

March 17, 2022

The Honorable Haley Stevens  
Chair  
Subcommittee on Research and Technology  
Committee on Science, Space and Technology  
U.S. House of Representatives  
Washington, D.C. 20510

The Honorable Randy Feenstra  
Ranking Member  
Subcommittee on Research and Technology  
Committee on Science, Space and Technology  
U.S. House of Representatives  
Washington, D.C. 20510

Dear Chair Stevens and Ranking Member Feenstra,

I am writing on behalf of the 150,000 members of the American Society of Civil Engineers (ASCE)<sup>1</sup> to thank the Subcommittee and to commend your leadership in conducting the hearing: *Setting the Standards: Strengthening U.S. Leadership in Technical Standards*. ASCE strongly encourages Congress to continue to support U.S. domestic standards setting agencies, while encouraging broader participation by the United States (U.S.) in the development of international codes and standards.

One of the strongest roles the federal government can play in support of U.S. standards development and implementation is funding the necessary research that leads to innovation and more resilient, sustainable, and cost-effective materials and processes. To help achieve this goal, ASCE urges swift action to conference the America COMPETES Act (H.R. 4521) with the U.S. Innovation and Competition Act (S.1260). We believe that this legislation will provide for the research needed to help create the next generation of materials and approaches to building sustainable infrastructure systems for the 21st Century. It is critical that we develop new standards that permit design for the future using innovative materials and not trying to continue using the materials, design approaches, or construction methods from a previous century.

ASCE is a fully accredited standards writing body, an organizational member of American National Standards Institute (ANSI) and one of the leading authors of engineering standards. ASCE's members contribute to ISO's Technical Advisory Groups (TAGs) for development of engineering and construction standards. International trade agreements require the U.S. to be open to international products and services that meet internationally accepted standards. In order to improve the acceptance of U.S. technology, construction products, and professional services internationally, and to help improve the

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<sup>1</sup> ASCE was founded in 1852 and is the country's oldest national civil engineering organization. It represents more than 150,000 civil engineers individually in private practice, government, industry, and academia who are dedicated to the advancement of the science and profession of civil engineering. ASCE is a non-profit educational and professional society organized under Part 1.501(c) (3) of the Internal Revenue Code. [www.asce.org](http://www.asce.org),

standards to better protect the public health, safety, and welfare, the U.S. should be in a position to influence the standardization of domestic and international standards.

Congress should focus additional investments at the National Institute of Standards and Technology (NIST) on the traditional standards setting and support work that the agency oversees. The research conducted by NIST is a crucial component of building standards such as ASCE-7, *Minimum Design Loads and Associated Criteria for Buildings and Other Structures*, which serve as the basis for U.S. building codes. One of the most daunting challenges faced by standards setting bodies is the lack of technical data. While standards like ASCE-7 keep buildings safe and resilient, there is a pressing need for research into changing conditions that impact the built environment. Such basic information as rainfall and wind data is out of date and requires renewed federal support and funding to ensure that standard setting bodies have reliable data available to inform standards setting. Such standards and building codes, when properly adopted and enforced, are the single best method for ensuring the nation's infrastructure is safe and resilient.

Model building codes are developed by experienced volunteer professionals working together under a multi-step, consensus-based process. Most professional engineering organizations maintain code development committees that initiate code provisions based on the practice in their technical areas and are often augmented by research. Topics for code provisions are often introduced in case study reports or research papers. In time, many of these provisions are gathered together and published as design guidelines. Eventually the guidelines are transformed into standards and incorporated into the model code. ASCE, as a premiere ANSI-approved standards organization, develops and maintains many of the standards referenced or incorporated in the model codes. Through a thoughtful and extensive process, ASCE assures that each standard represents a broad consensus of the related professional community. The standards developed by the U.S. voluntary consensus standards system empower our nation domestically and globally. For years, local, state, and federal governments have maintained a strong and effective reliance on the non-government sector for development and maintenance of the standards at use across all sectors of our economy.

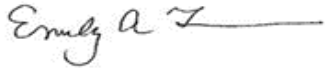
There is an elevated level of interdependence between the viability of local cities and the national economy. The traditional assumption that local jurisdictions could determine the level of safety and quality to which they would build has yielded to the recognition that uniform national standards are needed to assure that the economic impact to the nation is controlled. These national standards are best delivered in a modern, effective national model code that local jurisdictions should be encouraged to adopt and enforce.

ASCE's [2021 Report Card for America's Infrastructure](#) rated the overall condition of the nation's infrastructure a cumulative grade of "C-" across 17 categories. The recently enacted Infrastructure Investment and Jobs Act will go a long way toward raising the grades. However, it should be coupled with a significant investment in research and development that will permit the development of new and innovative materials and processes to cut cost and facilitate a durable, secure, sustainable, and resilient infrastructure that will meet future needs and ensure the best possible infrastructure for the 21st century. Such innovations would find their way in to revised standards and spread the benefits through the nation.

We thank the Subcommittee on Research and Technology for prioritizing standards setting and the organizations that develop those standards. We urge continued and enhanced support for these efforts.

ASCE stands ready to work you to ensure U.S. leadership in standards setting and please consider us as a resource going forward.

Sincerely,

A handwritten signature in black ink, appearing to read "Emily A. Feenstra", followed by a horizontal line extending to the right.

Emily Feenstra  
Chief Policy and External Affairs Officer  
American Society of Civil Engineers