



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

DATE: June 25, 2020
TO: Project Engineers
Project Design Engineers
FROM: B. C. Hanks, P.E.
State Structures Engineer
SUBJECT: DESIGN MANUAL REVISIONS

Chapter 6 of the Design Manual has been revised to provide clarification and/or guidance on current design practice as follows:

Section	Summary of Revision(s)
6.2.3	Relocated the guidance to not detail the roadway surface gap in the transverse deck joint greater than 4 inches from Section 6.2.3.1 to this section. Added strip seal expansion joint to the thermal movement table.
6.2.3.2	Renamed section to Strip Seal Expansion Joints. Added guidance for detailing strip seal expansion joints.
6.2.3.3	Renamed section to Expansion Joint Seals. Relocated expansion joint seal guidance from Section 6.2.3.2 to this section. Revised the criteria for detailing expansion joint seals. Added guidance for detailing permitted construction joints in bridge decks and approach slabs adjacent to expansion joint seals. Added guidance for increasing the distance to the permitted construction joints for heavy skews to prevent interference with bent and end bent diaphragms. Added guidance to not show a separate quantity on the plans for the closure pours adjacent to expansion joint seals. Added guidance to detail joints along the skew when turned up into the barrier rail.

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	Added guidance and plan note to install temporary glands for staged construction.
6.2.3.4	Added section and named it Modular Expansion Joint Seals.
	Relocated modular expansion joint seal guidance from Section 6.2.3.3 to this section.

The following Design Manual figures have been added or revised:

Figure	Summary of Revision(s)
6-27	Revised for strip seal expansion joints.
6-29	Revised for strip seal expansion joints.
6-30	Revised for strip seal expansion joints.
6-53	Revised for strip seal expansion joints.
6-54	Revised for strip seal expansion joints.
6-55	Revised for strip seal expansion joints.
6-56	Revised for strip seal expansion joints.
6-136	Added to show example of strip seal expansion joint standard.
6-137	Added to show example of strip seal expansion joint standard.
6-138	Added to show example of strip seal expansion joint standard.
6-139	Added to show example calculations for “Movement and Setting at Joint” table.

The Design Manual and Design Manual Figures are available online.

These revisions are effective not later than the October 2020 letting.

BCH/THC/ksl

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