CLM 2020 Focus: Cannabis, Environmental, Insurance Fraud,
Property, Subrogation, Claims & Litigation
November 4-5, 2020

Did you feel it? Construction Vibrations in your Property

Cause and Effect of Construction Vibrations

In urban environments, heavy construction is conducted near neighboring buildings and other structures. In such environments, construction-induced vibrations are one of the most claimed causes of adjacent building damage.

These vibrations are generated by various types of equipment ranging from pavement breakers all the way to pile driving. Such activities can generate short term vibrations or contribute to longer periods of increased vibration levels.

Construction vibrations may be a nuisance to residents but can sometimes contribute to property damage. Property owners experiencing construction-induced vibrations may file claims for nuisance or cosmetic/architectural and structural damages. Since the vibration threshold for nuisance is typically lower than the threshold to cause any damage, property owners may express concerns about vibrations that are not substantial enough to damage their property. During the COVID-19 era, more residents stay and work from home, giving a rise to construction-induced vibration claims.

Construction activities cause vibrations of various amplitudes and frequencies that propagate within the subsoils. Ground vibrations may be of sufficient magnitude to cause direct damage to structures. The magnitude of vibrations that causes damage varies with the type and the vibration response of the structure. Vibrations can also cause damage indirectly because they can cause densification of loose soils, resulting in differential settlement of building foundations.

Fortunately, many of these effects can be mitigated so that existing buildings are not adversely affected. If damage is claimed from construction, the above mechanisms can be investigated to demonstrate cause-and-effect. Adjustments can also become even more complex depending on

the claim submission by a first party or additional insured or a third party. It is imperative to know details for the policies of all parties.

First Party Claims

As a very important step in adjusting a claim, the alleged damage should be carefully identified. The adjuster should identify the specific cause of vibrations (e.g., blasting, pile driving, excavation, truck-traffic), and the asserted causal relationship. All documentation relating to the construction activities that could have caused or contributed to the damages should be requested. Such documentation may include permit applications, drawings, specifications, subcontracts, construction photographs and any daily vibration records.

It should be examined whether the Policy of the claim is based on "all risk" perils, subject to exclusion and limitations, terms, and conditions versus a "named peril" Policy. For the later policy, definitions of relevant terms as earth movement, negligence and knowledge of concurrent causation are salient.

The conditions at the loss location at the time of the loss should be determined as best as possible. Various data exist such as pre-construction surveys, photographs, videos, insured's statement of conditions. It is possible that there exist photos and comments of pre-existing damages and conditions that were also included in the insurance application. If the new conditions differ from the original conditions, it should be evaluated whether the pre-existing conditions were exacerbated or whether they constitute completely new damage.

The communications between the various parties are important. Did adjacent owners or contractors working their projects, pre-loss, advise of the impending construction and potential damage to the loss location? If so, what was discussed with the property owner? What allowances and precautions were undertaken pre-loss? Did the policyholder enter into any agreements with the owner or contractor relating to protecting the insured property, monitoring movement, or to provide access?

Did the insured provide documentation or "notice" to the contractor and/or adjacent owner of vibrations, potential damage, and a plan to respond to the same? After notice of the damages, did the contractor and/or adjacent owner make any comments – what were they?

Clearly, a property closer to the source of vibrations typically has higher chances to be affected by them. One should identify location of the property and proximity to construction. Be it a building in Manhattan or in the suburbs, these factors will also dictate the progression of investigation and valuation as well as, the type of insured – commercial or residential, multi-family or single-family dwelling are all factors.

If the loss is discovered during construction operations, consider installation of monitors for noise, vibrations, cracks and/or movement. If the loss is discovered post construction, when in relation to the policy period and was the same insurer(s) on risk or was there a change in insurers?

As the investigation is ongoing, there may be situations where an adjuster would need to consider use of experts, for example, architects, engineers, building consultants or counsel. During that time, a reservation of rights may be in order.

Third Party Claims

In third party claims, one should identify all involved contractors and their function. What were the contractors performing during the discovery of damages, and who had boots on the site at the time?

Sometimes, a condition observed can be caused by more than one party. One should investigate the potential for multiple parties to contribute to the claimed loss.

Is the third-party policy based on an occurrence or "claims made" Policy? Should all carriers for the general contractors over a period be noticed (especially with long ongoing projects as carriers may have changed)?

Some other additional considerations would be to obtain all contracts between owner, architect, structural engineer, geotechnical engineer, GC and subs, to obtain certificates of insurance and policies (if possible) for parties primarily responsible for the event and to examine any site- and project-specific intervening events.

Putting it all Together

Construction vibration claims are a common claim associated with construction activities either due to nuisance or due to architectural and structural damage. Claimed damages can be small such as cracks to the exterior of the adjacent building and shifting of doors/windows or much larger such as building settlement or collapse.

Hence, the legal obligations involved in large construction projects can be extensive, and therefore it is important to take action to prevent liability from damages. Depending on the claim submission by a first party, additional insured or a third party, the claim adjustment may be quite complex. In these cases, knowledge of all policies, all contracts, and all certificates of insurance of the parties involved is paramount. Communications advising about potential damage pre-loss are also critical.

When insurance claims arise, a detailed technical investigation of such claims is needed. In such case good documentation of the conditions after the claim and before the claim can assist significantly in final claim adjustment.