

SECTION 04810 - CONCRETE STONE MASONRY ASSEMBLIES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Concrete stone masonry units.
- B. Special shapes.
- C. Mortar for unit masonry.
- D. Reinforcement, anchorages, and accessories.

1.2 QUALITY ASSURANCE

- A. Perform Work in accordance with applicable requirements of governing authorities and codes. Comply with applicable requirements for installation of masonry work per ACI 530 and ACI 530.1.
- B. Obtain all exposed masonry units of uniform texture and color, or a uniform blend within ranges accepted from a single manufacturer.
- C. Provide a mock-up for evaluation of product and application workmanship. Construct mockup panel 48 inches by 48 inches (to illustrate stone masonry units, coursing, anchorage, mortar joints and color, pattern of finished wall and control joints).

1.3 DELIVERY, STORAGE, AND HANDLING

- A. Deliver mortar materials in original unbroken, undamaged packages with manufacturers labels intact and visible. Store off the ground and undercover until used on the work.
- B. Store or pile sand on a plank platform and protect from dirt and rubbish. Store mortar materials and sand to prevent deterioration or contamination.
- C. Deliver masonry units banded on pallets with protective pallet covers. Prevent damage.
- D. Lift skids with proper and sufficiently long slings or forks with protection to prevent damage to units. Protect edges and corners.
- E. Store masonry units in a manner designed to prevent damage and staining of units. Single stack pallets on level ground with waterproof covering to protect from weather.
- F. Do not use calcium-chloride or de-icing salts to remove ice from masonry.

1.4 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer.
- B. Coordination: Coordinate with other Work that is integrated with or built-in masonry. Coordinate masonry flashing with flashing specified elsewhere to insure a complete, watertight flashing system to shed water to building exterior.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Oldcastle Architectural Companies; 375 Northridge Road, Suite 250, Atlanta, Georgia 30350. Tel: (770) 804- 3363. Fax: (770) 804-3369. Email: sales@oldcastleap.com. Web: <http://www.dufferinstone.com>.

2.1 PRODUCTS

- A. Concrete Stone Masonry Veneer Units: Dufferin Stone Masonry Units as manufactured and distributed by Oldcastle Architectural Group.
- B. Solid units with physical dimensions and characteristics complying with ASTM C 55 and the physical properties of ASTM C 568, Class II.
- C. Wall assembly capable of complying with ASTM E 514, Class E Special shapes and sizes, including 45 degree angle stone and stone surround shapes, as indicated on the drawings for the pattern specified.
- D. Color: Minimum of three variegated color blending as selected from manufacturers standard selections.
- E. Size: 4 inches in width nominal with face dimensions selected from a minimum of 15 face sizes to match ashlar pattern indicated on Drawings or established in the approved mock-up.
- F. Anchors: Provide anchors to suit design requirements for material and installation requirements.
- G. Mortar Materials: Provide mortar to suit design requirements for material and installation requirements.

2.3 ACCESSORIES

- A. Flashing: Provide flashing as specified in Section 07600.
- B. Weeps: Preformed plastic insect resistant vents with sloping louvers.
- C. Cavity Vents: Molded polyvinyl chloride insect resistant grilles.

PART 3 - EXECUTION

3.1 EXAMINATION AND PREPARATION

- A. Verify that built-in items are in proper location and ready for roughing into masonry work.
- B. Protect adjacent work areas and finish surfaces from damage during product installation.
- C. Provide for temporary bracing as required during construction.

3.2 INSTALLATION

- A. General: Install in accordance with ACI 530/ASCE 5/TMS 402 and manufacturer's instructions.
- B. Coursings: Install masonry construction anchored solidly to backing, properly aligned, plumb, and true in required layout, making straight, level courses, unless otherwise indicated. Place varying size of stones to provide a random Ashlar pattern as approved. Maintain mortar joint thickness of 3/8 inch to 3/4 inch either horizontally or vertically. Tool joints Flush, Concave, or Recessed.
- C. Placing and Bonding: Lay masonry in full bed of mortar with full head joints, properly jointed with other work. Buttering corners of joints, deep or excessive furrowing of mortar joints is not permitted. Back-bevel bed joints to remove excess mortar droppings in cavity as work progresses. Fully bond intersections and external corners. Isolate masonry partitions from vertical structural framing members with a control joint as indicated. Provide for expansion and control joints as indicated on the Drawings. Do not adjust masonry units after placing. Where resetting of masonry is required, remove, clean units and reset in new mortar. Leave joints under shelf angles and elsewhere as indicated or required open to receive sealant.
- D. Anchors: Provide anchors to suit design requirements indicated or required.
- E. Build-in items furnished by other trades and leave accurate openings necessary for subsequent installation of other Work to maintain required strength and appearance of masonry construction.
- F. Prevent grout, mortar, and soil from staining face of masonry. Remove grout and mortar from these surfaces immediately.
- G. Protect base of masonry walls from rain splashed mud and mortar splatters.
- H. Install weep holes in veneer masonry at maximum 24 inches on center horizontally above through-wall flashing, above shelf angles, lintels, bottom of walls, and elsewhere as indicated on Drawings.
- I. Do not permit mortar to drop or accumulate into cavity air space or to plug weeps.
- J. Install cavity vents a maximum 24 inches on center horizontally at top of each cavity space, below shelf angles and elsewhere as indicated on the Drawings.
- K. Install through-wall flashing over exterior windows, relieving angles, doors, tops of walls, at the inside base of cavity walls, and under sills. Extend ends of sill flashing beyond jamb line and turn up into wall to create an end dam to divert moisture toward the wall face. Extend flashing over veneer, turn up minimum 8 inches and bed into mortar joint of masonry, or sealed to sheathing.

