAL INFORMATION SHOULD BE INCLUDED UNDER THE APPROPRIATE ARTICLES.

THIS IS A CLOSED PROPRIETARY SPECIFICATION.

NOTES TO THE SPECIFIER ARE CONTAINED IN BOXES AND SHOULD BE DELETED FROM FINAL COPY.

GREY HIGHLIGHTED GREEN TEXT AND NOTES RELATE TO LEED® PROJECTS AND CAN BE DELETED IF THE PROJECT IS NOT INTENDED TO ATTAIN LEED® CERTIFICATION. CREDIT REFERENCES REFER TO LEED® FOR NEW CONSTRUCTION, V2.2.

OPTIONAL ITEMS REQUIRING SELECTION BY THE SPECIFIER ARE ENCLOSED WITHIN BRACKETS, E.G. [35] [40] [45]. MAKE APPROPRIATE SELECTIONS AND DELETE OTHERS.

ITEMS REQUIRING ADDITIONAL INFORMATION ARE UNDERLINED BLANK SPACES, E.G. _____.

OPTIONAL PARAGRAPHS REQUIRING SELECTION OF ONE OF THE OPTIONS ARE SEPARATED BY “OR” WITHIN A BOX, E.G.

OR

BOLD FACE TEXT IDENTIFIES OPTIONAL PARAGRAPHS AND FEATURES THAT MAY BE INCLUDED OR DELETED DEPENDING ON PROJECT REQUIREMENTS. CONVERT THE BOLD FACE TEXT TO REGULAR TEXT WHEN INCLUDING THESE PARAGRAPHS OR FEATURES. WHEN DELETING A PARAGRAPH, BE CERTAIN THAT ALL SUBPARAGRAPHS ARE ALSO DELETED.

REVISE FOOTER TO SUIT PROJECT/OFFICE REQUIREMENTS.

ELECTRONIC VERSIONS OF THIS SPECIFICATION UTILIZE AUTOMATIC PARAGRAPH NUMBERING.

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Portland cement based manufactured [stone] [and] [brick] veneer and trim.

B. Related Sections:

INCLUDE ALL DIVISION 01 SECTIONS CONTAINING LEED® REQUIREMENTS.

1. _____. Wall Framing.
2. _____. Wall Sheathing.
3. 07 60 00–Flashing and Sheet Metal.
4. 07 92 00–Joint Sealants.
5. 09 24 00–Portland Cement Plastering.
6. 10 30 00–Fireplaces and Stoves.

INCLUDE APPROPRIATE LANGUAGE BELOW IF PRODUCTS SPECIFIED IN THIS SECTION ARE TO BE BID AS ALTERNATES. OTHERWISE DELETE FOLLOWING PARAGRAPH.

C. Alternates:

1. Reference Section 01 23 00–Alternates.

1.02 REFERENCES

A. American National Standards Institute (ANSI):

1. ANSI A118.4 – Specifications for Latex-Portland Cement Mortar.

B. American Society for Testing and Materials (ASTM):

1. ASTM C 39 – Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
2. ASTM C 67 – Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile.
3. ASTM C 144 – Standard Specification for Aggregate for Masonry Mortar.
4. ASTM C 177 – Standard Test Method for Steady-State Head Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.
5. ASTM C 207 – Standard Specification for Hydrated Lime for Masonry Purposes.
6. ASTM C 270 – Standard Specification for Mortar for Unit Masonry.
7. ASTM C 482 – Standard Test Method for Bond Strength of Ceramic Tile to Portland Cement.
8. ASTM C 567 – Standard Test Method for Determining Density of Structural Lightweight Concrete.
9. ASTM C 847 – Standard Specification for Metal Lath.
10. ASTM C 932 – Standard Specification for Surface-Applied Bonding Compounds for Exterior Plastering.
11. ASTM C 979 – Standard Specification for Pigments for Integrally Colored Concrete.
12. ASTM C 1032 – Standard Specification for Woven Wire Plaster Base.
13. ASTM C 1059 – Standard Specification for Latex Agents for Bonding Fresh To Hardened Concrete.
14. ASTM D 226 – Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
15. ASTM C1063 – Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster
16. ASTM C1329 – Standard specification for Portland cement

17. ASTM C578 – Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation
18. ASTM C1289 – Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board
19. ASTM E2556/E2556M – Standard Specification for Vapor Permeable Flexible Sheet Water-Resistive Barriers Intended for Mechanical Attachment

C. Other Standards:

1. UBC Standard No. 14-1, Kraft Waterproof Building Paper
2. ICC AC38 Acceptance Criteria for Water Resistive Barriers
3. UU-B-790 Building Paper, Vegetable Based, Kraft, waterproofed, water repellent and fireproof

D. **City of Los Angeles: Research Report (LARR)**

1. Research Report #25589

E. International Code Council (ICC):

1. ESR Report.

F. **LEED®: US Green Building Council's Leadership in Energy and Environmental Design Green Building Rating System™.**

G. Underwriter's Laboratory (UL): Building Materials Directory.

H. **US Department of Housing and Urban Development (HUD): Material Release Numbers 910Fs.**

1.03 SUBMITTALS

A. Reference Section 01 33 00–Submittal Procedures; submit following items:

1. Product Data.
2. Samples:
 - a. Standard sample board consisting of small-scale pieces of veneer units showing full range of textures and colors.
 - b. **Full range of mortar colors.**
3. **Verification Samples: Following initial sample selection submit “laid-up” sample board using the selected stone and mortar materials and showing the full range of colors expected in the finished Work; minimum sample size: 3 by 3 feet (1 by 1 m).**
4. Quality Assurance/Control Submittals:
 - a. Qualifications:
 - 1) Proof of manufacturer qualifications.
 - 2) Proof of installer qualifications.
 - b. Regulatory Requirements: Evaluation reports.
 - c. Veneer manufacturer's installation instructions.
 - d. Installation instructions for other materials.
5. **LEED® Submittals:**
 - a. **Credit MR 4.1, 4.2 Recycled Content: Provide percentage of recycled content (post-consumer and pre-consumer).**
 - b. **Credit MR 5.1, 5.2 Regional Materials:**
 - 1) **Provide distance between Project site and extraction site.**
 - 2) **Provide distance between Project site and final manufacturing location.**

MANUFACTURED MASONRY CAN ALSO CONTRIBUTE TO CREDIT EA 1 FOR OPTIMIZING ENERGY PERFORMANCE AND CREDITS ID 1.1-1.4 FOR INNOVATION IN DESIGN, HOWEVER, NO SPECIFIC SUBMITTALS ARE REQUIRED IN THIS SECTION.

B. Closeout Submittals: Reference Section 01 78 00-Closeout Submittals; submit following items:

1. Maintenance Instructions.
2. Special Warranties.

1.04 QUALITY ASSURANCE

A. Qualifications:

1. Manufacturer Qualifications: Eldorado Stone, LLC.
2. Installer Qualifications: Experienced mason familiar with installation procedures and related local, state and federal codes masonry.

