



Minnesota Department of Transportation

MEMO

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DATE: November 24, 2015

TO: Materials, Construction, Design and State Aid Engineers

FROM: Maria Masten, MnDOT Concrete Engineer

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SUBJECT: MnDOT Concrete Pavement Joint Sealing Guidelines

Attached are MnDOT Concrete Engineer's recommendations for determining whether or not to seal the concrete pavements joints.

MnDOT's standard practice is not to seal any contraction or longitudinal joints on concrete pavements, except for the following:

1. All roadways where speed limit is 45 mph or less, excluding ramps and loops
2. Concrete Overlays "Whitetopping" < 6" thick
3. Resealing CPR projects when roadway speed limits are ≤ 45 mph.
4. Bridge Approach Panels

All expansion (E) joints require sealing in accordance with Standard Plan 5-297.221 (Sheet 1 of 2). If it is determined that sealing contraction (C) and longitudinal (L) joints is desired, the requirement is a single 1/8" wide saw cut sealed with MnDOT Spec. 3725 hot pour designated as a C2H or C2H-D joint.

Note to Designers:

Until the Standard Plans have been updated to reflect the new standards, please modify the following Standard Plans 5-297.209, 5-297.210, 5-297.217 (Sheets 1 and 2), and 5-291.219 in accordance with the following table:

All joints designated as:	Shall now be designated as:
C2H	C1U
C2H-D	C1U-D
L1H	L1U
L1TH	L1TU
L2TH	L2TU
L2KTH	L2KTU
L3H	L3U

MnDOT Concrete Joint Sealing Guidelines

The MnDOT Pavement Design Manual, Chapter 5, Table 530.2 will be updated to reflect the current guidance.

Table 530.2 – Concrete Joint Sealing Guidelines			
Type of Construction *	Speed Limit	Base Material	Joint Reference
All Roadways, excluding ramps and loops	≤ 45 mph	All	C2H C2H-D
PCC Overlay on Existing HMA (Whitetopping) < 6" thick	> 45 mph	Existing HMA	
New Construction	> 45 mph	All	C1U C1U-D
Unbonded PCC Overlay of Existing PCC (UBOL)			
PCC Overlay on Existing HMA (Whitetopping) ≥ 6" thick			
Ramps and Loops	All		
* For future concrete pavement rehabilitation (CPR) projects, follow the same recommended practices as original construction. Contact the MnDOT Concrete Unit with questions.			

Feel free to contact me with any questions or concerns regarding the updated guidance, or to discuss suitability of sealing joints on a specific project.