

# Design Standards Letter

**Letter Number: S-2007-03**

**Letter Date: 06/29/2007**

**Effective Date: 08/01/2007**

**Section/Plan No.: SEE BELOW**

**Subject: Revised Supplement to the Standard Specifications**

## Body

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The Supplemental Specifications to the 2004 Missouri Standard Specifications for Highway Construction, effective August 1, 2007 are now available. These revisions will be in effect with the August 2007 bid opening.

Questions regarding the Supplemental Revisions to the Standard Specifications should be directed to Brian K. Williams, Central Office, Engineering Policy Group, at 573-751-9254 or me at 573-751-3813.

## MAJOR REVISION:

### Sec 101

*Sec 101.2* - This section amended to revise the definition of an appreciable error. An appreciable error is now defined as an error resulting in a change in quantity of 10% from the original contract quantity; an error resulting in a monetary change of at least \$5,000 from the original contract quantity; or an error in the calculation of a quantity based on the finite dimensions as shown on the plans.

### Sec 501

This section revised extensively to incorporate ternary mix designs, MB-2 concrete, field air entrainment re-dosing, and to initial aggregate testing requirements.

### Sec 502

*Sec 502.4.7* - The last two sentences of Sec 502.4.7 revised to remove references to the grooved joint.

*Sec 502.4.8.3.1 through 502.4.8.3.4.2* - New section titles provided.

*Sec 502.10.3* - Revised to indicate a minimum compressive strength before cores can be attained.

*Sec 502.10.3.1, 502.10.3.2, 502.10.4 and 502.10.4.1 through 502.10.4.5* - Section titles added.

*Sec 502.11.2* – Revised to indicate necessary quality control tests and when test results are to be provided to the engineer.

*Sec 502.11.2.1.1 and 502.11.2.1.2* – Revised frequency of aggregate gradation and deleterious testing were revised.

*Sec 502.11.2.1.4* - 5% cap for material retained on the  $\frac{3}{4}$  in. sieve added and minor sentence restructuring.

*Sec 502.11.2.1.5* – Minor revisions to the first sentence.

*Sec 502.11.3.2* - Revised action limit in the Individual Measurements table for Absorption.

*Sec 502.11.4* - Deleted first two sentences of the section and removed the reference to halting production was removed.

*Sec 502.11.4.1* – Revised to include only aggregate gradation and removed the reference to halting production.

*Sec 502.11.4.2* - Deleted existing section and added new Deleterious Content section.

*Sec 502.11.5* – Added new pavement section to address pavements less than 8 inches thick. QC testing, optional cylinder size, and compressive strength requirements added to the subsections.

*Sec 502.11.6* - Previous *Sec 502.11.5*, Shoulders, relocated to this section with the following sections being renumbered.

*Sec 502.12* - Testing frequency for aggregate gradation revised and aggregate moisture test replaced with coarse aggregate deleterious.

*Sec 502.12.1* - Revised to address QA testing for aggregate gradation and deleterious content. Absorption references deleted from this section.

*Sec 502.13* - Revised to remove solutions in the specification.

*Sec 502.15.8* - Added thin and elongated to concrete mix requirements.

*Sec 502.15.9* – Revised to address pavements with plan thicknesses less than 8 inches.

*Sec 502.15.10* – New section to address shoulders with plan thicknesses less than 8 inches.

*Sec 502.15.11* - Section was previously 502.15.10.

## **Sec 505**

*Sec 505.30.1.1 and 505.30.1.2* – These sections deleted.

*Sec 505.30.2.1* – Revised to reference silica fume.

*Sec 505.30.2.2* - Previously 505.30.2.1. Subsequent sections have been renumbered.

*Sec 505.30.2.4 through 505.30.2.4.3* – These sections deleted.

*Sec 505.30.2.6 and 505.30.2.7* - These sections deleted.

*Sec 505.30.3.1* – Cement content measurement changed to pounds and reference to silica fume changed.

*Sec 505.30.3.2* – Previously 505.30.3.1.1. The deleted last two sentences.

*Sec 505.30.3.1.2* – This section deleted.

*Sec 505.30.3.2* – This section revised to 505.30.3.3.

*Sec 505.30.5.2* – This section deleted and the following sections renumbered.

## **Sec 504**

*Sec 504.1* – Revised to remove reinforcement reference.

*Sec 504.2* - Rreference to Sec 1036.3 deleted.

