Climate-Informed Risk Management & Related ASTM Standard Development

Climate-Informed Risk Management Drivers

- Investor Relations
- Preserve & Protect Value
- Due Diligence
- Exit Strategies
- Insurance Coverage
- Regulatory Pressures

Climate Risk Types

PHYSICAL VS. TRANSITIONAL CLIMATE RISK

Physical	Transitional
Wildfire	Building Efficiency Regulation
Sea Level Rise	Carbon Emissions Regulation
Severe Storm	
Flood	
Tropical Storm	
Heat Stress	
Water Stress	

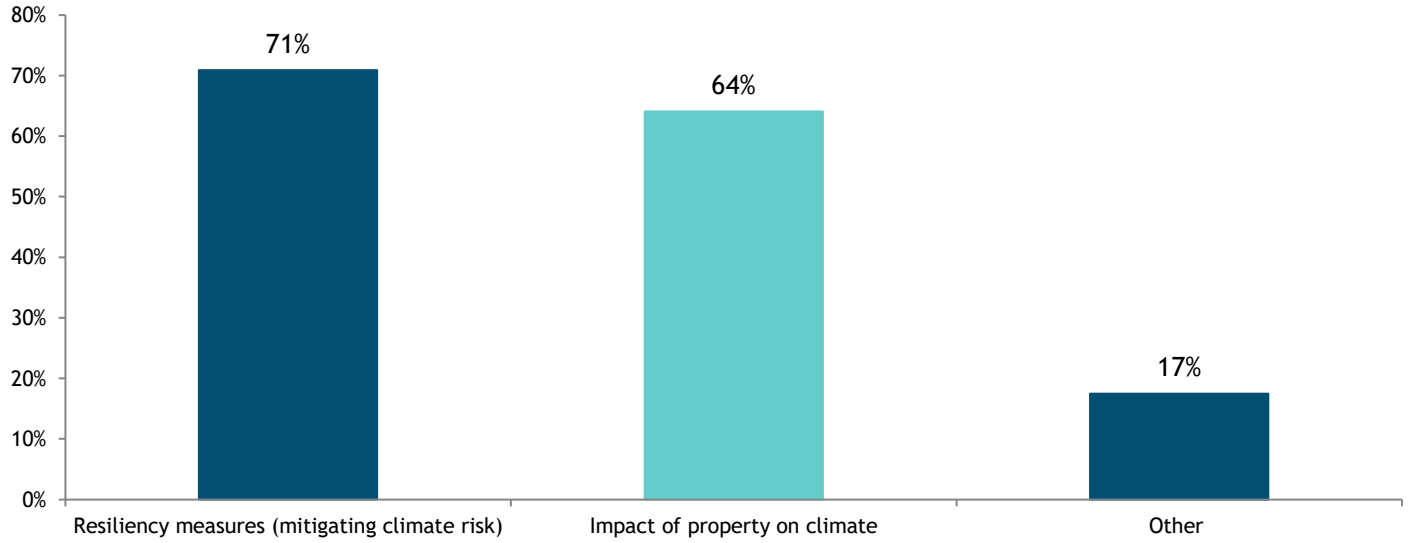
Market Trends

83% of REITs had requests from institutional investors regarding climate-related risks in their portfolios.

2021 Nareit Annual Member ESG Survey

CREFC Respondents Identified Factors Key to Their ESG Assessments – Resilience Leads the Pack

A focus on property resiliency (71%) edged out impact of property on climate (64%), but both sides of the climate coin remain important



CRE Finance Council®
The Voice of Commercial Real Estate Finance

Market Trends – Disclosures & Ratings Agencies

Moody's Adds Climate Data into Ratings for Real Estate-Linked Securities and Debt

'We're comparing apples, oranges and bananas': Climate disclosure by banks under microscope

MOODY'S INVESTORS SERVICE

Research Announcement: Moody's - Climate risk is a major threat to banks' loan quality

