



# Illinois Department of Transportation

## Memorandum

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To: Studies and Plans Squads PPM 50-03  
From: J. W. Witters Revised: Tim Brandenburg  
Subject: Drainage Openings in Concrete Structures  
Date: June 1, 1982 Revision Date: December 5, 2006

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### PLAN PREPARATION MEMORANDUM 50-03

#### BACKGROUND

This memorandum revises Plan Preparation Memorandum 82-128.P, Drain Holes in Drop Structures and supplements Article and Section 503 & 542 of the Standard Specifications and Highway Standards, respectively, and Section 3.1 of the Culvert Manual in providing uniformity of District preference concerning drainage openings in concrete structures.

#### PROCEDURE

On a recent construction field review for 70% job completion, it was noted several drainage drop-structures did not have drain holes to permit ground water around them to enter into the drainage system.

For drop structures at the end of culverts or on top of box culverts, drain holes should be provided in accordance with Article 503.11 of the Standard Specifications. Applicable Highway Standards of Section 542 also indicate a 4" x 12" formed opening be utilized for drainage of concrete headwalls.

If the structure is 4 feet or less in height, put the drain holes half-way up the structure. If the structure is over 4 feet high, put the drain holes 2 feet above the flow line or bottom of the structure.