

Endorsed by the American Geophysical Union and the
National Institute of Building Sciences:

BUILT ACT

BUILDING AND UPGRADING INFRASTRUCTURE FOR THE LONG TERM



Extreme weather events and heightened temperatures resulting from climate change can impact infrastructure in various ways. These effects include flooding and saltwater intrusion from rising sea levels corroding structures, as well as extreme heat and increased rainfall damaging roads and tarmac surfaces. Additionally, warmer air raises soil temperatures, altering chemical and geological processes that deform soil, rock, and underground infrastructure. Other natural disasters, such as earthquakes, can further compound these climate-driven impacts. Given the increasing frequency of unprecedented weather events, addressing research and development gaps is critical to developing infrastructure standards and building codes that ensure climate resilience.

THE SOLUTION

The BUILT Act directs the National Institute of Standards and Technology (NIST) to conduct research on the effects of extreme weather on underground environments.

- Research to understand how climate conditions affect subsurface properties and how sensing technologies can be used to assess infrastructure integrity risks.
- Research to inform the development of engineering standards, practices, and building codes for climate-resilient infrastructure.
- Convening an interdisciplinary workshop on multi-hazard resilient infrastructure design, including representatives from Federal, State, Tribal, territorial and local entities, nongovernmental organizations, and private sector entities.