Arboricultural Appraisal Report

Subsidence Damage Investigation at:

9 Willoughby Road
London
NW3 1RT

CLIENT:	Crawford & Company
[redacted]	
MWA CONSULTANT:	Steve Swinburne
REPORT DATE:	02/12/2019

SUMMARY

Statutory Controls			Mitigation (Current claim tree works)	
TPO current claim	No		Policy Holder	Yes
TPO future risk	Yes		Domestic 3rd Party	No
Cons. Area	Yes		Local Authority	No
Trusts schemes	No		Other	No
Local Authority: -	London Borough of Camden			

[redacted]

Introduction

Acting on instructions from Crawford & Company, the insured property was visited on 24/11/2019 to assess the potential role of vegetation in respect of subsidence damage.

We are instructed to provide opinion on whether moisture abstraction by vegetation is a causal factor in the damage to the property and give recommendations on what vegetation management, if any, may be carried out with a view to restoring stability to the property. The scope of our assessment includes opinion relating to mitigation of future risk. Vegetation not recorded is considered not to be significant to the current damage or pose a significant risk in the foreseeable future.

This is an initial appraisal report and recommendations are made with reference to the technical reports and information currently available and may be subject to review upon receipt of additional site investigation data, monitoring, engineering opinion or other information.

This report does not include a detailed assessment of tree condition or safety. Where indications of poor condition or health in accessible trees are observed, this will be indicated within the report. Assessment of the condition and safety of third-party trees is excluded and third-party owners are advised to seek their own advice on tree health and stability of trees under their control.

Property Description

The property comprises a 4-storey, end of terrace house built circa 1900. The property has been converted into four, self-contained flats. External areas comprise gardens to the front and left-hand side of the property.

The site is generally level with no adverse topographical features.

Damage Description & History

Damage relates to the front bay window where cracking indicates downward movement and the right-hand party wall of the insured dwelling and was initially noted in September 2019.

For a more detailed synopsis of the damage please refer to the building surveyor's technical report.

At the time of the engineer's inspection (04/11/2019) the structural significance of the damage was found to fall within Category 3 (moderate) of Table 1 of BRE Digest 251.

We have not been made aware of any previous claims.

Geology / Soils

The online 1:50 000 scale British Geological Survey map records the bedrock geology as Claygate Member which comprises dark grey clays passing up into thin alternations of clays, silts and fine-grained sand. Superficial deposits are recorded as Alluvium which is a general term for clay, silt, sand and gravel

Discussion

Opinion and recommendations are made on the understanding that Crawford & Company are satisfied that the current building movement and the associated damage is the result of clay shrinkage subsidence and that other possible causal factors have been discounted.

Published soil maps indicate the underlying soils include or are likely to include a clay component susceptible to undergoing volumetric change with changes in soil moisture. Moisture abstraction by vegetation has the potential to cause soil shrinkage and consequent subsidence of the building.

Our survey has identified vegetation within influencing distance of the building with a current potential to influence soil volumes below foundation level.

The vegetation considered to be most significant in relation to the current damage is T1.

Based on the information currently available, engineering opinion and our own site assessment we conclude the damage appears consistent with shrinkage of the clay fraction due to the soil drying effects of vegetation.

If an arboricultural solution is to be implemented to mitigate the influence of the tree considered to be responsible for the damage we recommend that T1 is removed. Other vegetation recorded presents a potential future risk to building stability and management is therefore recommended.

Consideration has been given to pruning alone as a means of mitigating the vegetative influence, however in this case, this is not considered to offer a viable long-term solution due to the proximity of the responsible vegetation.

Recommended tree works may be subject to change upon receipt of additional information.

Conclusions

- Conditions necessary for clay shrinkage subsidence to occur related to moisture abstraction by vegetation have been confirmed by reference to published soil maps.
- Engineering opinion is that the damage is related to clay shrinkage subsidence.
- There is significant vegetation present with the potential to influence soil moisture and volumes below foundation level.

[redacted]

Table 1 **Current Claim** - Tree Details & Recommendations

Tree No.	Species	Ht (m)	Dia (mm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership
T1	Ash	16*	650*	12*	2.5	Younger than Property	Policyholder
Management history		No recent management noted.					
Recommendation		Remove (fell) to near ground level and treat stump to inhibit regrowth.					

