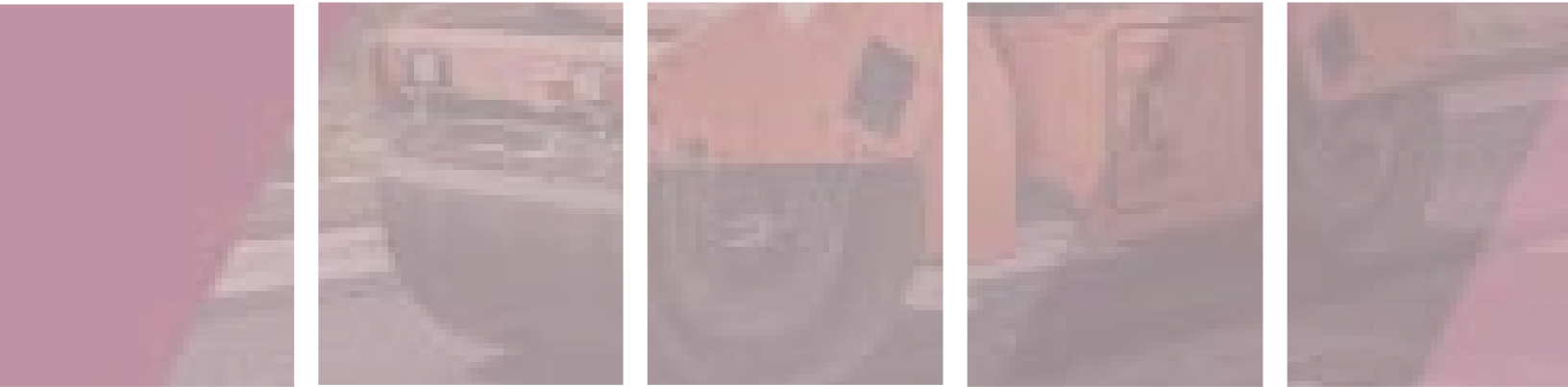
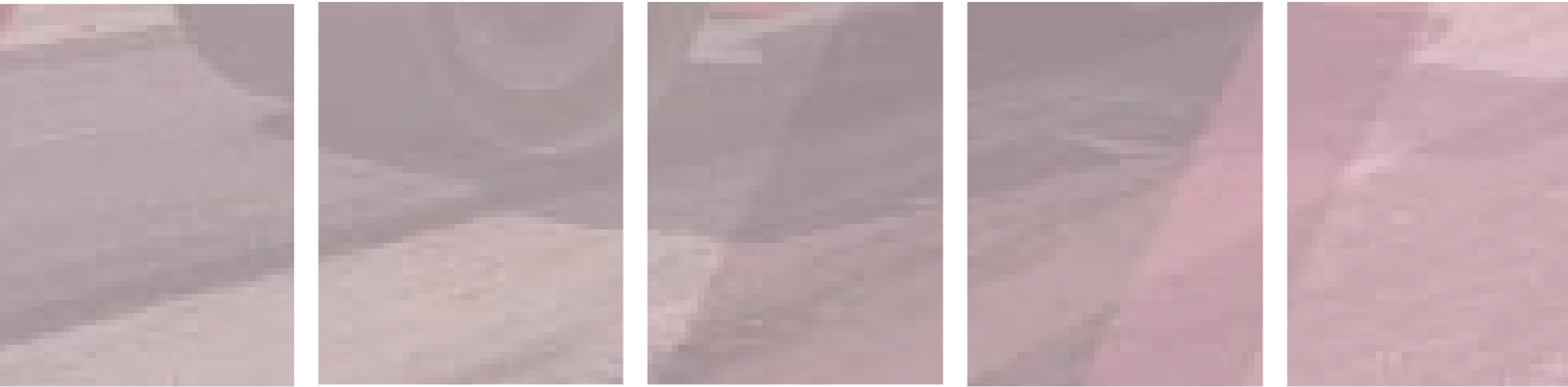


AASHTO Publications Catalog



MATERIALS, TESTING & PAVEMENT



AASHTO Publications Catalog

Materials, Testing & Pavement

AASHTO publishes numerous technical standards and guidelines through the work of the association's technical committees, whose members are comprised of representatives from the state departments of transportation, the nation's transportation experts. AASHTO standards and guidelines are utilized by transportation agencies across the nation and worldwide.

