



May 26, 2004

MEMORANDUM TO TEAM LEADERS AND CONSULTANTS

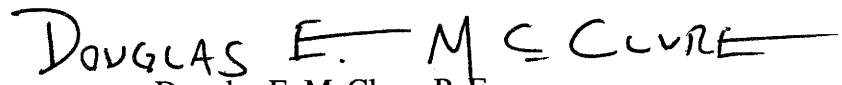
SUBJECT: Wing Walls

Wing walls shall be of sufficient length to retain the roadway embankment and to furnish protection against erosion. The wing walls shall be designed to keep the embankment at least one foot below the top of the end bent cap at the front face of the cap. The wing walls shall also be designed to allow for a minimum berm width of two feet (measured perpendicular to the bent cap). See attached Detail "A". Generally, the slope of the fill should not be steeper than 2:1 (H:V), and the wing wall lengths should be established on this basis. The minimum thickness of wing walls shall be one foot.

For structure types other than flat slabs or cored slabs, parallel wing walls (wing walls that are parallel to the centerline of bridge) shall be used. For flat slab or cored slab structures, straight wing walls (wing walls that are parallel to the centerline of bearing) are preferred. Parallel wing walls may be used for these shallow depth structures if necessary to accommodate earthquake or thermal loads, when a certain type of aesthetics is desired, when there is interference between the existing and proposed structures, or when some other type of restriction exists.

For bridges having parallel wing walls, approach slabs shall be used and the wing walls shall be detailed adjacent to the outside edge of the approach slab. See attached Detail "B".

For previously completed plans that do not conform to the requirements of this memorandum, the State Bridge Design Engineer will, on a case-by-case basis, assess the need for revisions.

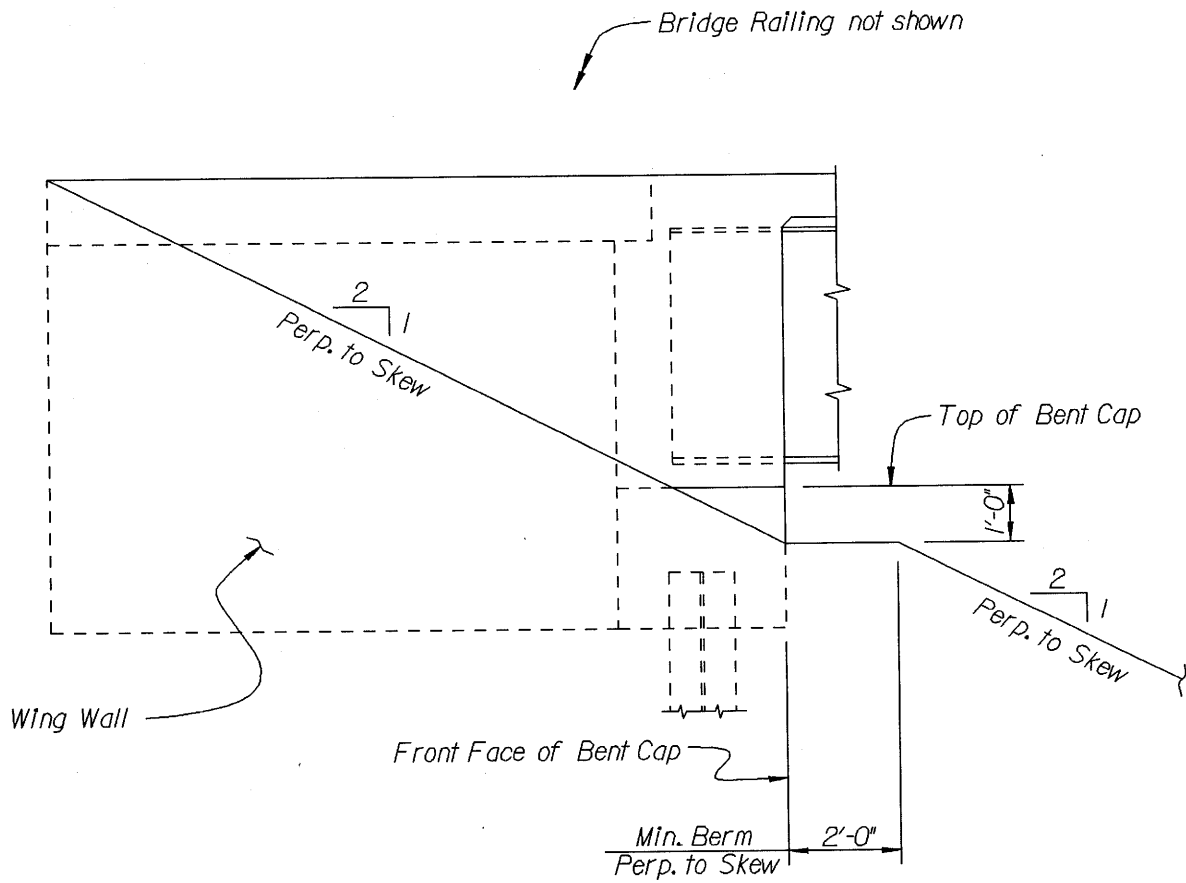

Douglas E. McClure, P. E.
State Bridge Design Engineer

Attachments

cc: Assistant State Bridge Design Engineers
Bridge Construction Engineer
FHWA
CRM East
CRM West