Ms: multi-stemmed * Estimated value

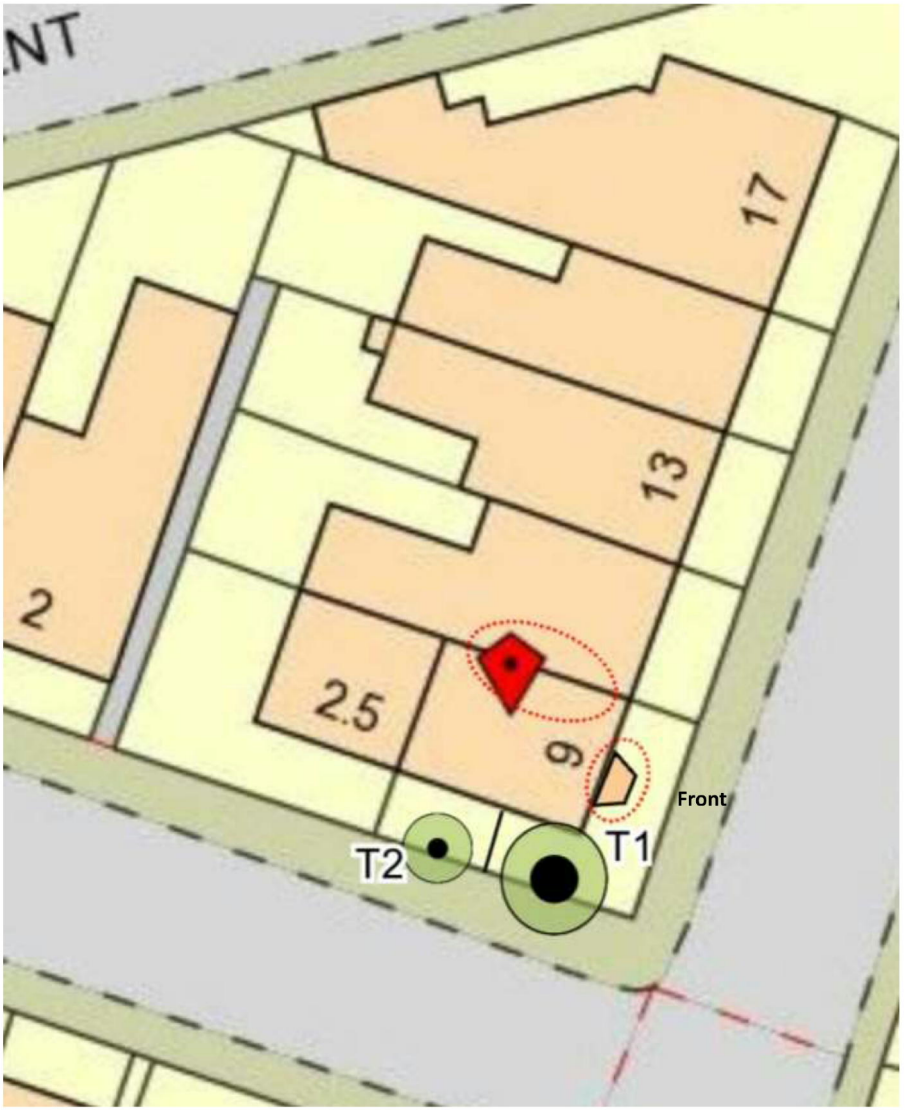
Table 2 **Future Risk** - Tree Details & Recommendations

Tree No.	Species	Ht (m)	Dia (mm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership
T2	Birch	7.5	300	9	4.5	Younger than Property	Policyholder
Management history		No recent management noted.					
Recommendation		Reduce height by 2m and crown radius by 1m leaving balanced crown. Prune on a triennial cycle to maintain at broadly reduced dimensions.					

Ms: multi-stemmed * Estimated value

[redacted]

Site Plan



Plan not to scale – indicative only

Approximate areas of damage

[redacted]

Images

View of T2 and T1

Alternative view of T1 and T2

[redacted]