This catalog details the AASHTO technical standards and guidelines related to materials, testing, and pavement.

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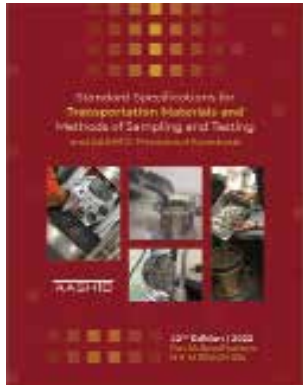
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MATERIALS, TESTING & PAVEMENT

MATERIALS AND TESTING



STANDARD SPECIFICATIONS FOR TRANSPORTATION MATERIALS AND METHODS OF SAMPLING AND TESTING, AND AASHTO PROVISIONAL STANDARDS, 42ND EDITION, 2022

(THE AASHTO "MATERIALS STANDARDS")

Item Code: HM-42

3 NEW AND 282 REVISED STANDARDS!

Developed by the AASHTO Committee on Materials and Pavements, the AASHTO Materials Standards contain specifications, recommended practices, test methods, and provisional standards commonly used in the construction of highway facilities. Provisional standards are also published to allow practitioners to use them early in the research or development phase. **2022. 5,940 pp.**

REVISIONS TO THE 2022 EDITION

The 2022 edition of the Materials Standards includes 553 standards, including 3 new and 282 revised standards. **(Click here to download a Summary of the Updates to the 2022 edition.)** In addition to typical revisions to harmonize industry standards, update technology and, generally, improve the standards, the 42nd edition includes numerous changes related to thermometers and temperature measurement. Many of these changes were the result of implementing a recently published NCHRP report that more clearly defined appropriate choices to replace mercury thermometers. The pavement preservation guide specifications and quality assurance guides that were developed through a joint partnership among the Committees on Materials and Pavements; Construction; and Maintenance can be found in the 2022 Interim Revisions to the *Guide Specifications for Highway Construction*, 10th Edition.



AVAILABLE FORMATS

The 2022 Materials Standards are available to purchase as a PDF Download publication, as well as in paperback.

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Paperback: The paperback version is printed as a five-volume set. This format continues to be popular with customers, especially those who work in the field, in our accredited labs, or at times when internet access is not available.

PRICING

PDF DOWNLOAD (Single-user) Code: HM-42-UL | List Price: \$1,040 | Member Price: \$770

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PAPERBACK & SINGLE-USER PDF COMBO Code: HM-42-PUL | List Price: \$1,819 | Member Price: \$1,348

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3-USER PDF DOWNLOAD Code: HM-42-IP3 | List Price: \$3,586 | Member Price: \$2,657

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INDIVIDUAL MATERIALS STANDARDS

To purchase PDF Download copies of individual Materials Standards, visit the AASHTO Store online at store.transportation.org, and enter the standard number in the search box at the top of the page.

A complete list of all individual Materials Standards is available at <http://downloads.transportation.org/HM-2022TableofContents.pdf>.

MATERIALS AND TESTING (CONT'D)

MANUAL ON SUBSURFACE INVESTIGATIONS, 2ND EDITION

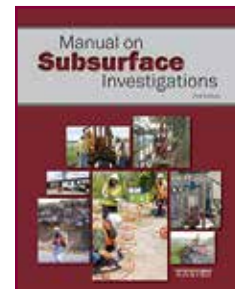
Item Code: MSI-2

This manual describes the elements, considerations, investigation tools and techniques, and reporting requirements for geotechnical subsurface investigations for transportation facilities. It has been updated to address advancements in geophysical, in situ, and laboratory testing; reliability-based design as codified by the *AASHTO LRFD Bridge Design Specifications*, 9th Edition; and project delivery methods. These updates are a reference for planning, executing, and using subsurface investigations and geotechnical characterizations in order to design, construct, maintain, and manage assets of transportation facilities. This 2022 2nd edition supersedes the 1988 1st edition. **2022. 410 pp.**

