

# Arboricultural Appraisal Report

## Subsidence Damage Investigation at:

55 Shirlock Road  
London  
NW3 2HR



CLIENT:	Crawford & Company
CLIENT REF:	SU1203736
POLICYHOLDER:	Mr Martin Jourdan
MWA REF:	NW140912.01DW
MWA CONSULTANT:	David Williams (N.D.Arb MArborA)
REPORT DATE:	01 October 2012

## SUMMARY

Statutory Controls			Mitigation	
TPO	Yes	T1	Insured	Yes
Cons. Area	C/A		3 <sup>rd</sup> Party	Yes
Trusts schemes	No		Local Authority	Yes
Planning	No		Other	No
Local Authority: - London Borough of Camden				

## Introduction

Acting on instructions received from Crawford and Company, the insured property was visited on 20 September 2012 for the purpose of assessing the potential role of vegetation in respect of clay-shrinkage 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.

Recommendations are given 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 three storey semi-detached house dating back to c1890 with a two storey front bay window and original two storey rear projection. A conservatory has been added at the rear right-hand corner.

Externally, there is a shallow open front garden area and to the rear an enclosed garden area/court yard.

## Damage Description & History

There are two separate areas of current damage summarised below:

1. Front – internal cracking to bay and internal spine wall; external cracking at junction of bay and front elevation.
2. Main house – internal cracking at party wall on ground, first and second floors. Internal cracking rear bedroom. Some internal cracking/separation to rear elevation and junction of conservatory and rear projection.

At the time of the engineers' inspection during September 2012 the structural significance of the damage was found to fall within Category 2 (slight) of BRE Digest 251.

## Soils

Underlying substrata is assumed to be London CLAY as indicated by the 1:625000 British Geological Survey map OS Tile Number TQNW. The upper horizons are typically found at shallow depths and high shrinkage/swell potential is expected.

## Monitoring

Crack monitoring is in progress.

## 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.

The movement affecting the front of the property is to the two storey bay and possibly movement of the front elevation as indicated by internal cracking to the spine wall between the hallway and front reception room which suggests that a larger tree is involved with a wider and deeper soil drying influence.

In our opinion, the local authority owned Birch tree, T8, is likely to be the dominant cause of the current damage at the front. However, we cannot rule out some secondary drying influence from the policyholders Magnolia, T7, based on its size and proximity to the bay window and front elevation.

The movement affecting the rear projection appears to principally involve downward movement of the rear projection en masse as indicated by internal cracking along the party wall. However, localised damage to the rear bedroom and conservatory has also been recorded.

With reference to the movement at the rear, it is our opinion that the drying influence of third party owned trees, T1-T3 inclusive is likely to be the dominant cause of the current damage based on their size and proximity to the focal area of building movement. The influence of the policyholders Magnolia, T6, is considered to be very much secondary to that of the Lime trees.

Based on the technical reports currently available, engineering opinion and our own site assessment we conclude the damage is indicative of shrinkage of the clay subsoil related to moisture abstraction by vegetation.

With respect to the local authority street tree, the council will require evidence of roots below the foundations to substantiate the trees involvement in the damage.

### Conclusions

- 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.
- Removal of current claim trees is recommended together with future management of retained vegetation.
- Further investigations may be necessary if a s211 notification results in TPO's being served on the third party trees. In addition, the council may demand further site investigations in respect of the role of their owned street tree, T8.

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

Tree No.	Species	Ht (m)	Dia (cm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership
T1	Lime	15.0*	M/S Av45	12.0*	5.0	Younger than property	3 <sup>rd</sup> Party:- 91 Savernake Road
Recommendation		Remove and treat stump to inhibit regrowth					
T2	Lime	15.0*	50	12.0*	1.8-5.0	Younger than property	3 <sup>rd</sup> Party:- 89 Savernake Road
Recommendation		Remove and treat stump to inhibit regrowth					
T3	Lime	12.0*	28	5.0*	1.7	Younger than property	3 <sup>rd</sup> Party:- 89 Savernake Road
Recommendation		Remove and treat stump to inhibit regrowth					
T6	Magnolia	6.0	10	2.3	1.0	Younger than property	Policyholder
Recommendation		Remove and treat stump to inhibit regrowth					
T7	Magnolia	4.0	5	2.0	1.2	Younger than property	Policyholder
Recommendation		Remove and treat stump to inhibit regrowth					
T8	Silver Birch	12.0	41	10.0	5.7	Younger than property	Local authority
Management history		Evidence of minor pruning only.					
Recommendation		Remove and treat stump (mechanical or chemical) to prevent re growth					

