

Arboricultural Consultancy for Lloyds Bank

Note: This report is intended for use between the client, Environmental Services and any parties detailed within the report. It is based on the understanding at the time of visiting the property that Engineers are satisfied that damage is attributable to clay shrinkage subsidence exacerbated by vegetation.

1. Case Details

Insured	Mrs Ellen Thomson	Address	Greymartin, Backworth Lane, Newcastle Upon Tyne, NE27 0AL		
Client	Subsidence Management Services	Contact	Manjula Panchal	Claim No.	IFS-LBG-SUB-18-0079347
ES Ref	SA-242385	Consultant	Will Rickerby	Contact No.	0330 380 1036
Report Date	15/01/2019				

Scope of Report: To survey the property and determine significant vegetation contributing to subsidence damage, make recommendation for remedial action and assess initial mitigation and recovery prospects. The survey does not make an assessment for decay or hazard evaluation.

2. Property and Damage Description

The insured structure is a 1 storey detached house. The property occupies a level site with no adverse topographical features. Damage was also noted throughout the property. Please refer to the engineers report for a full description of the claim history and damage.

3. Technical Reports

In preparing our report we have had the benefit of the following technical investigations:

Foundation Detail Root Analysis Borehole Log
Engineers Report

4. Action Plan

Mitigation	
Insured involved?	Yes
Local Authority involved?	No
Other third party Mitigation involved?	Yes
Recovery	
Is there a potential recovery action?	No

Treeworks	
Local Authority	North Tyneside Metropolitan Borough Cncl
TPO / Conservation Area / Planning Protection Searches	Insured: TPO and Conservation Area Adjacent & Adjoining properties: TPO and Conservation Area
Additional Comments	
Awaiting Further Instructions.	

5. Technical Synopsis

This report is based upon our understanding at the time of visiting the property that Subsidence Management Services's engineers are satisfied that damage is due to clay shrinkage subsidence exacerbated by vegetation.

Foundations are noted to extend to depths below ambient soil drying and bear onto subsoil described and analysed within the Geotechnical and Soils Analysis reports as containing clay, thereby indicating the potential for the observed damage to be the result of clay shrinkage subsidence exacerbated by the influence of vegetation.

Site Investigations revealed the presence of roots in TP/BH1 and TP/BH2; samples of these roots were recovered from underside of foundations and throughout the borehole, these roots were identified (using anatomical analysis) as having emanated from the genus' Acer spp, Pomoideae group and Salix spp.

Acer spp. are Maples. Pomoideae group includes Apple, Cotoneaster, Hawthorn, Pear, Pyracantha, Quince, Rowan, Snowy mespilus and Whitebeam. Salix spp. are Willows.

Arboricultural Consultancy for Lloyds Bank

Functionally active roots deriving from 'a broadleaved species, too juvenile for positive identification' were also recovered (TP/BH1); notes within the root report suggests that these are possibly Ash.

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 T1 (Willow (Goat)) and TG1 (Mixed Species Group), given their position relative to the damage it is our opinion that the roots identified within TP/BH2 will emanate from this vegetation.

The Acer spp roots recovered within TP/BH1 will, on balance derive from the Acers (T3, T4, TG3 & TG4).

With regards to the broadleaved species roots (too juvenile for positive identification), it is our opinion that these will on balance derive from the Acer (T4)

With regards to the Pomoideae group roots, it is our opinion that these roots will emanate from minor vegetation located proximate to site of TP/BH1. Given the size / proximity of additional vegetation and the extent of the observed movement, we do not consider that any onsite members of the Pomoideae group represent a material consideration in the current subsidence event.

However, whilst not positively implicated by root analysis, given its size and proximity, TG5 (Acer) 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.

The size and proximity of this vegetation is consistent with the location of damage and advised mechanism of movement.

Considering engineers conclusions, results of site investigations and our observations on site, vegetation management is considered appropriate with a view to restoring stability.

Please refer to Section 6 for management prescriptions.

In order to mitigate the current damage and allow soils beneath the property to recover to a position such that an effective engineering repair solution can be implemented we recommend a program of management as listed by this report.

