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Foreword

Welcome to the third edition of “MS 22—Constructing Quality Asphalt Pavements.” For 35 years, this book has served as the Asphalt Institute’s comprehensive manual on asphalt pavement construction.

Our goal remains to provide a concise and practical resource of essential technical information and best practices for constructing cost-effective, long-lasting asphalt pavements. Contractor personnel, user agencies, specifiers, consultants and others involved in asphalt paving will benefit from this new edition—particularly inspectors, project engineers, paving crews/foremen/superintendents, plant operators and testing technicians.

This 2019 edition was updated to incorporate the latest technology, equipment, methods and standards. Readers will find a more thorough discussion of various topics compared to previous editions. There is now a dedicated chapter on transportation/delivery of mix, as well as a new chapter on properly preparing the surface and underlying pavement. Segregation is addressed in each of the respective chapters where it can occur. New emphasis is placed on the importance of balanced paving operations by all four construction phases: production, transportation, paving and compaction.

Examples of new technologies covered in this edition include specialty rollers, intelligent compaction, performance testing, plant equipment, Superpave binder grading and mix design and quality assurance approaches.

The manual has ten chapters covering the entire process before, during and after actual construction.

Successfully creating a quality asphalt pavement cannot simply be accomplished with good paving and compaction operations, but must also consist of proper pavement design, materials selection, mix design, plant production and quality assurance. Using best practices in each of these phases helps ensure resulting asphalt pavements that are built to last.

While this manual covers the core construction topics in detail, secondary topics are covered in less detail but still provide an adequate understanding. References are often listed that provide further in-depth coverage of these topics.

Callout sections emphasize key points and related items. Callouts are text sections that are boxed.

The general practice of the Asphalt Institute is to use U.S. customary units first, followed by the International System of Units (SI) (metric).

This manual serves as a key reference to many of the Asphalt Institute’s educational courses covering construction. We believe this third edition of MS-22 will serve the industry well for many years as the most thorough go-to reference on asphalt pavement construction.

The writing and editing of this manual was a cooperative effort by the entire team of Asphalt Institute Regional Engineers along with our publications department.

We appreciate our industry partners who provided

images for this publication and previous manuals. We make efforts to identify those contributions alongside the photos or illustrations.

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