



**DEVELOPMENTAL SPECIFICATIONS
FOR
BRIDGE DECK OVER-DEPTH REPAIR AND OVERLAY**

**Effective Date
March 16, 2010**

THE STANDARD SPECIFICATIONS, SERIES 2009, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE DEVELOPMENTAL SPECIFICATIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

This specification is intended for deck repair and overlay contracts on non-primary and non-interstate route bridges where the Contractor is required to remove existing deck concrete to within a 0.25 inch (5 mm) of the top of the top mat of reinforcing steel rather than removing only the top 0.25 inch (5 mm) of the existing deck concrete. The following changes are made to the Section 2413 of the Standard Specifications:

2413.01, Description.

Add new articles:

D. Class A Deck Repair, Special.

1. Class A Deck Repair, Special, consists of:
 - a. Removing existing deck concrete from 0.25 inch (5 mm) above the top of the top mat of reinforcing steel, but less than full depth of the existing bridge deck,
 - b. Transporting the existing concrete removed from the project, and
 - c. Replacing the excavated volume with concrete to a level bounding the Deck Over-Depth Overlay classification.
2. The lower limit for Class A Deck Repair, Special is to suitable existing concrete, as determined by the Engineer. Removal of deck concrete above the top of the top mat of reinforcing steel is included in deck Over-Depth Overlay.

E. Deck Over-Depth Overlay.

1. Deck Over-Depth Overlay consists of:
 - a. Removing existing deck concrete to within 0.25 inch (5 mm) of the top of the top mat of reinforcing steel,
 - b. Transporting the existing concrete removed from the project, and
 - c. Overlaying with a concrete course of a depth designated.
2. The Contractor has the option of removing concrete using equipment listed in Article 2413.03 or with scarification equipment. Perform removal in a manner that does not damage or loosen the concrete bond around the reinforcing steel.

3. The overlay may include a raise of the existing roadway surface elevation as shown in the project plans.

2413.03, B, Preparation of Surface for Deck Surfacing and Deck Overlays.

Replace the third sentence of Article 1:

On bridge deck overlays, Class A bridge deck repair and Class A bridge deck repair, special, removal areas may be used as test wells provided they meet the nominal dimensions and are located in the testing frequency areas.

Replace the first sentence of Article 2:

For bridge deck overlays, uniformly scarify or prepare the entire existing concrete deck area to a depth of 0.25 inch (5 mm), or to a uniform depth to within 0.25 inch of the top of the top mat of reinforcing steel for deck over-depth overlay except over areas of Class A, Class A Special, and Class B repair where the overlay removal may be coincidental with operations for repair removal.

2413.03, C, 2, Class A Deck Repair.

Replace the first sentence of Article a:

Class A repair removal starts 0.25 inch (5 mm) below the existing surface for Class A and at the top of the top mat of reinforcing steel for Class A, Special.

Replace the first sentence of Article c:

For Class A and Class A, Special repair and in preparation for bridge deck overlay, the surface may also be prepared or partially prepared using a high pressure water system, at the Contractor's option.

2413.03, C, 3, Class B Deck Repair.

Replace Articles a and b:

- a. Class B repair removal starts 0.25 inch (5 mm) below the existing surface for Deck Overlay, Class A, and the top of the top mat of reinforcing steel for Deck Over-Depth Overlay, Class A, Special. Remove all concrete within all areas designated for Class B repair, and in all designated areas of Class A or Class A, Special, repair in which the depth of the remaining sound concrete is less than 50% of the original depth of the deck.
- b. Designated Class A and Class A, Special, repair areas will be measured as Class B Deck Repair when full depth removal is required. At the Engineer's direction, limited areas of removal greater than 50% of the deck thickness (such as beneath reinforcing) may be allowed. These limited areas of excess depth will be measured as Class A Deck Repair or Class A Deck Repair, Special.

2413.03, E, 1, Repairs.

Replace the first sentence of Article a:

Although repair classes are considered to begin 0.25 inch (5 mm) below the original concrete surface for Class A and the top of the top mat of reinforcing steel for Class A, Special, replace repair concrete monolithically with the overlay course, except as described for larger areas of Class B repair.

2413.04, B A, METHOD OF MEASUREMENT.

Replace the ~~second paragraph~~ article:

Class A Deck Repair, Class A Deck Repair, Special; Class B Deck Repair, Deck Overlay (Class O PCC), Deck Overlay (Class HPC-O), Deck Over-Depth Overlay (Class O PCC), and Deck Over-Depth Overlay (Class HPC-O): computed in square yards (square meters) from measurements of the areas repaired or overlaid. Concrete removal for Class O PCC test wells may be required by the Engineer. This removal will not be measured for payment.

2413.04, C, METHOD OF MEASUREMENT.

~~Add as a new article. Renumber Article C as Article D. Renumber Article D as Article E:
Concrete removal for Class O PCC test wells may be required by the Engineer. This removal will not be measured for payment.~~

2413.05, A B, 2, BASIS OF PAYMENT.

Replace the first sentence:

Class A Deck Repair, Class A Deck Repair, Special; Class B Deck Repair, Deck Overlay (Class O PCC), and Deck Overlay (Class HPC-O), Deck Over-Depth Overlay (Class O PCC), and Deck Over-Depth Overlay (Class HPC-O):

2413.05, A B, 3, BASIS OF PAYMENT.

Replace the first sentence:

When there is no item for Class B Deck Repair, but such work is required, payment for each square yard for 5 square yards (square meter for 4 m²) or less will be at three times the contract unit price per square yard (square meter) for Class A Deck Repair or Class A Deck Repair, Special.

2413.05, A C, 4, BASIS OF PAYMENT.

Replace the article:

The cost of sealing as required in Article ~~2413.09~~ 2413.03, G is included in the contract unit price for Deck Overlay (Class O PCC), Deck Overlay (Class HPC-O), Deck Over-Depth Overlay (Class O PCC), or Deck Over-Depth Overlay (Class HPC-O).