

STRUCTURAL
SURVEYS AND DESIGN
A QuestGates Company

INSURANCE INCIDENT REPORT



THE PROPERTY:

Kintyre, Windmill Lane
Southampton
SO31 8BG

PREPARED BY:

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B.Eng (Hons), CMAPS, GMICE, BDMA Ins Tech

REPORT REFERENCE

QG1U1366108

PREPARED FOR:

QuestGates

SURVEY DATE:

3rd September 2025

QG REFERENCE:

QG1N1365526

INSURER REFERENCE:

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Signed:

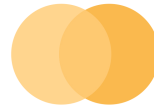


Date: 9th September 2025

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Issue	Revision	Revised by	Revised Date
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The appointment of Structural Surveys Ltd shall be governed by, and construed in all respects, in accordance with the laws of England and Wales and each party submits to the exclusive jurisdiction of the Court of England & Wales.



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A Scope of Instruction

Structural Surveys and Design Ltd have been instructed by Insurers to inspect Kintyre, Windmill Lane, Southampton in respect of loss or damage that is alleged to have occurred as a result of an insured event. We report our findings describing the damage, possible cause, recommendations for further investigation or repair where appropriate.

The report is prepared specifically in connection with the current insurance claim and is not to be relied upon as a structural survey. It does not comment in detail upon the condition of the building or services.

The inspection is non-intrusive and parts of the property that are covered, unexposed or inaccessible will not be inspected.

The report is prepared on behalf of QuestGates Ltd for use by the client. The report is private and confidential and any Client or Third Party relying on the information within the report do so at their own risk.

Where damage and repairs have been identified and these are not covered by the insurance policy we recommend that further advice is sought from an appropriately qualified construction professional.

B Details of Instruction

Address of Property Surveyed	Kintyre, Windmill Lane, Southampton, SO31 8BG
Terms of Reference	To investigate and report on the following specific aspects to the property:- Suspected subsidence. This report covers no other aspects of the property and, as instructed, is not a full structural report.
Date of Instruction	21st August 2025
Other Information	Structural Surveys and Design Ltd are advised that structural cracking has occurred to a front bay window to the building which is believed to be as a result of subsidence of the foundations. We have been appointed to inspect the crack damage and advise whether, or not, this damage is related to subsidence foundation movement. If subsidence is suspected, we are to make recommendations towards further investigation to establish the cause of foundation movement.
Conditions of Engagement	Association of Consultancy and Engineering, ACE 2009, Agreement No.2 (Advisory and Investigatory Services)

C Circumstances

The property has been owned and occupied by the insured Mr Robin Jones for the last 11 years since purchase in 2014.

Prior to purchase a full structural survey of the building was commissioned which we are advised raised no significant issues with the building.

The building has been significantly extended throughout Mr Jones' ownership with a large rear addition.

Damage was first discovered approximately four weeks ago when Mr Jones noticed a crack below a front bay window. Initially Mr Jones did not think much of the crack but it has worsened since. Damage progressed to a stage whereby Mr Jones became concerned that the damage could be as a result of structural movement through subsidence of the bay window foundation.

A claim for subsidence damage was submitted to the building's insurer AmTrust Europe Ltd in August 2025.

D Property and Site Overview

Kintyre, Windmill Lane, Southampton is a single-storey, brick built, detached bungalow with a multi pitched roof.

The age of the original property is thought to be around 95 years. (Original construction date circa 1920's).

The building has been significantly extended with a large rear addition to create a spacious four-bedroom dwelling. This extension was constructed circa 2017.

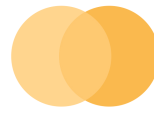
The level of the site generally falls from the rear down to the front. The variation in level is estimated to be 6 metres across the site. To accommodate the sloping site, there are retaining walls within influencing distance of the property. These retaining walls are however observed to be plumb and stable. There is considered to be no risk of slope instability of the site.

