Addendum Arboricultural Report

Subsidence Damage Investigation at:

The Gables, Upper Batley Lane
Batley
WF17 0AR



CLIENT:	QuestGates
CLIENT REF:	
MWA REF:	
MWA CONSULTANT:	Monica Gillespie C Davies F.Arbor.A.
REPORT DATE:	16/10/2023
REVISION DATE:	27/05/2026

SUMMARY

Statutory Controls			Mitigation (Current claim tree works)	
TPO current claim	Yes - T5		Policy Holder	Yes
TPO future risk	No		Domestic 3rd Party	No
Cons. Area	No		Local Authority	No
Trusts schemes	No		Other	No
Local Authority: -	Kirklees Council			

MWA Arboriculture Ltd
Bloxham Mill Business Centre
Barford Rd, Bloxham
Banbury
OX15 4FF
Tel:
Email:

Introduction

This is a revision of our initial report dated 16/10/2023 following receipt of site investigations and level monitoring.

Acting on instructions from QuestGates, the insured property was visited on 13/10/2023 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.

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 2 storey detached house built circa 1900. It has been extended at various times in the past to the left and to the rear.

External areas comprise gardens to the front and rear.

The property occupies a site that slopes up from the road and the garden slopes downhill from left to right.

Damage Description & History

Damage relates to movement of the front and right hand side of the front elevation.

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

We have not been made aware of any previous claims.

Site Investigations

Site investigations were carried out by GEOCORE on 30/05/2023, when 2 trial pits were hand excavated to reveal the foundations, with a borehole sunk through the base of the trial pit to determine subsoil conditions.

Foundations:

Ref	Foundation type	Depth at Underside (mm)
TP/BH1	N/A	
TP/BH2	Concrete	700

Soils:

Ref	Description	Plasticity Index (%)	Volume change potential (NHBC)
TP/BH1	MADE GROUND light grey/brown very sandy very gravelly topsoil with fine to course roots. Gravel is fine to coarse concrete and sandstone.	24	Medium
TP/BH2	Firm becoming stiff, dark brown slightly sandy gravelly CLAY with many fine to coarse roots. Gravel is of sandstone.	27 - 30	Medium

Roots:

Ref	Roots Observed to depth of (mm)	Identification	Starch content
TP/BH1	2000	Too small for positive identification	Absent
TP/BH2	2500	*Acer* spp.	Present

Acer spp. are maples including sycamore, Norway maple and Japanese maple.

Further Site Investigations

Site investigations were carried out by Auger on 26/03/2025 when two trial pits were hand excavated to reveal the foundations, with a borehole sunk through the base of the trial pit to determine subsoil conditions. A drains survey was also undertaken.

Foundations:

Ref	Foundation type	Depth at Underside (mm)
TP1	Stone	550
TP2	Stone	1050

Soils:

Ref	Description	Plasticity Index (%)	Volume change potential (NHBC)
TP/BH1	Moist very stiff brown fine to medium gravelly silty CLAY	27 - 32	Medium
TP/BH2	Moist very stiff brown grey fine to medium gravelly silty CLAY	30 - 37	Medium

Roots:

Ref	Roots Observed to depth of (mm)	Identification	Starch content
TP/BH1	550	Acer	Present
TP/BH2	1150	Acer	Present

Acer spp. are maples including sycamore, Norway maple and Japanese maple.

Drains: Defects were identified to the rainwater gully to the front.

Monitoring: Level and crack monitoring between 18/01/2024 and 11/02/2026 confirm a seasonal pattern of movement that is typical of root induced clay shrinkage subsidence with downward foundation movement during summer months followed by uplift/ recovery during winter months when roots are less active. Seasonal movement was more pronounced during summer 2025 as summer 2024 was considerably wetter with higher rainfall. The seasonal opening of cracks corresponds with the foundation movement.

Discussion

Opinion and recommendations in this report are made on the understanding that QuestGates have identified clay shrinkage subsidence as a cause of building movement and damage.

Site investigations and soil test results in 2023 and 2025 have confirmed a plastic clay subsoil susceptible to undergoing volumetric change in relation to changes in soil moisture. A comparison between moisture content and the plastic and liquid limits suggests moisture depletion at the time of sampling in BH2 at depths beyond normal ambient soil drying processes such as evaporation indicative of the soil drying effects of vegetation. Suction tests for TP/BH1 and TP/BH2 have recorded severe to very severe desiccation. The 2025 sampling was undertaken during March, at a time of year when soil moisture deficits would be at their lowest and we would expect significantly drier soil during summer months when roots are active.

Roots were observed to a depth of 2000mm and 2500mm bgl in TP/BH1 and TP/BH2 (2023) respectively. Samples from TP/BH2 have been identified as *Acer* spp. which includes Sycamore.

