

WSDOT Materials Laboratory Library
Selected New Acquisitions – January 2012

HARDCOPY BOOKS, REPORTS, MEDIA

Interdisciplinary Interest

2011 Summary of Progress – National Cooperative Highway Research Program. Transportation Research Board, 2011.

625.7 NATIONA 2011

<http://onlinepubs.trb.org/onlinepubs/nchrp/nchrpannual2011.pdf>

Geotechnical Engineering, Engineering Geology

Geology and Properties of Earth Materials 2011. Transportation Research Board, 2011. Transportation Research Record no. 2253.

625 HRR 2011 no2253

Available online to WSDOT staff. Go to <http://trb.metapress.com/home/main.mpx>. Click on “Browse by Issue” and select Volume 2253.

Pavements

Maintenance and Preservation of Pavements. Transportation Research Board, 2011. Transportation Research Record no. 2235.

625 HRR 2011 no2235

Available online to WSDOT staff. Go to <http://trb.metapress.com/home/main.mpx>. Click on “Browse by Issue” and select Volume 2235.

Pavement Management 2011: Volume 1. Transportation Research Board, 2011. Transportation Research Record no. 2225.

625 HRR 2011 no2225

Available online to WSDOT staff. Go to <http://trb.metapress.com/home/main.mpx>. Click on “Browse by Issue” and select Volume 2225.

Pavement Management 2011: Volume 3. Transportation Research Board, 2011. Transportation Research Record no. 2227.

625 HRR 2011 no2227

Available online to WSDOT staff. Go to <http://trb.metapress.com/home/main.mpx>. Click on “Browse by Issue” and select Volume 2227.

Materials, Testing, Inspection

Asphalt Mixtures and Materials 2011: Volume 2. Transportation Research Board, 2011. Transportation Research Record no. 2208.

625 HRR 2011 no2208

Available online to WSDOT staff. Go to <http://trb.metapress.com/home/main.mpx>. Click on “Browse by Issue” and select Volume 2208.

Concrete Materials 2011. Transportation Research Board, 2011. Transportation Research Record no. 2240.

625 HRR 2011 no2240

Available online to WSDOT staff. Go to <http://trb.metapress.com/home/main.mpx>. Click on “Browse by Issue” and select Volume 2240.

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Investigation of Short-Term Laboratory Aging of Neat and Modified Asphalt Binders. Transportation Research Board, 2012. NCHRP Report no. 709.

625.7 N2131r 2012 no709

http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_709.pdf

The following appendixes to NCHRP Report no. 709 are only available in electronic format:

Appendix A: Binder Aging Bibliography: http://onlinepubs.trb.org/onlinepubs/nchrp/docs/NCHRP09-36_AppendixA.pdf

Appendix B: Selection Study Report: http://onlinepubs.trb.org/onlinepubs/nchrp/docs/NCHRP09-36_AppendixB.pdf

Appendix C: Volatile Collection System Study Report: http://onlinepubs.trb.org/onlinepubs/nchrp/docs/NCHRP09-36_AppendixC.pdf

Appendix D: SAFT Optimization Study Report: http://onlinepubs.trb.org/onlinepubs/nchrp/docs/NCHRP09-36_AppendixD.pdf

Appendix E: Verification Study Report: http://onlinepubs.trb.org/onlinepubs/nchrp/docs/NCHRP09-36_AppendixE.pdf

A Performance-Related Specification for Hot-Mix Asphalt. Transportation Research Board, 2011. NCHRP Report no. 704.

625.7 N2131r 2011 no704

http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_704.pdf

Special Mixture Design Considerations and Methods for Warm-Mix Asphalt: A Supplement to NCHRP Report 673: A Manual for Design of Hot-Mix Asphalt with Commentary. Transportation Research Board, 2012. NCHRP Report no. 714.

625.7 N2131r 2012 no714

http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_714.pdf

ELECTRONIC BOOKS, REPORTS, MANUALS & NEWSLETTERS

Interdisciplinary Interest

LTAP News, Winter 2012. Washington State Dept. of Transportation.

<http://www.wsdot.wa.gov/LocalPrograms/LTAP/News.htm>

WSDOT Engineering & Administrative Publications

Bridge Design Manual (*revised January 2012, December 2011*). Washington State Dept. of Transportation, 2012. M 23-50.

<http://www.wsdot.wa.gov/publications/manuals/m23-50.htm>

Construction Manual (*revised January 2012*). Washington State Dept. of Transportation, 2012. M 41-01.

<http://www.wsdot.wa.gov/Publications/Manuals/M41-01.htm>

Geotechnical Design Manual (*revised November 2011*). Washington State Dept. of Transportation, 2011. M 46-03.