B. Certifications:

1. **ICC Evaluation Service - Evaluation Report ESR-1215**
2. **ICC ESR-1215, Florida Building Code Supplement**
3. **LARR – Research Report RR25589**
4. **HUD - Material Release Number 910F**
5. **UL - Classification listing in Building Materials Directory: UL 546T (F8002)**

C. Field Sample:

COMPLETE FOLLOWING SUBPARAGRAPH TO INCLUDE DESIRED DETAILS SUCH AS CORNERS, TRIM, MORTAR JOINTS AND JOINT DETAILS ABUTTING OTHER MATERIALS.

1. Prepare [4 by 4 foot (1200 by 1200 mm)] [____ by ____ foot (____ by ____ mm)] sample at a location on the structure as selected by the Architect. Use approved selection sample materials and colors. Include _____.
2. Obtain Architect's approval.
3. Protect and retain sample as a basis for approval of completed manufactured stone work. Approved sample may be incorporated into completed work.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Reference Section 01 66 00-Product Storage and Handling Requirements.

B. Follow manufacturer's instructions.

1.06 PROJECT/SITE CONDITIONS

A. Environmental Requirements: When air temperature is 40 degrees F (4.5 degrees C) or below, consult local building code for Cold-Weather Construction requirements.

1.07 WARRANTY

A. Special Warranty: Manufacturer's standard warranty coverage against defects in materials when installed in accordance with manufacturer's installation instructions.

PART 2 - PRODUCTS

2.01 MANUFACTURER

A. Eldorado Stone, LLC
1370 Grand Ave., Bldg. B
San Marcos, CA 92069

Tel: (800) 925-1491
Fax: (760) 736-3840
E-Mail: customerservice@eldoradostone.com
Website: www.eldoradostone.com

INSERT NAME, ADDRESS AND CONTACT INFORMATION OF LOCAL DISTRIBUTOR BELOW.

1. Manufacturer's Distributor:

IF PROJECT UTILIZES ONLY ONE TYPE OF STONE, INSERT THE NAME OF THE PRODUCT IN THE BLANK SPACE BELOW AND DELETE THE SECOND SELECTION. IF MORE THAN ONE TYPE OF STONE IS REQUIRED, DELETE THE FIRST SELECTION AND VERIFY THAT STONE TYPES ARE NOTED ON DRAWINGS.

B. Product: [_____ veneer] [Veneer types as shown on Drawings].

C. Substitutions: None Allowed.

2.02 MATERIALS

A. Stone Veneer:

SELECT DESIRED PROFILE FROM THE ELDORADO STONE WEBSITE [PRODUCTS](#) DROP DOWN MENU; CLICK ON "STONE VENEER" THEN CLICK ON THE APPROPRIATE REGION. INSERT PROFILE BELOW.

1. Profile: _____ . Include matching corner pieces.

SELECT DESIRED STONE ACCENTS FROM THE ELDORADO STONE WEBSITE [PRODUCTS](#) DROP DOWN MENU; CLICK ON "STONE ACCENTS." INSERT DESIRED ACCENTS BELOW AND INSERT TEXTURE IF REQUIRED. VERIFY THAT DIMENSIONS, IF REQUIRED, ARE SHOWN ON THE DRAWINGS.

2. Stone Accents: _____ .

a. Color: _____ .

b. Texture: _____ .

B. Brick Veneer:

SELECT DESIRED PROFILE AND COLOR FROM THE ELDORADO STONE WEBSITE [ELDORADO BRICK](#); CLICK ON "BRICK," THEN CLICK ON "VIEW ALL BRICK PROFILES." INSERT PROFILE AND COLOR BELOW..

1. Profile: _____ . Include matching corner pieces.

a. Color: _____ .

SELECT DESIRED BRICK ACCENTS FROM THE ELDORADO STONE WEBSITE DROP [ELDORADO BRICK](#); CLICK ON "ACCENTS." INSERT DESIRED ACCENTS BELOW. CLICK ON "CHOOSE ACCENTS' COLORS" TO SELECT COLOR. VERIFY THAT DIMENSIONS, IF REQUIRED, ARE SHOWN ON THE DRAWINGS.

2. Brick Accents: _____ .

a. Color: [Match brick] [_____] [As shown on Drawings].

- C. Veneer Unit properties: Precast veneer units consisting of portland cement, lightweight aggregates, and mineral oxide pigments.
1. Compressive Strength: ASTM C 192 and ASTM C 39, 5 sample average: greater than 1,800 psi (12.4MPa).
 2. Shear Bond: ASTM C 482: 50 psi (345kPa), minimum.
 3. Freeze-Thaw Test: ASTM C 67: Less than 3 percent weight loss and no disintegration.
 4. Thermal Resistance: ASTM C 177: 0.473 at 1.387 inches thick
 5. Weight per square foot: 2012 IBC and 2012 IRC, 15 pounds, saturated.

EDIT MATERIALS PER BUILDING CODE REQUIREMENTS. DELETE FROM THIS SECTION IF SPECIFIED IN OTHER SECTIONS.

- D. Weather Barrier: [ASTM D 226, Type 1, No. 15, non-perforated asphalt-saturated felt paper] [UBC Standard 14-1, kraft waterproof building paper] or [UBC Standard No. 14-1, Kraft Waterproof Building Paper] or [ICC AC-38, synthetic house wrap]
- E. Reinforcing: [ASTM C 847, 2.5lb/yd² (1.4kg/m²) galvanized expanded metal lath] [ASTM C 847, 3.4lb (1.8 kg/m²) galvanized 3/8" rib lath] [ASTM C 1032, 17 gauge (1.3 mm) woven wire mesh] [ASTM C933 Welded Wire Lath] complying with code agency requirements for the type of substrate over which stone veneer is installed.
- F. Mortar:
1. Cement: Portland cement complying with ASTM C 1329.
 2. Lime: ASTM C 207.
 3. Sand: ASTM C 144, natural or manufactured sand.
 4. **Color Pigment: ASTM C 979, mineral oxide pigments.**
 5. Water: Potable.
 6. Pre-Packaged Latex-Portland Cement Mortar: ANSI A118.4.
- G. Bonding Agent: Exterior integral bonding agent meeting [ASTM C 932] [ASTM C 1059 Type II]
- H. Water Repellent: Water based silane or siloxane masonry water repellent**

2.03 MORTAR MIXES

- A. Standard Installation (Grouted Joints):
1. Mix mortar in accordance with ASTM C 270,
 2. Polymer modified mortar complying with ANSI A118.4
 - a. **Add color pigment in grout joint mortar in accordance with pigment manufacturer's instructions not to exceed 10% by weight of cement.**

OR

- A. Jointless/Dry-Stacked Installation:
1. Polymer modified mortar complying with ANSI A118.4
 2. Mortar prepared to comply with ASTM C270. Type S mortar.
 - a. **Add color pigment in accordance with pigment manufacturer's instructions.**

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine substrates upon which work will be installed.
- B. Coordinate with responsible entity to perform corrective work on unsatisfactory substrates.
- C. Commencement of work by installer is acceptance of substrate.

