

## SECTION 04902

### MASONRY RE-POINTING

#### 1 PART 1 - GENERAL

##### 1.1 SUMMARY

###### A. Section Includes:

1. Assessment of existing conditions.
2. Historic mortar analysis.
3. Replacement sands, binders, and mortars.
4. Climate requirements.
5. Sun, wind, rain, and frost protection.
6. Removing existing mortar.
7. Removing and salvaging historic host masonry.
8. Absorption control.
9. Mortar mixes.
10. Re-pointing mortar joints.
11. Curing.
12. Clean up.

##### 1.2 REFERENCES

- A. ASTM C 136-96a – Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates; 1996.
- B. EN459/BS459 – European Norm and British Standards for Specifications for Building Limes; 2001.
- C. ASTM C 144 – Standard Specification for Aggregate for Masonry Mortar; 1997.
- D. ASTM E-11 – Specification for Wire-cloth and Sieves for Testing Purposes; Book of Standards Volume 14.02.
- E. ASTM C 1324 – Standard Test Method for Examination and Analysis of Hardened Masonry Mortar; 2004.
- F. Technical Advice Note 1, Preparation and Use of Lime Mortars, Historic Scotland, ISBN 1903570, Revised Edition 2003.

##### 1.3 SUBMITTALS

###### A. Product Data:

1. Virginia Lime Works Mix&GO:
  - a. Product data sheets for all mix ingredients.
  - b. Mix design.
  - c. Aggregate sieve analysis.

- d. Manufacturer's storage and shipping requirements information.
- e. Manufacturer's climate requirements for installation and curing.
- 2. Aggregate
  - a. Historic Sand
    - 1) Sieve analysis.
    - 2) Aggregate void ratio.
    - 3) Gradation pictogram.
  - b. Replacement Sand
    - 1) Sieve analysis.
    - 2) Aggregate void ratio.
    - 3) Gradation pictogram.
- 3. Written procedure for:
  - a. Obtaining water supply.
  - b. Diagram of water distribution system.

#### B. Samples

- 1. Virginia Lime Works Mix&GO:
  - a. 1 1/2" x 1 1/2" x 1/2" cured mortar sample.
  - b. 1 cup sample of dry mix.
- 2. Aggregate for site mix
  - a. Historic Sand
    - 1) 1 cup clean sample of product.
  - b. Replacement Sand
    - 1) 1 cup clean sample of product.

#### C. Installer qualifications.

- 1. Name of Lead Restoration Bricklayer or Stone Mason.
- 2. Names of Restoration Bricklayers or Stone Masons performing the Work.
- 3. Names of mason tenders.
- 4. Affidavit of orientation to historic lime mortars for Restoration Bricklayers or Stone Masons or evidence of past completed projects using the specified products.
- 5. Evidence, including photographs and relevant contact information, of prior successful experience in comparable restoration projects. Obtain access to completed projects for the Architect so that they may review the completed work.

#### D. Tools and Accessories to be reviewed on site:

- 1. Garden spray assembly.
- 2. Very-low pressure spray assembly.
- 3. Shims.
- 4. Pneumatic hammer.
- 5. Chisels: Sway, clean-up, very thin, extended length.
- 6. Pointing irons.
- 7. Bench grinder.
- 8. Angle grinder.
- 9. Masonry jointers.
- 10. Brushes.
- 11. Hand held water misting bottles.
- 12. Paddle mixer.