*Sec 504.3* Deleted tied shoulder reference in the second sentence. The last sentence deleted in its entirety.

*Sec 504.4* - Tied shoulders reference in sentence two removed.

## **Sec 506**

*Sec 506.20.1* – Revised to address setting final roadway profile.

*Sec 506.20.2.1.1 through 506.20.2.1.3* – These sections deleted with the exception of

subsections of 506.20.2.1.30.

*Sec 506.20.2.1.3.1 and 506.20.2.1.3.2* – These sections deleted and subsequent sections renumbered.

*Sec 506.20.4.1* – Revised to indicate measurement of furnishing unbonded concrete overlay by cubic yard.

*Sec 506.20.4.2* – Revised to indicate measurement of placing unbonded concrete overlay by square yard.

*Sec 506.20.4.3* – Revised to indicate measurement of surface preparation by square yard

*Sec 506.20.5.1* – Revised to indicate payment of furnishing of concrete unbonded overlay by cubic yard and placement by square yard.

*506.20.5.2* – Revised to address adjustments in payments. Subsequent sections renumbered accordingly.

## **Sec 507**

New section. Strength of Concrete Using the Maturity Method deleted from the General Provisions and added to the specifications.

## **Sec 613**

*Sec 613.20.3.1* - References to sawing and chipping removed.

*Sec 613.20.3.1.1* – Deleted and the subsequent sections renumbered.

*Sec 613.20.3.1.1* - Previously 613.20.3.1.2. The reference to providing vertical faces for the milled pavements deleted and added guidance for tapering the removal area.

*Sec 613.20.3.4.1* – Revised to remove the light mist of water option.

*Sec 613.20.3.5* - The last sentence modified to require filling joints or cracks when wider than ¼ inch.

## **Sec 616**

*Sec 616.4.1.2* – This section deleted and subsequent sections renumbered accordingly.

*Sec 616.4.3* - Added automated flagger assistance devices (AFAD) as alternative to

flagger operations.

*Sec 616.10* - Deleted cones as no direct pay item and added AFADs as a flagger option.

## **Sec 622**

*Sec 622.2.4* – Added section to address public notification required by contractor when they opt to open milled surfaces to traffic prior to placing resurfacing material.

## **Sec 1005**

*Sec 1005.2.1* - Values for Material Passing No. 200 sieve revised and thin and elongated requirements were removed from the table.

*Sec 1005.2.1.2* - References to individual ledge testing deleted. Source approval and production sample values revised and durability factor was added.

*Sec 1005.2.1.4* - The reference to AASHTO T104 removed.

*Sec 1005.2.2* - The last sentence and table deleted.

*Sec 1005.2.3* - Added section title and top size reference added to the last sentence of the first paragraph. Deleted gradation table in subsection (b).

*Sec 1005.3.1* - Percent by weight for coal and lignite revised.

*Sec 1005.3.5* – Section revised to indicate “for PCCM”.

## **Sec 1018**

*Sec 1018.2.1* –Class C fly ash requirements provided.

*Sec 1018.2.2* – Revised to include table for Class C and Class F fly ashes.

*Sec 1018.2.3* - This section previously 1018.2.1 subsection (b).

*Sec 1018.2.4* - This section previously 1018.2.3.

*Sec 1018.2.5* – This section previously 1018.2.4.

*Sec 1018.2.6* – This section added to address prequalification of suppliers.

*Sec 1018.3* – Revised to “Laboratory Qualification”.

*Sec 1018.3.1* – Addresses qualifications of existing approved laboratories.

*Sec 1018.3.2* - Addresses requirements for new laboratory approval requests.

*Sec 1018.3.3 and 1018.3.4* – New sections addressing laboratories failure to comply and disqualified facilities. Subsequent sections renumbered.

*Sec 1018.4.2* – This section was previously 1018.3.1.2. Revised to address necessary test results and sample requirements for future testing added.

*Sec 1018.4.3* - New section that addresses failure to comply language.

*Sec 1018.6* - Provides sampling, testing, and acceptance procedures.

## **Sec 1036**

*Sec 1036.3.3 and 1036.4* – These sections deleted and subsequent sections renumbered.

## **Sec 1063**

*Sec 1063.3* – Revision added tubular markers to section.

*Sec 1063.4* - This section deleted and moved to the standard plans as general note. All subsequent sections renumbered accordingly.