



Property Resilience Services

HELPING CLIENTS ASSESS THEIR PROPERTY'S VULNERABILITIES AND RISKS RELATED TO NATURAL HAZARDS

Overwhelming evidence is showing that climate-related events such as sea level rise, hurricanes and typhoons, flooding, heat waves, droughts, and wildfires have quickly accelerated from a future issue to a present-day issue and are presenting new challenges to the built environment. Per the National Oceanic and Atmospheric Administration (NOAA), the economic impacts are well documented with an average of 20 events causing over \$1 billion dollars in damage each year since 2019¹.

As the frequency and severity of these natural hazards continue to increase each year, it is likely that such billion-dollar events will continue to put increasing numbers of buildings at risk and in need of resilient and adaptive solutions. Whether during project design phase, capital expenditure planning, or existing asset due-diligence studies, real estate owners and investors are seeking guidance on natural hazard-related risks to properties and portfolios. This guidance varies from natural hazard screening and assessing vulnerabilities of the site to identification of resilience measures that improve building performance.

Marx|Okubo works with each client to evaluate their unique resilience goals and objectives and provides a comprehensive strategy to protect a property. Our consulting services range from a thorough property hazard assessment, in which general risks and vulnerabilities are identified, to a full Property Resilience Assessment (PRA) that identifies actionable risk mitigation measures.

We begin any review by leveraging leading climate modeling/hazard screening tools. However, the advantage lies in our diverse team of architectural and engineering professionals, which allows us to deliver holistic and cost-effective solutions tailored to each client and their respective assets. Resilience assessments are led by a qualified licensed professional, with field observers included who specialize in architectural, structural, MEP (mechanical, electrical, plumbing), fire/life safety, and/or building enclosure services, depending on the client's needs. The PRA professional can help real estate owners, investors, and tenants assess the hazard-related vulnerabilities of their properties and recommend resilience measures that reduce risk, increase safety, improve continuity of operations, address regulatory compliance, save on costs, and enhance property value.

The PRA process can be incorporated into any stage of your decision-making process:

- > Integration into a property condition assessment (PCA)
- > Natural hazards portfolio screening and prioritization
- > Regulatory compliance
- > Estimated costs of mitigation measures
- > Hardening construction—new and existing buildings
- > Retrofit and repairs
- > Project management

Related resilience and adaptation services include:

- > Pre-construction project design reviews
- > Construction management of mitigation implementation
- > Post-disaster assessments
- > Flood management reviews
- > Environmental, social and governance (ESG) reporting
- > Building life cycle analysis
- > Emergency management and business continuity planning