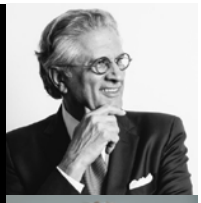
CRE Finance Council
The Voice of Commercial Real Estate Finance

March 2025

CRE AND MULTIFAMILY FINANCE IN THE SPOTLIGHT

Joe Forte | *Long-Time Industry Veteran*
Holly Neber | *CEO,* AEI Consultants



Assessing Property Physical Risk with ASTM's New Guide

The increasing frequency and growing intensity of extreme storms and floods, rising sea levels, volatile temperatures, wildfires, and other natural hazardous events and their continuing impact on the built environment and surrounding communities are fast becoming a critical factor impacting decision-making for investors and other participants in commercial real estate. As a result, investors need a fulsome understanding of all the physical risks inherent or embedded in any existing or potential investment in real assets along with possible mitigation and adaptation measures required to ensure the resilience of their property.

Recognizing that these extremely hazardous events are already impacting the pricing and availability of property insurance as well as adversely affecting property values and exit strategies nationally while increasing lenders' exposure to these physical risks in their loan portfolios, the investment community must determine the resilient mitigation strategies and adaptation techniques necessary to ensure resilience. To identify the potential hazards to and vulnerability of an existing property, a uniform method of risk assessment of a particular property's resilience must be undertaken by investors.

Based on the real estate industry's prior experience working with ASTM International (ASTM), formerly known as American Society for Testing and Materials, in the development of Environmental Site Assessment Phase 1 in the early 1990s, industry participants once again turned to ASTM to develop a physical risk and resilience assessment similar to the ESA Phase 1. In April of 2021, the ASTM *Committee E06 on the Performance of Buildings* organized a Task Group to develop a uniform, transparent, efficient, and consistent approach for assessing physical risk and resilience for real assets.

This Task Group's leadership recruited technical experts and industry leaders representing a wide variety of interests, as well as a broad range of stakeholders. Task Group members include professionals from fields such as engineering, architecture, earth sciences, property insurance, climate science and climate risk modeling, law, finance, financial risk management; construction and development; property owners, investors, managers, and consultants. Non-profit organizations also participated, focusing on atmospheric research, building safety, climate risk and adaptation, resilience, and sustainability.

The Task Group's work does not address "Sustainability" or any "Transitional Climate Risks" (Building Efficiency, Carbon Emissions or Embedded Carbon) which are non-physical risks and are not within the Task Group's scope.

The Task Group delivered its Property Resilience Assessment Standard Guide (PRA Guide) to the Committee after its completion of the ASTM uniform consensus process informed by users and producers of the proposed standard. ASTM approved the PRA Guide in September and published it in November 2024 as E3429-24.

The PRA Guide is not a property resilience certification. It is an incremental three-stage process which provides a consistent "generalized systemic approach to voluntary assessment and risk management to identify natural hazards which may affect ... (buildings') ... vulnerability and sensitivity … to those hazards and identify basic measures that can be employed to improve resilience."

Professional hazard specialists using the PRA Guide can gather uniform quantitative physical data necessary to provide clarity for determining the physical resilience of a property investment.

Learn more about the ASTM Task Group and the PRA Guide — Refer to this in-depth report by Joe Forte and Holly Neber

READ THE REPORT

Based on the industry participants' experience with the ubiquitous reliance on the ASTM Phase 1 Environmental Site Assessment in nearly six million property transactions over the last 30+ years, the PRA Guide may be widely adopted by:

- owners, developers, borrowers, tenants, lenders, and investors for their investment decisions;
- property/casualty insurers to determine the existence of current and potential future natural hazards at a property or portfolio to be insured;
- appraisers to consider the impact of such risks on their property and portfolio valuations;
- credit rating agencies to determine if reported potential hazards and associated resilience measures are positive, neutral, or negative to its rating of the credit; and
- related regulatory and supervisory agencies to establish capital and risk-based reserve criteria based on property values taking property resilience into consideration.

Recognizing the physical vulnerabilities as well as the resilience mitigation and adaptation measures that are already present or are planned for implementation will allow investors to create a property or portfolio with a uniform risk profile understandable to all industry participants in the commercial real estate markets. Also, appraisers can better determine the impact on valuation using the specific risk profile of the property or portfolio. Knowledge of actual risk profiles will lead to a more rational market differentiating risks among properties and portfolios.

ASTM E3429 Property Resilience Assessment (PRA) Process

HAZARD SCREENING

Stage 1: Screening and identifying hazards* - review model and mapping outputs

- Review regional hazard data from public and/or commercial risk modeling/mapping sources.

Stage 1a: Hazard verification

- Site-specific desktop review of local or regional natural hazard risk plans/maps, if available.

RISK AND RESILIENCE ASSESSMENT

Stage 2: Risk & Resilience Assessment

- Site inspection and review of building characteristics (age, occupancy, construction) to assess the vulnerability to the hazards identified in Stage 1.
- Assess safety, damage, and functional recovery time, along with material impacts related to community resilience/lifelines.

RESILIENCE MEASURES

Stage 3: Resilience Measures

- Identify specific resilience measures and provide cost estimates, if possible. For example, flood barrier installation, relocating critical equipment, energy efficiency and power supply redundancy, hurricane-rated glass and roofing, etc.
- Recommend full community resilience study or advanced engineering/design consulting if needed.

***Includes natural hazards made more extreme by climate change.**

Depending on their purposes and needs, users may stop at Level 1, Level 2, or utilize an iterative process based on the results of each level.

Source: ***AEI Consultants***