NSSGA®

NATIONAL STONE, SAND & GRAVEL ASSOCIATION

May 1, 2023

The Honorable Maria Cantwell
Chairwoman
Senate Committee on Commerce,
Science & Transportation

The Honorable Ted Cruz
Ranking Member
Seante Committee on Commerce,
Science & Transportation

The Honorable Sam Graves
Chairman
House Committee on
Transportation & Infrastructure

The Honorable Rick Larsen
Ranking Member
House Committee on
Transportation & Infrastructure

Dear Chairwoman Cantwell, Ranking Member Cruz, Chairman Graves and Ranking Member Larsen,

On behalf of the 450 members of the National Stone, Sand & Gravel Association (NSSGA), we are writing to urge the committee to continue a vital program at the Federal Aviation Administration that provides critical research for airfield pavement technology. Included in the 2018 FAA reauthorization, Section 744 promotes industry-led research of pavement materials, training programs, demonstration projects, and furthers technology advancements.

NSSGA is the voice of our nation's aggregates industry, which operates over 9,000 facilities and employs over 100,000 people in high-paying jobs to source 2.5 billion tons of aggregates each year used to sustain our modern way of life and build our nation's communities and infrastructure. Our industry is the beginning of the building supply chain, as the products we source are the essential components needed to build roads, airports, transit, rail, ports, clean water and energy networks.

The aggregates industry produces 100% of the material for the airfield pavement foundations, ~95% of the raw material in asphalt concrete overlays, and 70-85% of the cement concrete overlays, making stone aggregates the #1 material used in our aviation infrastructure. As such aggregate related research has been the subject of many research projects funded by Section 744, though not directly listed. For example, two $1 million awards from Section 744 funds for "Mitigating Potential Alkali-Silica Reaction Expansion in Airfield Concrete Pavements", and "P-401 Mixtures: Aggregate Gradation Bands" were made in the past 2 years. The outcome of these projects will improve the existing FAA specifications for stone aggregate and thus the development of safer, more cost-effective, and more durable airfield pavements.

Over the past few years, the aggregates industry has been engaging in productive conversations with the FAA on aggregates specification to drive quality, durability and sustainability for airfield pavements.

This dialogue has partnered federal and industry technical resources to better understand the challenges and needs on each side and collaboration on improving material specifications. The aggregates industry appreciates this opportunity to collaborate with the FAA and would like to also cooperate with the administration to advance aggregate research and technology that will lead to the development and deployment of innovative products and applications for use in airfield pavement technologies that improve safety, performance, resiliency, and extend the life of airfield pavements.

The aggregates industry is eager to start extensive in-depth research on an array of topics to better support our nation's growing need for critical air transport. To name a few, we understand that along with other federal agencies, FAA is also interested in sustainable use and lower embodied carbon material. With the stone aggregates being the #1 material used in airfield pavements, hauling is a significant emission burden on our products. Given the higher loads and the critical mission of airfield pavements, the FAA's materials specifications are typically stricter than those required by state DOTs (Departments of Transportation) for highway applications. Thus, locally available material does not always meet the FAA's specifications. Crucial research is needed to evaluate the use of locally available aggregates that currently do not meet FAA specifications and to develop those tools and techniques that will allow improving this material to meet the desired performance. Additionally, we would like to work with FAA on research that aims to develop methods for creating 3D digital twins of aggregates using X-ray tomography imaging and other mapping techniques to compute aggregate characteristics, which can aid in designing better performing stone-based materials and determining the influence of aggregate types on long-term skid resistance of airfield pavement cement concrete mixtures.

NSSGA is confident that a strategic collaboration between the aggregates industry and FAA will advance solutions to these and other needs. Our team is ready to collaborate with the FAA and develop an industry partnership addressing needs identified through the program as important to the interests of FAA. and industry and to pursue the research, education, training, technology transfer of new solutions, practices, and recommendations needed to better sustain our nation's airfield pavements.

By continuing Section 744 of the FAA Reauthorization Act, the committee will ensure productive and unified efforts of the FAA and aggregates industry to drive more resilient, sustainable, and durable pavements that are essential to our airports and air travel.

We look forward to all future engagements. Should you have any questions, please contact me or my office at any time.

Sincerely,

Michael W. Johnson
President and CEO
National Stone, Sand & Gravel Association