E Geology

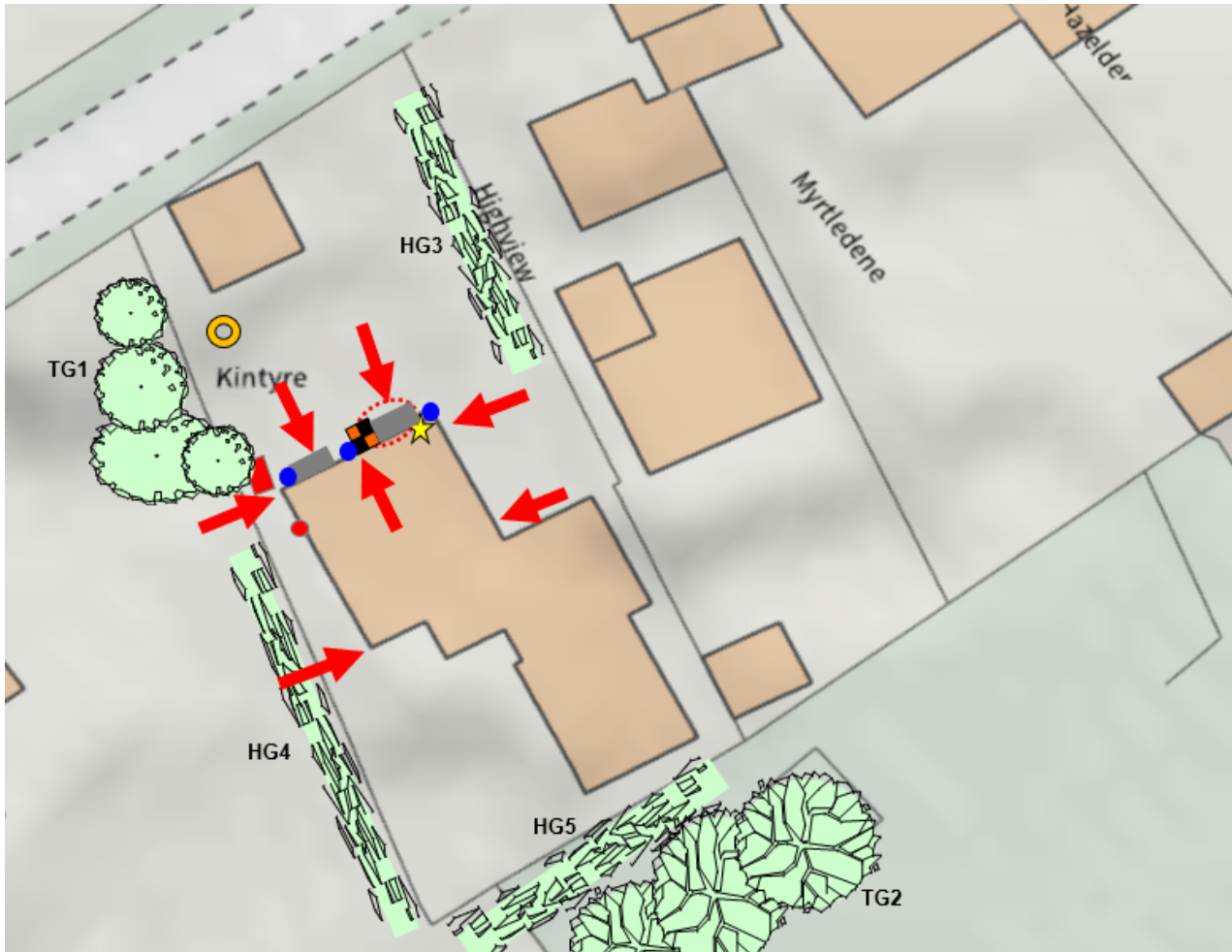
British Geological Survey (BGS) maps have no previous records of superficial deposits, local knowledge however would indicate soils which are likely to be supporting the building foundations are shrinkable clay. The bedrock below this is Wittering Formation, comprising sand, silt and clay.

