

This report sets out in concise terms the nature of the evidence collected and the consultant's conclusions and recommendations

Policyholder, Property & Event Details

Policyholder	Mrs Dawn Linington	Date of Discovery	01/08/2022
Risk Address	19 Beechwood Rise Southampton Hampshire SO18 3PW	Our Ref	IFS-ESU-SUB-22-0103393
Location of Damage	Right hand side of building - Garage, Porch and Rear Extension	Date Affected Area(s) Constructed	1984 Addition/Conservatory Circa 1984 Main House/Original Building
Nature of Damage	Step cracking, separation between walls and ceilings, drop in floor levels.	Property Type	Detached House
Crack Widths	Cat 2, 1mm to 5mm - slight.	Indicated Mechanism of Movement	Rotational and downward movement to the right hand side of the building, towards nearby vegetation.
Occupiers' Observations	None	BRE Classification	Category 2
Comments	N/A	Previous Relevant Movement	None

Site Investigation & Monitoring Evidence

Examination by Building Professional	Yes	Richard Bryant	BSc (Hons) MRICS						
Arboriculture Assessment	Yes	Report Ref(s):	SA-252874. S1 (Laurel), T1 (Beech), T3 (Cypress), T5 (Maple)	Date(s)	03/05/2023				
Geotechnical TP/BH Logs & Pens	Yes	Report Ref(s):	C70823G32316	Date(s)	02/06/2023				
Soil Laboratory Testing	Yes	Ref:	L26085	Plasticity	Medium	Desiccated?	Borderline	Date(s)	31/05/2023
Root Analysis	Yes	Report Ref(s):	R51090	Beech & Laurel Roots	Date(s)	31/05/2023			
Drainage Survey	No	Ref(s):	N/A	Drains are not within influential distance	Date(s)	18/11/2024			
Heave Risk after Tree Removal	Low/None	Assessed By	Richard Bryant	BSc (Hons) MRICS					
Building Monitoring	Level	Crack Width (+/- mm)	N/a	Level/Dist (+/- mm)	10	Date of last reading	07/08/2024		
Monitoring Confirms	Seasonal movement. Recovery over winter 23/24 and downward movement over summer 2024. Highest amplitude to the rear right corner closest to vegetation.								
Supporting Comments	We have obtained all necessary evidence to confirm causality, demonstrate property damage and implicate the outlined vegetation without a reasonable doubt. Seasonal movement can only be caused by the effect of moisture extraction and rehydration within Clay soils.								

Mitigation Actions / Scope of Repair

Previous Mitigation?	Yes	Ownership	Species	Label	Action	Date Completed	Date Drain Repairs Completed/ No Defects Confirmed:	03/05/2023			
		Policyholder	Maple	T5	Removed	15/04/2024					
		DTP	Laurel	S1	Removed	15/04/2024					
							Ongoing Seasonal Movement?	Yes			
If Effective Mitigation is REFUSED or Is a Root Barrier Possible? (All Estimated & Subject to Feasibility Study)		Stabilisation scheme PLUS enhanced Superstructure repairs will be required.	'Stabilisation' costs (excl. Superstructure)	£	101,376.00						
	Yes	Location	Policyholder	Estimated Depth (m)	2.6	Length (m)	12	Estimate	£	32,760.00	+ VAT
Mitigation Statement	Should the effective mitigation, or the funding/installation of a root barrier be refused, we will have no other option but to stabilise the building with a scheme of traditional mass concrete underpinning (stabilisation), and pursue the local authority for a recovery of these significant costs as noted above.										

Conclusion & Recommendations

Building/Construction:
The affected building is a 4 bedroom detached house, constructed circa 1984 under a pitched and tiled roof with a solid concrete ground bearing floor slab. The building is constructed of traditional design, with external masonry cavity walls and masonry single skin partition walling with a suspended timber first floor. There is a single storey extension located to the rear elevation. The date of construction for this addition is unknown.

Circumstances & Damage:
The damage was first noticed in late summer/early autumn of 2022. The addition has suffered separation and cracking to the abutments and floor connections with the main building, and diagonal cracking and distortion to some of the door and window openings. At the time this damage was noted to be less than 5mm in width but has worsened since, on a seasonal and progressive basis.

Site Investigations & Monitoring:
Foundations to the garage were measured at 800mm BGL. Foundations to the rear extension were measured at just over 1m BGL. This is below the depth of naturally occurring moisture evaporation and as such any influence on soil moisture content can only be caused by the seasonal effects of vegetation. Shrinkable, medium plasticity Clay soils were encountered, and Penetrometer testing below foundation depth confirmed these soils to hold an adequate bearing capacity. Beech and Laurel roots were found to 2.1m deep. The discovery of these roots has assisted the Arboriculturalist with the identification of the causal vegetation. The roots are of the same species as the trees identified within the Arboricultural report, located to the rear right of the subject building and closest to the area of damage. There is no drainage located within the areas of potential influence. Monitoring has evidenced ongoing seasonal movement following partial mitigation by way of removal of S1 (Laurel) and T5 (Maple) in April 2024.

Conclusion:
Our investigations have confirmed that the cause of the property damage is clay shrinkage subsidence. Remaining causal vegetation has been identified as Beech and Cypress trees, labelled T1 & T3 in the Arboriculturalist report mentioned above. These trees are located within influencing distance of the areas of damage and geotechnical investigations have confirmed Beech roots penetrate underneath affected foundations. Drainage has no possibility of being contributory or causal. In order to prevent any further and progressive damage to the building, we now require you to mitigate the effects that your vegetation is having on our insured's property. As experts in subsidence, we have outlined what will resolve the issue in our Arboriculturalist report (noted above). Should you ignore this letter or fail to mitigate the cause of the ongoing property damage, we will have no other option but to stabilise the building using a traditional underpinning scheme and pursue a recovery of these costs from you by legal means.