Ms: multi-stemmed

\* Estimated value

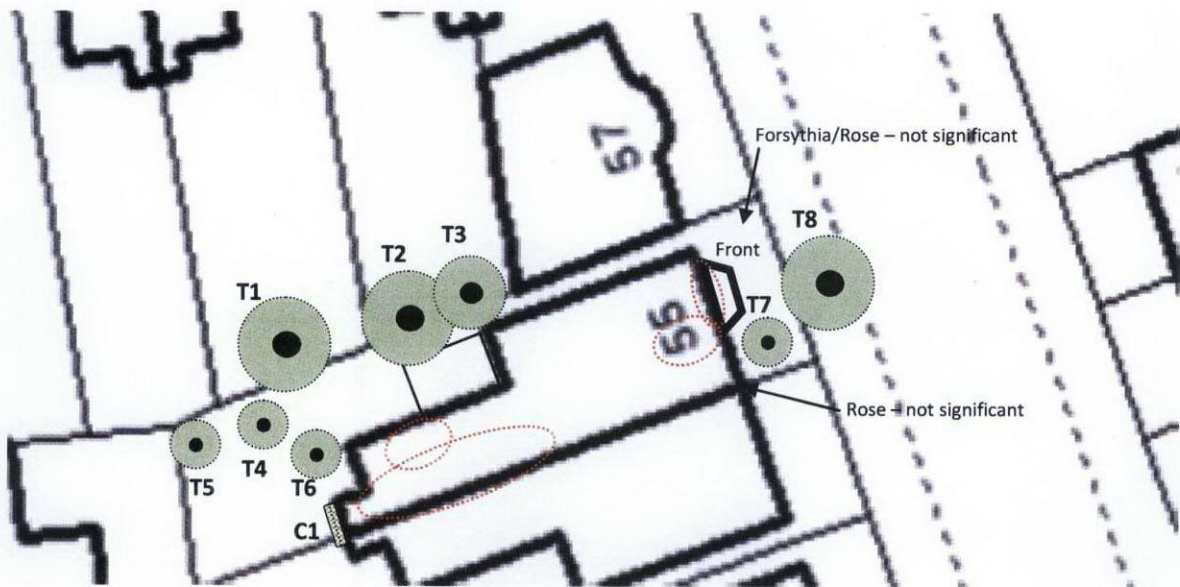
**Table 2**                      **Future Risk - Tree Details & Recommendations**

Tree No.	Species	Ht (m)	Dia (cm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership
T4	Magnolia (Grandiflora)	6.0	M/S Av20	5.0	4.3	Younger than property	Policy Holder
Recommendation		Do not allow to exceed current dimensions					
T5	Sycamore	6.0-7.0	38	5.0	7.8	Younger than property	Policy Holder
Recommendation		Do not allow to exceed current dimensions					
C1	Ivy and Honeysuckle	6.0	M/S	8.0	0.0+	Younger than property	Policy Holder
Recommendation		Remove – physically remove regrowth as and when it develops					

Ms:        multi-stemmed

\* Estimated value

## SITE PLAN



Plan not to scale – indicative only



Approximate areas of damage

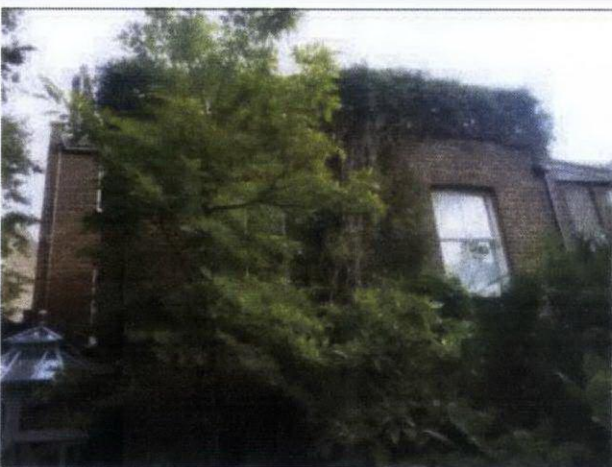
## Images



View of front elevation and T8



View of front garden



View of rear elevation and T6 and C1

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London  
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