F Mining and Mineral Extraction

Reference to the Coal Authority Interactive Maps, indicates that this property is not within influencing distance of past, current or proposed mine workings. The Coal Authority state that a Mining Report is not required for this property.



G Site Plan



KEY:

	Conifer Tree		Area of Damage		Trial Hole & Bore		Foul Water Manhole Or Inspection Chamber
	Deciduous Tree		Hedge		Hand Augered Bore		Surface Water Manhole Or Inspection Chamber
	Shrub		Foul Water Gully		Surface Water Gully		Foul Water Drain
	Level Monitoring Station		Soil/Vent Pipe		Surface Water Drain		Steep Slope
	Level Monitoring Deep Datum		Rainwater Pipe		Demec Stud on Photo	FRONT	Indicated front of property

H Trees

The property is located within a wooded area with trees of various species that surround the building. These trees are too numerous to list individually within this report, however trees nearest the zone of movement include conifer, cypress, holly, laurel and other species located adjacent to the right-hand boundary from within the right-hand neighbouring property and a conifer hedge adjacent to the front left-hand boundary from within the subject property. There are also mature oak trees beyond the rear boundary.

There are trees growing within potential influencing distance of the property, which could adversely affect the stability of the foundations. Where the sub-soils are cohesive, clay soils, trees will draw moisture from the clay, resulting in shrinkage of the clay and associated subsidence. This can cause foundations to move downwards. The water demand of trees varies from species to species. The higher the water demand, the greater is the severity of movement. Similarly, the closer the tree is to the foundation, the greater is the severity of movement. The shrinkability of clay soils varies from location to location. Moisture extraction from high shrinkability clay soils, will lead to more severe foundation movement.

As a rule of thumb, based on the high-water demand category of trees, growing in a highly shrinkable clay (i.e. the worst-case scenario), the safe distance between the house and the tree, would be the anticipated maximum height of that tree species (not its current height). Building Research Establishment, (BRE) Digest 298 - Low rise building foundations: the influence of trees in clay soils, gives guidance in this respect. For example, the maximum height of an oak tree may reach up to 23 metres and a conifer tree 20 metres.

Tree roots can also cause direct physical disturbance to foundations by growing directly below or against the foundation, sometimes lifting the foundation. Tree roots can also cause physical damage to below ground drainage, infiltrating the pipework and allowing water to escape into the surrounding ground. This can occur in both cohesive or granular sub-soils.

We recommend arboricultural advice is sought with regards future maintenance of surrounding trees and vegetation. Recommended tree surgery to be implemented within the insure address and notice of the arborists recommendations to be served upon the neighbouring third-party tree owners with the request that they too implement the recommended vegetation management.

Name	Species	Height	Distance to property	Owner	Action
T1G1	Conifer, cypress, holly and other species	8 metres	Less than 2 metres	Neighbours' Property	Await arboriculturist report

Name	Species	Height	Distance to property	Owner	Action
TG2	Oak	20 metres	5 metres	Neighbours' Property	Await arboriculturist report
HG3	Conifer	3 metres	7 metres	Subject Property	Await arboriculturist report
HG4	Laurel	2 metres	Less than 1 metre	Neighbours' Property	Await arboriculturist report
HG5	Laurel	2 metres	2 metres	Subject Property	Await arboriculturist report

I Drainage

Several manholes, wastewater pipes, surface water gullies and surface water pipes were identified around the building perimeter indicating that there are underground drains along the majority of the property elevations, to some degree.

Drainage nearest the zone of movement comprises of rainwater downpipe and gully connections adjacent to the front elevation, a waste pipe upon the right-hand elevation and an inspection chamber adjacent to the front right-hand corner of the bungalow.

