Washington State Department of Transportation Bridge and Structures Office

Design Memorandum

TO: All Design Section Staff

FROM: Bijan Khaleghi
DATE: December 30, 2017
SUBJECT: Bridge Paving Projects

The intent of this memorandum is to establish criteria for preparation of the PS&E package for bridge deck paving projects either within the Region or by the Bridge and Structures Office. This memorandum is in addition to the BDM Section 5.7.5 "Bridge Deck HMA Paving Design Policies".

Bridge paving design options are bridge specific based on the existing conditions and previous paving. All designers, whether Bridge and Structures Office, Region PEO, or outside consultants, shall have the following documents in-hand before beginning any bridge deck paving design:

- 1. *Bridge Condition Report* (BCR) as developed by the Bridge and Structures Office for each bridge within the project limits. The BCR specifies the known bridge deck paving conditions present at the bridge, and specifies the paving depths and bridge deck repair requirements as determined by the Bridge Asset Management unit.
- 2. Project Resurfacing Report as developed by the Region Materials Laboratory. The Region PEO is responsible for field evaluation of the current surfacing condition and the current depth of surfacing as confirmed by cores taken by the Region Materials Laboratory. Surfacing depths vary from bridge to bridge and vary within the same bridge deck, so multiple cores at a bridge are necessary to establish a valid current baseline.

Discrepancies in paving depths specified at each bridge between the Project Resurfacing Report and the BCR shall be discussed by the Region PEO and the Bridge Asset Management unit to reach a consensus prior to continuing with bridge deck paving design.

Bridge deck paving PS&E for bridges in HMA paving projects may be prepared in the Region by the Design PEO provided all of the following conditions are satisfied:

- 1. A minimum of 0.25 feet of competent HMA is present on the bridge deck. Milling operations will leave a minimum of 0.10 feet of HMA on the bridge deck. Filling operations will not add more than 0.15 feet of HMA. Bridge deck repair and a waterproof membrane are not planned.
- 2. No bridge expansion joint or header repair or replacement work is required.

3. The bridges have an operating load rating equal or greater than 45 tons. Operating ratings are shown on the Bridge Engineering Information System (BEIST) summary sheet http://beist/InventoryAndRepair/Inventory/BRIDGE. The BCR indicates paving weight restrictions are required for the structure.

Bridge deck paving PS&E for bridges not conforming to all of the criteria above will be prepared by the Bridge and Structures Office.

Background:

This memorandum establishes criteria for either Regions or Bridge and Structures Office taking the lead on bridge paving projects. This memorandum is also applicable to buried structures with pavement placed directly on top of the structure.

Bridge deck paving PS&E involving mill and fill paving of bridges with operating load ratings of 45-tons or greater and without bridge expansion joints requiring joint or header repair or replacement may be prepared by Region PEOs.

The BDM Section 5.7.5 "Bridge Deck HMA Paving Design Policies" and BDM Section 15.5.5 "Concrete Bridge Decks" will be revised to incorporate these revisions.

If you have any questions regarding this policy memorandum, please contact Mike Bauer, <u>BauerM@wsdot.wa.gov</u> at (360) 705-7190, Dick Stoddard, <u>Stoddari@wsdot.wa.gov</u> at (360) 705-7217, or <u>Bijan.Khaleghi@wsdot.wa.gov</u> at (360)705-7181.

cc: Mark Gaines, Construction Office – 47354 Craig Boone, Bridge and Structures – 47340