File: PC/BWB

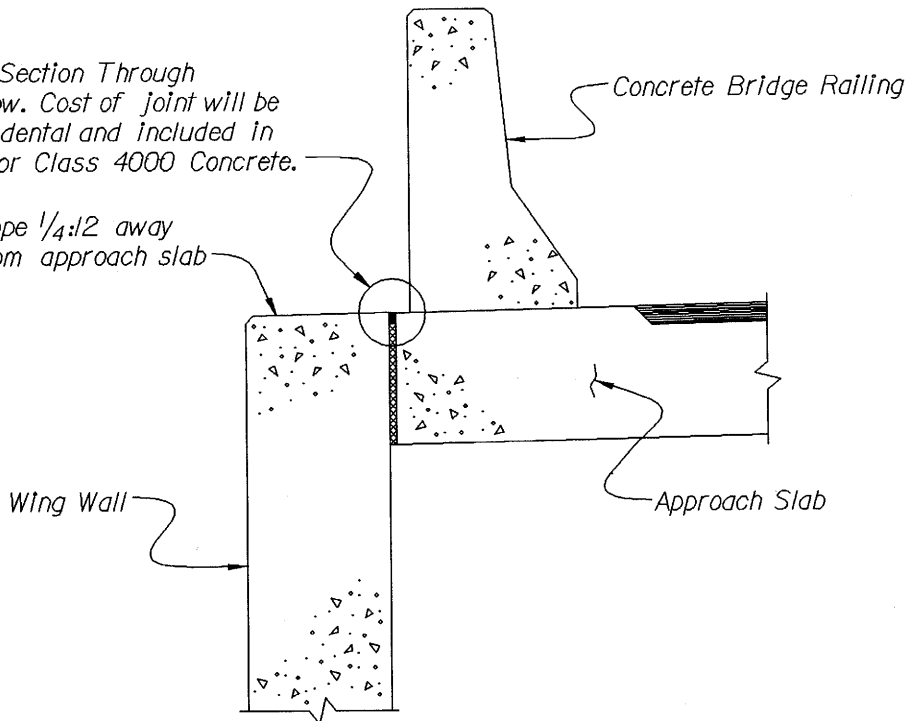




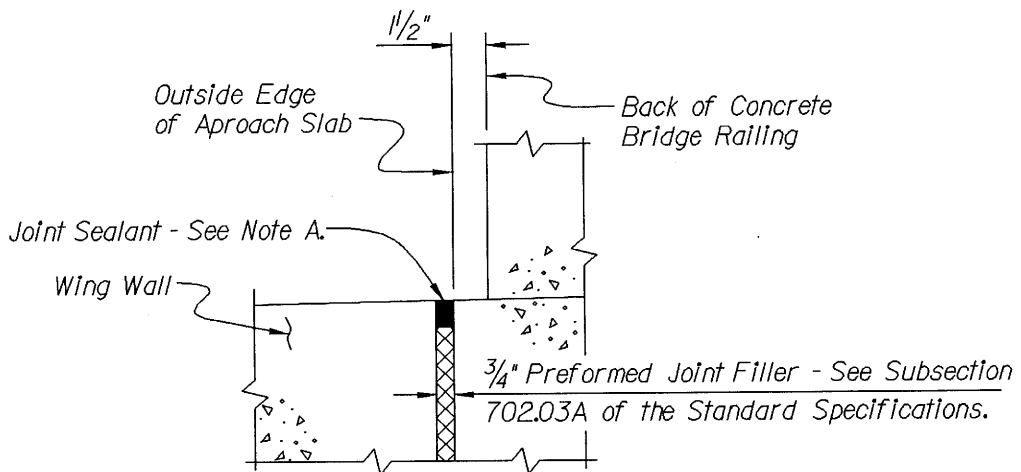
DETAIL "A"

$\frac{3}{4}$ " Joint - See "Section Through Joint" detail below. Cost of joint will be considered incidental and included in the price bid for Class 4000 Concrete.

Slope $\frac{1}{4}$:12 away from approach slab



SECTION THROUGH WING WALL / APPROACH SLAB



SECTION THROUGH JOINT

Note A:
 Joint sealant shall be a cold applied bridge joint sealant meeting the requirements of Subsection 702.03H of the Standard Specifications. The depth of the sealant shall be set in accordance with the Manufacturer's instructions.

DETAIL "B"