Property Risk Inspection LIMITED

ARBORICULTURAL ASSESSMENT REPORT

Risk Address: 22 Wieland Road, Northwood HA6 3QU

For:

Client: Sedgwick International UK
Insurer: [redacted]

Client Ref: 10216370
Insurer Ref: [redacted]

Policy holder: [redacted]

PRI Ref: 293558

Arborist: Rik Boon

Survey Date: 30-04-2024

QC: Ryan Ollman

QC Date: 16-05-2024

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1.0 INTRODUCTION AND BRIEF

1.1 Property Risk Inspection has been instructed on behalf of the building insurers of the insured property. We have been advised that the insured property has suffered differential movement and damage that is considered to have been caused by trees growing adjacent to the property influencing soils beneath its foundations.

1.2 We have been instructed to undertake a survey of the vegetation growing adjacent to the insured property in order to provide our opinion as to whether, based on the available information, any of this vegetation is likely to be influencing soil moisture levels beneath the foundations of the property, and if so, to provide recommendations as to what tree management could be implemented to effectively prevent damage continuing.

1.3 The vegetation growing adjacent to the risk address has been surveyed from the ground. All distances are measured to the nearest point of the risk address unless otherwise stated.

2.0 LIMITATIONS

2.1 Recommendations with respect to tree management are associated with the risk address as stated on the front cover of this report and following consultation with investigating engineers. The survey of trees and any other vegetation is associated with impacts on the risk address subject of this report. Matters of tree health, structural condition, and/or the safety of vegetation under third party control are specifically excluded. Third party land owners are strongly advised to seek their own professional advice as it relates to the health and stability of trees under their control.

2.2 Recommendations do not take account of any necessary permission (statutory or otherwise) that must be obtained before proceeding with any tree works.

2.3 Recommendations do not take account of any requirements for survey or mitigation relating to European or other protected species, e.g. bird nesting or bats. Land owners must obtain their own professional advice in respect of any protected species.

3.0 DISCUSSION AND ANALYSIS

3.1 Soils, soil water and vegetation

All vegetation requires water to live, and this water is substantially accessed from the soil within which the plants' roots grow.

If the soil is classified as a clay soil, then it will hold very much more water than sands, gravels and loam soils. As plants abstract water from the clay soil, the soil volume will "shrink" and "swell" during the summer as water is first removed and then added by summer rainfall. In years in which rainfall during the summer is less than the total amount of water taken from the soil by plants, shrinkage will occur. This shrinkage may remove support from building foundations, leading to cracking in the fabric of the building.

3.2 Vegetation management

The control of trees, shrubs, and climbers, by removal or pruning as appropriate, are proven techniques that can control total soil water loss thereby minimising soil shrinkage and allowing repairs to proceed.

If vegetation management works are carried out promptly, then repairs can usually proceed very quickly and the duration and distress associated with the disruption that tree related subsidence brings can be minimised.

3.3 Third party liaison and statutory controls

Tree roots do not respect physical or property boundaries and can travel for many metres beyond the above ground "dripline" of the canopy of the vegetation.

The purpose of this report is to ascertain which vegetation is the most likely substantial and/or effective contributory cause of the damage witnessed to allow for liaison with third parties or with local administrative Councils as necessary.

3.4 Evidential framework

The engineer has determined on a preliminary basis the damage to the property, its location and the likely mechanism of movement, and has concluded that the building failure is related to differential subsidence damage caused as a result of the action of vegetation. Where a factual geotechnical report has been completed, this will describe the below ground foundation design, soil and geotechnical conditions, as well as any root identification where available.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 Recommendations

On the basis of our findings, we have considered a practical vegetation management specification.

This specification will assist in reducing the impact of the adjacent vegetation on soil moisture levels, thereby potentially stabilising foundations of the affected area of the building.

Where felling has been proposed, this will be on the basis that the vegetation in question would not respond well to a severe reduction in leaf area that would inevitably lead to decay, the development of potential hazards, and an annual or other on-going management commitment and cost.

