



Montana Department of Transportation  
PO Box 201001  
Helena, MT 59620-1001

## Memorandum

To: Distribution

From: Matthew R. Strizich, PE, Materials Engineer

Date: April 29, 2011

Subject: Project-specific Asphalt Contents

Effective immediately, utilize project-specific asphalt contents on construction projects where Grade S-Volumetric plant mix surfacing (PMS) is specified.

This memorandum refers to the asphalt content within the Basis of Plan Quantities. It has been MDT's practice to specify asphalt contents based on statewide averages (typically 5.4, 5.8 and 6.0%). However, asphalt contents vary from region to region, and statewide averages may not accurately predict the asphalt content on some projects. Specifying project-specific asphalt contents will increase the accuracy of project cost estimates and reduce the possibility of unbalanced construction bids. A map showing as-produced asphalt quantities from previous construction projects is located on the MDT intranet at [http://mdtinfo.mdt.mt.gov/mdt/docs/percent\\_asphalt\\_map.pdf](http://mdtinfo.mdt.mt.gov/mdt/docs/percent_asphalt_map.pdf) and on the internet at [http://www.mdt.mt.gov/business/contracting/memos/design\\_memos.shtml](http://www.mdt.mt.gov/business/contracting/memos/design_memos.shtml).

Project-specific asphalt contents should be used on projects where ¾" (19mm) Grade S volumetric PMS is specified. On all other projects, continue using the asphalt contents discussed in the Section 5.4.2.3 of the MDT Road Design Manual.

District construction and materials personnel should check asphalt contents for accuracy since they may have better knowledge of asphalt contents encountered within their Districts and for specific projects. The District should change the asphalt content when needed. On projects where the District changes the asphalt content, this change needs to be documented within the appropriate report.

The following sections located on page 2 summarize how this change will affect MDT and consultant design staff.

**MDT Design Staff:** Project-specific asphalt contents will be provided to the project designer as follows:

**Current Projects:**

- Projects before the final plan review (Act. 230): In May 2011, the surfacing design unit will identify projects with Grade S volumetric PMS, and will provide road design staff with asphalt contents for these projects.
- Projects within or beyond the final plan review (Act. 230): Do not change the asphalt content.
- For all projects, project design managers may choose not to change the asphalt content if it is unpractical or would delay project letting.

**Future Projects:**

- Pavement preservation or scheduled maintenance projects: The surfacing design unit will provide the asphalt content via email before the PFR/SOW report is distributed.
- All other projects: The surfacing design unit will include the asphalt content within the preliminary surfacing design memo (Act. 600).

**Consultant Design Staff:** Project-specific asphalt contents will be provided to the project designer as follows:

**Current Projects:**

- Projects before the final plan review (Act. 272): The geotechnical/materials consultant will recommend an asphalt content, and the road design consultant engineer will make required changes to the project plans and cost estimate.
- Projects within or beyond the final plan review (Act. 272): make no changes to the asphalt content.
- For all projects, project design managers may choose not to change the asphalt content if it is deemed unpractical or would delay project letting.

**Future Projects:**

- The geotechnical/materials consultant will recommend an asphalt content as part of the Preliminary Geotech and Materials Report (Activity 106)

Please contact the surfacing design unit if you have questions or need assistance on this matter.

copies: Dwane Kailey – Chief Operations Officer  
Kevin Christensen – Construction Engineer  
Jim Walther – Preconstruction Engineer  
Paul Ferry – Highways Engineer  
Tim Conway – Consultant Design Engineer  
Dan Hill - Pavement Analysis Engineer  
District Administrators  
District Engineering Services Supervisors  
District Construction Engineers  
Mark Zitzka, PE – FHWA  
Surfacing Design Unit