Vegetation management in the form of selective removal and appropriate stump treatment will help to promote the restoration of long-term stability to the insured property; pruning alone should not be considered as representing an effective or reliable long-term alternative solution given the size and proximity of the vegetation.

Pruning in isolation is generally ineffective and in the context of the current claim we consider the above vegetation is simply too large and/or close for pruning to be effective.

Removal of TG1 (Mixed species Group), T1 (Willow), T2 (Ash), T3 (Acer), T4 (Acer), TG3 (Mixed Species Group), TG4 (Acer) and TG5 (Acer) will offer the most certain and reliable 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 of vegetation management required to restore and maintain long-term stability at this property is high and its impact acknowledged. 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

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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?	Yes
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 (Goat)	1	12.3	8.9	C - Insured	Remove	Remove close to ground level; do not treat stump due to translocation risk. Where such a risk exists, we advise that any emergent regrowth is removed annually.
T2	Ash	1	14.5	8.8	C - Insured	Remove	Remove close to ground level; do not treat stump due to translocation risk. Where such a risk exists, we advise that any emergent regrowth is removed annually.
T3	Acer	1	14	4.5	C - Insured	Remove	Remove close to ground level; do not treat stump due to translocation risk. Where such a risk exists, we advise that any emergent regrowth is removed annually.
T4	Acer	1	14	8	C - Insured	Remove	Remove close to ground level; do not treat stump due to translocation risk. Where such a risk exists, we advise that any emergent regrowth is removed annually.
TG1	Mixed Species Group: Species include: Hawthorn, Acer, Elder.	1	7	1.7	C - Insured	Remove	Remove close to ground level; do not treat stump due to translocation risk. Where such a risk exists, we advise that any emergent regrowth is removed annually.
TG3	Acer	1	14	7.3	C - Insured	Remove	Remove close to ground level; do not treat stump due to translocation risk. Where such a risk exists, we advise that any emergent regrowth is removed annually.
TG4	Acer	1	14	5.7	C - Insured	Remove	Remove close to ground level; do not treat stump due to translocation risk. Where such a risk exists, we advise that any emergent regrowth is removed annually.
TG5	Acer	1	14	5.2	C - Insured	Remove	Remove close to ground level; do not treat stump due to translocation risk. Where such a risk exists, we advise that any emergent regrowth is removed annually.

