

ITEM 560.1019 06 - MASONRY STONE JOINT INJECTION

DESCRIPTION

The work shall consist of cleaning, routing and repointing stone masonry joints by mortar injection at the locations indicated on the plans, or where directed by the Engineer.

MATERIALS

Mortar shall be in conformance with the following basic characteristics and proportioned as required to facilitate pressure injection:

<u>Item</u>	<u>Specification Requirements</u>
Slant Shear Strength	34,475 kPa
Damp to Damp Concrete (AASHTO T-237)	100% concrete failure

Cementitious Mortar Grout

1 Part Portland Type I Cement	701-01
1 Part Fly Ash	711-10
1 Part Fine Clean Sand	703-03
Water	712-01
Admixture	711-08

CONSTRUCTION DETAILS

A. **Joint Preparation**

1. All existing joint material shall be removed to a minimum depth of 100mm, by methods which will not damage the stone masonry units or remaining joint material. In joints where existing mortar is deteriorated deeper than 100mm, the joint shall be cleaned of all debris to the full depth of the existing joint void.
2. The Contractor shall provide all required temporary measures such as shimming to prevent movement of the stone masonry units as a result of the joint preparation work. Any movement of stone masonry units shall be repaired by the Contractor as directed by the Engineer at no cost to the State.

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B. Joint Repointing

1. Pointing shall not be done when the ambient temperature is 4°C or below, nor when the stone exhibits frost.
2. The face of the stone masonry and the joint surfaces in the area of repointing operations shall be thoroughly saturated with water prior to repointing.
3. The mortar shall be placed in the joints with pressure pointing equipment that will ensure continuous mortar placement to the full depth of the joint void. In instances where the depth of the joint precludes getting the grout tip to the back of the void, the Contractor shall provide temporary bulkheads, drill the voids for tip access, or other measures as approved by the Engineer to force the mortar to the full depth of the void. Hand placement will not be allowed, except for repair of any defective joint areas noted by the Engineer after the initial repointing operations.
4. The surface of the joint shall be struck and rodded to a concave shape, and all excess mortar and cement stains shall be cleaned from the surface of the stone masonry.
5. The surface of the stone masonry and repointed joints shall be maintained in a damp condition and protected from sunlight by a means acceptable to the Engineer for a minimum of three days after completion of the repointing of a given section.
6. The Contractor shall maintain the air temperature adjacent to the repointed joints at a minimum of 4°C for a minimum of 72 hours after repointing of any joints.

METHOD OF MEASUREMENT

Measurement will be taken as the number of square meters computed from the payment limits shown on the plans or from payment lines established in writing by the Engineer.

BASIS OF PAYMENT

The unit price bid per square meter shall include the cost of all labor, materials, and equipment necessary to complete the work.

<u>ITEM NO.</u>	<u>ITEM</u>	<u>PAY UNIT</u>
560.1019 06	Masonry Stone Joint Injection	Square Meter