



Structural Engineering

Improving, maintaining and preserving your valuable assets.

Marx Okubo's Structural Engineering Group knows your real estate portfolio is a substantial investment, and growing its short- and long-term value means staying on top of the property's physical condition in order to properly improve, maintain and preserve it.

SERVICES ACROSS
THE LIFECYCLE

Owner's Representation
Property Condition Assessment
Project Management
Constructability Reviews
Repair & Reconstruction
Facility Condition Assessment
Construction Loan Monitoring

Accessibility
Building Enclosure
Fire Protection/Life Safety
Mechanical/Electrical/Plumbing
Sustainability & Resilience
• **Structural Engineering**
ASAP®



Marx Okubo understands buildings and where they are vulnerable.

We are realistic and sensitive to our clients' economic and operational issues and how those play into the upgrade or repair equation. As Marx Okubo is multidisciplinary and takes 360-degree approach, our experienced/credentialed Structural Engineering Group is already informed and trained to consider the bigger-picture—the industry and all disciplines involved, local economies and competition—in order to reduce your risk, maximize your investment and ensure nothing is missed. In the process, we are keenly aware and respectful of our industry's demand for accountability—to adhere to budgets and schedules with attention to detail.

Our specialized in-house group is staffed with licensed structural and civil engineers who have expertise in all aspects of analysis and design. We can evaluate a building's condition, diagnose causes of degradation or failure, conduct seismic assessments and develop strategies to renovate, repair or retrofit, as well as perform new construction services and resiliency studies.

KEY STRUCTURAL ENGINEERING SERVICES INCLUDE:

- > **Property Consulting**
 - Seismic evaluation
 - Seismic/wind risk assessment
 - Structural condition assessment
 - Seismic retrofit project review
 - Earthquake resiliency studies
 - USRC ratings
- > **Construction Services**
 - Structural repair/retrofit design
 - Seismic retrofit scheme development
 - Retrofit benefit-cost analysis
 - Structural preliminary project review
 - Structural value engineering review
 - Constructability studies
 - Peer review
 - Materials testing monitoring
- > **Forensic Investigation**
 - Building failure
 - Construction defects
 - Foundation settlement
 - Structural damage
 - Material deterioration
 - Moisture intrusion

Connect with a structural engineering specialist.



Palace Hotel Garage

San Francisco, California

CLIENT

Kyo-Ya Management Company, Ltd.

SERVICES

Seismic Retrofit

This almost 100-year-old structure required a seismic evaluation, schematic design and full retrofit, including an accessible bathroom, locker room and storage area, plus a new basement-parking ventilation system and design for an accessible path of travel. Following San Francisco Building and Planning Department guidelines, due to the historic nature of the hotel, Marx Okubo completed the retrofit design within a very short construction schedule while creating considerable cost and time savings over hiring separate design companies in a conventional design-bid-build project system.



Chelsea Shrewsbury

Shrewsbury, New Jersey

CLIENT

PGIM Real Estate


SERVICES

Owner's Representation,
Repair & Reconstruction,
Structural Engineering

Marx Okubo was engaged to provide structural services to the project, Chelsea Shrewsbury, a three-story, 85-unit senior living building constructed in 2018 when a retaining wall on the east side of the site, adjacent to an infiltration basin, appeared to be shifting. Our team was involved in evaluating a segmental retaining wall that had settlements and movements.

Our role was to review the current conditions and provide recommendations for monitoring and repairs to the wall (mostly non-destructive methods including underground pipe lining repairs and ground-penetrating radar/GPR). Our team used non-destructive and non-invasive repair/investigation/survey methods to evaluate and report on the wall and surroundings. To round out our work, we also used plumbing scoping investigation from GPRS Inc., pipelining repairs from Vortex Services, and ground penetrating radar (GPR) from Substrate Testing.

Ultimately, Marx Okubo's work on this project established a periodic monitoring program to closely monitor and report to ownership and management any movements at and around the wall area. In addition, our team has recommended cost effective, non-invasive repair methods avoiding disruption to the building occupants.