If pruning is recommended, the specification will be designed to allow continual ease of re-pruning with a reasonable prospect of a reduction in soil water use.

4.2 Recommended vegetation management to address the current subsidence:

Tree No:	Species	Works Required	CA	TPO	Ownership
T1	Willow (Weeping)	Fell and treat stump with eco plugs (broadleaved).	No	Yes	PH

The above works concentrate on seeking to prevent ongoing subsidence at the address.

As part of our survey, we will also seek to advise on any vegetation which is likely to outgrow its location in the short term and may also be an ongoing risk to the property later.

Examples might be young trees that have self-sown next to the address, conifers planted far too close or hedges that need to come under management.

See the main tree tables for these additional works and if appropriate they may be scheduled as part of the tree works above.

5.0 STATUTORY CONTROLS

Hillingdon Council (London Borough) has confirmed that T1 (Willow (Weeping)) is subject to a Tree Preservation Order. However, there are no Conservation Area controls.

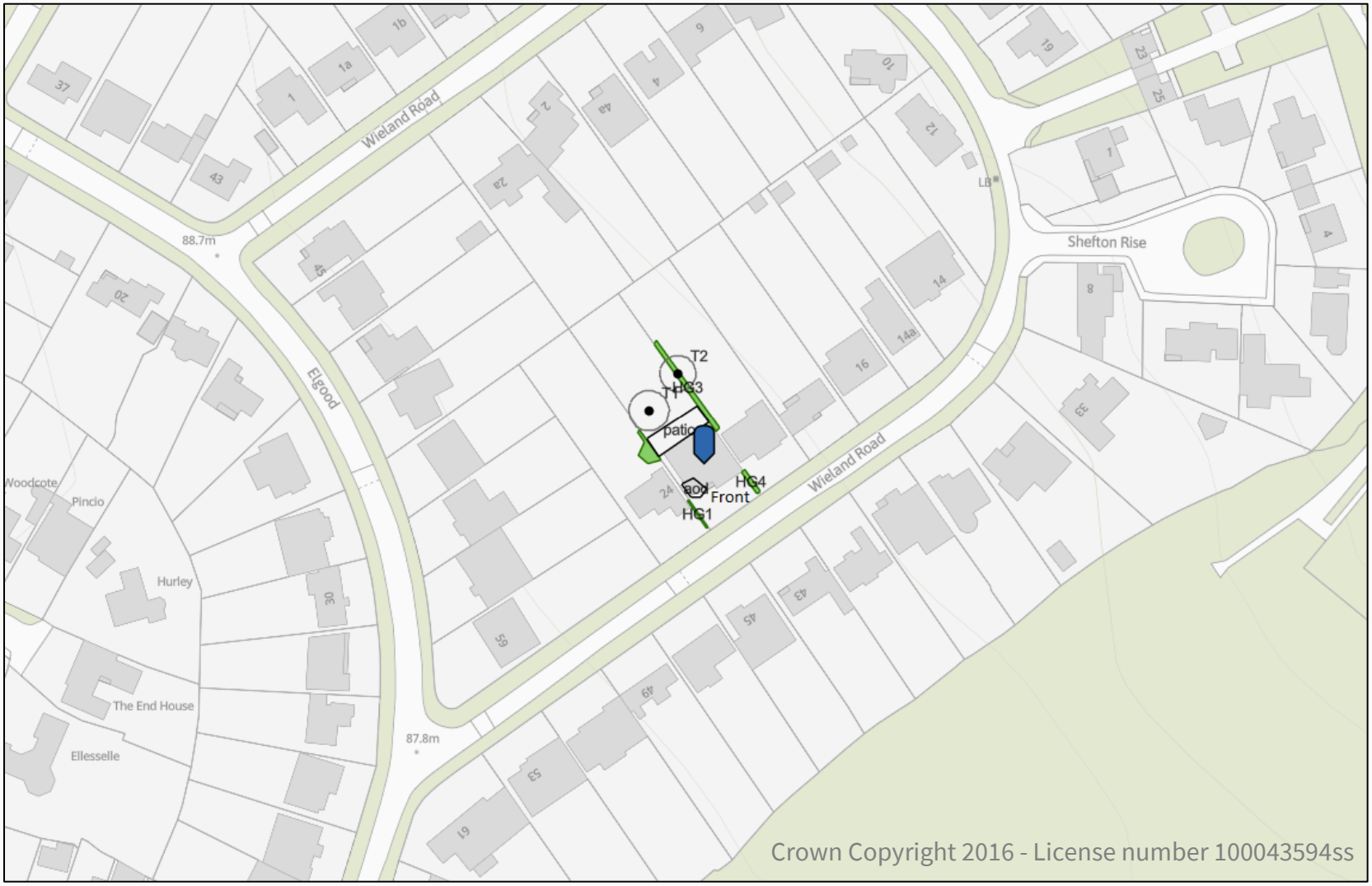
