



#### Trial Hole 1

A trial hole was excavated adjacent to the front elevation within the light well and that revealed a shallow stepped brick footing with the underside 400 mm below ground level seated on brown fine to medium gravely slightly sandy silty clay.

A trial hole extended by hand auger revealed this material to continue to a depth of 2900mm below ground level where the trial hole terminated.

#### Laboratory Analysis

Analysis of soil samples taken from Trial Hole 1 revealed clay of very high plasticity that would be subject to volumetric change with changes in moisture content. The clay was not found to be desiccated below the foundation level.

Roots found within the trial hole were identified as predominantly from the silver birch tree although some shrub roots were also identified.

#### Trial Hole 2

A trial hole was excavated adjacent to the return wall of the front steps and that revealed a shallow single step brick footing with the underside 200 mm below ground level seated on brown fine to coarse gravely slightly sandy silty clay.

A trial hole extended by hand auger revealed this material to continue to a depth of 800mm below ground level where brown fine to medium gravely slightly sandy silty clay was noted to a depth of 3200 mm where the trial hole was terminated.

#### Laboratory Analysis

Analysis of soil samples taken from Trial Hole 2 revealed clay of very high plasticity that would be subject to volumetric change with changes in moisture content.

The clay was not found to be desiccated below the foundation level.

Roots found within the trial hole were identified as from the silver birch tree.

#### Conclusion

Based on the above findings, we believe that the property has suffered an incident of Subsidence due to tree root induced clay shrinkage.  
The Silver Birch tree is implicated in causation of damage.

Next Steps

We will instruct an Arboriculturist to inspect and report on mitigation works required.

We trust the above and enclosed is of assistance. In the meantime, should you have any queries, please do not hesitate to contact our office.