



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

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MEMORANDUM TO: Project Engineers
Project Design Engineers

FROM: T. V. Rountree, P. E.
State Bridge Design Engineer

DATE: August 1, 2000

SUBJECT: CULVERT EXTENSIONS

At the request of the Construction Unit, an option has been added to allow the Contractor to use the existing wings as temporary shoring for culvert extensions. For all culvert extensions, place the following note on the plans:

If approved by the Engineer, the Contractor may use the existing wings as temporary shoring for the construction of the culvert extension. In this case, the bottom slab of the extension shall be poured at least 72 hours prior to cutting the wings. The wings may be cut earlier provided the slab concrete strength has reached a minimum compressive strength of 1500 psi (10.3 MPa).

In addition, the Construction Unit has requested that dowel bars be required to connect the exterior barrel walls of the culvert extension to the existing culvert. Detail dowels in the exterior walls, spaced at 1'-6" (460 mm) maximum, and comparable to that shown in Figure 9-7 of the Design Manual. In lieu of the three notes in Section 9-4 "Culvert Extensions", place the following note on the plans::

Removal of existing concrete and bonding of new concrete shall be in accordance with Article 420-11 of the Standard Specifications, except that existing reinforcing steel in the wings shall be cut off flush with the concrete. Dowels shall be used to connect the culvert extension to the existing culvert as shown. For note regarding setting of dowels, see Sheet SN (SNSM).

This policy is effective as soon as is practicable, but no later than the November 2000 letting. The Design Manual will be revised to reflect this policy at a later date

TVR/LES



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Last Updated: 08/02/2000 by:Randy Bissette

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