ENHANCEMENTS TO THE MECHANISTIC-EMPIRICAL PAVEMENT DESIGN GUIDE:

A MANUAL OF PRACTICE, JULY 2008 INTERIM EDITION

ADDENDUM NUMBER: FY2015.2

ADDENDUM TITLE: NEW PCC CALIBRATION COEFFICIENTS FROM NCHRP 20-07, TASK 327

Addendum Date: July 12, 2015

CHAPTER 5 – PERFORMANCE INDICATOR PREDICTION METHODOLOGIES

New model coefficients have been embedded into the Pavement ME Design software (Version 2.2) for PCC pavements. These new calibration coefficients were based on the results and findings from the NCHRP 20-07, Task 327. The following summarizes the calibration model coefficients for each of the appropriate transfer functions.

5.4   Distress Prediction Equations for Rigid Pavements and PCC Overlays

5.4.1   Transverse Slab Cracking (Bottom-Up and Top-Down)—JPCP

Equation	Coefficient	Calibration Value
5-16	C_4	0.52
	C_5	-2.17
5-17b	C_1	2.0 (No Change)
	C_2	1.22 (No Change)
5-19	Standard Error	3.5522 * Pow(CRACK,0.3415) + 0.75

5.4.2   Mean Transverse Joint Faulting—JPCP

Equation	Coefficient	Calibration Value
5-20e	C_1	0.595
	C_2	1.636
5-20f	C_3	0.00217
	C_4	0.00444
5-20d	C_5	250 (No Change)
	C_6	0.47
5-20c	C_7	7.3
	C_8	400
5-25	Standard Error	0.07162 * Pow(FAULT,0.368) + 0.00806

5.4.3 CRCP Punchouts

Equation	Coefficient	Calibration Value
5-30	C_1	2.0 (No Change)
	C_2	1.22 (No Change)
5-26	C_3	107.73
	C_4	2.475
	C_5	-0.785
	Standard Error	2.208 * Pow(PO,0.5316)