

Section 2406. Concrete Structures

2406.01 DESCRIPTION.

- A. Apply the provisions of this section to bridge structures for which the main members spanning the various supports are composed of concrete.
- B. Place the concrete superstructure on a substructure constructed according to [Section 2405](#).
- C. Also, in addition to this section, apply the provisions of [Sections 2403, 2404, 2405, 2407, 2412, 2413, and 2414](#).

2406.02 MATERIALS.

Refer to the materials requirements for [Sections 2403, 2404, 2405, 2407, 2412, 2413, and 2414](#).

2406.03 CONSTRUCTION.

A. Falsework and Forms.

- 1. Construct falsework and forms to conform to [Articles 2403.03, B, 5 and 2403.03, L](#).
- 2. Notify the Engineer at least 24 hours before placing any concrete in the superstructure of a concrete bridge so the Engineer may inspect the falsework and forms for conformance with falsework plans, alignment, and general fitness. Do not place concrete until the Engineer has inspected the falsework and forms.
- 3. Ensure falsework and forms provide for the full camber and roadway crown specified in the contract documents. Remove forms according to [Article 2403.03, M](#).

B. Placing Concrete.

Place concrete as provided in [Section 2403](#) and the following:

1. Placing Concrete in Slab Superstructures.

- a. Place concrete for each span to its full depth in one continuous operation and without joints except as provided in the contract documents.
- b. The Contractor will be required to provide adequate material, labor, and equipment to assure that the concrete required to be completed in a single, continuous operation can be placed in 10 hours.

2. Placing Concrete in Deck Girder Superstructures.

- a. Place concrete for each girder continuously for the entire length of the girder in level, horizontal layers, unless provided otherwise in the contract documents.
- b. Place concrete for the floor to the required thickness in a single placement. Place the floor as quickly as possible after completion of its supporting girders. Complete the floor within the same working day as the girders.

C. Joints.

Construct joints in the locations shown on the plans and according to [Article 2403.03, H](#).

D. Drainage.

- 1. Construct and place floor drains at the locations shown on the plans.
- 2. Install drains behind abutments, wingwalls, and similar structures as specified in [Section 2502](#).

E. Surface Finish.

1. Finish concrete superstructures according to [Article 2403.03, P.](#)
2. Finish concrete floors according to [Section 2412.](#)

2406.04 METHOD OF MEASUREMENT.

- A.** Measurement for the quantities involved in concrete structures will be as provided in the following sections:
1. Structural Concrete: [Article 2403.04](#) applies.
 2. Reinforcement: [Article 2404.04](#) applies.
 3. Structural Steel: [Article 2408.04](#) applies.
 4. Precast and Prestressed Concrete Units: [Article 2407.04](#) applies.
- B.** The volume of concrete displaced by floor drains, expansion joints, or metal strips for sealing joints will not be measured.

2406.05 BASIS OF PAYMENT.

- A.** Payment for the quantities involved in concrete structures will be as provided in the following sections:
1. Structural Concrete: [Article 2403.05](#) applies.
 2. Reinforcement: [Article 2404.05](#) applies.
 3. Structural Steel: [Article 2408.05](#) applies.
 4. Precast and Prestressed Concrete Units: [Article 2407.05](#) applies.
- B.** Payments are full compensation for:
- Furnishing all materials, equipment, and labor, and
 - Performance of all work necessary to complete the concrete structure in conformance with the contract documents.
- C.** Deduction will not be made for the volume of concrete displaced by floor drains, expansion joints, or metal strips for sealing joints.
- D.** The cost of all bituminous expansion joint material, metal strips for sealing joints, and other small miscellaneous items is included in the price per cubic yard (cubic meter) for structural concrete.
- E.** The weight (mass) of structural steel paid for will include all steel expansion plates, castings of steel or iron, or welded shapes for floor drains, bearing plates, anchor bolts, fasteners, and other steel parts except steel reinforcement for concrete.