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

* Estimated

Arboricultural Consultancy for Lloyds Bank

6.2 Future Risk Recommendations

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

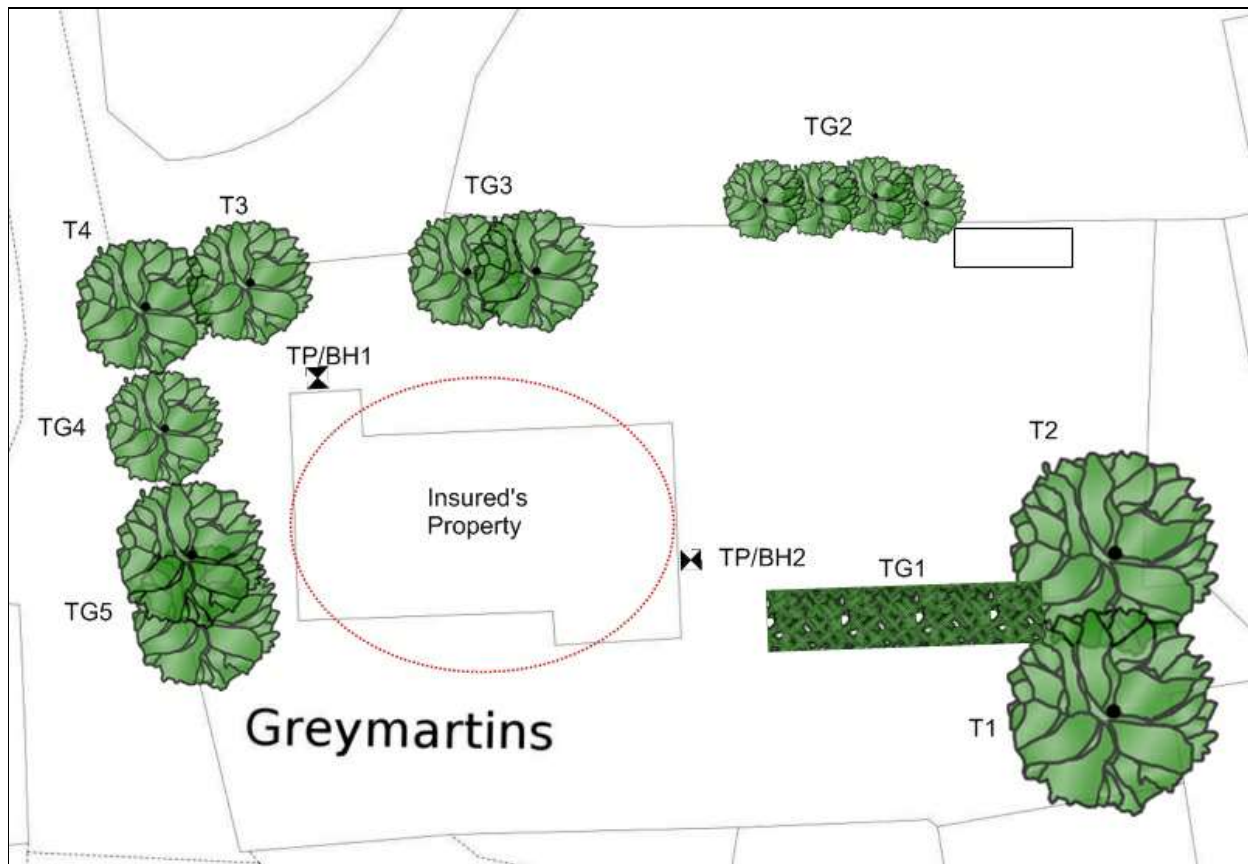
Tree No.	Species	Age Cat	Approx. Height (m)	Distance to Building (m) *	Ownership	Action	Requirement
TG2	Acer	1	14	7.6	A - Third Party	Action to avoid future risk	Do not allow to exceed current dimensions by way of regular pruning.

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

7. Site Plan



Please note that this plan is not to scale. OS Licence No. 100043218

8. Photographs



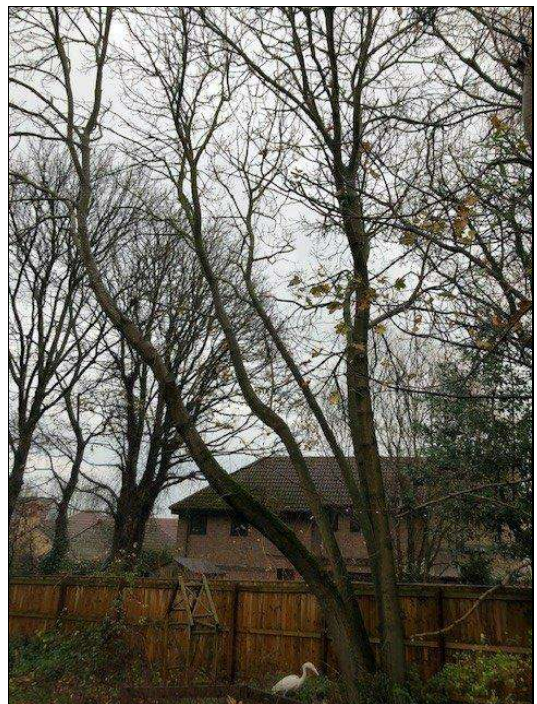
TG2- Acer



TG3 - Acer



TG1 - Mixed species



T2 - Ash

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TG3 - Acer



T4 - Acer



T1 - Willow



T3 - Acer

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Date: 15/01/2019

Property: Greymartin, Backworth Lane, Newcastle Upon Tyne, NE27 0AL

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

Insured Property Tree Works	£5000.00
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.
- Trees are removed as near as possible to ground level, stump and associated roots are not removed or included in the price.
- 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 an appraisal of vegetation influence on the property and is made on the understanding that 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.

Following tree surgery we recommended that the building be monitored to establish the effectiveness of the works in restoring stability.

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".