The drainage system appears to be separate stormwater and foul water systems. It is not known if these discharge into the public sewers. A property of this age is likely to have the original, vitrified clay pipes, which are brittle and susceptible to damage. Ground movements throughout the lifetime of the property can cause cracking to the pipes and also displacement of the pipe joints. Both forms of damage will allow escape of water into the surrounding soils, which in turn can cause localised softening of clay soils below adjacent foundations, or washing away of granular soils such as sand, if present.

Given the potential issues with the underground drainage pipes, it would be recommended that the drainage system local to the front elevation of the building is subject to a CCTV drains survey by a specialist drainage contractor. This survey should confirm the condition and integrity of the underground pipes and determine whether any repairs are necessary.

J Damage Summary

Structural Surveys and Design Ltd were instructed to undertake a visual inspection of suspected subsidence damage to identify any structural defects that could be of detriment to stability and also to identify any remedial works necessary to maintain future integrity. The inspection was restricted to these specific areas.

The damage is structural cracking to a front bay window. This cracking is consistent with rotation of the front bay window in relation to the front elevation of the bungalow most likely through subsidence foundation movement. (Please refer to further commentary in this regard below).

BRE Digest 251, is used widely in the industry as a way of categorising cracks and determining what, if any, intervention is necessary.

Category 0 Hairline <0.1mm
Category 1 Fine >0.1mm <1mm
Category 2 Slight >1mm <5mm
Category 3 Moderate >5mm <15mm
Category 4 Severe >15mm <25mm
Category 5 Very Severe >25mm

In general, categories 0, 1 and 2 can be regarded as 'aesthetic' issues that require only redecoration. These cracks are easily filled and doors and windows may require some ease and adjustment.

Categories 3 and 4 can generally be regarded as 'serviceability' issues, that is, they affect the function and weathertightness of the building and the operation of doors and windows. These cracks may require some opening with localised replacement of brickwork. Service pipes may become damaged, requiring repair.

Category 5 presents 'stability' issues and is likely to require structural intervention. Beams may lose bearing, walls lean badly and require shoring and windows/frames become broken.

In this instance the damage is Category 2 - Slight

K External Damage

External Damage Incident Related Damage

The external walls to the original bungalow are of cavity masonry construction with a facing brick outer leaf below dado level and a painted render finish above.

Upon the front elevation are two semi-circular bay windows. There is observed to be cracking within the dado facing brick of the left-hand bay window which continues into the left-hand junction between the bay and front elevation. Distortion then continues into the uPVC framing of the window with an open joint having formed at the juncture of the window frame and masonry surround.

The pattern of cracking is indicative of rotation of the front bay window in relation to the front elevation of the bungalow.

Spirit level measurements confirm that there is slight rotation to the bay dado wall in relation to the front elevation which remains reasonably plumb and within tolerance since original construction.

External Damage Non-Incident Related Damage

None observed.

L Internal Damage

Internal Damage Incident Related Damage

Internal observations from within the front left-hand bedroom show a tapering crack of up to 5 mm in width to the inner leaf of the cavity wall at the junction of the bay window and front elevation mirroring the cracking observed externally.

Internal Damage Non-Incident Related Damage

None observed

M Conclusions

Observations made by Structural Surveys and Design Ltd confirm that there is structural cracking to the front bay window to this property. This cracking is likely to be through subsidence foundation movement.

Given the proximity of the trees adjacent to the front right-hand boundary, and the geology being shrinkable clay, the most likely cause of foundation movement is through tree root promoted clay shrinkage. Where the sub soils are cohesive, clay soils, trees will draw moisture from the clay, resulting in shrinkage of the clay and associated subsidence of the site. This can cause foundations to move downwards. This movement induces stress on the building materials and when the stress exceeds the strength of the material, cracks will develop.

There may however be defects within the below ground drainage that will allow water to escape and locally enter the ground which may not only be offsetting the primary cause of foundation movement but also contributing to the problem by causing localised softening of the founding soil.

