

## Engineers Addendum Report

This report sets out in concise terms the nature of the evidence collected and the consultant's conclusions and recommendations			
<b>Policy Holder:</b>	Mr Charles Southern	<b>Date:</b>	09/02/2022
<b>Property Address:</b>	3 Woodlands Avenue, Shrewsbury, Shropshire SY5 8NG	<b>Our Ref:</b>	IFS-LBG-SUB-20-0085780
<b>Description of Property:</b>	The damaged property is a traditionally built 1975 detached bungalow property with an attached garage.		
<b>Location of Damage:</b>	Garage		
<b>Date of Relevant Construction:</b>	1975 – Main Property, 1975 – Garage		
<b>Nature of The Damage:</b>	Diagonal cracking		
<b>Indicated Mechanism of Movement:</b>	Downward and outward rotational movement		
<b>BRE Category of Damage:</b>	Cat 2		
<b>Date of Discovery:</b>	First noticed August 2019		
<b>Occupiers' Observations:</b>	PH noted cracking to the area and being concerned that subsidence movement was occurring contacted their insurers.		
<b>Previous Relevant Movement:</b>	No recorded movement of the property		
<b>Comments:</b>	Please see below		

<b>Investigation Evidence:</b>			
<b>Examination by Building Professional:</b>	Yes - Ian Hanson BEng (Hons) CEng MICE DipCII (Claims) BDMA Ins Tech		
<b>Trial Hole/ Bore Hole Excavations:</b>	Yes	(30/07/2020 – Report C54666G24308 )	
<b>CCTV Drainage Survey:</b>	Yes	There are no main drains near the area of damage and a rainwater pipe connection was repaired in October 2020. Please see below. (22/07/2020 – Report ref C54666D17855)	
<b>Soil Laboratory Testing:</b>	Yes	Shrinkable soils (04/08/2020 – Report ref C18126S54666)	Yes
		Desiccated soils (04/08/2020 – Report ref C18126S54666). Please see below.	Yes
<b>Root Analysis</b>	Yes	(03/08/2020 – Report ref R36043)	
<b>Arboriculture Assessment:</b>	Yes	Recommendations: Third Party tree removal (05/08/2020 – Report ref SA-246106)	
<b>Heave Risk After Tree Removal:</b>	No	Ian Hanson BEng (Hons) CEng MICE DipCII (Claims) BDMA Ins Tech	
<b>Building Monitoring:</b>	Yes	Crack width: No	Level / distortion: Yes (09/02/2022 Report ref M16097)
<b>Monitoring to Date Confirms:</b>	The influence of vegetation as we see clear seasonal fluctuations of level movement. Please see below.		
<b>Comments:</b>	Please see below.		

<b>Repair Scope and Value</b>			
If Prompt Vegetation Removal:	Superstructure repairs	Potential Cost	£ 1216
If No Vegetation Is Removed:	Foundation stabilisation (Piling to rear addition)	Potential Additional Cost	£ 20000
<b>Comments:</b>	If tree work is not undertaken, then there will be no alternative but to implement a piling scheme at an initial estimated cost of £20000.		

### CONCLUSIONS AND RECOMMENDATIONS

Following my initial review of the damage and subsequent geotechnical, arboriculture investigation reports and accurate level monitoring readings I confirm that the cause of the movement to the garage is directly related to the seasonal water demands of the nearby vegetation (T1 and T2 Lime tress) causing clay shrinkage subsidence.

The site investigation has confirmed that the cause of the subsidence is clay shrinkage due to the moisture demand of the Lime trees T1 and T2. The garage foundations are 500mm deep and on a stiff clay soil with adequate bearing capacity. Roots were identified as emanating from a Lime tree. The arborist has confirmed that the Lime trees will need to be removed to ensure that further subsidence does not occur. We do not consider that there is any risk of

heave damage occurring to the garage following the removal of the trees. Once the trees have been removed the ground will stabilise and can arrange for the superstructure damage to be repaired only.

**Report prepared by:**

Ian Hanson BEng (Hons) CEng MICE DipCII (Claims) BDMA Ins Tech