04 October 2021

ACREL Climate Impact Affinity Group

Regulatory Drivers

- SEC
- OMB

OMB CIRCULAR A-119

Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities

McCarter & English

FACT SHEET

Enhancement and Standardization of Climate-Related Disclosures

U.S. SECURITIES AND EXCHANGE COMMISSION · MCMXXXIV

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June 17, 2022

Vanessa A. Countryman
Secretary
Securities and Exchange Commission
100 F Street NE
Washington, DC 20549-1030
rule-comments@sec.gov

Re: File Number S7-10-22 Enhancement and Standardization of Climate-Risk Disclosures for Investors

Dear Secretary Countryman,

On behalf of ASTM International's Committee E06 on Performance of Buildings, the Executive Committee has approved the attached letter in response to the Securities and Exchange Commission's March 21, 2022, Notice and Request for Comment on the Proposed Rule for Enhancement and Standardization of Climate-Risk Disclosures for Investors.

The attached letter was written by members of Committee E06, and the contents were approved the Executive Committee.

ASTM INTERNATIONAL

Helping Our World Work Better

Attributes of Standards Systems that Produce International Standards

Open and Transparent Process

- Direct and equal participation to ASTM for all people and organizations
- Information on ASTM International standards are transparent and readily available online

Impartial, Consensus-Based Model of Engagement

- Balanced system where producer votes are equal to those of users
- Impartial, inclusive, and fair to all, with appeals and protections to avoid abuses

Effective and Relevant Standards

- Constantly responding to market needs, keeping pace with industry and innovation
- Relevant to the global marketplace and performance-based in application

Driven by Research, Data, and Science-Based Decisions

- Focus on science and technical quality, and specifically addressing risks and needs

Collaboration with Other Standards Bodies to Avoid Duplications

- Collaborate with other standards organizations to avoid duplication and to pursue international standards work in a smart way

Recognized as International by

Existing ASTM Standards for CRE Space

- ASTM E 1527 – Standard Practice for Environmental Site Assessments - Phase I
- ASTM E 2018 – Standard Guide for Property Conditions Assessments
- ASTM E 2557 - Standard Practice for Probable Maximum Loss Evaluations for Earthquake Due Diligence Assessments
- ASTM E 1903 – Standard Guide for Environmental Site Assessments - Phase II Investigation
- ASTM E 2600 – Standard Practice for the Assessment of Vapor Intrusion into Structures on Property Involved in Real Estate Transactions

- In late 1989 and early 1990, a significant number of the national real estate industry and real estate finance industry trade groups gathered to organize and develop an acceptable real estate industry approach to due diligence to qualify for the innocent landowner defense. This informal, ad hoc effort was a direct response to a serious concern over the lack of certainty and uniformity in dealing with the environmental consulting industry.

- In March 1990, the informal realty group established the Subcommittee on Environmental Assessment for Commercial Real Estate Transactions (Subcommittee) to develop a due diligence standard for commercial real estate transactions under ASTM.

- The Subcommittee, with more than 400 members, represented a balance of users (owners, lenders, etc.) and producers (the environmental industry). It was comprised of national, regional and local environmental companies, real estate owners, chemical, oil and other major industrial concerns, large and small lenders, national and regional real estate industry trade associations, national professional associations, government organizations (including Resolution Trust Corporation, Federal Deposit Insurance Corporation, Department of Defense and EPA) and quasi-government organizations (Fannie Mae and Freddie Mac).The Subcommittee is governed by the ASTM rules.
- The Subcommittee is fully democratic, balloting through a hierarchical committee system through the entire ASTM.

- In March 1993, ASTM adopted the Standard for Environmental Assessments for Commercial Real Estate (1993 Standard). The 1993 Standard was the result of a lengthy process of negotiation and compromise among the members of the Subcommittee to arrive at a consensus acceptable to the ASTM membership. \
- The 1993 Standard consists of two separate but interrelated Practices: the “Environmental Site Assessment: Phase I Environmental Site Assessment Process” and the “Environmental Site Assessment: Transaction Screen Process.”