3.02 PREPARATION

- A. Protection: Protect adjacent work from contact with mortar.
- B. Surface Preparation: Prepare substrate in accordance with manufacturer's installation instructions for the type of substrate being covered.

3.03 INSTALLATION

- A. Install and clean stone in accordance with manufacturer's installation instructions for Standard Installation (Grouted Joint) or Jointless/Dry-Stacked installation as specified above.
- B. Apply repellent in accordance with repellent manufacturer's application instructions.**

3.04 FIELD QUALITY CONTROL

- A. Manufacturer's Field Services: Manufacturer's Field Service Representative shall make [one] [two] [_____] periodic site visits review of on-going installation process but is not responsible for any errors or omissions that are not observed or are previously completed.**

3.05 CLEANING

- A. Reference Section 01 74 00--Cleaning and Waste Management.
- B. Remove protective coverings from adjacent work.
- C. Cleaning Veneer Units:
 - 1. Wash with soft bristle brush and water/granulated detergent solution
 - 2. Rinse immediately with clean water
- D. Removing Efflorescence:
 - 1. Allow veneer to dry thoroughly
 - 2. Scrub with soft bristle brush and clean water
 - 3. Rinse immediately with clean water; allow to dry
 - 4. If efflorescence is still visible, contact ES Customer Service for assistance

END OF SECTION¹

¹ THIS SPECIFICATION WAS PREPARED SPECIFICALLY FOR ELDORADO STONE CORPORATION BY ASC SPECIFICATION CONSULTANTS. COMMENTS OR SUGGESTIONS FOR IMPROVEMENT SHOULD BE ADDRESSED TO ELDORADO STONE VIA THE CONTACT INFORMATION ON PAGE ONE.

DIVISION: 04 00 00—MASONRY
Section: 04 71 00—Manufactured Brick Masonry
Section: 04 73 00—Manufactured Stone Masonry

REPORT HOLDER:

ELDORADO STONE, LLC

EVALUATION SUBJECT:

**ELDORADO STONE®, ELDORADO BRICK® AND
ELDORADO ADOBE® VENEERS**

1.0 EVALUATION SCOPE

1.1 Compliance with the following codes:

- 2015 *International Building Code*® (IBC)
- 2015 *International Residential Code*® (IRC)
- Other Codes (see Section 8.0)

Properties evaluated:

- Veneer strength and durability
- Surface burning characteristics
- Thermal Resistance

1.2 Evaluation to the following green code(s) and/or standards:

- 2019 California Green Building Standards Code (CALGreen), Title 24, Part 11
- 2015, 2012 and 2008 ICC 700 *National Green Building Standard*™ (ICC 700-2015, ICC 700-2012 and ICC 700-2008)

Attributes verified:

See Section 3.0

2.0 USES

Eldorado Stone, Eldorado Brick and Eldorado Adobe Veneers are used as adhered, non-load-bearing exterior veneers or interior finishes on wood or light gage steel stud walls, concrete walls or concrete masonry walls.

3.0 DESCRIPTION

Eldorado Stone®, Eldorado Brick® and Eldorado Adobe® veneers are precast concrete products made to resemble natural stone, brick or adobe, respectively, in color and in texture. The concrete is composed of cement, aggregate, water, admixtures, and coloring. The veneer units are molded and cured at the plant. The average saturated weight of the installed veneer units does not exceed

15 pounds per square foot (73.2 kg/m²). Recognized patterns of veneer are listed in Table 1.

The precast veneer has a Class A finish rating in accordance with IBC Section 803.1.1 and complies with the flame-spread and smoke-development requirements of IRC Section R302.9. The stone veneer has an *R*-value of 0.43 when tested in accordance with ASTM C177 at an average thickness of 1.5 inches (38 mm).

The attributes of the precast veneers have been verified as conforming to the provisions of (i) CALGreen Section A4.405.1.3 for prefinished building materials and Section A5.406.1.2 for reduced maintenance; (ii) ICC 700-2015 and ICC 700-2012 Sections 602.1.6 and 11.602.1.6 for termite-resistant materials and Sections 601.7, 11.601.7, and 12.1(A).601.7 for site-applied finishing materials; and (iii) ICC 700-2008 Section 602.8 for termite-resistant materials and Section 601.7 for site-applied finishing materials. Note that decisions on compliance for those areas rest with the user of this report. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. These codes or standards often provide supplemental information as guidance.

4.0 INSTALLATION

4.1 General:

Installation of Eldorado Stone precast stone veneer must comply with this report, the manufacturer's published installation instructions, and the applicable code. The manufacturer's published installation instructions must be available at the jobsite at all times during installation. The veneer must be installed in accordance with the clearance requirements of IBC Section 1405.10.1.3 or IRC Section R703.12.1, as applicable. The veneer has been evaluated for application over backings of cement plaster, concrete or concrete masonry.

4.2 Preparation of Backing:

4.2.1 Cement Plaster Backings: Cement plaster backings may be applied over plywood, OSB or gypsum sheathing, supported by wood or steel studs; over open wood or steel studs; over concrete walls; and over concrete masonry walls, when installed as described in Sections 4.2.1.1 and 4.2.1.2.

4.2.1.1 Installation over Studs: For exterior installations, the cement plaster backing must be installed over a water-resistive barrier complying with IBC Section 1405.10.1.1 or IRC Section R703.12.3, as applicable. Also, flashing must be installed as required by IBC Section 1405.10.1.2 or IRC Sections R703.4 and R703.12.2, as

applicable, and weep screeds must be installed at the bottom of the stone veneer. The weep screeds must comply with, and be installed in accordance with, IBC Section 1405.10.1.2.1 or IRC Section R703.12.2, as applicable. In addition, the weep screeds must have holes with a minimum diameter of $\frac{3}{16}$ inch (4.8 mm) spaced at a maximum of 33 inches (838 mm) on center, as required by Section 12.1.6.2 of TMS 402/ACI 530/ASCE 5, which is referenced in IBC Section 1405.10.

