

## 714-R-601 REINFORCED CONCRETE BOX STRUCTURE REQUIREMENTS

(Adopted 06-21-12)

The Standard Specifications are revised as follows:

SECTION 714, BEGIN LINE 98, DELETE AND INSERT AS FOLLOWS:

**(a) Box Structure**

A box structure ~~shall~~ may be designed in accordance with ~~the methodology presented in~~ ASTM C 1577 *if the box section is listed therein. A box structure section not listed therein shall be designed in accordance with the AASHTO LRFD Bridge Design Specifications* with the following exceptions.

SECTION 714, BEGIN LINE 126, DELETE AND INSERT AS FOLLOWS:

A headwall with ~~bridge railing~~ guardrail mounted on top, ~~and~~ the anchorage of the headwall to the box structure section, *or a moment slab with bridge railing* shall be designed for the bridge railing test level shown on the plans.

SECTION 714, BEGIN LINE 140, DELETE AS FOLLOWS:

**(c) Working Drawings**

Working drawings shall be submitted in accordance with 105.02 for fabrication of a precast reinforced concrete box structure greater than 12 ft (3.6 m) span, a box structure of a size not described in ASTM C 1577, headwalls, wingwalls, and footings. Design calculations ~~which show the effects of hydrostatic pressure on the structure~~ shall also be submitted with the working drawings. Detailed plans for falsework and centering will not be required. Working drawings shall include all details, dimensions, and quantities necessary to construct the structure, headwalls, wingwalls, or footings and shall include, but not be limited to, the following information.

SECTION 714, BEGIN LINE 206, INSERT AS FOLLOWS:

**(a) Headwall Reinforcement Placement Relative to Top of Structure**

*The headwall shall be a single precast piece which spans from sidewall to sidewall of a span.* The vertical headwall reinforcement shall be attached to the top of the structure by either drilling holes or precasting holes. A chemical anchoring material, if used, shall be from the Department's List of Approved Chemical Anchoring Materials.

SECTION 714, BEGIN LINE 256, DELETE AS FOLLOWS:

**(c) Sealing**

~~Sealer shall be applied in accordance with 709 on the top surfaces of the structure section, headwalls and wingwalls. It shall extend 5 ft (1.5 m) vertically down the exterior of each section or 5 ft (1.5 m) vertically down both faces of each headwall or wingwall or to the bottom of each, whichever is less. Sealer material shall not be placed in keyway joints, if present. The sealer shall be provided for the full length of the structure. Surface preparation and application procedures shall be as recommended by the sealer manufacturer.~~