

#### **5.14.1.4—Bridges Composed of Simple Span Precast Girders Made Continuous**

The following shall supplement *A5.14.1.4*.

Bridges composed of simple span precast prestressed girders made continuous utilizing positive moment connections are not allowed, due to unsatisfactory past performance of such details.

In an effort to minimize expansion joints for precast prestressed girder bridges, the deck over the supports shall be made continuous to the maximum practical length. Continuous deck over the supports is achieved by providing a continuity diaphragm at the support that is poured in-place with the deck slab. The girder ends shall be embedded in the continuity diaphragm, but applied with a bond breaker to provide some rotational release at the end of girders. Refer to Bridge Design Special Details for more details on the continuity diaphragm.

Precast prestressed girders shall be designed as a simple span for positive moment and shear for all loading conditions without regard to the continuity at the deck. The girders shall also be designed assuming full girder continuity at the support for negative live load moment. Additional reinforcing steel shall be placed at the top of the deck slab to resist the continuous live load negative moment. The longitudinal reinforcement as part of the deck design may be considered in resisting the live load negative moment.