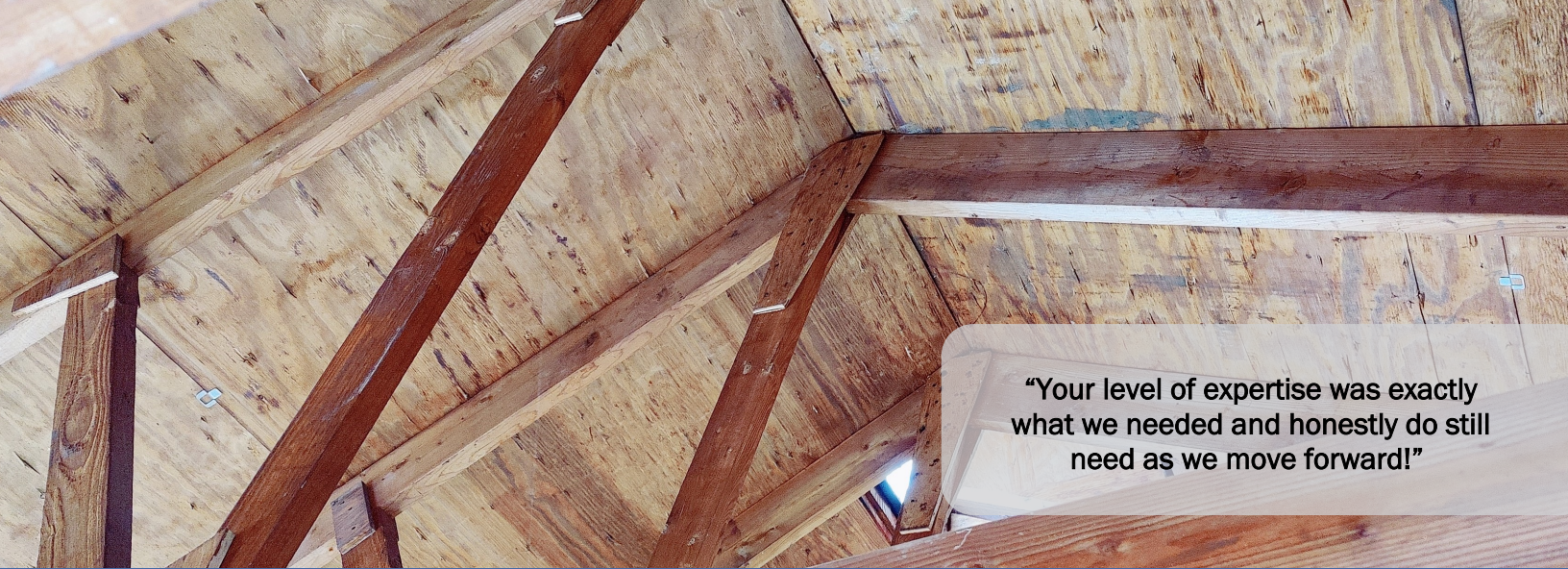


Structural Inspections



By professional engineers for evaluation
of residential, condominium and
commercial buildings





“Your level of expertise was exactly what we needed and honestly do still need as we move forward!”

Lockatong’s structural engineers are members of the National Academy of Building Inspection Engineers (NABIE), whose purpose is to lead and advance the integrity, value and understanding of the practice of professional engineering as it applies to inspection, investigation and consultation involving buildings and structures.

Residential: As licensed Professional Engineers, Lockatong Engineering has decades of experience in evaluating buildings and determining the cause and severity of structural issues observed during a home inspection or from a client’s personal experience and observations of the home. We provide a written report of our observations, an evaluation of the structural condition and recommendations for repair. If needed, we can complete a repair design and drawings for local permits or other engineering services.

Does your home have any of these conditions? Contact us to determine if you need a structural inspection.

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|---|-------------------------------------|
| Cracks in the foundation | Leaning or bowing foundation walls |
| Cracks in basement/attic wood framing | Sloping floors |
| Deflected wood framing members | Water intrusion |
| Cracks in the drywall ceiling and walls | Damage from wood-destroying insects |
| Concerns with your porch, deck or roof | Desire to remove or relocate walls |

Our structural inspections are based on visual observation of accessible areas on the day of the inspection. If conditions cannot be determined from a visual inspection, we will recommend an invasive inspection that could require opening walls or ceilings.

Commercial: Commercial buildings often need structural inspections when cracks, corrosion, deflection or water intrusion are observed. We can also evaluate the structure for modified needs of the tenant, evaluating floor loading or modifications desired to the structural members.