In order that the cause of foundation movement can be fully established, we recommend a detailed site investigation comprising of a trial pit/borehole excavation upon the front right corner of the left-hand bay window. The trial hole to be used to establish the foundation depth of both the front bay and front elevation of the bungalow. This site investigation should be coupled with a CCTV survey of the below ground drainage within the vicinity of the front elevation of the bungalow. (Please see recommendations made in this regard).

N Recommendations

A. INCIDENT RELATED WORKS

(i) To establish the exact cause of structural movement, a trial pit/borehole excavation upon the front right corner of the left-hand bay window. The trial hole to be used to establish the foundation depth of both the front bay and front elevation of the bungalow. The trial hole extended by hand auger up to 3.0 metres inclusive of shear vane, probe tests, soil sampling/analysis and tree root identification.

The site investigation should also obtain soil samples for laboratory testing comprising of:

- Moisture Content immediately beneath the foundation and every 0.5 metres thereafter.
- Atterbergs immediately beneath the foundation and every 1.0 metres thereafter.
- Soil suction and/or oedometer tests beneath the foundation and every 0.5 metres thereafter.

(ii) Coupled with this trial hole excavation, a survey of the below ground drainage systems local to the front elevation should also be undertaken to confirm the extent and location of any defects. This drainage survey to include all necessary breaking into gully connections and subsequent making good to access below ground drainage. Any identified defects should be repaired in full to eliminate the risk of escape of water from the drains into the surrounding sub-soils.

(iii) Once the results of this proposed site investigation come to hand, the Loss Adjuster to advise upon policy liability, and should liability be engaged, to formulate a mitigation and monitoring programme and eventual remedial scheme.

In this respect; expert advice should also be sought from an arboriculturist as to the most appropriate course of action for maintaining surrounding trees and vegetation. These actions may include significantly lowering the height of the trees and maintaining them at this lower height, to reduce water demand or complete removal. The specialist will be able to recommend the most appropriate time to remove any trees, and whether removal needs to be carried out in stages. In certain circumstances, the removal of high-water demand, mature trees growing in cohesive, shrinkable clay sub-soils, can lead to rapid re-hydration and associated swelling of the clay, leading to lifting of the foundation. This is known as heave. In order for an arboriculturist to assess the site and any potential tree related damage, they may require laboratory analysis of soil samples taken during the investigation to determine the type and classification of the soils beneath the foundations.

The recommended vegetation management then to be implemented within the subject property and notice of the arborist's recommendations to be served upon neighbouring third-party tree owners (including the local authority if applicable) with the request that they too implement the recommended tree surgery.

Level and crack monitoring in this case may be used to provide diagnostic evidence as well as being used to determine when the bungalow is stable following mitigation works.

Photograph Schedule

External Record

A) The Site

Topography:



Photo 3 - Sloping site front



Photo 4 - Retaining wall front



Photo 5 - Retaining wall front



Photo 6 - Sloping site rear



Photo 7 - Stepped retaining wall rear

B) The Site

Trees:



Photo 8 - TG1



Photo 9 - TG2



Photo 10 - HG3



Photo 11 - HG4 Laurel



Photo 12 - HG5 Laurel

C) The Site

Drainage:



Photo 13 - Downpipe gully FLC



Photo 14 - Down pipe front elevation



Photo 15 - Inspection chamber FRC



Photo 16 - Downpipe FRC

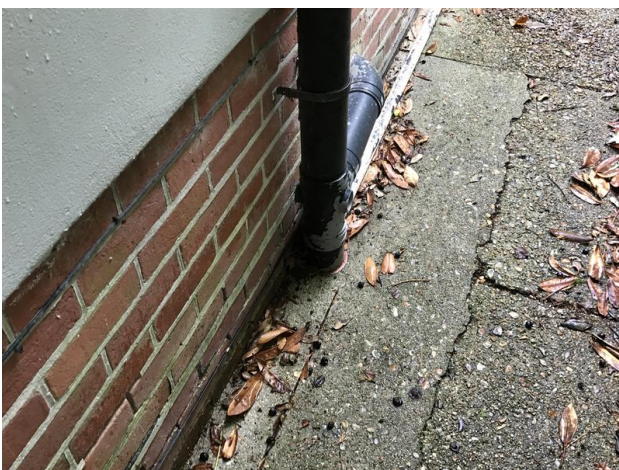


Photo 17 - Waste pipe right elevation

D) The Building

Walls:



