

July 1, 2021

General

Delete Section 702.4.16 entirely and replace with the following:

APPROVED:
Division Administrator

By: _____
FEDERAL HIGHWAY ADMINISTRATION

702.4.16 Grooved Surface Finish

- 1 After the new bridge deck concrete has cured and all applicable rideability specifications have been satisfied, cut grooves into the hardened concrete deck in conformance with this section. Groove the new bridge deck prior to opening the bridge to traffic. Groove any areas of bridge decks constructed in stages prior to opening the bridge to temporary or permanent traffic.
- 2 Cut the grooves into the hardened concrete using a mechanical sawing device that leaves grooves that are 0.125 inch wide and 0.125 inch deep. Provide grooves with a center-to-center spacing that vary randomly from 0.625 inch to 1.125 inches. Do not groove across expansion or contraction joints.
- 3 Skew angles discussed in this section are as measured from perpendicular to the centerline of the bridge. Groove the hardened surface of the bridge deck to the extents and in the directions as follows:
 - a. On bridges with skew angles less than or equal to 20 degrees, cut grooves parallel to the expansion or contraction joints. Extend grooving to within 2 to 4 inches from the edge of expansion or contraction joints and to between 6 and 18 inches from the gutterline or edge of the raised median. Triangular areas of ungrooved surface concrete are permitted within the 6 to 18 inches of transverse offset from the gutterline or edge of raised median.
 - b. On bridges with skew angles greater than 20 degrees or for irregular bridges with skews that vary, cut grooves perpendicular to the bridge centerline. Extend the grooving to between 2 and 18 inches from and perpendicular to the edge of expansion or contraction joints. Do not groove across expansion or contraction joints. Triangular areas of ungrooved surface concrete are permitted within the 2 to 18 inches of offset from expansion or contraction joints. Extend grooving to within 11 to 13 inches from the gutterline or edge of the raised median.
 - c. Cut grooves as directed in Paragraph A or B above for bridges constructed in stages whenever possible. If transverse grooving on a bridge constructed in stages would result in ungrooved pavements or an otherwise unsatisfactory groove pattern within the travel lanes, the Contractor may cut grooves parallel to the bridge centerline with written BCE approval. When grooving parallel to the bridge centerline, extend the groove pattern as directed in Paragraph B above.
- 5 Remove residue from the sawing operation from the deck by vacuum or other methods. Make certain all residue is legally disposed of off the construction site or uniformly distributed in the roadway embankment as directed by the RCE. Ensure that the residue does not remain on the deck nor is washed into the bridge drainage system.
- 6 Notify the RCE at least 3 calendar days before performing any deck grooving work. Any deviation from the above requirements shall be approved in writing by the RCE prior to starting work. Provide a written groove pattern to the RCE for approval utilizing Standard Form 700.21 before the work begins. Do not perform grooving without the presence of the RCE or a Department representative on site to view the grooving operation.