Post Disaster Structural And Safety: Local code officials, when performing post-disaster field inspections, usually err on the side of caution and post a building for “No Occupancy” fearing a life safety or structural defect from wind, water or earthquake. An inspection by a professional engineer can confirm if an unsafe condition exists and offer possible remedies or repair designs to bring the building back to occupiable condition. Better, we can sometimes find there are no significant problems and issue an opinion letter to be presented to the code official that will allow re-occupancy.

Repair Design and Construction Monitoring: Our engineers prepare design drawings for a repair or improvement along with detailed specifications and material selections. We also provide bidding documents, evaluate incoming bids and help finalize the bidding process. Once a contractor has been chosen, we are on the ground to conduct progress inspections to confirm the quality of workmanship and integrity of the site as well as to document that the project is executed according to the plans and design criteria are met before progress payments to the contractor can be approved.

Multi-Family Condominium/Townhouse: Structural inspections of condo buildings have become more important since the 2021 condominium collapse in Florida. The buildings haven't changed. Just the inevitable work of weather, water and time. Prudent association boards have recognized the need for a full **Structural Building Evaluation (SBE)** to periodically inspect the common structural elements of their buildings and plan adequate reserves.

A full SBE is performed to determine current building conditions to confirm, in reasonable fashion, that the building and structure are safe for continued use under present occupancy. An SBE is performed in accordance with *American Society of Civil Engineers Guidelines for Structural Condition Assessment of Existing Buildings (SEI/ASCE 11-99)*.

Our SBE site inspection includes all accessible areas (to the extent reasonably possible), any part, material or assembly of the building or structure which affects its safety and/or which supports any dead or designed live load. Current deficiencies are identified that pose a threat to life and safety, as well as those items that require repair or replacement.

An SBE incorporates an extensive visual inspection of the structural components of a building, balconies, and a sampling of individual units, reviewing all associated documents and available drawings. Our investigation focuses on structural soundness, condition of exterior walls, cracking, evidence of moisture penetration, and ground slope for proper drainage. Steel and/or concrete framing and column bases are inspected, along with building envelope, siding, trim, windows and doors. Masonry-bearing walls are inspected for random cracking or patterns of cracking, as well as bulging, sagging or other signs of misalignment. Steel bar joists are inspected for corrosion; wood joists and rafters for rot or sign of termites. Concrete beams, slabs, columns, and walls are inspected for any significant cracks, spalls, or corrosion of steel rebar and excessive movement.

SURFSIDE CONDOMINIUM TRAGEDY RESULTS IN STRICTER FANNIE MAE AND FREDDIE MAC REQUIREMENTS

The Surfside collapse cautioned industries and stakeholders on aging infrastructures and properties with critical deficiencies. The catastrophe made mortgage giants wary of loans tied to assets with significant safety issues. To maintain confidence, Fannie Mae and Freddie Mac took action by issuing new requirements for mortgages relating to condos and co-ops.

Freddie Mac Bulletin 2023-15 applies to residential mortgages sought for condo/co-ops with five or more attached units. It issues review requirements for projects in need of critical repairs (which are defined in the Bulletin) and projects with special assessments.

Fannie Mae's Lender Letter (SEL-2023-06) provides that they will no longer purchase loans secured by condo/co-op projects with significant deferred maintenance or that have received a directive to repair unsafe conditions. Significant deferred maintenance is defined as requiring a full or partial evacuation of the building for more than seven days or an unknown period to complete the repairs.





Lockatong Engineering

Licensed Professional Engineers

When it comes to real property – the land or the structures that sit on it, or both – it must efficiently serve all your needs while retaining its value as an asset throughout its use.

That's where quality structural, mechanical, electrical, life-safety and environmental investigations help you make better decisions. An experienced professional's evaluation can save you money now and prevent costly surprises in the future.

Along with property and building investigations, systems diagnostics and environmental evaluations, Lockatong Engineering specializes in design, project management and energy management services that build on the results of our professional investigations.

Whether you are looking to evaluate a property for its potential as an investment, to modify it for greater energy efficiency or otherwise better serve your needs, or to preserve and enhance its value now and going forward, Lockatong Engineering offers the services and expertise that make your task easier and your decisions more assured.

Conveniently located in Hunterdon County, New Jersey, Lockatong Engineering serves clients large and small throughout New Jersey, Pennsylvania and as far north and south as New York and Delaware.

With long-term relationships through the National Academy of Building Inspection Engineers, we partner to service clients throughout the United States.

Lockatong Engineering also provides these complementary professional services :

Property Condition Assessment (PCA) for a comprehensive evaluation of the current condition of the site and building systems and opinion of probable cost for a preliminary budget to remedy the physical deficiencies identified. All PCAs are performed in accordance with ASTM #2018-08 Standard Guide.

Reserve Study. Lockatong will provide a comprehensive evaluation of common areas, status of Association's capital reserve fund and capital cost reserve analysis.



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