- The 1993 Standard and subsequent revised Standards (Standards) are designed for voluntary use as “appropriate inquiry” under CERCLA’ and to “reflect a commercially prudent and reasonable inquiry.”
- The Standards confirm due diligence as a process of incremental inquiry — from the basic to the comprehensive — as deemed appropriate.
- The Standards permit an investor to commence its due diligence by conducting a transaction screen level of inquiry or to proceed directly to the Phase I site assessment level.
- The legal basis for the Standards is set forth in the Legal Background Report of the legal section of the Subcommittee (included as an appendix to the Standards).

- To assure that the Standard is representative of current practices, the ASTM rules require that after adoption, a standard be reviewed periodically to incorporate developing industry practices and other changes.
- In 2000, the 1993 Standard was revised and superceded by ASTM 1527-00. Then, on January 11,2002, Congress adopted the Brownfields Amendments to CERCLA and directed the Environmental Protection Agency (EPA) to promulgate a new standard for environmental due diligence.
- The Standard continues to be updated every several years by the ASTM 1527 Committee.

Why develop a Property Resilience Assessment Standard

Regulatory pressure to document and disclose climate risk is growing. To enhance resilience, a review of all natural hazards along with climate-related risks is needed.

User Community (lenders, owners, developers, investors) seeks to understand physical climate risk for commercial buildings for risk management, underwriting, reporting, property management and capital planning.

Providers are generating climate risk assessments (climate risk data providers, engineers, consultants) with wide variation in scope of work.

Transparency and consistency is needed. Risk information is enhanced when provided alongside site observations and resilience recommendations.

Narrow Focus on Physical Risk

Benefits of an ASTM Standard for Property-Level Resilience

- Both the User and Provider communities will benefit from the clarity provided by an ASTM standard
  - Minimum Acceptable Standard for contracting and pricing
  - Transferability from one user to another (with proper reliance)
- Leverage the existing non-ASTM standards in creating an “umbrella” under ASTM.
- Align with existing due diligence standards already in place with ASTM (ESA, PCA, Seismic). These existing due diligence reports may need to become “climate informed” in order to remain relevant.
- Our work may generate the basis for future hazard- or peril-specific guides and practices under ASTM

Committee Participation

- Adaptation International
- BREEAM US
- Insurance Institute for Business & Home Safety (*advisory)
- National Center for Atmospheric Research
- US Resiliency Council
- Building Technology Inc
- Climate Advisory
- Fannie Mae
- Freddie Mac
- Virginia PACE
- Institute for Sustainable Communities
- American Society of Civil Engineers (ASCE)
- Enterprise Communities
- ULI
- GAF
- Turner Construction

- Chase
- JP Morgan Asset Management
- Prologis
- Heitman
- Panattoni
- Citizens Bank
- PGIM Real Estate
- CIT
- Revantage / Blackstone
- LBA Realty
- US Bank
- Principal Financial
- LaSalle
- TA Realty
- Amazon Web Services
- Equity Residential
- Regions Bank
- McCarter & English LLP
- LivCor
- EY
- Jae Law Group PLLC

- AEI
- Apex Companies
- Arup
- BBG
- Cannon Design
- Simpson Gumpertz
- Marx/Okubo
- Climate Advisory
- TRI
- Dewberry
- Bureau Veritas
- EM Partners
- EBI
- EFI Global
- Partner Energy
- EPM
- Nova
- Verdani
- Intertek
- TRC
- Haselton Baker Risk Group

- Moody's ESG
- Lightbox
- RMS
- Measurbl
- Risk Footprint
- Climate Check
- EPIC Insurance
- ResCentric
- SPA Risk
- MSCI
- MunichRe
- MSCI
- Envirosite
- True Flood Risk
- SPA Risk
- ImageCat