Roots were observed to a depth of 550mm and 1150mm bgl in TP/BH1 and TP/BH2 (2025) respectively. Samples from TP/BH2 have been identified as *Acer* spp. which includes Sycamore.

Drainage defects were identified but the desiccated condition of the soil confirms that soil softening due to an escape of water is not a factor in the damage.

Based on the technical reports currently available, engineering opinion and our own site assessment we conclude the damage is consistent with shrinkage of the clay subsoil related to moisture abstraction by vegetation. Having considered the information currently available, it is our opinion that T5 is the most likely cause of the movement and damage.

If an arboricultural solution is to be implemented to mitigate the influence of the implicated trees/vegetation we recommend that T5 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 responsible vegetation having caused significant desiccation.

Conclusions

- Conditions necessary for clay shrinkage subsidence to occur related to moisture abstraction by vegetation have been confirmed by site investigations and the testing of soil and root samples.
- 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.
- Roots have been observed underside of foundations and identified samples correspond to vegetation identified on site.
- Level and crack monitoring have confirmed a seasonal pattern of foundation movement that is typical of root induced clay shrinkage subsidence attributable to the influence of Sycamore T5.
- Replacement planting may be considered subject to species choice and planting location.

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

Tree No.	Species	Ht (m)	Dia (mm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership
T5	Sycamore	19	800 *	16 *	25	Similar Age to Property	Policy Holder
Management history		No recent management noted.					
Recommendation		Remove (fell) to near ground level and treat stump to inhibit regrowth.					

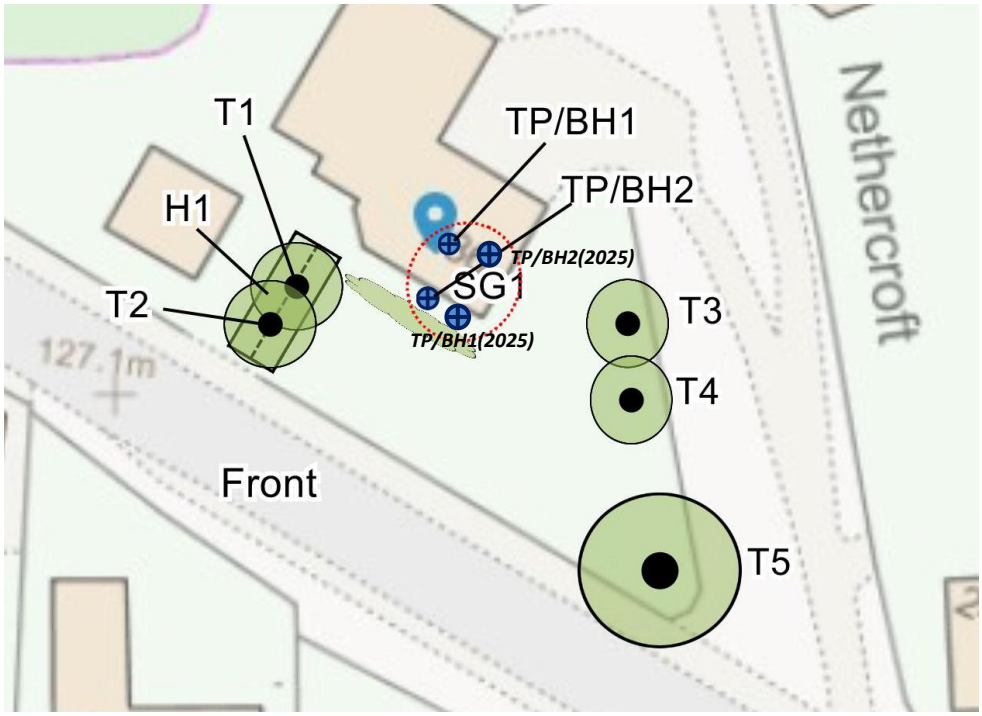
Ms: multi-stemmed * Estimated value

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

Tree No.	Species	Ht (m)	Dia (mm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership
T1	Beech	6	300 *	6	8.5	Younger than Property	Policy Holder
Management history		Subject to past management/pruning.					
Recommendation		Maintain broadly at no more than current dimensions by periodic pruning.					
T2	Horse Chestnut	6	500 Ms *	8	10	Younger than Property	Policy Holder
Management history		Subject to past management/pruning.					
Recommendation		Maintain broadly at no more than current dimensions by periodic pruning.					
T3	Picea	10	250	5 *	11.5	Younger than Property	Policy Holder
Management history		No recent management noted.					
Recommendation		Maintain broadly at no more than current dimensions by periodic pruning.					
T4	Picea	15	400	5 *	13	Younger than Property	Policy Holder
Management history		No recent management noted.					
Recommendation		Maintain broadly at no more than current dimensions by periodic pruning.					
H1	Holly	2.5	50 Ms *	2	2.5	Younger than Property	Policy Holder
Management history		Subject to past management/pruning.					
Recommendation		Maintain broadly at no more than current dimensions by periodic pruning.					
SG1	Mixed groups including Cupressus, Rose and other shrubs	1.5 *	50 Ms *	2 *	1.5 *	Younger than Property	Policy Holder
Management history		Subject to past management/pruning.					
Recommendation		Maintain broadly at no more than current dimensions by periodic pruning.					