6.0 APPENDIX 1: TREE TABLES

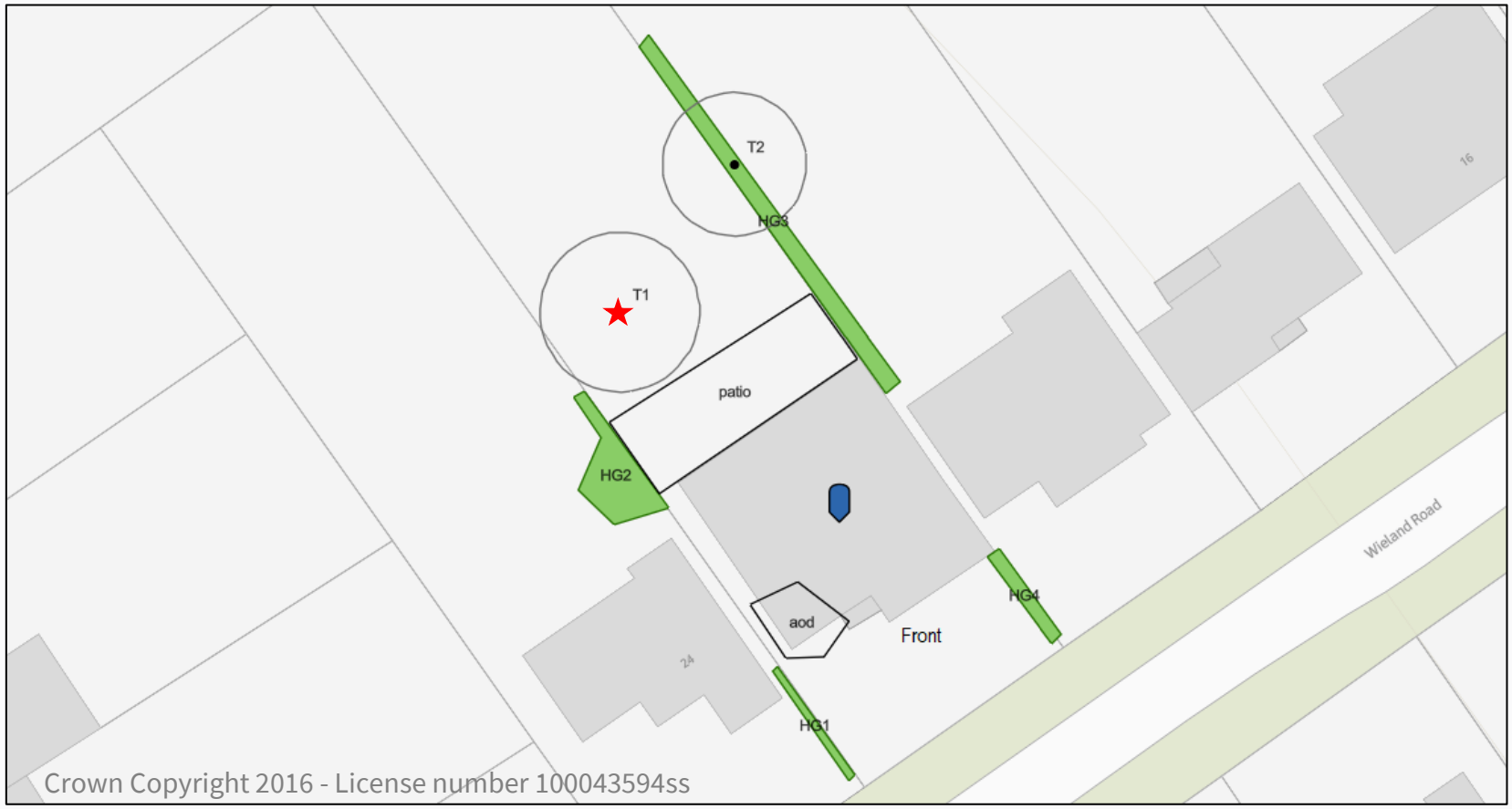
Tree No:	Common Name	Age Class	Condition	Height (m)	Crown Spread (m)	Stem diam. (mm)	No. of Stems	Dist to bldg. (m)	Roots Implicated	Pruning History	Recommendation	Tree Work Constraints	Notes	Owner address	Owner
HG1	Spindle	Early Mature	Good	2.00	1.00	50	20	1.00	No	Managed by regular pruning.	No work required.	There are restrictions to the site or to the tree - contractor should quote.	Approximate DBH range of 10mm – 50mm.	24 Wieland Road, Northwood HA6 3QU	P3P
HG2	Mixed species group	Mature	Good	4.00	2.00	50	20	1.50	No	Subject to historic crown reduction management.	No work required.	The third party may be responsible for works.	Group consists of Forsythia, Hawthorn and Bramble with an approximate DBH range of 10mm – 50mm within group. Although not implicated for current claim, greater management going forwards is advised.	24 Wieland Road, Northwood HA6 3QU	P3P
HG3	Privet	Mature	Good	4.00	2.00	25	20	0.50	No	Managed by regular pruning.	No work required.	The third party may be responsible for works.	Approximate DBH range of 10mm – 30mm.	20 Wieland Road, Northwood HA6 3QU	P3P

