



Arizona Department of Transportation

INTERMODAL TRANSPORTATION DIVISION Construction Group

CONSTRUCTION BULLETIN 02-03

To: District Engineers
Org Managers

Date: October 3, 2002

From: Julio Alvarado
Assistant State Engineer

Subject: Portland Cement Concrete Paving;
Pavement Surface Texture Change

In efforts to mitigate neighborhood noise generated by traffic traveling on Portland Cement Concrete Pavement (PCCP), the Department has determined that the texture grooves will be constructed in the longitudinal direction rather than in the transverse direction.

The span of the tining rake shall be capable of texturing the entire width of the pavement section placed. The center-to-center spacing of the longitudinal grooves shall be $\frac{3}{4}$ inch (plus or minus $\frac{1}{8}$ inch). Hand tining shall also be grooved longitudinally, and will only be allowed in those areas inaccessible to a mechanical device.

Beginning immediately, please initiate a change order to allow the new surface texturing requirements for Portland Cement Concrete Pavement (PCCP). This bulletin is intended for all projects requiring PCCP whether the paving operation is already underway or has not yet begun. Those projects where the paving is underway should begin implementation of this change when practical.

Attached is an example of a change order that each ORG manager may use on his or her project.

Thank you for your immediate attention in this manner.

Attachment

cc: Dan Lance
William J. Higgins
Robert Miller
Steve Jimenez
John Louis
Doug Forstie
David Allocco

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION

SUPPLEMENTAL AGREEMENT

Change Order No. _____ Force Account No. _____

Project No: _____ Tracs No: _____ ORG No: _____

Name of Project: _____ Contractor: _____

DESCRIPTION AND REASON

REQUEST: To modify the contract specifications for texturing Portland Cement Concrete Pavement (PCCP). This modification, effective (*implementation date*), requires texturing grooves to be constructed in the longitudinal direction.

REASON: The PCCP tining specification is being modified in an effort to mitigate noise to adjacent neighborhoods. Testing has shown that PCCP texturing grooves constructed in the longitudinal direction (as opposed to the transverse direction) reduce noise generated by vehicles traveling on concrete pavement.

SPECIFICATION: Standard Specification **401-3.04(F), Surface Texturing**, is replaced in its entirety with the new specification in Attachment A.

COST ANALYSIS: This is a no cost change order.

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>UNIT</u>	<u>QUANTITY</u>	<u>PRICE</u>	<u>AMOUNT</u>
Total					\$0.00

Extension of Time is Authorized for 0 days as a result of this Supplemental Agreement.

TOTAL DIFFERENCE

PLUS	MINUS
\$0.00	\$0.00

Date _____ Date _____ Date _____ Date _____

Submitted _____ Approved _____ Approved _____ Checked _____
RES. ENGR. CITY/COUNTY ENGR. ASSISTANT DISTRICT ENGR. FIELD REPORTS

For Valuable Consideration, it is mutually agreed that the matter detailed above shall be done and payment made as shown herein for a Supplemental Agreement Change Order, all in accordance with the terms of the contract. For work being performed as a Supplemental Agreement Force Account Request, final payment shall be made as stipulated in the Standard Specifications and its supplements upon completion of said work.

Date _____ Date _____ Date _____

Approved for _____ Approved for State of Arizona Approved with/without Federal Participation

By _____ By _____ By _____
CONTRACTOR DISTRICT ENGR. FEDERAL HIGHWAY ADMINISTRATION

ATTACHMENT A

Change Order No. _____

401-3.04 (F) Surface Texturing:

Surface Texturing of the plastic concrete shall begin immediately after placement and finishing of the concrete. All excessive surface water shall be dispersed prior to commencing texturing operations. Texturing shall be performed by applying a longitudinal burlap drag followed by longitudinal texturing using steel tines.

Burlap and steel tines shall be supported by rolling mechanical bridges. They shall not be supported manually except in areas inaccessible to the bridge.

Rolling mechanical bridges supporting steel tines shall be equipped and shall operate with automatic sensing and control devices which follow the same control line as the slip form paver. This machine shall be used for texturing the pavement only. The span of the tining rake shall be capable of texturing the entire width of the pavement section placed. Burlap shall not be supported on the same rolling mechanical bridge used to support the steel tines.

Burlap shall be in accordance with AASHTO M 182, Class 3 and shall traverse the full width of the pavement to within 12 inches of the pavement edge.

The timing of the texturing operations is critical. Grooves that close following texturing will not be permitted and texturing shall be completed before the surface will be torn or unduly roughened by the texturing operation.

Hand tine brooms shall be provided and available at the job site at all times.

Tine texturing shall be performed so that the grooves produced will be uniform in depth and width. Texture shall be parallel to the center line of the roadway and shall extend over the entire roadway width to within three inches of the pavement edge. Swerving groove patterns will not be permitted.

Texture grooves shall be 1/8 inch (plus or minus 1/32 inch) in width and 3/32 to 7/32 inch in depth. The textured groove depth will be measured in accordance with the requirements of Arizona Test Method 310. The center-to-center spacing of the grooves shall be 3/4 inch (plus or minus 1/8 inch).

If necessary, hardened concrete shall be textured by any method that will produce the required grooves.