

**SECTION 09 63 40
STONE FLOORING**

SPEC WRITER NOTES:

1. Use this section only for NCA projects.
2. Delete // ____// if not applicable to project. Also delete any other item or paragraph not applicable in the section and renumber the paragraphs.

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The requirements for interior stone flooring, set in mortar on a rigid base are covered in this section.

1.2 RELATED WORK

- A. Concrete Subfloors: Section 03 30 00, CAST-IN-PLACE CONCRETE.
- B. Color and texture of // grout // mortar // stone//: Section 09 06 00, SCHEDULE FOR FINISHES.
- C. See drawings for the paving pattern.

1.3 ALLOWABLE TOLERANCES

- A. Floor surface true to plane within 1 in 1000 (1/8-inch in 10 feet) not cumulative.
- B. Joint width deviation not greater than 10 percent of dimension shown.

1.4 SUSTAINABILITY REQUIREMENTS

- A. Materials in this section may contribute towards contract compliance with sustainability requirements. See Section 01 81 11, SUSTAINABLE DESIGN REQUIREMENTS, for project // local/regional materials, // low-emitting materials, // recycled content, // ____// requirements.

1.5 SUBMITTALS

- A. In accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES, furnish the following:
1. Samples: Five individual samples of stone showing extreme variations in color and texture.
 2. Shop Drawings: Special stone shapes.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver masonry materials in original sealed containers marked with name of manufacturer and identification of contents.
- B. Store masonry materials under waterproof covers on planking clear of ground, and protect from handling damage, dirt stain, water and wind.

1.7 APPLICABLE PUBLICATIONS

- A. Publications listed below form a part of this specification to extent referenced. Publications are referenced in text by the basic designation only. Comply with applicable provisions and recommendations of the following, except as otherwise shown or specified.

SPEC WRITER NOTES:

1. Remove reference citations that do not remain in Part 2 or Part 3 of edited specification.
2. Verify and make dates indicated for remaining citations the most current at date of submittal; determine changes from date indicated on the TIL download of the section and modify requirements impacted by the changes.

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

C150/C150M-12	Portland Cement
C241/C241M-13	Abrasion Resistance of Stone Subjected to Foot Traffic
C270-12a	Mortar for Unit Masonry

PART 2 - PRODUCTS**2.1 MATERIALS**

- A. Stone Slabs: // Granite// Bluestone // with abrasion resistance of at least 25 as measured by ASTM C241. Stone slabs to be uniform in quality and texture, free from shale, excess mica, seams, sealing and disintegration.
- B. Portland Cement: ASTM C150.
- C. Coloring Pigments: Pure mineral pigments, lime proof and non-fading; added to // grout // mortar // by the manufacturer. Job colored // grout // and mortar // is not acceptable.

2.2 MORTAR

- A. ASTM C270, Type S; Type N lime is not permitted.
- B. No admixtures permitted.

2.3 GROUT

- A. One part Portland cement and three parts sand by volume.
- B. Mix with enough water for flowability.

PART 3 - EXECUTION**3.1 APPLICABLE**

- A. General: Do not use stone slabs with chips, cracks, discoloration or other visible defects.
- B. Installation with Portland Cement Grout:

1. Spread and screed mortar setting bed mixture 13 mm to 25 mm (1/2-inch to 1-inch) in thickness true to plane.
 2. Limit setting bed to minimum amount which can be covered with stone before initial set.
 3. Apply 1 mm (1/32-inch) layer of neat cement paste over setting bed. Set and level each stone immediately. Tamp stone to completely contact setting bed.
 4. Grout joints as soon as initial set is achieved. Place grout in joints, strike flush and tool slightly concave.
 5. Cure grout by maintaining in a damp condition for seven days.
- C. Installation with Portland Cement Mortar:
1. Install in full bed joint. Remove excess mortar. Strike joints flush with top surface of stone and tool slightly concave.
 2. Cure mortar by maintaining in a damp condition for seven days.

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