



BRIDGE DESIGN MEMORANDUM – DM0424

TO: RPG Structural Engineers
Alternative Delivery Structural Design Engineer
Design Consultants

Date: July 11, 2024

RE: *Additional Requirements for Cored Slab Bridges*

Apply these requirements to all projects where design has not advanced beyond preliminary plans submittal and/or whenever SCDOT Structural Drawings and Details are incorporated into the 95% bridge plans.

Revised structural drawings have been prepared for Prestressed Concrete Adjacent Cored Slabs and are presented in the *SCDOT Structural Drawings and Details* (available on the SCDOT website). Standard cored slab cross sections are 3'-0" by 1'-9" or 2'-0". The drawings have standard span lengths of 30 ft, 40 ft, 50 ft, 60ft, and 70 ft. The drawings provide details for bridge roadway widths of 27'-10", 33'-10", and 39'-10", as well as, skews of +15°, 0°, and -15° for each span length.

Make the following revisions in the *Bridge Design Manual*:

Remove the following paragraph from Section 12.3.2.5:

In addition to permanent installations, cored slabs may be used for temporary bridges (i.e., a design life less than 5 years).

Add the following paragraphs to Section 12.3.2.5:

Due to adverse effects associated with large bridge widths, cored slab bridge widths shall be limited to typical sections of 17 units or less.

Cored slab bridges shall be limited to tangent vertical grades of 4% or less or on slight crest vertical curves. No sag vertical curves will be allowed on cored slab bridges. Transversely, cored slab bridges shall be limited to a maximum rate of superelevation of 4%. Superelevation transitions are not allowed on cored slab bridges.



Please note the changes above in your copy of the *SCDOT Bridge Design Manual*.

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Structural Design Support Engineer

TBK:hl

ec:

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