

## **SECTION 040511 - LANDSCAPE MASONRY MORTARING**

### **PART 1 GENERAL**

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Mortar for masonry.
- B. Related Sections:
  - 1. Division 01: Administrative, procedural, and temporary work requirements.
  - 2. Section 044200 - Landscape Stone Assemblies.
  - 3. Section 044400 - Collected Stone.

#### 1.2 REFERENCES

- A. ASTM International (ASTM):
  - 1. C144 - Standard Specification for Aggregate for Masonry Mortar.
  - 2. C150/C150M - Standard Specification for Portland Cement.
  - 3. C207 - Standard Specification for Hydrated Lime for Masonry Purposes.
  - 4. C270 - Standard Specification for Mortar for Unit Masonry.
- B. The Masonry Society (TMS) 402/602 - Building Code Requirements and Specifications for Masonry Structures.

#### 1.3 SUBMITTALS

- A. Submittals for Review:
  - 1. Samples: 1/2 x 1/2 inch x 3 inch long colored mortar samples.
- B. Quality Control Submittals:
  - 1. Test reports: Indicating mortar compliance with ASTM C270.
  - 2. Delivery tickets: If mortar is delivered to site dry and pre-blended, furnish delivery tickets indicating quantity, mortar type, and date of manufacture.

#### 1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with TMS 402/602.

#### 1.5 DELIVERY, STORAGE AND HANDLING

- A. Deliver cement and lime in manufacturer's original, unopened packages or containers.
- B. Protect materials from moisture absorption and damage; reject damaged containers.
- C. Store aggregate to prevent inclusion of foreign matter.

### **PART 2 PRODUCTS**

#### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers - Colorants:
  - 1. Cathay Pigments. ([www.cathaypigments.com](http://www.cathaypigments.com))
  - 2. Davis Colors. ([www.daviscolors.com](http://www.daviscolors.com))
  - 3. Solomon Colors. ([www.solomoncolors.com](http://www.solomoncolors.com))
- B. Substitutions: Under provisions of Division 01.

#### 2.2 MATERIALS

- A. Portland Cement:
  - 1. ASTM C150/C150M, Type I.
  - 2. For exposed surfaces, provide cement from one source throughout project.
- B. Aggregate:
  - 1. ASTM C144, standard masonry type.
  - 2. For exposed surfaces, provide aggregate from one source throughout project.
- C. Lime: ASTM C207, Type S.
- D. Colorant: Pure mineral oxide type.
- E. Water: Clean and free from oils, acids, alkalies, organic matter, and other substances in amounts deleterious to mortar or metals in masonry.

### 2.3 MIXES

- A. Mortar Mixes: To ASTM C270, using the Property Method.
  - 1. Setting mortar: Type N, gray.
  - 2. Pointing mortar: Type N; refer to Materials Legend for color.

### 2.4 MIXING

- A. Mix mortar in accordance with ASTM C270.
- B. Mix using mechanical mixer. Hand mixing not permitted.
- C. Mix approximately three-quarters of required water, all of cement and lime, and one-half of aggregate for minimum of 2 minutes.
- D. Add remainder of water and aggregate; mix for minimum of 3 minutes.
- E. Provide uniformity of color in exposed mortar.
- F. Colorant may not exceed 9 pounds per 94 pound bag of cement.
- G. Thoroughly mix ingredients in quantities needed for immediate use.
- H. Discard lumpy, caked, frozen, and hardened mixes.
- I. Mortar may be retempered by adding water as required. Use mortar within 2-1/2 hours after initial mixing at ambient temperatures below 80 degrees F and within 1-1/2 hours after initial mixing at ambient temperatures over 80 degrees F.
- J. Do not add accelerators, retarders, water repellents, antifreeze compounds, or other additives without Landscape Architect's approval.

## **PART 3 EXECUTION**

### 3.1 INSTALLATION

- A. Follow requirements specified in referenced sections.

END OF SECTION