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"Big Changes Ahead for Commercial Property Due Diligence"

Attorneys who handle commercial property transfers need to become familiar with upcoming changes in due diligence "best practices" involving assessments of floods, natural hazards, and climate change impacts.

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Over the past century, average global temperatures have risen by 1.8°F (1°C). The consequences of this increase, and projected future temperature increases, are that damaging weather events will intensify and may occur more frequently. The U.S. has sustained 355 weather and climate disasters since 1980 where overall damages/costs reached or exceeded $1 billion (including CPI adjustment to 2023). The total cost of these 355 events exceeds $2.540 trillion. The annual average of these events over the last five years is more than double the average since 1980, clearly indicating intensification. Extreme event intensity and frequency changes are increasing the exposure and vulnerability of large commercial, industrial, and multi-family properties to significant damage and economic loss. This historical background is important for attorneys involved in commercial property transfers to keep in mind, as they help clients navigate appropriate *caveat emptor* due diligence.

The origins of the *caveat emptor* principle in British Common Law lie in a 1603 case, known as Chandelor v Lopus. In that case, a man bought a £100 "bezoar stone" that was supposed to have healing properties. He realized later that the stone did not work as it was supposed to and sued the seller, asking for his money back. In case you were wondering, bezoars are aggregates of inedible or undigested material found in the GI tracts of both humans and animals. The fact that a buyer ever believed in the healing properties of something found in the bowels of humans or animals is possibly an interesting story for another day. *It was 1603 after all*.

But for at least the last 30-years or so, as most commercial real estate attorneys are well aware, due diligence has included four key, professional "assessments": (1) the title report, to determine the chain of legal ownership; (2) the appraisal, to determine if the buyer is paying close to the market value and to support a mortgage loan; (3) the property condition assessment or PCA, to determine if there are defects in the structure, roof, or mechanical, electrical and plumbing systems and estimated repair costs; and, (4) the Environmental Site Assessment (ESA) Phase 1 and 2, to determine if the property may contain hazardous substances (or underground tanks, etc.) from previous owners or occupants of the property.

What's Missing From Due Diligence, Today?

While these four, due diligence investigations yield much important and relevant information about the property being bought or sold, they *do not* provide in-depth information or assessments of the flood, natural hazard or climate changes that are currently impacting, or may in the future impact, the property in a negative way.

Natural Hazards Missing from Current Due Diligence

Attorneys involved in due diligence and their clients should make use of recently available software-as-a-service (SaaS), hazard assessment tools to uncover any significant risks of damage and loss to the asset, as well as mispricing at both purchase and future sale. Because of rapid developments in hazard/climate modeling, cloud-based computing, satellite imagery, and even artificial intelligence and machine learning, it has never been easier, faster, or more affordable for attorneys and their clients to factor these risks into their important, real estate decisions. Many of these on-line tools are government, open-sources and free like the US Climate Resilience Toolkit. There are also private companies like RiskFootprint™ that provide property-specific, flood, natural hazard and climate impact scores and quantitative maps and data to help commercial real estate due diligence professionals and their clients better determine risks to investments.

The RiskFootprint™ hazard and climate assessment was developed by top scientists in the world, including a Nobel Prize winner. The RiskFootprint™ report assesses more than 30 current hazards, including floods, winds, earthquakes, tornados, wildfires, and winter weather, and 4 future risks including sea level rise, extreme heat, extreme rainfall, and drought in seconds for any property in the US.

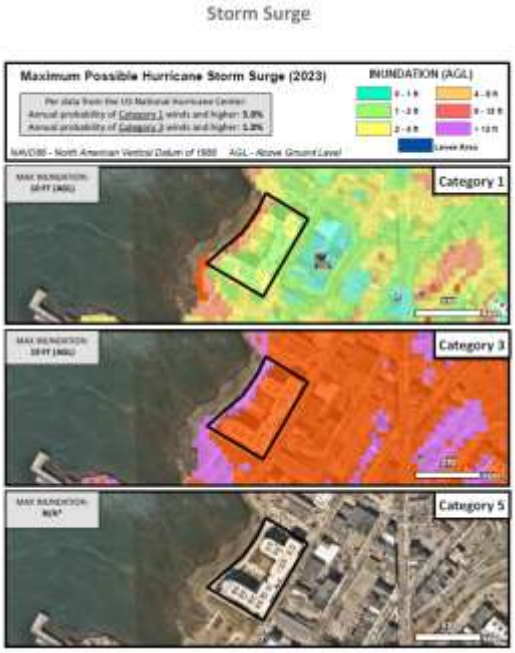
The Property Resilience Assessment (PRA)