NEW ASTM Standard: Property Resilience Assessment

Hazard

Stage 1: Screening & Identifying Hazards* – Review Model & Mapping Outputs

Stage 1a: Hazard Verification

Risk

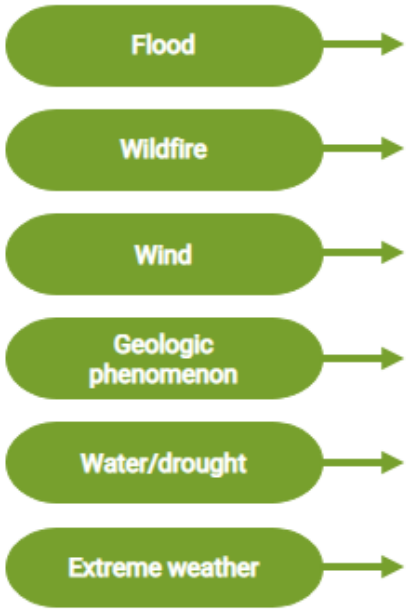
Stage 2: Vulnerability & Sensitivity Evaluation

Mitigation

Stage 3: Resilience Strategies & Mitigation Recommendations

*Hazards include those caused by climate change, those made more extreme by climate change, and other natural hazards.

DRAFT Property Resilience Assessment (PRA) process



Hazard

Stage 1
Screening Hazards

Screening of hazards from public sources and/or commercial risk mapping and modeling sources

Stage 1a
Hazard Confirmation

Site Specific Desktop Review of local municipal resilience plans/maps or site-specific plans

Risk

Stage 2
Site Specific Vulnerability Evaluation

Site inspection to evaluate:
- Site Characteristics
- Vulnerabilities
- Sensitivities

Generate a Risk Rating and Potential Damage Estimate

Resilience Measures

Stage 3
Customized Resilience Measures

Identify resilience measures for the identified risks and vulnerabilities and estimated costs.

Examples: Flood Barrier Installation, Relocating critical equipment

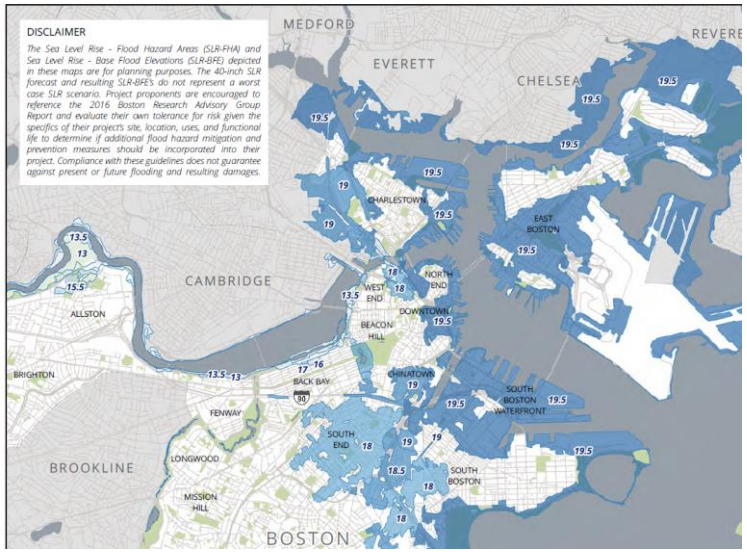
Level 4
Advanced Resiliency Engineering

Advanced Adaptation and Building Design (Not Included)