Studs must be spaced no more than 16 inches (406 mm) on center. Lath must be a 2.5 lb/yd² (1.4 kg/m²) diamond mesh metal lath conforming to ASTM C847; a 3.4 lb/yd² (1.8 kg/m²), $\frac{3}{8}$ -inch thick ribbed lath conforming to ASTM C847; a 1.4 lb/yd² (0.760 kg/m²) galvanized woven wire mesh conforming to ASTM C1032; a welded wire lath complying with ASTM C933; or lath recognized in an ICC-ES evaluation report as a substitute for lath complying with ASTM C847. Lath may be self-furred or non-furred, provided furring or furring fasteners are used. When the cement plaster backing is installed over open studs, a paper back lath must be used. All lath must be installed over the water-resistive barriers by following lath manufacturer's installation guidelines and recommendations. Lath or mesh must be fastened to each of the wall studs as required by ASTM C1063 and IRC section R703.7.1. Fasteners must be spaced a maximum of 6 inches (153 mm) on center.

For attaching lath to wood studs, fasteners must be galvanized nails having a minimum shank diameter of 0.120-inch, a minimum head diameter of $\frac{7}{16}$ -inch (11.1 mm) and sufficient length to penetrate the studs a minimum of $\frac{3}{4}$ -inch (19.1 mm); wood screws of sufficient length to penetrate a minimum of $\frac{5}{8}$ inch (15.9 mm) into the studs; or minimum 16 gage staples with a crown width of $\frac{3}{4}$ inch (19.1 mm) and sufficient length to penetrate the studs a minimum of $\frac{3}{4}$ inch (19.1 mm). Wood studs must have a minimum specific gravity of 0.42. For attaching lath to steel studs, fasteners must be a minimum of #12 corrosion resistant pan head or pancake head self-drilling, tapping screws having sufficient length to protrude a minimum of $\frac{3}{8}$ inch (9.5 mm) through the stud. Steel studs must be a minimum of 33 mils thick.

A scratch coat of Type N or S mortar (cement plaster) complying with ASTM C926 must be applied over the lath to a thickness of $\frac{1}{2}$ inch to $\frac{3}{4}$ inch (12.7 to 19.1 mm). The scratch coat must be scored horizontally in accordance with the manufacturer's published installation instructions, and must be allowed to cure in accordance with IBC Section 2512.6, prior to the application of the veneer units.

4.2.1.2 Installation over Concrete and Masonry: The veneer units may be applied directly to concrete and masonry backing without lath, provided the concrete and masonry surface is clean and free of paints, repellents, contaminants and release agents (see Section 4.2.2). Where lath is used, apply one layer of water-resistive barrier over the wall, in accordance with the report holder's recommendations. The lath must be corrosion-resistant metal lath complying with ASTM C847, or 1.4 lb/yd² (0.760 kg/m²), corrosion-resistant, woven wire plaster base complying with ASTM C1032. The lath must be fastened to the wall in accordance with Section 7.10 of ASTM C1063, and IRC Section R703.6.1, as applicable. The fasteners must be spaced a maximum of 6 inches (152 mm) on center vertically and 16 inches (406 mm) on center horizontally. The gravity load (shear) capacity and negative wind load (pull-out) capacity of the proprietary fasteners must be justified to the satisfaction of the code official. The

scratch coat must be applied as described in Section 4.2.1.1.

4.2.2 Concrete and Masonry Backing: Concrete masonry and poured concrete wall surfaces must be prepared in accordance with Section 5.2 of ASTM C926, and IBC Section 2510.7, as applicable. Alternatively, a cement plaster backing may be installed as described in Section 4.2.1.

4.3 Application of Veneer Units:

Prior to the application of the veneer units, the scratch coat or other backing and the back of the veneer units must be moistened in accordance with the manufacturer's instructions. Veneer units must be installed in accordance with IBC Section 1405.10.1.4.3. Under the IRC, a minimum $\frac{1}{2}$ -inch-thick (12.7 mm) setting bed of Type N or S mortar must be applied to the back of the veneer units, and the veneer units must be pressed firmly in place, squeezing the mortar out around all veneer unit edges. For grouted patterns, joints between veneer units must be grouted and tooled in accordance with the veneer manufacturer's published installation instructions.

5.0 CONDITIONS OF USE

The precast stone veneer described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1** Installation must comply with this report, the manufacturer's published installation instructions and the applicable code. In the event of a conflict between the manufacturer's published installation instructions and this report, this report governs.
- 5.2** The use of the precast stone veneer has been evaluated for installation on walls with cement plaster, concrete or concrete masonry backings.
- 5.3** Expansion or control joints, used to limit the effect of differential movement of supports on the veneer system, are to be specified by the architect, designer or veneer manufacturer, in that order. Consideration must also be given to movement caused by temperature change, shrinkage, creep and deflection.
- 5.4** In jurisdictions adopting the IBC, the supporting wall must be designed to support the installed weight of the veneer system, including veneer, setting bed and cement plaster backing, as applicable. At wall openings, the supporting members must be designed to limit deflection to $\frac{1}{600}$ of the span of the supporting members.
- 5.5** In jurisdictions adopting the IRC, where the seismic provisions of IRC Section R301.2.2 apply, the average weight of the wall supporting the precast stone veneer, including the weight of the veneer system, must be determined. When this weight exceeds the applicable limits of IRC Section R301.2.2.2.1, an engineered design of the wall construction must be performed in accordance with IRC Section R301.1.3.

6.0 EVIDENCE SUBMITTED

- 6.1** Data in accordance with the ICC-ES Acceptance Criteria for Precast Stone Veneer (AC51), dated June 2013 (editorially revised September 2014).
- 6.2** Report of testing of surface-burning characteristics in accordance with ASTM E84.
- 6.3** Report of testing on thermal resistance in accordance with ASTM C177.

7.0 IDENTIFICATION

- 7.1 Boxes of precast stone veneer units are identified with the manufacturer's name (Eldorado Stone), the pattern name, the manufacturing date and location, and the evaluation report number (ESR-1215).
- 7.2 The report holder's contact information is the following:

ELDORADO STONE, LLC
1200 INDUSTRY STREET
EVERETT, WASHINGTON 98203
(425) 407-0107
www.eldoradostone.com

8.0 OTHER CODES

8.1 Evaluation Scope:

In addition to the codes referenced in Section 1.0, the products described in this report were evaluated for compliance with the following codes:

- 2012 *International Building Code*® (2012 IBC)
- 2012 *International Residential Code*® (2012 IRC)
- 2009 *International Building Code*® (2009 IBC)
- 2009 *International Residential Code*® (2009 IRC)
- 2006 *International Building Code*® (2006 IBC)
- 2006 *International Residential Code*® (2006 IRC)
- 2013 *Abu Dhabi International Building Code* (ADIBC)[†]

[†]The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

The Eldorado Stone products described in this report comply with, or are suitable alternatives to what is specified in, the codes listed above, subject to the provisions of Sections 8.2 through 8.7.

8.2 Uses:

See Section 2.0.

8.3 Description:

See the first paragraph of Section 3.0 and the following: The precast veneer has a Class A finish rating in accordance with 2012 and 2009 IBC Section 803.1.1 (2006 IBC Section 803.1) and complies with the flame-spread and smoke-development requirements of 2012 and 2009 IRC Section R302.9 (2006 IRC Section R315). The stone veneer has an *R*-value of 0.43 when tested in accordance with ASTM C177 at an average thickness of 1.5 inches (38 mm).