PDF DOWNLOAD Code: MSI-2-UL | List Price: 297 | Member Price: \$200

5-USER PDF DOWNLOAD Code: MSI-2-IP5 | List Price: \$1,262 | Member Price: \$935

10-USER PDF DOWNLOAD Code: MSI-2-IP10 | List Price: \$2,228 | Member Price: \$1,650



DESIGNING HMA MIXTURES WITH HIGH RAP CONTENT: A PRACTICAL GUIDE

Item Code: HMAPG-1

A joint publication of the National Asphalt Pavement Association, the Federal Highway Administration, and AASHTO, this publication provides practical guidelines for hot-mix asphalt (HMA) mixtures with at least 25 percent reclaimed asphalt pavement (RAP). Topics covered include materials evaluation, mix design, plant verification, and quality control. **2007. 35 pp.**

PAPERBACK Code: HMAPG-1 | List Price: \$27 | Member Price: \$20



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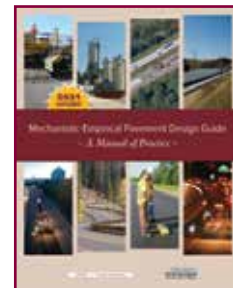
AASHTO

PAVEMENT

MECHANISTIC-EMPIRICAL PAVEMENT DESIGN GUIDE: A MANUAL OF PRACTICE, 3RD EDITION, WITH 2021 SUPPLEMENT

Item Code: MEPDG-3-M

This revised edition includes the following revisions and updates from the previous 2015 2nd edition: new fracture mechanics-based model for reflective cracking in AC overlays over flexible, semi-rigid, and rigid pavements; new mechanistic-empirical model for short jointed plain concrete pavement (SJPCP) overlays of flexible pavements; new flexible and semi-rigid pavement global calibration coefficients; addition of non-structural preventative maintenance treatment consideration for flexible and rigid pavements; addition of five level 3 default distributions for normalized axle load spectra (NALS); updated climate discussion for Modern Era Retrospective Reanalysis (MERRA) and North American Regional Reanalysis (NARR) data; incorporation of crack load transfer efficiency (LTE) for flexible pavements; expanded guidance for creep compliance and indirect tensile strength inputs for asphalt wearing surface layers; and updated standards references. **2020. 297 pp.**



PDF DOWNLOAD Code: MEPDG-3-UL | List Price: \$149 | AASHTO Member Price: \$110

PAPERBACK Code: MEPDG-3 | List Price: \$186 | AASHTO Member Price: \$138

PAPERBACK & PDF COMBO Code: MEPDG-3-PUL | List Price: \$260 | AASHTO Member Price: \$193

5-USER PDF DOWNLOAD Code: MEPDG-3-IP5 | List Price: \$631 | AASHTO Member Price: \$468

10-USER PDF DOWNLOAD Code: MEPDG-3-PI0 | List Price: \$1,114 | AASHTO Member Price: \$825

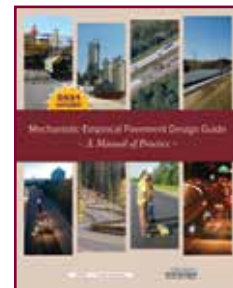
MECHANISTIC-EMPIRICAL PAVEMENT DESIGN GUIDE: A MANUAL OF PRACTICE, 3RD EDITION, 2021 SUPPLEMENT

Item Code: MEPDG-3S

This supplement to the Mechanistic-Empirical Pavement Design Guide, 3rd Edition, published in 2020, includes an updated top-down cracking fatigue model employing Paris' Law of crack propagation for generating mechanistic responses, as well as predictions for both area of longitudinal cracking and average crack depth, both of which improve the overall MEPDG methodology for predicting fatigue cracking initiated at the surface of an asphalt pavement. **2021. 33 pp.**