One Panorama Center

Irving, Texas

CLIENT

Prudential Real Estate Investors

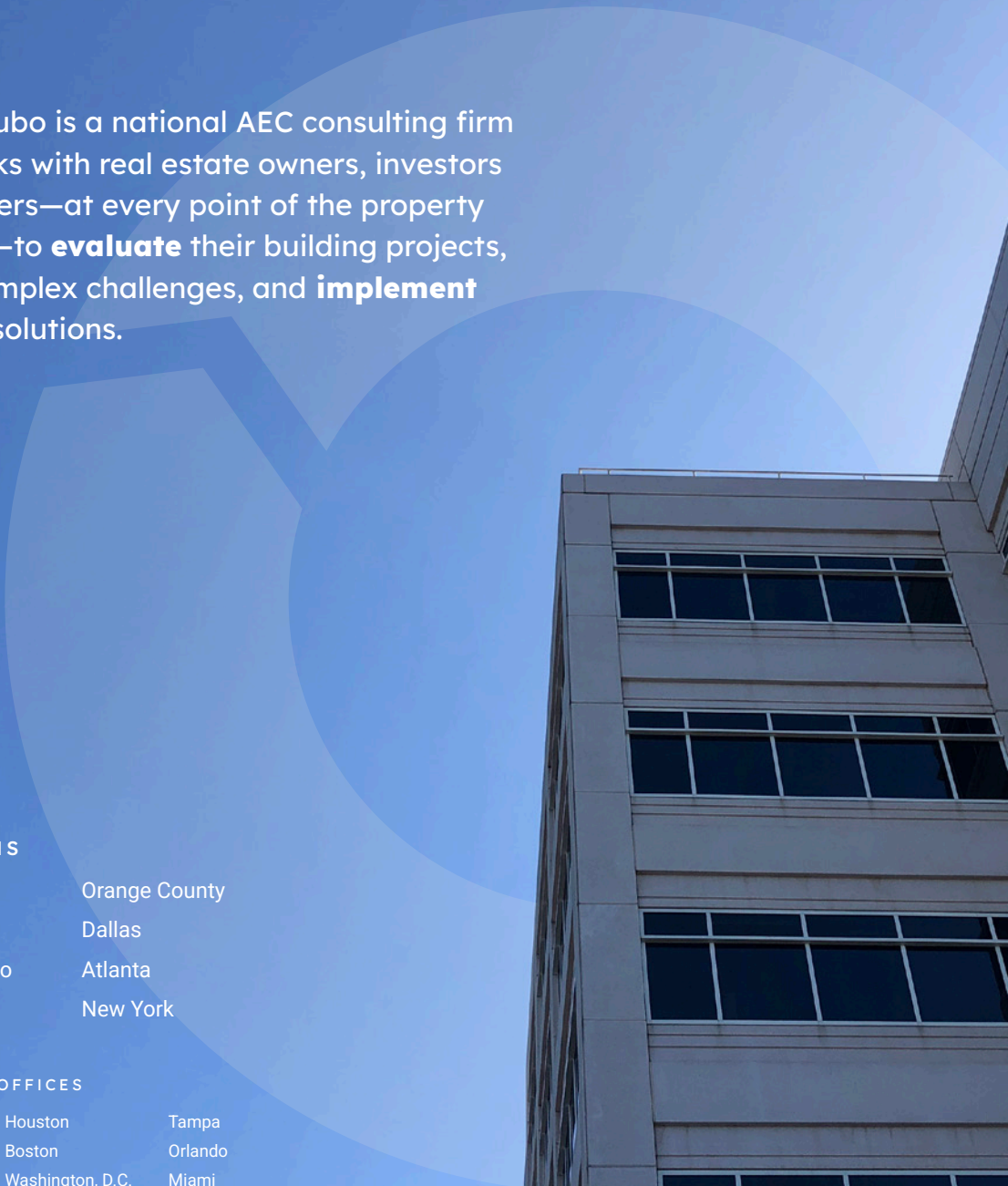
SERVICES

Repair & Reconstruction

Marx Okubo led a repair design and reconstruction effort on this recently constructed garage that had begun showing signs of unusual and excessive slab heaving and unevenness. Our investigation efforts led to an effective solution that involved slab demolition, base material remediation and doweled reconstruction, tying the new elements into the existing structure.

Our efficient work provided for a quick solution that restored the usability of this critical property resource. In addition, our involvement allowed the owner and managers to settle disputes and proceed confidently with property operations knowing that issues had been addressed.

🔴 Uncertainty **doesn't stand a chance.**



Marx Okubo is a national AEC consulting firm that works with real estate owners, investors and lenders—at every point of the property lifecycle—to **evaluate** their building projects, **solve** complex challenges, and **implement** tailored solutions.

LOCATIONS

Denver	Orange County
Seattle	Dallas
San Francisco	Atlanta
Pasadena	New York

SATELLITE OFFICES

Portland	Houston	Tampa
San Diego	Boston	Orlando
Phoenix	Washington, D.C.	Miami
Austin	Nashville	

MARX
OKUBO 

MARXOKUBO.COM