

January 24, 2017

Ms. Jennifer Muster
HDR/ICA
75 Beattie Place
Suite 805
Greenville, SC 29601

SCDOT Bridge Joint Inspections for I-85 over Buffalo Creek and I-85 over Broad River

Dear Ms. Muster:

KCI performed field inspections of the I-85 Bridges over the Broad River and Buffalo Creek in Cherokee County, South Carolina. These inspections were completed October 12, 2016 and the temperature at the time was approximately 50° F. The focus of our inspections was to evaluate the existing condition of the strip seal expansion joint located at the end bents. KCI performed visual inspection of the existing joint from the top side as well and from the bottom side under the existing superstructure. The typical strip seal expansion joints with armor plates can be seen in Figure 1.

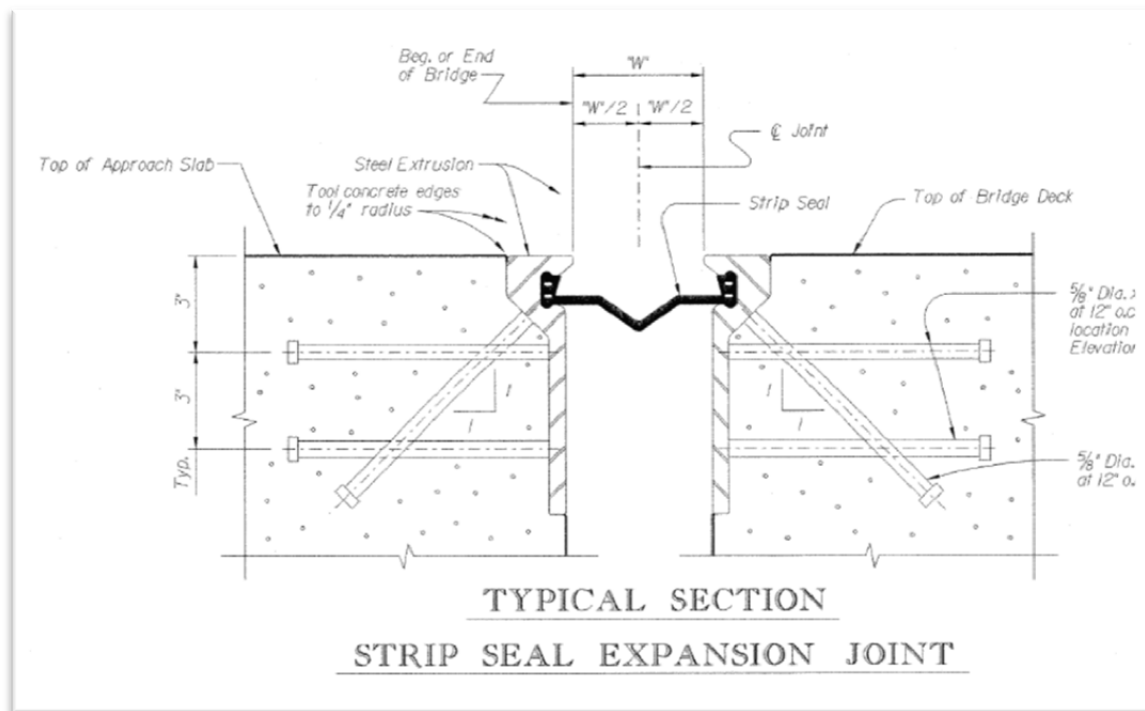


Figure 1: Typical Strip Seal Joint

Bridge I-85 over Broad River SCDOT File No. 11.678

The expansion joint was in good condition at both abutments. There were no noticeable tears in the existing strip seals and no evidence of leaking was overserved on the end bent backwalls or beam seats. The armor joints were in good condition and were in alignment. The joints appeared to be functioning as intended. Some debris had collected in the joint on top of the strip seal. It is recommended that the joints be cleaned to prevent any future damage. The latest inspection report from SCDOT done in January 2016 backs up our field inspection that the joints are in good condition.

In summary the joint was in good condition and joint replacement is not recommended at this time.



Figure 2: Debris in Joint (End Bent 1)



Figure 3: Joint View from Deck (End Bent 1)



Figure 4: Typical Underside of Joint (End Bent 6)

Bridge I-85 over Buffalo Creek SCDOT File No. 11.680

The expansion joint was in good condition at both abutments. There were no noticeable tears in the existing strip seals and no evidence of leaking was overserved on the end bent backwalls or beam seats. The armor joints were in good condition and were in alignment. The joints appeared to be functioning as intended. Some debris had collected in the joint on top of the strip seal. It is recommended that the joints be cleaned to prevent any future damage. The latest inspection report from SCDOT done in January 2016 backs up our field inspection that the joints are in good condition.

In summary the joint was in good condition and joint replacement is not recommended at this time.



Figure 4: Joint View from Deck (End Bent 4)



Figure 2: Debris in Joint along Barrier (End Bent 1)

Please let us know if you have questions or need additional information as it relates to these bridge inspections.

Sincerely,



Eric Anderson, P.E.
KCI Technologies
Project Manager