**Trees and their effects** 

on buildings and other structures

Trees play an essential role in making Sydney an attractive, healthy and sustainable city. They provide significant benefits by improving air quality, reducing stormwater runoff, lowering radiated heat from the road and improving the streetscape.

General Enquiries or after-hours assistance Tel: 9265 9333 (24 hours, seven days a week) Fax: 9265 9222 council@cityofsydney.nsw.gov.au cityofsydney.nsw.gov.au



Roots from large trees can sometimes damage buildings, but these are just one of many reasons a building may start to show signs of damage. It's important to have expert advice to establish the cause of a problem, who is responsible and how it can be resolved.

## Who is responsible for property and building maintenance?

The property owner is responsible for inspecting and maintaining all built structures on their land. The City inspects and repairs any damage to City-owned infrastructure within the streets and parks. We do not inspect private properties for signs of damage.

## What type of damage should I be concerned about?

It's common for old and new buildings to have fine cracks in cement rendering or plaster. These are known as settlement cracks and usually do not indicate a structural fault. They are not usually a cause for concern. Large or wide cracks (wider than 5mm) in the structural supporting walls of a building may indicate movement in the foundations of a building or other structural weakness. If you're concerned about these cracks you can engage a structural engineer to assess the damage and advise you of the likely cause. The engineer must base their assessment on evidence rather than theoretical assumptions.

### Is it common for trees roots to cause damage?

Trees can often cause minor damage to footpaths, street kerbs, paving and driveways, as these are relatively lightweight structures with minimal or no reinforcing. Tree roots can sometimes damage similar lightweight structures such as boundary walls if they are in direct contact with the footings of the wall. Tree roots rarely cause structural damage to buildings. This is because the footings of buildings are usually deep and substantial, and not easily moved or damaged by roots.

# on buildings and other structures



#### How can tree roots cause damage?

Tree roots require soil with adequate moisture and oxygen. A deep and uniform footing of a building will usually act as a natural barrier to roots. A building constructed with isolated piers may allow roots of trees to grow between the piers without any damage occurring.

A large tree will usually have large roots near the base of the trunk that provide the structural support the tree requires to stay upright. If these roots occur in a restricted space between the footing of a building and some other solid object (such as bedrock) it is possible for a root to cause movement in the foundation or footing of a building as it grows over time.

## What are the other possible causes of damage?

There are many possible causes of property damage. Many older properties show cracks and signs of damage due to the construction techniques and materials used at the time they were built. Clay soils can expand and contract in reaction to the amount of moisture in the soil. This is known as having reactive clay foundations. Inadequate compaction during construction or excess moisture in foundation soils can also cause subsidence and movement in buildings.

## How can I prevent tree root damage to my building?

The best way to prevent root damage to new buildings or other structures is to ensure they are built to the relevant industry code. If you are building close to existing trees, the standard design and construction methods may need to be altered to account for this. Older properties may have leaking or disconnected stormwater pipes that allow excess water to flood the soil close to a building. This can cause subsidence and may also encourage tree roots to grow in that area. Fixing these types of problems can prevent future damage occurring.

#### I think damage to my property is caused by a tree on council land, what do I do?

If the damage concerns you, seek advice from a suitably qualified person to assess the damage and the likely cause. If council-owned trees have caused the damage, you may be able to claim for the cost of the repairs.

Steps to take in making a claim:

- Investigate the damage and document the reasons or evidence that clearly show why you believe the councilowned tree is the cause of the damage. This may involve excavating within your property to locate and photograph roots and their proximity to the building or structure.
- 2. If the investigation or repair works require an excavation on a council road or footpath, you will need to obtain a road-opening permit from the City of Sydney.
- Obtain at least two written quotations for any necessary repairs you wish to undertake.
- 4. If the investigations reveal the damage has been caused by council-owned trees you can contact us about claiming the cost of repairs. Include the above information in your claim and address it to our Risk Management Unit. We will assess liability and determine whether we can assist you with the repair costs.

5. If you intend to make a formal claim, it's important to allow an appropriate City officer to inspect the damage before undertaking any repair works. While on-site, the officer will take photos to keep on record. We may engage a consultant structural engineer to assist in this assessment.

This approach is required for insurance and governance purposes. It's important you have clear evidence for any insurance claim.