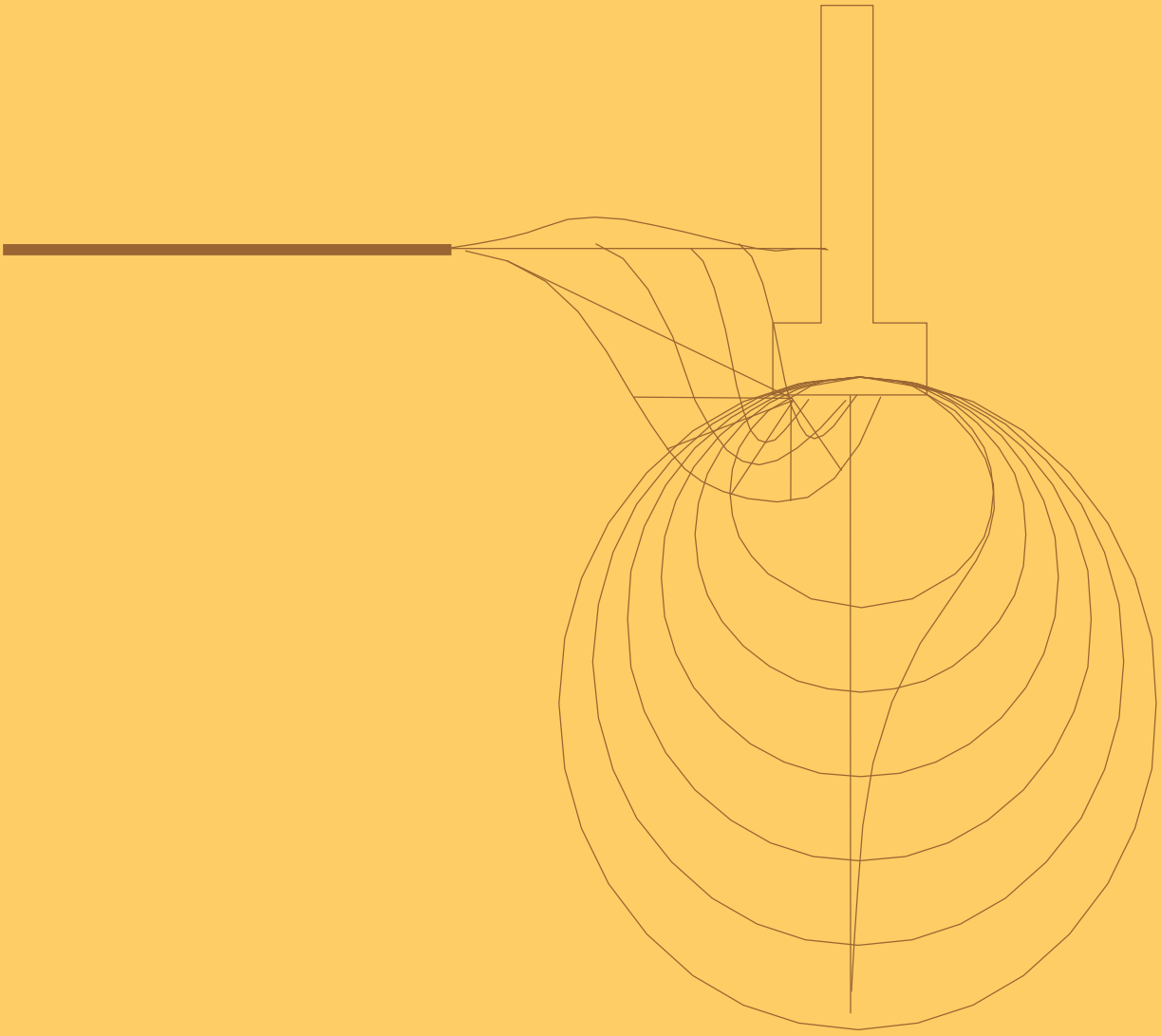
The Clay Research Group

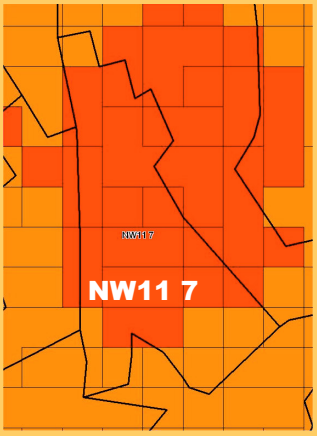


Data Sheet – NW11 7

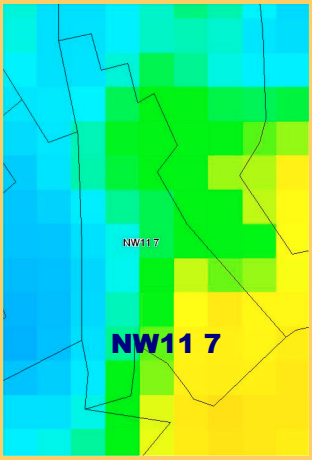
Barnet Study Area – NW11 7

January 2007.

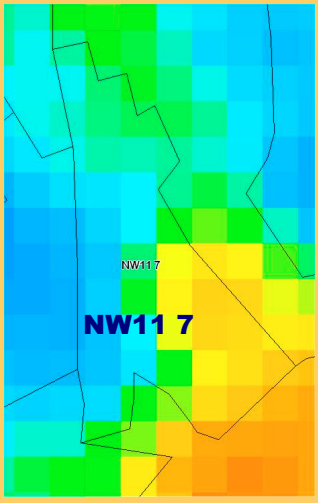
Mapping NW11 7



The geology using our digital series in a 250m tiled grid. 80% of the sector (red) represents the highly shrinkable clays with a P.I. exceeding 40%.



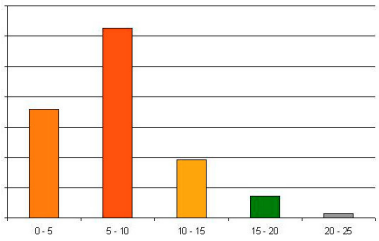
Private trees, within influencing distance of a property on London Clay plotted thematically by height. Blue areas show the shorter trees, green intermediate and red represents the taller trees. We have taken averages from the themed cell size to produce this high level image.



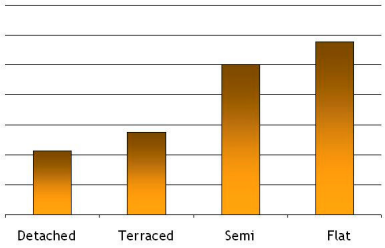
Public trees, within influencing distance of a property on London Clay plotted thematically by height.

Study of a High Risk Sector - NW11 7

Mid-point between Hendon and Hampstead, in the Borough of Barnet, NW11 7 is one of the highest risk sectors for root induced clay shrinkage. There are slightly more than 2,600 domestic properties in the sector which is on highly shrinkable London clay with an average PI of 51%.



Trees in Height Bands



Property Stock

Above we have plotted all trees within influencing distance of a property on London clay in 5m interval height bands, including both private and public.

Count of Trees	6308
Private Ownership (No.)	5562
Public Ownership (No.)	746
Private Ownership	88.2%
Public Ownership	11.8%
Average Height	7.5mtrs
Trees per house (see below)	3

NOTE : this sample only includes those trees with a root zone that might be within influencing distance of a property on London clay.

If we assume that insurers receive 35,000 claims p.a. (the actual count varies by year and the figure doesn't materially change the outcome) and if half are valid = 17,500. Add something for event years and round up to 20,000 to make the sums easy means that 60,000 valid claim records equates to 3 years of claims.

This delivers a frequency value, over time, of 0.226. To put this clearly, insurers will probably receive claims on at least 23% of the properties at risk over the next 30 years, ignoring climate warming and ongoing tree management.

If we do some very crude 'finger in the air' modelling taking account of increasing temperatures the figure is going to be nearer 30 - 35% on the basis that event years might have a 5 year return period now, but these will become more frequent.