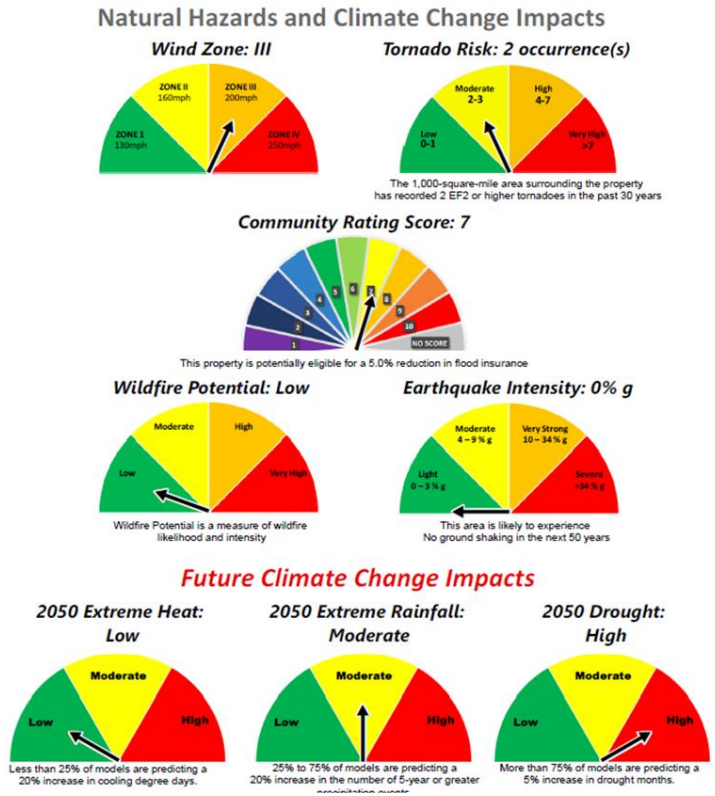
This Guide will likely result in creation of additional hazard-specific guides or practices such as Wildfire, Windstorm, Flood, Etc.

Stage 1 – Hazard Screening/Identification

BPDA Sea Level Rise-Flood Hazard Area Map



Source – Resiliency Toolkit Boston



Source – Risk Footprint

Climate Hazard	Risk Level	Site Score	Country Benchmark
Floods	Low	7	17
Heat Stress	Medium	39	44
Hurricanes & Typhoons	None	0	18
Sea Level Rise	None	0	6
Water Stress	Medium	35	45

Source – Moody's/Four Twenty Seven

Stage 2 – Property Vulnerability & Sensitivity Evaluation

Inspect

Site Inspection and review of documents and plans

Assess

Nature of construction, type of occupancy, age of the building, existing resilience measures

Evaluate

Sensitivities and vulnerabilities based on the above

Determine

Probable Maximum Loss and/or produce a Risk Rating

Stage 3: Resilience Measures

Protection – Strategies to reduce a building's vulnerability to extreme weather.

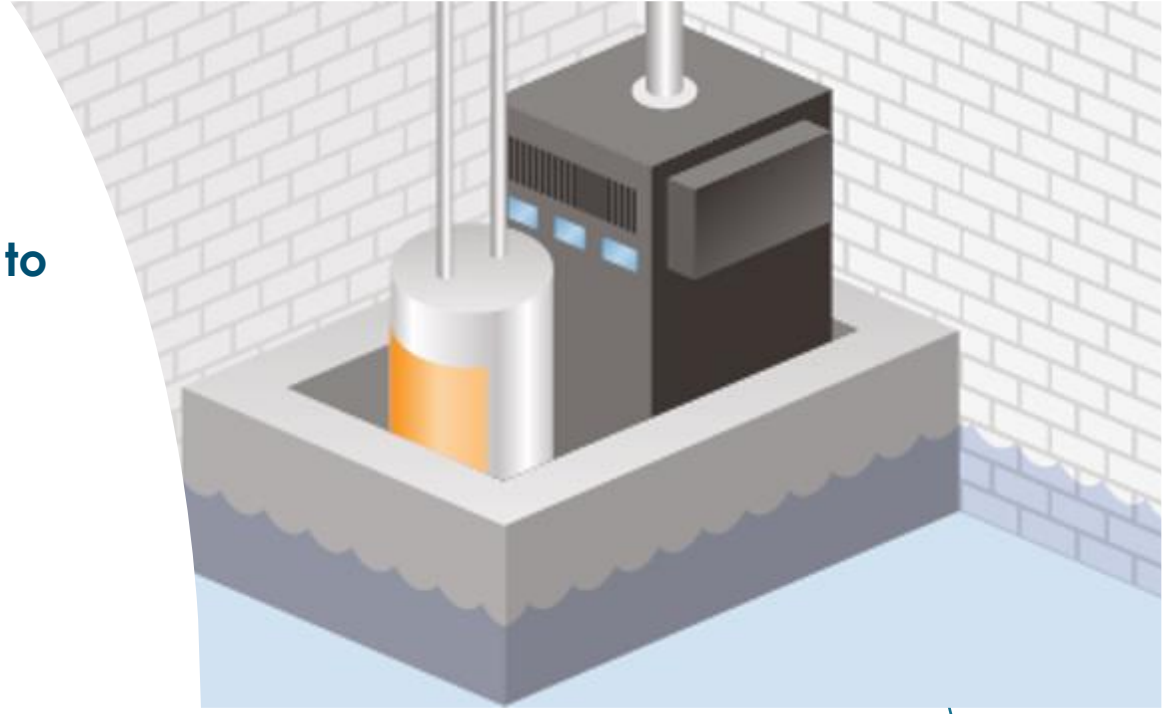
- Wet, dry and site perimeter floodproofing
- Resilient Elevators
- Backwater valves and sump pumps