In order to bring commercial due diligence into alignment with current "best practices" and risk/hazard data availability, an ASTM International Work Group was formed to develop a new guide for due diligence practitioners in the commercial space, including the legal profession. The new approach described in the guide is called the Property Resilience Assessment or PRA. According to the ASTM: "This guide provides an overview of a generalized, systematic approach for conducting a Property Resilience Assessment (PRA) consisting of first, identifying the natural hazards likely to affect a property; next, evaluating the risks posed by those hazards along with the capacity of the property to prepare for, adapt to, withstand and recover from those hazards; and then finally, identifying conceptual resilience measures to enhance property-level performance and recovery." The ASTM's PRA draft guide, which is still in balloting and subject to change, breaks down the approach into three, interconnected stages: (1) Hazard Assessment; (2) Vulnerability and Risk Assessment; and (3) Identification of Feasible Resilience Measures and Rough Order of Magnitude (ROM) costs. See image, below.

NEW ASTM Standard: Property Resilience Assessment

Assessing hazards (Stage 1) and vulnerability and value-at-risk (Stage 2) at the asset-level are important additions to commercial real estate due diligence. They enable decision-makers and planners to scale measured exposure levels of extreme weather events and other physical risks (e.g., earthquakes, landslides, etc.) down to actionable levels for cost-effective, resilience decision-making.

Stage 1 of the PRA, the hazard assessment, can be largely satisfied with the RiskFootprint™ Report, which is available in seconds for any property in the US.



RiskFootprint™ Hurricane Storm Surge Maps

For Stage 2, the vulnerability and value-at-risk assessment, estimating event-level, flood vulnerability and value-at-risk, can be done using FEMA's Hazus software. Below is an example what a RiskFootprint™ Vulnerability and Value-at-Risk assessment looks like for a large multi-family property at the flood event-severity level.

Stage 2 - Vulnerability and Materiality Assessment – Value-at-Risk

Flood Type	Depth	Damage	Restoration (Days)
Fluvial 100-year	3.7'	6.7%	480
Fluvial 500-year	8.5'	19.0%	720
Fluvial 1000-year	12.0'	35.0%	900
Pluvial 100-year	0.0'	0%	0
Pluvial 500-year	3.7'	6.7%	480
Pluvial 1000-year	4.3'	7.3%	630
FEMA 100-year	11.3'	31.5%	720

The final stage in the Property Resilience Assessment (Stage 3) requires bringing experts in hazard-specific, resilience measures (e.g., flood, wind, seismic, etc.) on site to identify what risk mitigation investments might be feasible. Below is a slide showing some feasible resilience measures identified in advance of a multi-million dollar upgrade and retrofit project to mitigate flooding at a South Florida, oceanside hotel. Once feasible resilience measures have been identified, then the risk mitigation experts can prepare rough order of magnitude costs (ROM).

If needed, the PRA Professional can also prepare a Benefit/Cost analysis of the risk mitigation investment to help determine the resilience return on investment (RROI). RROI is a relatively new term that attempts to quantify the benefits of investments over time in solutions that reduce damage and loss and other negative consequences (e.g., reputational injury) to a client's property from floods, natural hazards, and climate impacts.

CONCLUSION

Attorneys and other due diligence professionals involved with commercial real estate, property transfers should learn more about the use of online hazard assessment tools and advanced, property resilience assessments developed by ASTM to help their clients make more informed buy/sell/invest decisions. The RiskFootprint™ hazard and climate impact assessment technology and ASTM's new draft Property Resilience Assessment (PRA) enable attorneys and their clients to gain deeper and more actionable insights into risk and their resilience return on risk-mitigating investments (RROI).

Picture Resilience

Self-Closing Flood Barrier Protecting Underground Parking Garage
Hurricane Harvey, Houston, TX 2017