

**Revision of Section 515  
Concrete Sealer (Calcium Nitrite)**

**Permanent Changes to Project Dated Special Provisions-Log Sheet**

**Revision of Section 515 Concrete Sealer**

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| <u>Date</u> | <u>Author</u> | <u>Description of Change</u>  |
|-------------|---------------|---|
| 8/7/96      | MLM           | CREATED Specification for the purpose of surface. applied corrosion inhibitors for reinforced concrete. |
| 1/29/99     | MLM           | Revised to allow alternative organic corrosion inhibitors.  |
| 9/01/99     | MLM           | Revised to be compatible with the 1999 Specifications.  |
| 10/29/99    | MLM           | Revised to be available in the Project Dated specifications.  |
| 04.11.2023  | M. Kayen      | Revisions to make spec online accessibility-compliant. 5.22.23 Additional accessibility work.           |

## **Revision of Section 515 Concrete Sealer (Calcium Nitrite)**

**Revise Section 515 of the Standard Specifications for this project as follows:**

**Subsection 515.01 shall include the following:**

This work consists of applying a penetrating corrosion inhibitor to finished surfaces of existing concrete or to cut surfaces of existing concrete prior to placement of new concrete. The corrosion inhibitor shall be placed under the direction of a manufacturer's representative in accordance with the manufacturer's instructions and as described.

**Subsection 515.02 shall include the following:**

The corrosion inhibitor shall consist of calcium nitrite and liquid carriers or penetrating vehicles, or organic inhibitors such as amino alcohols. The corrosion inhibitor shall conform to AASHTO M194, except for the requirements in tables 1, and 2, and sections 11 through 17. The corrosion inhibitor shall be one on the approved products list of the Division. If there are no approved products on the list the corrosion inhibitor shall be a product approved by the Engineer. If the plans specify the use of a calcium nitrite inhibitor, the inhibitor shall be calcium nitrite, if the plans specify the use of an organic inhibitor, an organic inhibitor shall be used. If the plans do not specify the type of inhibitor, either or both types of inhibitor may be used either individually or in combination, provided that the combination use is in accordance with the manufacturer's recommendations.

**Subsection 515.05 (a) shall include the following:**

Prior to the application of the corrosion inhibitor, surfaces to be treated shall be cleaned by air, sand, or water blasting and flushed with water until all material and contaminants which may interfere with the inhibitor's penetration have been removed.

**Subsection 515.05 (b) shall include the following:**

The corrosion inhibitor shall be applied when the surface to be treated has been dry for at least 24 hours and above a temperature of 40F, or within a more restrictive temperature range if recommended by the manufacturer.

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**Subsection 515.05 (c) shall include the following:**

After the exposed surfaces have been prepared and allowed to dry, coats of corrosion inhibitor shall be applied in accordance with the manufacturer's recommendations. Each coat shall be evenly applied. Each application shall be allowed to dry prior to making the next application. Exposed surfaces shall be protected from precipitation and heavy dew during and after the application of the penetrating inhibitor. Traffic shall not be allowed on the treated surface until the corrosion inhibitor has penetrated the concrete and the liquid corrosion inhibitor is no longer visible on the surface. The Contractor shall follow all manufacturer's recommendations, including penetration time, prior to opening treated surfaces to traffic or completing the work. Enough coats shall be applied so that each square yard of treated surface shall have absorbed 0.12 lb. of calcium nitrite or organic inhibiting agent. When treating areas from which deteriorated concrete has been removed, lap the treated area onto the adjacent surface at least 2 feet beyond the removal.

**Subsection 515.06 shall include the following:**

Concrete sealer will be measured for by the number of square yards of concrete surface covered, except when the corrosion inhibitor is used only under patches. The area measured under patches shall be the area of the patches and shall not include the treatment required for 2 feet around the patch in 515.05 (c). The pay area for each discrete location (a contiguous treated area not touching other treated areas) shall be rounded up to the next whole square yard.

**Subsection 519.07 Basis of Payment, shall include the following:**

The accepted quantity of concrete sealer will be paid for at the contract unit price per square yard complete in place. Payment will be made under:

| Pay Item                          | Pay Unit    |
|-----------------------------------|-------------|
| Concrete Sealer (Calcium Nitrite) | Square Yard |

Payment will be full compensation for all work and materials required to complete the item including preparation, furnishing and applying the coats of penetrating corrosion inhibitor.