8.4 Installation:

8.4.1 General: See Section 4.1, and the following: Under the 2012 IBC and 2012 IRC, the veneer must be installed in accordance with the clearance requirements of 2012 IBC Section 1405.10.1.3 and 2012 IRC Section R703.12.1, as applicable.

8.4.2 Preparation of Backing:

8.4.2.1 Cement Plaster Backings: See Section 4.2.1.

8.4.2.1.1 Installation over Studs: Replace the first paragraph of Section 4.2.1.1 with the following: For exterior installations, the cement plaster backing must be installed over a water-resistive barrier complying with 2012 IBC Section 1405.10.1.1; 2009 and 2006 IBC Sections 1404.2 and 2510.6; or 2012, 2009 and 2006 IRC Sections R703.2 and R703.6.3, as applicable. Also, flashing must be installed as required by 2012 IBC Sections 1405.4 and 1405.10.1.2; 2009 IBC Section 1405.4; 2006 IBC Section 1405.3; or 2012, 2009 and 2006 IRC Section R703.8, as applicable, and weep screeds must be installed at the bottom of the stone veneer. The weep screeds must comply with, and be installed in accordance with, 2012 IBC Section 1405.10.1.2; 2009 and 2006 IBC Section 2512.1.2; 2012 IRC Section R703.12.2; or 2009 and 2006 IRC Section R703.6.2.1, as applicable. In addition, the weep screeds must have holes with a minimum diameter of $\frac{3}{16}$ inch (4.8 mm) spaced at a maximum of 33 inches (838 mm) on center, as required by Section 6.1.6.2 of TMS 402-11, which is referenced in 2012 IBC Section 1405.10; Section 6.1.5.2 of TMS 402-08, which is referenced in 2009 IBC Section 1405.10; or Section 6.1.5.2 of ACI 530-05, which is referenced in 2006 IBC Section 1405.9, as applicable.

For additional requirements, see the remaining paragraphs of Section 4.2.1.1.

8.4.2.1.2 Installation over Concrete and Masonry: See Section 4.2.1.2.

8.4.2.2 Concrete and Masonry Backing: See Section 4.2.2.

8.4.3 Application of Veneer Units: See Section 4.3.

8.5 Conditions of Use:

See Section 5.0.

8.6 Evidence Submitted:

See Section 6.0.

8.7 Identification:

See Section 7.0.

TABLE 1—RECOGNIZED PATTERNS

PRODUCT	PATTERNS
Eldorado Stone®	Ashlar, Bluffstone, Broken Top, Castlestone, Cliffstone, Coarsed Stone, Coastal Ledge, Coastal Reef, Cobblestone, Country Rubble, Cut Coarse Stone, Cypress Ridge, European Ledge, Fieldledge, Hillstone, Ledgecut ₃₃ , Limestone, Mountain Ledge, Mountain Ledge Panel, River Rock, Roughcut, Rustic Ledge, Shadow Rock, Stacked Stone, Top Rock, Weather Edge,
Eldorado Brick®	Modena Brick, Roma Brick, Tundra Brick, Via Brick,
Eldorado Adobe®	Camino Adobe, Capistrano Adobe

DIVISION: 04 00 00—MASONRY

Section: 04 71 00—Manufactured Brick Masonry

Section: 04 73 00—Manufactured Stone Masonry

REPORT HOLDER:

ELDORADO STONE, LLC

EVALUATION SUBJECT:

ELDORADO STONE®, ELDORADO BRICK® AND ELDORADO ADOBE® VENEERS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Eldorado Stone®, Eldorado Brick® and Eldorado Adobe® Veneers, described in ICC-ES evaluation report ESR-1215, have also been evaluated for compliance with CBC Chapters 8, 14, 21, 21A and 25 and CRC Chapters 3 and 7.

Applicable code editions:

- 2013 California Building Code® (CBC)
- 2013 California Residential Code® (CRC)

2.0 CONCLUSIONS

2.1 CBC:

The Eldorado Stone®, Eldorado Brick® and Eldorado Adobe® Veneers, described in Sections 2.0 through 7.0 of the evaluation report ESR-1215, comply with CBC Sections 803.1.1, 1404.4, 2101.2.6, and 2101A.2.6, provided the design and installation are in accordance with the *International Building Code*® (IBC) provisions noted in the evaluation report and the additional requirements of CBC Sections 1405.1.1, 1405.3 and 1410, as applicable.

2.2 CRC:

The Eldorado Stone®, Eldorado Brick® and Eldorado Adobe® Veneers, described in Sections 2.0 through 7.0 of the evaluation report ESR-1215, comply with the flame spread and smoke developed requirements of CRC Section R302.9 and with CRC Section R703, provided the design and installation are in accordance with the *International Residential Code*® (IRC) provisions noted in the evaluation report and the additional requirements of CRC Sections R301.1.3 and R702.7.

This supplement expires concurrently with the evaluation report, reissued December 2020.

ICC-ES Evaluation Report

ESR-1215 FBC Supplement

Reissued December 2020

This report is subject to renewal November 2021.

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A Subsidiary of the International Code Council®

DIVISION: 04 00 00—MASONRY

Section: 04 71 00—Manufactured Brick Masonry

Section: 04 73 00—Manufactured Stone Masonry

REPORT HOLDER:

ELDORADO STONE, LLC

EVALUATION SUBJECT:

ELDORADO STONE®, ELDORADO BRICK® AND ELDORADO ADOBE® VENEERS

1.0 REPORT PURPOSE AND SCOPE

Purpose:

The purpose of this evaluation report supplement is to indicate that Eldorado Stone, Eldorado Brick and Eldorado Adobe Veneers, described in ICC-ES evaluation report ESR-1215, have also been evaluated for compliance with the codes noted below.

Applicable code editions:

- 2014 *Florida Building Code—Building*
- 2010 *Florida Building Code—Building*
- 2014 *Florida Building Code—Residential*
- 2010 *Florida Building Code—Residential*

2.0 CONCLUSIONS

The Eldorado Stone, Eldorado Brick and Eldorado Adobe Veneers, described in Sections 2.0 through 7.0 of the evaluation report ESR-1215, comply with the 2014 and 2010 *Florida Building Code—Building* and the 2014 and 2010 *Florida Building Code—Residential*, provided the design and installation are in accordance with the *International Building Code*® (IBC) provisions noted in the evaluation report, provided that the veneer has a clearance to the final earth grade on the exterior of the building as required by Section 1403.7 of the 2014 or 2010 *Florida Building Code—Building* or Section R704 of the 2010 *Florida Building Code—Residential* or Section R318.7 of the 2014 *Florida Building Code—Residential*, as applicable.

