

## Section 41 Pavement Subsealing and Jacking

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#### 4-4101 General

Pavement subsealing and jacking are techniques used in rehabilitating concrete pavement. The same equipment and materials are used in both operations. Subsealing fills voids under the pavement without disturbing the elevation of the finished surface. Jacking fills any voids that may be present under the pavement and also raises the finished surface of the pavement to a desired elevation. In both operations, holes are drilled to a specified depth below the pavement surface, and grout is pumped under pressure into the holes.

The special provisions will indicate whether pavement subsealing or pavement jacking is to be performed.

#### 4-4101 General

#### 4-4102 Before Work Begins

Before work begins, take the following steps:

- Review the contract plans and specifications for all contract requirements including those covering traffic handling, equipment, and materials to be used.
- Verify that the plan to control water pollution is approved and in place.
- Verify that all materials to be used are included on Form CEM-3101, “Notice of Materials To Be Used,” and that the form has been received and properly distributed.
- Review the contractor’s proposal for materials to be used and for the required data from an independent laboratory test.
- Verify that the materials the contractor plans to use comply with Section 41-1.02, “Materials,” of the *Standard Specifications*. Ensure that the proposed brands of fly ash and admixtures are on the current list of approved brands.
- Require certificates of compliance for fly ash, admixtures, and cement.
- Inspect packaged fly ash, cement, or combined fly ash and cement to determine that these materials are labeled as required in the specifications. For proper labeling, also collect and review shipping invoices for fly ash and cement delivered in bulk.
- Examine the contractor’s equipment to determine that it meets specified requirements.
- Discuss traffic handling with the contractor, and review the contractor’s plan for lane closures. See sections 4-12, “Construction Area Traffic Control Devices” and 2-2, “Traffic,” of the *Construction Manual* for a discussion of traffic handling devices and lane closure procedures.

#### 4-4102 Before Work Begins

- Check the existing condition of the pavement, and revise areas to be jacked or grouted as needed.
- Check for the presence of traffic loop detectors.
- Check the plans for the pattern and location of holes.
- Check the contractor's actual layout of hole locations to see that it conforms to the planned pattern.
- Establish vertical control for pavement jacking.
- Verify that the atmospheric and subgrade temperatures are above the specified minimums and that before beginning jacking or subsealing, weather conditions are suitable.

**4-4103  
During the  
Course of Work**

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During the work, do the following:

- Verify that the mixer operates within the specified rpm.
- Verify that the pump can sustain the specified gauge pressure.
- Verify that the washing device meets the specified number of jets and that the contractor operates it as the specifications require.
- Perform California Test 541, "Flow of Grout Mixtures (Flow Cone Method)" to determine that the efflux time is within the required range during grouting operations.
- Monitor the slab for movement during subsealing. Also, observe and monitor the contractor's string lines during jacking to determine when the slab has been raised to the established grade.
- Monitor grout mixing so that grout not used within the specified time is disposed of properly.

**4-4104  
Measurement  
and Payment**

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Count the number of holes drilled. Verify that the holes to be paid for are only those holes shown on the plans or those ordered to be drilled.

Also, count bags of packaged fly ash and cement to determine pay quantities. During counting, ensure that duplication or omission does not occur. Collect weigh tickets for materials delivered in bulk, and remember to deduct quantities of materials not used or wasted.