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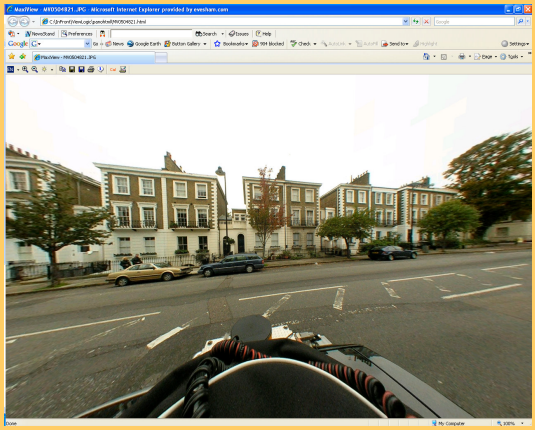
Barnet Study Area – NW11

January 2007.

ViewLogic

One of our research sponsors is taking pictures of every street, assisting Local Authorities to identify their assets within a GIS environment.



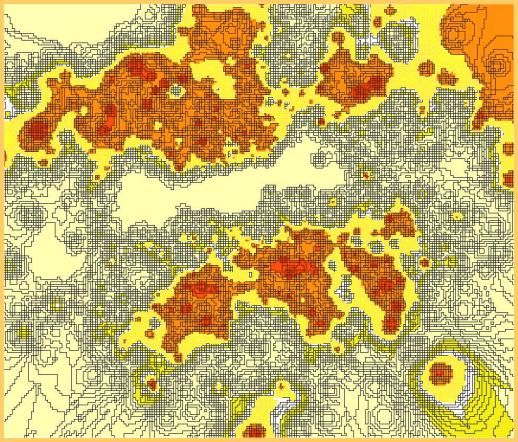
From their desk, users can see where the trees are, note their species, measure their height and plot their exact location on any accurate mapping system.

This makes claims handling triage easy. Receive a claim, look at the site whilst having a conversation with the insured.

Identify access, building style, height etc., and Councils can note the location of the street furniture.

We are building triage systems for InFront Solutions Limited that take advantage of our unique geology maps (see below), claims history, tree locators and adding the ability to view the site.

Remote sensing is increasingly adding value to the claims process across a variety of perils, and the ViewLogic images make a significant contribution.

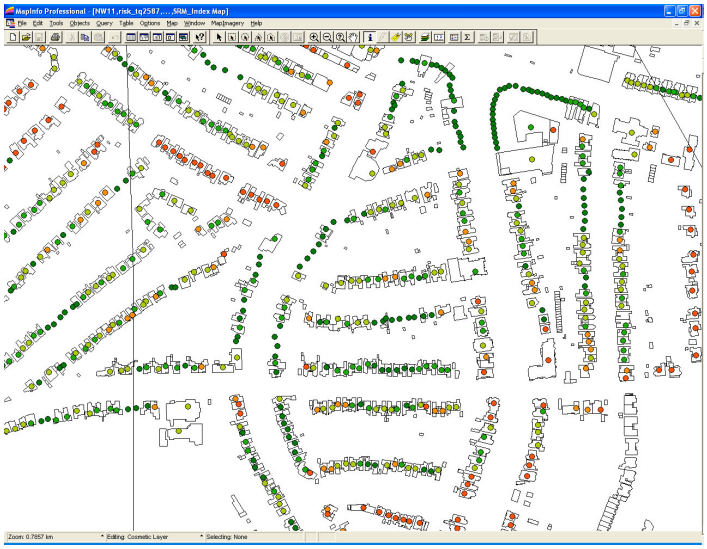


NW11 7

Over the last 10 years the Council have removed 63 pavement trees in this 1 x 1km grid of NW11. The felled trees are dotted in blue.

Addressology have mapped the trees – their location, height and notional root zone – for every property within the M25.

They have superimposed this map onto their own geological grid to further refine their understanding and undertaken a wide-ranging audit comparing risk against claims history.



The OS Master Map series and Address Point give the building outlines and the address. The elevation and location data is all digital. By flying LiDAR Addressology have the most comprehensive topographic coverage of the London Boroughs available.