ASPHALT INSTITUTE, INC.
JOB DESCRIPTION

JOB TITLE: Research Engineer

SUPERVISOR’S TITLE: Director of Research and Laboratory Services

POSITIONS SUPERVISED: Mixtures and Performance Testing Laboratory Technician(s)

FLSA STATUS: Exempt (EX)

GENERAL SUMMARY
Under general administrative and technical direction from the Director of Research and Laboratory Services, develops and acquires research programs, and conducts research as contracted by private and public organizations. Assists Director of Research and Laboratory Services in managing research programs for the Asphalt Institute Foundation. Assists with lab training and certification programs, on- and off-site. Provides technical support to Members and other Asphalt Institute divisions as needed. Conducts, within budget constraints, internal research on timely issues of concern to the Asphalt Institute and its Member Companies. Directs, for specific projects, laboratory technicians and students in the execution of the above activities. Prepares research reports and presents findings at technical venues. Prepares those reports for peer reviewed publications, as needed.

ESSENTIAL JOB FUNCTIONS
Under general administrative and technical direction from the Director of Research and Laboratory Services conducts the following activities:

1. Assists the Director of Research and Laboratory Services in maintaining a viable research program to advance the goals of the Asphalt Institute, its Members and Asphalt Institute Foundation. Actively pursues appropriate research opportunities, primarily in asphalt mixtures and performance testing, and works with other research entities and individuals to collaborate on the same research initiatives.

2. Develops and conducts research projects. Observes and conducts laboratory testing with an emphasis on performance-related tests (as needed). Analyzes test results and writes laboratory testing reports and research reports. Follows and supports project timelines and deadlines for all of the above.

3. Assists and supports the Director of Research and Laboratory Services on research programs for the Asphalt Institute Foundation (AIF). Primary responsibilities are to: (a) participate in meetings of the AIF Research Committee; (b) assist in the preparation of Request for Proposals (RFPs) to address research needs identified by the AIF; and (c) monitor research project progress and provide guidance to the research team based on input from the project panel.

4. Supervises Asphalt Mixture and Performance Testing Laboratory Technicians. This includes, but is not limited to oversight on all testing and research projects, coordination and delegation of tasks and completing performance evaluations.

5. Supports the Laboratory Training Business Unit by assisting the Technical Training Coordinator in conducting training and certification programs, including: Basic Binder Technician, Basic Emulsion Technician, Basic Roofing Technician, Basic Mixture Technician, National Binder Technician Certification (NBTC), National Emulsion Technician Certification (NETC), and Rheobit. Conducts and
promotes revenue-generating and informational web-based training. Provides technical assistance in the development of new training programs, software, and manuals.

6. Composes research reports and presents research findings in technical journals, proceedings, and trade publications.

7. Participates in professional industry organizations – such as Transportation Research Board (TRB) and Association of Asphalt Paving Technologists (AAPT) – by presenting research findings. Maintains an effective body of knowledge related to the most current asphalt technology.

8. Assists the Director of Research and Laboratory Services in the performance of some administrative functions such as preparing budgets and reviewing laboratory financial statements to ensure compliance with objectives.

9. Assists Asphalt Institute Regional Engineers and the Director of Engineering by providing technical support as required.

10. Provides technical assistance to user agencies (e.g., State DOT, FHWA, FAA, etc.) and member companies on an as-needed basis.

The intent of this job description is to provide a representative summary of the major duties and responsibilities of this position. Incumbents may be requested to perform job-related tasks other than those specifically presented in this description.

KNOWLEDGE AND ABILITIES
Minimum requirement of a Bachelor’s degree or higher in Civil Engineering or a related field of study is required. Professional Engineer (PE) license is required as a condition of continued employment. Active membership in one or more related professional organizations is desirable. Knowledge of asphalt paving material composition, design and construction practices, pavement behavior and evaluation, laboratory testing procedures and equipment, and statistical analysis techniques – including statistical design of experiments – is required.

Must have demonstrated skills to successfully develop, initiate, and complete research projects and programs. Must have demonstrated project management skills. Must be proficient in the use of standard information technology platforms. Excellent interpersonal, written, oral communication and organizational skills required. Must have a valid U.S. driver's license.

EXPERIENCE
Five (5) years of post-graduate experience in asphalt materials testing, characterization, and analyses are required as a minimum.

OTHER REQUIREMENTS and CONDITIONS
Position has no unusual physical demands; however, it may require commercial airline and automobile travel principally within the U.S. and Canada. Travel is expected to be 25% of the time or less. International travel outside of North America is not expected.

Consistent, timely attendance is a requirement to maintain compliance with Asphalt Institute policy. The position may involve exposure to potential hazards of laboratory chemicals and testing equipment.