<http://www.wsdot.wa.gov/Publications/Manuals/M46-03.htm>

Materials Manual (*revised January 2012*). Washington State Dept. of Transportation, 2012. M 46-01.

<http://www.wsdot.wa.gov/Publications/Manuals/M46-01.htm>

Vehicle Operator's Handbook (*revised November 2011*). Washington State Dept. of Transportation, 2011. M 3032.

<http://www.wsdot.wa.gov/publications/manuals/m3032.htm>

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Geotechnical Engineering, Engineering Geology

Bibliography: Computational GeoMechanics. University of California, Davis, Department of Civil and Environmental Engineering, 2012.
<http://sokocalo.engr.ucdavis.edu/~jeremic/research/bibmech.pdf>

Effects of Soil Slope on Lateral Capacity of Piles in Cohesive Soils by Nontapat Nimityongskul. Oregon State University Ph. D. dissertation, 2010.
<http://hdl.handle.net/1957/19675>

Geoengineer.org Newsletter, no. 84, January 2012.
<http://www.geoengineer.org/geonews84.htm>

Recommended Design Practice for Pile Foundations in Laterally Spreading Ground. Pacific Earthquake Engineering Research Center, 2011.
http://peer.berkeley.edu/publications/peer_reports/reports_2011/webPEER-2011-04-ASHFORDetal.pdf

Pavements

Base Course Resilient Modulus for the Mechanistic-Empirical Pavement Design Guide. Florida Dept. of Transportation, 2011.
http://www.dot.state.fl.us/research-center/Completed_Proj/Summary_SMO/FDOT_BDK75_977-10_rpt.pdf

Characterization of Wisconsin Mixture Low Temperature Properties for the AASHTO Mechanistic-Empirical Pavement Design Guide. Wisconsin Dept. of Transportation, 2011.
<http://wisdotresearchtest.engr.wisc.edu/wp-content/uploads/whrp-0092-10-07-final-report.pdf>

Development of Guidelines for Usage of High Percent RAP in Warm-Mix Asphalt Pavements. Pennsylvania Dept. of Transportation, 2011.
ftp://ftp.dot.state.pa.us/public/pdf/BPR_PDF_FILES/Documents/Research/Complete%20Projects/Extending%20Pavement%20Life/Usage%20of%20High%20Percent%20RAP%20in%20Warm%20Mix.pdf

Evaluation of the Rut Resistance Performance of Warm Mix Asphalts in North Dakota. North Dakota Dept. of Transportation, 2011.
http://www.dot.nd.gov/divisions/materials/research_project/UND201101final.pdf

Investigation of Low- and High-Temperature Properties of Plant-Produced RAP Mixtures. Federal Highway Administration, 2012. FHWA-HRT-11-058.
<http://www.fhwa.dot.gov/publications/research/infrastructure/pavements/11058/11058.pdf>

Microsurfacing in Texas. Texas Dept. of Transportation, 2012.
<http://tti.tamu.edu/documents/0-6668-1.pdf>

Texas Flexible Pavements and Overlays: Review and Analysis of Existing Databases. Texas Transportation Institute, 2011.
<http://tti.tamu.edu/documents/0-6658-P6.pdf>
CD contents to accompany technical report: <http://tti.tamu.edu/documents/0-6658-P6-CD.zip>

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Materials, Testing, Inspection

Applications of Advanced Models to Understand Behavior and Performance of Asphalt Mixtures.

Transportation Research Board, 2012. Transportation Research E-Circular no. E-C161.

<http://onlinepubs.trb.org/onlinepubs/circulars/ec161.pdf>

Improved Corrosion-Resistant Steel for Highway Bridge Construction. Federal Highway Administration, 2011. FHWA-HRT-11-062.

<http://www.fhwa.dot.gov/publications/research/infrastructure/bridge/11062/11062.pdf>

The Influence of Seismic Attack and Chloride-Induced Corrosion on a Life Cycle Inventory Assessment of Different Concrete Mixtures by Joshua W. Christiansen. Oregon State University M.S. thesis, 2011.

<http://ir.library.oregonstate.edu/xmlui/bitstream/handle/1957/21722/ChristiansenJoshuaW2011.pdf?sequence=1>

Laboratory Evaluation of Warm Mix Asphalt. Michigan Dept. of Transportation, 2011.

http://www.michigan.gov/documents/mdot/MDOT_Research_Report_RC1556_372525_7.pdf

Polyphosphoric Acid Modification of Asphalt Binders: A Workshop. Transportation Research Board, 2012. Transportation Research Circular no. E-C160.

<http://onlinepubs.trb.org/onlinepubs/circulars/ec160.pdf>

Reactive Solutions: An FHWA Technical Update on Alkali-Silica Reactivity, v. 5, no. 1, January 2012.

<http://www.fhwa.dot.gov/pavement/concrete/reactive/v05issue01.pdf>