3.3 TOLERANCES

- A. In accordance with ACI 530.1 ASCE6/TMS602
- B. Maximum Variation of Joint Thickness: Plus minus 1/8 inch.
- C. Maximum Offset From Adjacent Unit: 1/8 inch.

3.4 CLEANING

- A. Keep walls clean daily during installation using brushes or rags. Do not allow excess mortar lumps or smears to harden on the finished surfaces.
- B. After mortar is thoroughly set and cured, clean masonry as per methods recommended by NCMA.
- C. Replace defective mortar as required to match adjacent work.

3.5 PROTECTION

- A. Remove temporary coverings and protection of adjacent work areas. Repair or replace damaged installed products.
- B. Protect installed products until completion of project.
- C. Protect concrete stone from contact with mortar, soil, and other materials capable of staining or discoloring the finished product.

END OF SECTION

DUFFERIN® Stone

Masonry Veneer

The Distinctive Look of Natural Stone...



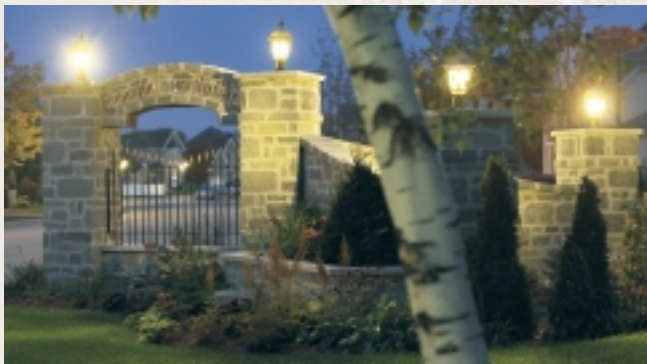
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DUFFERIN® Stone

Masonry Veneer

Dufferin Stone is a versatile Masonry Veneer which offers a beautiful and cost-effective way to feature the look of natural stone.



Oldcastle®
Architectural

DUFFERIN® Stone is a natural texture stone veneer with an elegant, old world appearance. The distinctive look of its rich features and natural beauty is surpassed only by its durability. This cost-effective, versatile masonry veneer is available in a variety of warm color blends and offers design flexibility to achieve your goals.

DUFFERIN Stone is perfect for both commercial and institutional applications. Installed using the same construction methods used to lay brick, DUFFERIN Stone's modular configuration and variety of stone sizes allow for a hand-hewn look in customized ashlar patterns.

For the look of natural stone combined with the durability of concrete masonry, specify DUFFERIN Stone for your next project.

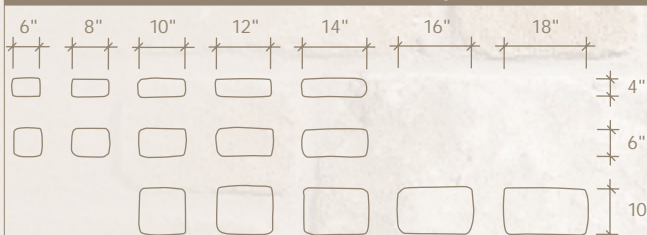


Table of Physical Properties

Physical Properties	ASTM C 568 (1) Standard Requirements	Dufferin Requirements
Compressive Strength, min, psi (MPa)	4000 (28)	4350 (30)
Absorption by weight, max, %	7.5	6.0
Density, min, lb/ft3 (kg/m3)	135 (2160)	137 (2200)

(1) Class II of the Limestone Dimension Stone Standard

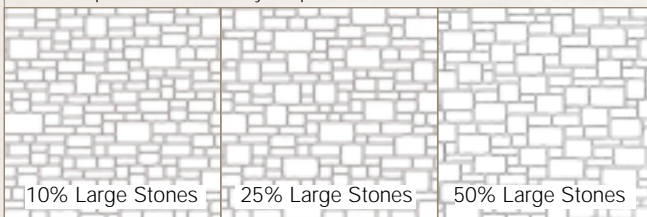
Dufferin Sizes & Shapes



Note: 4" and 6"- high stones are available on the same pallet in a ratio (in sq. feet) of 40% and 60% respectively. All dimensions are nominal and include a variable joint from 3/8" to 3/4".

Patterns with Dufferin Stone

Dufferin Stone is available in a variety of heights and widths. Different looks can be created by simply varying the proportion of large and small stones and the pattern in which they are placed.



Details make the difference...

Designer Freedom

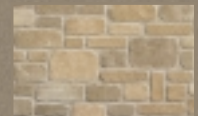
Natural Stone Appearance
...with the durability of concrete masonry

Architectural Interest
...with warm color blends and rich textures

Ashlar Pattern
...customized random ashlar patterns achieved with modular configuration

Flexible Design
...by varying the ratio of large and small stones

Distinctive Accents
...unique architectural features and detailing with SURROUND Stone and ANGLE Stone accessories



Recessed Joint



Flush Joint

Installer Friendly

Fast Installation
...fewer mortar joints and cutting than brick

Easy Handling
...no mixing or sorting of material on the jobsite

Reduced Waste
...minimal on-site alterations and scrap

Simplified Ordering
...with DUFFERIN Stone's unique two pallet system

Maintenance Free
...a durable veneer which requires no on-going maintenance

