



TREE PRESERVATION ORDER: TPO C41-T5 confirmed 17/01/72 (153 Gloucester Road, NW1 8LA)

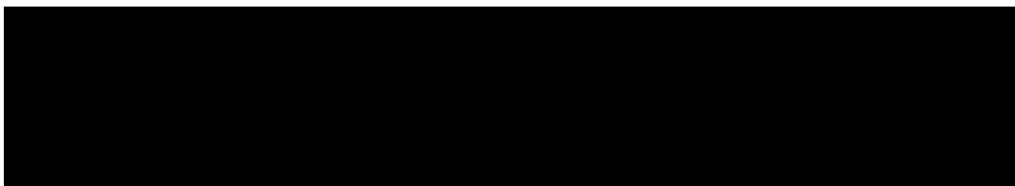
TREE T1 London Plane of MWA Arboricultural Report

Works – Pollard - pruning back to previous pruning points.

Reason: The above tree is considered to be responsible for root induced clay shrinkage subsidence damage to 151 Gloucester Avenue, London, NW1 8LA

Investigations in to the damage have been conducted and the following information/evidence obtained:

1. Engineering opinion is that damage is due to clay shrinkage subsidence. Details of the damage are included in the Crawford Technical report submitted.
2. Foundations are bearing on to clay.
3. The clay subsoil has a medium to high volume change potential (NHBC Guidelines).
4. A comparison between moisture content and the plastic and liquid limits suggests moisture depletion in TP/BH2 (November 2019).
5. Roots were observed to a depth of 1.6m bgl in BH1 and to a depth of 3.1m in BH2 and recovered samples have been positively identified (using anatomical analysis) as *Platanus* spp. the origin of which will be the protected plane confirming its influence on the soils below the foundations.
6. The observed moisture depletion is coincident with recorded root activity at depths beyond ambient soil drying effects and entirely consistent with the soil drying effects of the implicated tree.
7. Level monitoring for the period 10.07.19 to 04.11.20 has recorded building movement to the rear left consistent with volumetric change of the clay below foundation level and reduction of T1 is concluded to be proportionate as opposed to removal as originally recommended.
8. A drainage investigation has not been undertaken as the drainage is remote from the area of current damage and trial pit/ borehole investigations did not reveal any suggestion that leakage from drainage is adversely affecting the property. Drains can be further discounted by reference to the level monitoring data.
9. S1 of MWA Arboricultural Report was removed in August 2020.
10. The property was the subject of previous subsidence damage around 2008/9. A limited scheme of localised underpinning was completed to the rear of the property at that time.





11. The evidence confirms that on the balance of probabilities the subject tree is a material cause of subsidence damage.
12. Superstructure repairs and decorations are currently estimated to be [REDACTED] should the tree works be undertaken. Costs for underpinning in the event the tree works do not proceed are currently estimated to be [REDACTED]
13. The spec has been slightly amended from our previous application (2021/1662/). The amendment is to re-pollard to up to 50cms below previous pruning points in order to afford more weight to the branch-ends removed, enabling them to be safely rigged and lowered to ground in a controlled manner.

SUBSIDENCE CHECK LIST

- A description of the property, including a description of the damage and the crack pattern, the date that the damage first occurred/was noted, details of any previous underpinning or building work, the geological strata for the site identified from the geological map.
Technical Report and Site Investigation Report provided
- Details of vegetation in the vicinity and its management since discovery of the damage. Include a plan showing the vegetation and affected building.
MWA Arboricultural Report provided
- Measurement of the extent and distribution of vertical movement using level monitoring. Where level monitoring is not possible, state why and provide crack monitoring data. Data provided must be sufficient to show a pattern of movement consistent with the presence of the implicated tree(s)
Level Monitoring provided
- A profile of a trial/bore hole dug to identify foundation type and depth and soil characteristics.
Site Investigation Report provided
- The sub-soil characteristics including soil type (particularly that on which the foundations rest), liquid limit, plastic limit and plasticity index
Site Investigation Report provided
- The location and identification of roots found. Where identification is inconclusive, DNA testing should be carried out.
Site Investigation Report provided
- Proposals and estimated costs of options to repair the damage.
Addendum Technical Report provided

