

Arboricultural Consultancy for Smithers Purslow

Whilst the drainage survey did identify defects within the drainage system, we understand that these are not considered, by Engineers, to be the principal cause of the observed damage.

Atterberg tests demonstrate that the load bearing capacity of the soil has not been compromised by excessive water content due to leaking drains and is therefore capable of bearing the imposed load.

Moisture depletion at the depths identified is beyond the maximum depth of ambient soil drying and commensurate with root activity.

The footings of the subject property are within the normally accepted influencing distance of vegetation on site and roots have also been recovered below the property.

Samples of these roots were recovered from underside of foundations and throughout the borehole, these roots were identified (using anatomical analysis) as having features similar in some ways to the family Salicaceae spp. (Willows)

Given the above, vegetation is deemed to retain the capacity to be causal to the current movement / damage.

We have therefore been instructed to advise on the causal vegetation and to deliver management proposals which will provide on-going and long-term stability allowing repairs to be undertaken.

In assessing the potential drying influence of the vegetation on site, we have considered, in addition to the above, species profile, normally accepted influencing distance and the position of vegetation relative to the observed damage.

Our survey of the site identified the Willow (T1), given its position relative to the damage and the absence of any plausible alternative, it is our opinion that the roots identified in TH1 will, on balance of probability, emanate from this tree and accordingly we have identified it as the principal cause of the subsidence damage.

However, whilst not positively implicated by root analysis, the Beech (T2) cannot be discounted as contributing to the overall level of soil drying proximate to the area of damage and is therefore also considered to retain a contributory influence, albeit in a limited / secondary capacity when compared to T1.

The size and proximity of the above vegetation is consistent with the location of damage; accordingly, we have identified their collective / cohesive influence as the primary cause of the subsidence damage.

Given the above and considering the advised mechanism of movement, in order to mitigate the current damage thereby allowing soils beneath the property to recover to a position such that an effective engineering repair solution can be implemented, we recommend a program of vegetation management as detailed by this report.

Please refer to Section 6 for management prescriptions.

The recommendations contained within this report are prescribed to give the most reliable arboricultural solution likely to restore long-term stability.

Whilst we have given consideration to pruning as a means of mitigating the vegetative influence of the above, this has been discounted; pruning is generally ineffective and in the context of the current claim we consider the above vegetation too large and close for pruning to be viable.

Consequently, complete removal of T1 & T2 will offer the most certain arboricultural solution likely to restore long-term stability.

We recommend the efficacy of the management recommendations be qualified by means of further monitoring to confirm stability.

Please note that the footing of the insured property fall within the anticipated rooting distance of additional vegetation which we believe presents a foreseeable risk of future damage and accordingly we have made recommendations in respect of this.

The extent / impact of vegetation management required to restore and maintain long-term stability at this property is acknowledged.

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However, we consider the impact on the wider public amenity from the proposed tree works is mitigated by the presence of further trees and the scope for replacement planting.

Whilst replacement planting is considered appropriate, due consideration must be given to the ultimate size of the replacement and future management requirements. Species selection should be appropriate for the chosen site and ultimate tree height should not exceed 75% of the available distance to built structures.

Is vegetation likely to be a contributory factor in the current damage?	Yes
Is vegetation management likely to contribute to the future stability of the property?	Yes
Is replacement planting considered appropriate?	See above
Does the potential of ground heave need to be assessed by Consulting Engineers before management recommendations are implemented?	No
Will implementation of the management recommendations result in significant amenity loss?	See above
Would DNA profiling be of assistance in this case?	No

6.0 Recommendations

6.1 Current Claim Requirements

These recommendations may be subject to review following additional site investigations.

Tree No.	Species	Age Cat	Approx. Height (m)	Distance to Building (m) *	Ownership	Action	Requirement
T1	Willow (Weeping)	2	16.8	12.4	C - Insured	Remove	Remove close to ground level and treat stump to inhibit regrowth.
T2	Beech (Copper/Purple)	1	14.5	9.8	C - Insured	Remove	Remove close to ground level and treat stump to inhibit regrowth.
Age Cat: 1 = Younger than property; 2 = Similar age to the property; 3 = Significantly older than property							

* Estimated

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6.2 Future Risk Recommendations

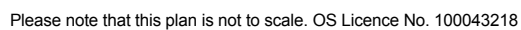
These recommendations may be subject to review following additional site investigations.