Use of the Eldorado Stone, Eldorado Brick and Eldorado Adobe Veneers for compliance with the High-Velocity Hurricane Zone provisions of the 2014 and 2010 *Florida Building Code—Building* and the 2014 and 2010 *Florida Building Code—Residential* has not been evaluated, and is outside the scope of this evaluation report.

For products falling under Florida Rule 9N-3, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission for the type of inspections being conducted is the responsibility of an approved validation entity (or the code official when the report holder does not possess an approval by the Commission).

This supplement expires concurrently with the evaluation report, reissued December 2020.

Safety Data Sheet (SDS)

Product: Adhered Masonry Stone Veneer (AMSV)

SDS No: 010

Preparation Date: 05/31/2015

Version No.: 1.0

Revision Date: 12/07/2015

SECTION 1. IDENTIFICATION OF THE MIXTURE AND SUPPLIER

1.1 Product Identifier:

Product name: Adhered Masonry Stone Veneer
Product code: Various
Formula: Mixture

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Relevant identified uses: Interior or Exterior Wall or Surface Covering
Uses advised against: Any use other than those recommended

1.3 Details of the supplier of the safety data sheet:

Manufacturer/Supplier: Eldorado Stone
Street Address: 1370 Grand Avenue, San Marcos, CA
Country ID/Postcode: USA/92078
Customer service telephone: 760-736-3232/ 800-925-1491

1.4 Emergency telephone number:

Emergency telephone number: 877-347-8096
Hours available: 24 hours a day / 7 days a week

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the mixture:

Adhered Masonry Stone Veneer (AMSV) are defined by OSHA as an article (under normal conditions, no more than minute or trace amounts of a hazardous chemicals are released and the article does not pose a physical hazard or health risk to employees).

An SDS not is required for articles; however, this SDS is provided to communicate hazards associated where activities related to the Adhered Masonry Stone Veneer (cutting, grinding, crushing, drilling or breaking) may result in the release of a hazardous substance in DUST.

GHS Classification(s) for Adhered Masonry Stone Veneer according to OSHA Hazard Communication Standard (29 CFR 1910.1200) under normal handling conditions:

None

GHS Classification(s) for dust generated from cutting, grinding, crushing, drilling or breaking of Adhered Masonry Stone Veneer according to OSHA Hazard Communication Standard (29 CFR 1910.1200) under use conditions that may result in the release of hazardous substances:

Skin Corrosion/Irritation, Category 2 (H315)

Eye Damage/Irritation, Category 2 (H319)

Specific Target Organ Toxicity-Repeated Exposure (STOT-RE), Category 1 (H372)

Note: The AMSV dust classifications are based on (1) individual ingredient classifications (i.e., Silica Sand [SiO₂], pumice, expanded shale, expanded clay or expanded slate, Portland Cement, Fly Ash, etc.), (2) the final chemical composition of the AMSV (based on cement chemistry) and (3) the form of the material (dust). Further, the Specific Target Organ Toxicity-Repeat Exposure is a conservative classification based on the potential presence of respirable crystalline silica. Eldorado Stone has not performed analysis for the presence of respirable crystalline silica under these handling conditions.

Additional information:

For full text of GHS Hazard statements (H-statements) and associated Precautionary statements (P-statements), see below.

2.2 Label elements

The Hazard Pictograms, Signal Word and Precautionary Statements only apply to activities that may release hazardous substances from the AMSV (i.e., cutting / grinding / crushing / drilling / breaking).

No Hazard Pictograms, Signal Word or Precautionary Statements are applicable to the Adhered Masonry Stone Veneer.

Hazard Pictograms that apply to the dust generated from cutting, grinding, crushing, drilling or breaking of the Adhered Masonry Stone Veneer:



Signal Word:

Danger

Hazard Statements:

**(For AMSV Dust
Generated from
Cutting, Grinding,
Crushing, Drilling or
Breaking)**

H315: Causes skin irritation.

H319: Causes eye irritation.

H372: Causes damage to lungs through prolonged or repeated inhalation exposure.

Precautionary Statements:

**(For AMSV Dust
Generated from
Cutting, Grinding,
Crushing, Drilling or
Breaking)**

P260: Do not breathe dust.

P270: Do not eat, drink or smoke while using this product.

P271: Use only outdoors or in a well-ventilated area.

P264: Wash thoroughly after handling.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P302 + P352: IF ON SKIN: Wash with plenty of water.

P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P314: Get medical advice/attention if you feel unwell.
P321: See the SDS for specific treatment.
P332 + P313: If skin irritation occurs, get medical advice/attention.
P337 + 313: If eye irritation persists, get medical attention.
P362 + P364: Take off contaminated clothing and wash before reuse.
P501: Dispose of generated dust in accordance with local / regional / national / international regulations.

2.3 Other hazards related to AMSV dust generated from cutting, grinding, crushing, drilling or breaking of adhered masonry stone veneer.

Listed Carcinogens: Silica dust (respirable, crystalline fraction) in the form of quartz.

IARC: Yes **NTP:** Yes **OSHA:** No **Other:** No (European Union)

Hazardous Properties: Dust generated from cutting, grinding, crushing, drilling or breaking may cause eye damage and skin irritation. May be irritating to respiratory tract. Respirable crystalline silica may cause damage to lungs upon repeated inhalation exposures.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Description of the mixture:

The product is a solid concrete block that, when subjected to cutting, grinding, crushing, drilling or breaking, may form hazardous dusts.

3.2 Hazardous Ingredients:

Name	CAS No.	Weight %	GHS Classification per OSHA Hazard Communication (29 CFR 1900.1200)
Silica dioxide (quartz)	14808-60-7	0-90%	STOT-RE, Category 1 (H372)*
Portland Cement	65597-15-1	8-15%	Skin Corrosion/Irritation, Category 2 (H315) Eye Damage/Irritation, Category 1 (H318) STOT-Single Exposure, Category 3 (H335)
Fly Ash	68131-74-8	0-4%	STOT-RE, Category 1 (H372*)
Iron Oxide Pigments	001309-37-1	0-1%	Not considered a hazardous ingredient.

* The Specific Target Organ Toxicity-Repeat Exposure (STOT-RE) is a conservative classification based on the presence/potential presence of respirable crystalline silica.

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures:

Inhalation: If dust generated from cutting, grinding, crushing, drilling or breaking is inhaled, remove person to fresh air and keep comfortable for breathing. Get medical attention if respiratory symptoms persist.

Skin contact: If dust generated from cutting, grinding, crushing, drilling or breaking is on skin, wash with soap and water. Get medical advice/attention if irritation occurs/persists.

Eye contact: If dust generated from cutting, grinding, crushing, drilling or breaking is in eyes, rinse cautiously with water for several minutes. Get medical advice/attention if irritation occurs/persists.

Ingestion: No specific first aid measures are required.