Ms: multi-stemmed * Estimated value

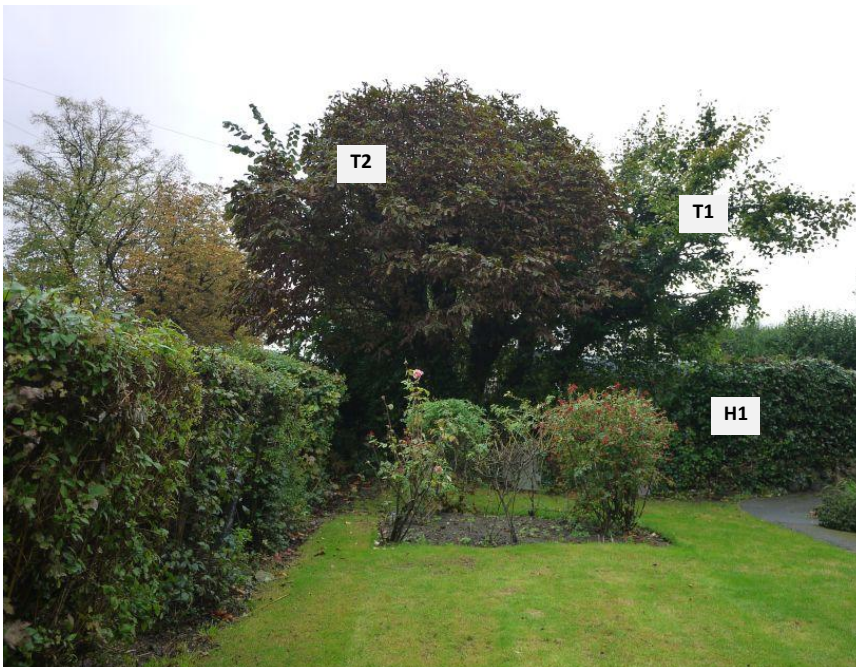
Site Plan



Plan not to scale – indicative only

Approximate areas of damage

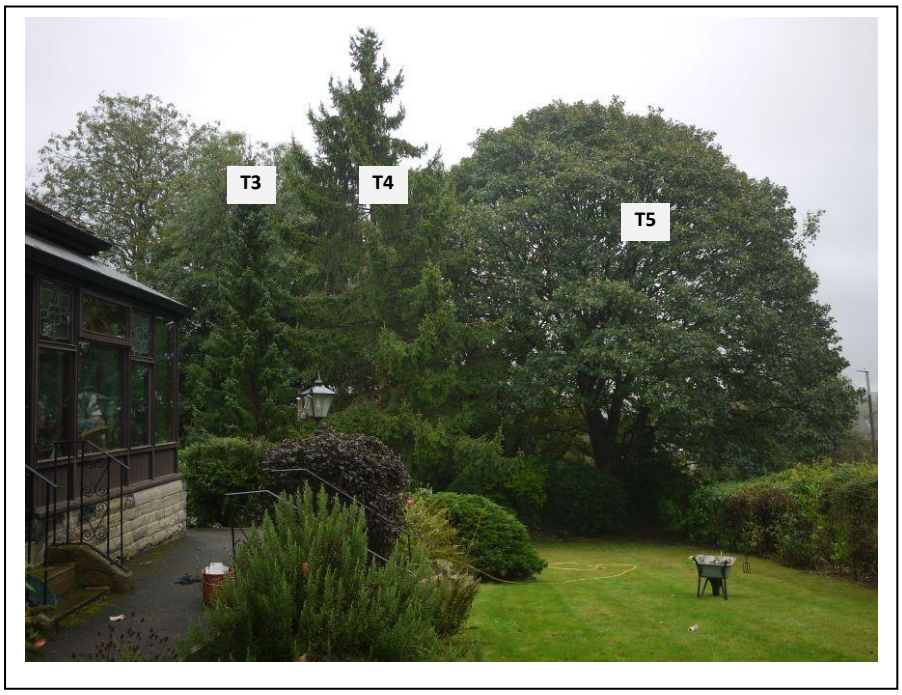
Images



View of T1, T2 and H1



View of SG1 and H1



View of T3, T4 and T5