PDF DOWNLOAD Code: MEPDG-3S-UL | List Price: \$38 | AASHTO Member Price: \$28

PAPERBACK Code: MEPDG-3S | List Price: \$47 | AASHTO Member Price: \$35



PAVEMENT DESIGN, CONSTRUCTION, AND MANAGEMENT: A DIGITAL HANDBOOK, 1ST EDITION

Item Code: PDCM-1

This web-based publication is meant to be a 'one-stop shop' for pavement engineering. An in-depth discourse on the structural pavement design analysis for each pavement type, with particular attention paid to Mechanistic-Empirical techniques, is discussed in Chapters 2 through 5. The impact of surface properties on friction, ride, and safety are also thoroughly explained. Chapter 6 focuses on pavement type selection strategies, including life-cycle costs. Methods of construction for various pavement types are covered in Chapter 7. Then Chapters 8 through 11 discuss the testing and evaluation of existing pavements, detail treatments for existing pavements, and summarize performance expectations for each treatment. Chapter 12 outlines methods of analysis and data collection used to help optimize a pavement's design life. Chapter 13 closes the Pavement Handbook with a thoughtful discussion of the pavement caretaker's role in selecting and re-using materials for environmentally sustainable design. **2015.**

SINGLE-USER WEB-BASED Code: PDCM-1-WB1 | List Price: \$238 | Member Price: \$176

5-USER WEB-BASED Code: PDCM-1-WB5 | List Price: \$1,010 | Member Price: \$748

10-USER WEB-BASED Code: PDCM-1-WB10 | List Price: \$1,782 | Member Price: \$1,320



PAVEMENT (CONT'D)

GUIDE FOR DESIGN OF PAVEMENT STRUCTURES, 4TH EDITION, WITH 1998 SUPPLEMENT

Item Code: GDPS-4-M

This guide includes various approaches to pavement design, including design and management principals, procedures for new construction or reconstruction, and procedures for the rehabilitation of existing pavements. It also contains information on overlay design methodology and rehabilitation, including several overlay procedures and associated options. The 1998 Supplement includes alternative design procedures for use in place of, or in conjunction with, sections in the guide that describe rigid pavement design and rigid pavement joint design. **1993. 700 pp.**

PDF DOWNLOAD Code: GDPS-4-M-UL | List Price: \$135 | Member Price: \$100

PAPERBACK Code: GDPS-4-M | List Price: \$169 | Member Price: \$125

PAPERBACK & PDF COMBO Code: GDPS-4-M-PUL | List Price: \$236 | Member Price: \$175



1998 SUPPLEMENT TO THE AASHTO GUIDE FOR DESIGN OF PAVEMENT STRUCTURES, 4TH EDITION

Item Code: GDPS-4S

This supplement to the AASHTO Guide for Design of Pavement Structures includes alternative design procedures for use in place of or in conjunction with Part II, Pavement Design Procedures for New Construction or Reconstruction; Section 3.2, Rigid Pavement Design; and Section 3.3, Rigid Pavement Joint Design. **1998. 80 pp.**

PDF DOWNLOAD Code: GDPS-4S-UL | List Price \$45 | Member Price \$33

PAPERBACK Code: GDPS-4S | List Price \$56 | Member Price \$41



GUIDE FOR THE LOCAL CALIBRATION OF THE MECHANISTIC-EMPIRICAL PAVEMENT DESIGN GUIDE, 1ST EDITION

Item Code: LCG-1

This guide provides guidance to calibrate the Mechanistic-Empirical Pavement Design Guide (MEPDG) software to local conditions, policies, and materials. **2010. 208 pp.**

PDF DOWNLOAD Code: LCG-1-UL | List Price: \$74 | Member Price: \$55

PAPERBACK Code: LCG-1 | List Price: \$93 | Member Price: \$69

PAPERBACK & PDF COMBO Code: LCG-1-PUL | List Price: \$130 | Member Price: \$96



PAVEMENT MANAGEMENT GUIDE, 2ND EDITION

Item Code: PMG-2

This guide was developed to address the issues and challenges associated with managing pavements effectively, including assessing funding needs for pavement preservation and rehabilitation, and setting attainable pavement-related performance goals. It contains information on the significant advancements in pavement management practices, including the increased emphasis on pavement preservation programs; the use of preventive maintenance treatments as part of pavement preservation programs; advancements in data quality and integration issues; recent initiatives impacting the types of data required by pavement management; and the increased importance of performance measurement and asset management principles. **2012. 200 pp.**

PDF DOWNLOAD Code: PMG-2-UL | List Price: \$112 | Member Price: \$83

PAPERBACK Code: PMG-2 | List Price: \$140 | Member Price: \$104

PAPERBACK & PDF COMBO Code: PMG-2-PUL | List Price: \$196 | Member Price: \$145