4.2 Most important health effects related to AMSV dust generated from cutting, grinding, crushing, drilling or breaking, both acute and delayed:

Acute effects: Direct exposure to dust generated from cutting, grinding, crushing, drilling or breaking may cause eye damage/irritation, skin irritation and respiratory irritation. Dust can dry and irritate the skin and cause dermatitis. Can irritate eyes and skin through mechanical abrasion.

Delayed effects: Chronic exposure to inhaled dust generated from cutting, grinding, crushing, drilling or breaking may cause lung damage from repeated exposure. Chronic inhalation of dusts containing free crystalline silica may result in silicosis.

4.3 Indication of any immediate medical attention and special treatment needed:

Seek first aid or call a doctor if contact with dust generated from cutting, grinding, crushing, drilling or breaking with eyes occurs and irritation remains after rinsing.

SECTION 5. FIREFIGHTING MEASURES

5.1 Extinguishing Media:

Suitable extinguishing media: Product is not flammable. Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media: Not applicable; the product is not flammable.

5.2 Special hazards arising from the substance or mixture:

Hazardous combustion products: None known.

5.3 Advice for firefighters:

Special protective equipment and precautions for firefighters: As with any fire, wear self-contained breathing apparatus, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures associated with AMSV dust generated from cutting, grinding, crushing, drilling or breaking:

For Non-Emergency Personnel:

Protective equipment: In case of exposure to dust generated from cutting, grinding, crushing, drilling or breaking, wear specified protective equipment. (See Section 8).

Emergency procedures: Avoid the creation of dust generated from cutting, grinding, crushing, drilling or breaking. Use scooping, water/flushing/misting or vacuum cleaning systems. Wet methods of cutting, grinding, crushing, drilling or breaking are the preferred method of controlling dust.

For Emergency Responders:

Protective equipment: In case of exposure to dust generated from cutting, grinding, crushing, drilling or breaking, wear specified protective equipment. In case of fire, use self-contained breathing apparatus with full face mask.

6.2 Environmental Precautions

Discard any product or dust residue in compliance with local regulations.

6.3 Methods and material for containment and cleaning up:

For containment and cleaning up: After cutting, grinding, crushing, drilling or breaking activities, use scooping, water spraying/flushing/misting or ventilated vacuum cleaning system to clean up dust generated from cutting, grinding, crushing, drilling or breaking. Use closed containers. Do not use pressurized air to clean dust.

Other information: Take measures to avoid dust formation during cutting, grinding, crushing, drilling or breaking activities.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling:

Protective measures: Avoid contact with dust generated from cutting, grinding, crushing, drilling or breaking with skin, eyes, and clothing. Avoid breathing dust. Wash thoroughly after handling. Wet methods of cutting, grinding, crushing, drilling or breaking are the preferred method of controlling dust.

Measures to prevent fires: Not applicable; material is non-flammable.

Measures to prevent dust generation: Vacuum, scoop, or use water mist/spray/flush to remove generated dust during cutting, grinding, crushing, drilling or breaking activities. Do not use pressurized air. Wet methods of cutting, grinding, crushing, drilling or breaking are the preferred method of controlling dust.

Measures to protect the environment: Not applicable; material is not an environmental hazard.

Advice on general occupational hygiene:

Practice good housekeeping. Avoid formation of dust generated from cutting, grinding, crushing, drilling or breaking. Do not breathe dust. Use adequate exhaust ventilation, dust collection and/or water mist to maintain airborne dust concentrations below permissible exposure limits. Respirable crystalline silica dust may be in the air without a visible dust cloud. In case of insufficient ventilation, wear a NIOSH approved respirator for silica dust when using, handling, storing or disposing dust from this product. Do not permit dust to collect on walls, floors, sills, ledges, machinery, or equipment. Maintain and test ventilation and dust collection equipment. Wash or vacuum clothing that has become dusty. Avoid eating, smoking, or drinking while handling the material.

7.2 Conditions for safe storage, including any incompatibilities:

Storage conditions: Minimize dust produced during loading and unloading.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters applicable to AMSV dust generated from cutting, grinding, crushing, drilling or breaking:

United States

OCCUPATIONAL EXPOSURE LIMITS FOR HAZARDOUS SUBSTANCES IN THE WORKPLACE					
SUBSTANCE		OSHA PEL TWA / STEL (mg/m ³)	NIOSH REL TWA / STEL (mg/m ³)	ACGIH TLV TWA / STEL (mg/m ³)	CAL - OSHA PEL (mg/m ³)
Calcium Oxide		5	2	2	-
Crystalline Silica	Total Quartz	$30 \div (\%SiO_2 + 2)$ (Total Quartz)	-	-	0.3
	Respirable Crystalline Silica	$10 \div (\%SiO_2 + 2)$	0.05	0.025 (α -quartz & cristobalite)	0.1
	Cristobalite	-	0.05	0.025 (α -quartz & cristobalite)	0.05 (respirable)
Particulates Not Otherwise Regulated	Total	15	15	-	10
	Respirable	5	5	-	5

8.2 Exposure controls:

8.2.1. Exposure Controls

Engineering controls:

Ventilation should be adequate to maintain the ambient workplace atmosphere below the exposure limit(s). Use general and local exhaust ventilation and dust collection systems as necessary to minimize exposure to dust generated from cutting, grinding, crushing, drilling or breaking. Wet methods of cutting, grinding, crushing, drilling or breaking are the preferred method of controlling dust.

8.2.2. Personal Protective Equipment

Respiratory protection:	Wear a NIOSH/MSHA approved particulate respirator if exposure to dust generated from cutting, grinding, crushing, drilling or breaking is unavoidable and where occupational exposure limits may be exceeded. If airborne dust exposures exceed the PEL or TLV, a self-contained breathing apparatus or airline respirator is recommended.
Eye and face protection:	If eye contact with dust generated from cutting, grinding, crushing, drilling or breaking is anticipated, wear protective glasses with side shields. Avoid contact lenses.
Hand and skin protection:	Wear gloves and protective clothing to minimize skin contact with dust generated from cutting, grinding, crushing, drilling or breaking. Wash hands with soap and water after contact with material.
Foot protection:	Wear American National Standards Institute (ANSI) approved hard-toed safety shoes when handling AMSV.