Photo 18 - Front elevation



Photo 19 - Cracking LHS of front bay window



Photo 20 - Open joint at junction with front elevation



Photo 21 - Joint width 3.5 mm



Photo 22 - Slight tilt and rotation of dado wall



Photo 23 - Rotation 10 mm over 1 metre height

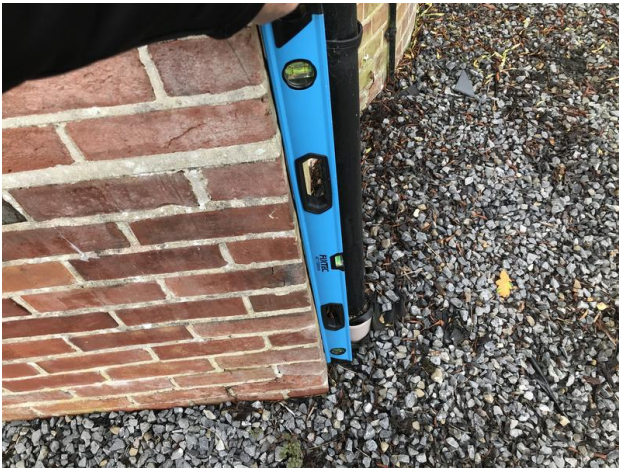


Photo 24 - Front elevation remains plumb



Photo 25 - Left elevation plumb



Photo 26 - Front elevation remains plumb

Internal Record

A) Main Building

Front Left-hand Bedroom:



Photo 27 - Front LH bedroom



Photo 28 - Tapering crack LHs of bay window



Photo 29 - Crack width 5 mm



Photo 30 - Distortion continues into window frame



Photo 31 - Front elevation plumb



Photo 32 - Suspended Flor level

P Limitations

P1. Our survey is limited to the structural aspects of the building, such as the roof, floors, walls and foundations.

P2. We have not inspected, nor reported on, non-structural elements such as windows, doors, rainwater goods and internal decorative finishes.

P3. We have not inspected, nor reported on, the plumbing, heating system, electrical wiring, gas or water supplies to the building.

P4. We have not inspected, nor reported on, the integrity of the underground drains or any on-site sewage treatment plants, cess pits, septic tanks. Specialist advice should be sought in this respect

P5. Unless explicitly stated to the contrary, we have not carried out a dampness survey, or a timber infestation survey, and therefore cannot comment on these aspects of the building.

P6. We have not inspected woodwork which is covered or any other concealed or inaccessible parts of the structure and therefore cannot report that any such part of the building is free from defect.

P7. No comment is made in this report as to the presence of new or old mine workings or tunnelling, heavy metals, chemical, biological, electromagnetic or radioactive contamination or pollution, or radon, methane or other gases, underground services, or underground structures, springs and watercourses, sink holes or the like, noise or vibration, pollution, mould, asbestos or asbestos products.

P8. Unless explicitly stated to the contrary, the void below the ground floor has not been examined and therefore we cannot give any opinion on the condition of materials under the floor.

P9. For the avoidance of doubt, The Contracts (Rights of Third Parties) Act, 1999, shall not apply to this Contract.

P10. Our service does not include for confirming the presence or not, of any invasive plant species that may be present on the site such as Japanese Knotweed, Giant Hogweed, Himalayan Balsam etc. This is outside our area of expertise.