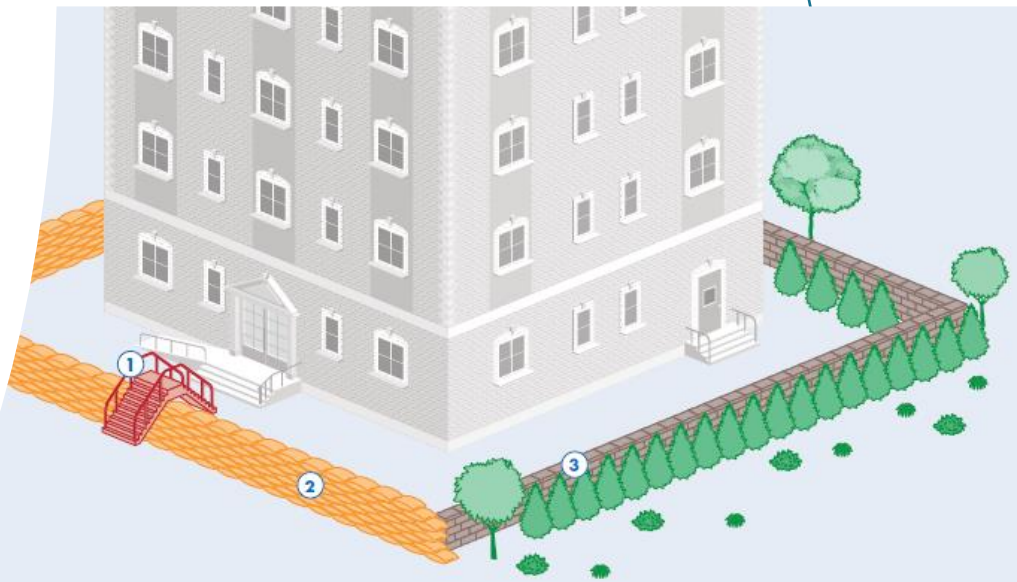
Adaptation – Strategies that improve a facility's ability to adapt to changing climate conditions.

- Envelope Efficiency
- Elevated equipment and living space
- Surface stormwater management
- Window shading and distributed heating / cooling

Back-up – Strategies that provide critical needs for when a facility loses power or other services.

- Backup power to critical systems
- Emergency Lighting
- Access to potable water





1 Provide entry and exit over barriers.
2 Temporary flood barriers can be deployed before a flood.
3 Permanent barriers can be part of landscaping or security plans.

Balloting Process – Goal to publish early 2023

- Documents are drafted and revised in the task group
- New standards are required to be balloted at the subcommittee level at least once
- After subcommittee approval, the main committee & entire Society

Implications for ACREL Members

- **Current state – Apples & Oranges & Bananas**
- **Predictions of Future Adoption of the PRA standard**