Tree No.	Species	Age Cat	Approx. Height (m)	Distance to Building (m) *	Ownership	Action	Requirement
C1	Star Jasmine	1	3.3	0	C - Insured	Action to avoid future risk	Subject to regular management; maintain at current dimensions by way of regular pruning.
CG1	Mixed species climbers: includes Bamboo, Clematis, Lonicera and Vitis.	1	3.4	1	A - Third Party	Action to avoid future risk	Maintain at broadly current dimensions by way of regular pruning.
H1	Cotoneaster	1	2.2	0.6	E - Boundary Veg (ownership to be confirmed)	Action to avoid future risk	Subject to regular management; maintain at current dimensions by way of regular pruning.
SG1	Mixed species shrubs: Camelia and Star Jasmine (located in raised planter but base unknown).	1	3.7	2	C - Insured	No action	No works.
SG2	Mixed species shrubs: Buxus & Holly.	1	5.8	1.2	A - Third Party	Action to avoid future risk	Maintain at current dimensions by way of regular pruning.
SG3	Mixed species shrubs	1	1.6	2.9	C - Insured	Action to avoid future risk	Maintain at broadly current dimensions by way of regular pruning.
T3	Pear	2	5.1	3.2	C - Insured	Action to avoid future risk	Subject to regular management; maintain at current dimensions by way of regular pruning.
T4	Plane (London)	1	7.2	6.4	B - Local Authority	Action to avoid future risk	Recently pollarded: maintain at reduced dimensions by re-pruning back to points of previous reduction on a 3 year cycle.
T5	Birch (Silver)	1	13	8.2	B - Local Authority	Action to avoid future risk	Do not allow to exceed current dimensions by way of regular pruning.
TG1	Mixed Species Group	2	18.5	15.8	C - Insured	Action to avoid future risk	Crown reduce overall canopy of Ash by 30% (minimum) to achieve a crown volume reduction in line with BRE IP7/06. Maintain at reduced dimensions by re-pruning back to points of previous reduction on a strict 2-3 year cycle. Maintain Horse Chestnut at broadly current dimensions by way of regular pruning.

Age Cat: 1 = Younger than property; 2 = Similar age to the property; 3 = Significantly older than property

* Estimated

Third party property addresses should be treated as indicative only, should precise detail be required then Environmental Services can undertake Land Registry Searches



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8. Photographs



T3 - Pear



SG2 - Mixed species group



H1 - Cotoneaster



C1 - Jasmine

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T4 - Plane (London)



T5 - Birch (Silver)



SG3 - Mixed species shrubs



T1 - Willow (Weeping)

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T2 - Beech (CopperPurple)



Insured Garden - Back



T1 - Willow (Weeping)



TG1 - Mixed species group

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TG1 - Mixed species group



CG1 - Mixed species group



SG1 - Mixed species shrubs

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Date: 05/07/2022

Property: 15 Stanhope Gardens, London, N6 5TT

9. Tree Works Reserve - Does not include recommendations for future risk.

Insured Property Tree Works	£3750.00
Third Party Tree Works	£0.00
Provisional Sum	£0.00

- The above prices are based on works being performed as separate operations.
- The above is a reserve estimate only.
- Ownerships are assumed to be correct and as per Section 6.
- A fixed charge is made for Tree Preservation Order/Conservation Area searches unless charged by the Local Authority in which case it is cost plus 25%.
- Should tree works be prevented due to statutory protection then we will automatically proceed to seek consent for the works and Appeal to the Secretary of State if appropriate.
- All prices will be subject to V.A.T., which will be charged at the rate applying when the invoice is raised.
- Stump removal is not included within the above price, and would be an additional charge if required. Where this is requested please note that responsibility cannot be accepted for damage to underground services unless these are identified prior to the works being undertaken.
- Where chemical application is made to stumps it cannot always be guaranteed that this will prevent future regrowth. Should this occur we would be pleased to provide advice to the insured on the best course of action available to them at that time. Where there is a risk to other trees of the same species due to root fusion, chemical control may not be appropriate.

10. Limitations

This report is intended as a preliminary appraisal of vegetation influence on the property and assumes that engineers suspect or have confirmed that vegetation is contributing to clay shrinkage subsidence, which is impacting upon the building. Recommendations for remedial tree works and future management are made to meet the primary objective of assisting in the restoration of stability to the property. In achieving this, it should be appreciated that recommendations may in some cases be contrary to best Arboricultural practice for tree pruning/management and is a necessary compromise between competing objectives.

Any connection between the structural damage to the property and trees will require the clear identification of shrinkable clay soils below foundation depths. Following tree works we recommended that the building be monitored to establish the effectiveness of the works. Should sufficient stability not be achieved this may be indicative of the fact that an Arboricultural solution is not possible in isolation.

The influence of trees on soils and building is dynamic and vegetation in close proximity to vulnerable structure should be inspected annually.

The statutory tree protection status as notified by the Local Authority was correct at the time of reporting. It should be noted however that this may be subject to change and we therefore advise that further checks with the Local Authority MUST be carried out prior to implementation of any tree works. Failure to do so can result in fines in excess of £20,000.

Our flagging of a possible recovery action is based on a broad approach that assume all third parties with vegetation contributing to the current claim have the potential for a recovery action (including domestic third parties). This way opportunities do not "fall through the net"; it is understood that domestic third parties with no prior knowledge may be difficult to recover against but that decision will be fully determined by the client.

A legal Duty of Care requires that all works specified in this report should be performed by qualified, arboricultural contractors who have been competency tested to determine their suitability for such works in line with Health & Safety Executive Guidelines. Additionally all works should be carried out according to British Standard 3998:2010 "Tree Work. Recommendations".