8.2.3. Environmental Exposure Controls

Instructions to prevent exposure:	No special requirements. Discard any product or dust residue in compliance with local regulations. Wet methods of cutting, grinding, crushing, drilling or breaking are the preferred method of controlling dust.
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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Property	Value	Property	Value
Appearance:	Simulated Stone	Lower Explosive Limit (LEL):	Not applicable
Odor	Odorless	Vapor Pressure (Pa):	Not applicable
Odor threshold	Not applicable	Vapor Density:	Not applicable
pH (25°C):	Not available	Relative Density/Specific Gravity:	1.4 – 1.6
Melting/Freezing Point (°C):	Not applicable	Water Solubility:	Negligible
Initial Boiling Point (°C):	Not applicable	Partition Coefficient: <i>n</i>-octanol/water:	Not applicable
Boiling Range (°C):	Not applicable	Auto-ignition Temperature (°C):	Not applicable
Flash Point(°C):	Not applicable	Decomposition Temperature (°C):	Not available
Evaporation Rate:	Not applicable	Viscosity:	Not applicable
Flammability (solid, gas):	Not combustible	Explosive Properties:	Not applicable

Property	Value	Property	Value
Upper Explosive Limit (UEL):	Not applicable	Oxidizing Properties:	Not applicable

SECTION 10. STABILITY AND REACTIVITY

10.1	Reactivity	Stable inert material
10.2	Chemical stability	Stable inert material
10.3	Possibility of hazardous reactions	None known.
10.4	Conditions to avoid	None known
10.5	Incompatible materials	None known
10.6	Hazardous decomposition products	None known

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

Acute toxicity:	No data is available on the AMSV dust generated from cutting, grinding, crushing, drilling or breaking. No ingredients within the mixture exhibit acute toxicity.
Skin corrosion/irritation:	Contact with dust may cause skin irritation.
Serious eye damage / irritation:	Eye Irritant. Eye contact with dust generated from cutting, grinding, crushing, drilling or breaking may cause eye irritation.
Respiratory or skin sensitization:	No data is available on the AMSV dust generated from cutting, grinding, crushing, drilling or breaking. No ingredients exhibit sensitization effects.
Germ cell mutagenicity:	No data is available on the AMSV dust generated from cutting, grinding, crushing, drilling or breaking. No ingredients exhibit mutagenic effects.
Carcinogenicity:	No data is available on the AMSV dust generated from cutting, grinding, crushing, drilling or breaking. Crystalline silica (respirable) has been identified as a carcinogen by IARC and NTP.
Reproductive toxicity:	No data is available on the AMSV dust generated from cutting, grinding, crushing, drilling or breaking. No ingredients exhibit reproductive toxicity.
STOT single exposure:	No data is available on the AMSV dust generated from cutting, grinding, crushing or drilling.

STOT repeated exposure: No data is available on the repeated inhalation of AMSV dust generated from cutting, grinding, crushing, drilling or breaking. Repeated inhalation of AMSV dust generated from cutting grinding, crushing or breaking may cause lung damage if respirable crystalline silica is present. Crystalline silica (respirable) has been shown to cause silicosis after repeated exposure.

Aspiration hazard: Not applicable, the material is a not a liquid.

SECTION 12. ECOLOGICAL INFORMATION

No data available on the AMSV dust generated from cutting, grinding, crushing, drilling or breaking.

SECTION 13. DISPOSAL CONSIDERATIONS

Considered a non-hazardous waste. Follow applicable federal, state and local regulations.

SECTION 14. TRANSPORT INFORMATION

Regulatory Entity

US DOT	Shipping Name	Not regulated
	Hazard Class	Not regulated
	ID Number	Not regulated
	Packing Group	Not regulated

SECTION 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations / legislation specific to the mixture:

United States Regulations

Toxic Substances Control Act (TSCA) Inventory Status	All components of this product are listed on the TSCA Inventory or are exempt from listing.	
SARA (Section 311/312)	Reactive Hazard	No
	Pressure Hazard	No
	Fire Hazard	No
	Immediate/Acute Toxicity	No
	Delayed/Chronic Toxicity	Yes – respirable crystalline silica
SARA Section 313 Information:	This product does not contain any toxic chemicals listed under 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA).	
Clean Air Act (CAA)	This product does not contain any toxic chemicals listed under the CAA at concentrations greater than 0.1%.	
	VOC Content (weight %).	0 wt. %

United States Regulations

Volatile Organic Compounds (VOCs)

Remarks:

Estimated

State Right-to-Know Status

California Prop. 65:

Crystalline Silica.

Massachusetts:

Silica, Crystalline-Quartz;
Calcium oxide; Calcium carbonate (Limestone); Portland cement; Iron oxide dust.

New Jersey

Silica, Crystalline-Quartz;
Calcium oxide; Calcium carbonate (Limestone); Cement, Portland, Chemicals; Iron oxide.

Pennsylvania:

Quartz (silica dioxide); Calcium oxide; Calcium carbonate (Limestone); Cement, Portland, Chemicals; Iron oxide.

Dispose of all waste product and containers in accordance with federal, state and local regulations.

SECTION 16. OTHER INFORMATION

16.1 Indication of changes:

Initial SDS prepared on 04-07-2015; Revised 12/07/2015

16.2 Abbreviations and acronyms:

AMSV	Adhered Masonry Stone Veneer
ANSI:	American National Standards Institute
CAA:	Clean Air Act
Cal/OSHA:	California Department of Industrial Relations - Division of Occupational Safety and Health
CAS:	Chemical Abstract Service Registry Number
CFR:	Code of Federal Regulations
CWA:	Clean Water Act
GHS:	Globally Harmonized System of Classification and Labeling
HMIS:	Hazardous Materials Identification System
IARC:	International Agency for Research on Cancer
LEL:	Lower explosive limit
MSHA:	Mine Safety and Health Administration
NA:	Not Applicable
NIOSH:	National Institute of Occupational Safety and Health
NTP:	National Toxicology Program
OSHA:	Occupational Safety and Health Administration
Pa:	Pascal
PEL:	Permissible exposure limit
SARA:	Superfund Amendments and Reauthorization Act
SDS:	Safety data sheet
STEL:	Short-term exposure limit
STOT-RE:	Specific target organ toxicity-repeated exposure

Product: Adhered Masonry Stone Veneer (AMSV)

SDS No: 001

Version No.: 1.0

Preparation Date: 05/31/2015

Revision Date: 12/07/2015

STOT-SE: Specific target organ toxicity-single exposure
TLV: Threshold limit value
TSCA: Toxic Substances Control Act
TWA: Time-weighted average
UEL: Upper explosive limit
USA: United States of America
US DOT: United States of Department of Transportation
VOC: Volatile organic compound

16.3 Other hazards:

Hazardous Materials Identification System (HMIS)

Degree of hazard: 0 = low, 4 = extreme

Health: 1*

Flammability: 0

Reactivity: 0

** Dust generated from cutting, grinding, crushing, drilling or breaking activities may result in a chronic health hazard (Category 3 Health Hazard)*

Personal Protection: B

Disclaimer:

This SDS has been prepared in accordance with the Hazard Communication Rule 29 CFR 1910.1200. Information herein is based on data considered to be accurate as of date prepared. No warranty or representation, express or implied, is made as to the accuracy or completeness of this data and safety information. No responsibility can be assumed for any damage or injury resulting from abnormal use, failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.

— End of Safety Data Sheet (SDS) —