Tree No:	Common Name	Age Class	Condition	Height (m)	Crown Spread (m)	Stem diam. (mm)	No. of Stems	Dist to bldg. (m)	Roots Implicated	Pruning History	Recommendation	Tree Work Constraints	Notes	Owner address	Owner
HG4	Laurel (Cherry)	Semi-Mature	Good	3.00	1.00	50	18	0.20	No	Managed by regular pruning.	No work required.	The third party may be responsible for works.	Noted includes single stem of lilac. Approximate DBH range of 10mm – 50mm. Although not implicated in current claim removal to allow 2m clearance from property is advised.	Joint ownership – 22 & 20 Wieland Road, Northwood HA6 3QU	UKN
T1	Willow (Weeping)	Mature	Good	13.00	10.00	825	1	13.50	Yes	Subject to recent crown reduction within the last 12 months.	Fell and treat stump with eco plugs (broadleaved).	There are restrictions to the site or to the tree - contractor should quote.	TPO tree managed as a pollard.	20 Wieland Road, Northwood HA6 3QU	PH
T2	Eucalyptus	Early Mature	Good	16.00	9.00	250	1	15.00	No	No significant past works.	No work required.	The third party may be responsible for works.	Although not implicated for current claim, greater management going forwards is advised.	20 Wieland Road, Northwood HA6 3QU	P3P

* Value is estimated

7.0 APPENDIX 2: SITE PLAN





Location: 22 Wieland Road, Northwood HA6 3QU
Job Ref: 293558
Survey date: 30-04-2024

By Property Risk Inspection - Insurance Services

8.0 APPENDIX 3: SITE PHOTOGRAPHS

HG1 Spindle

HG1 Spindle

HG2 Mixed species group

HG2 Mixed species group

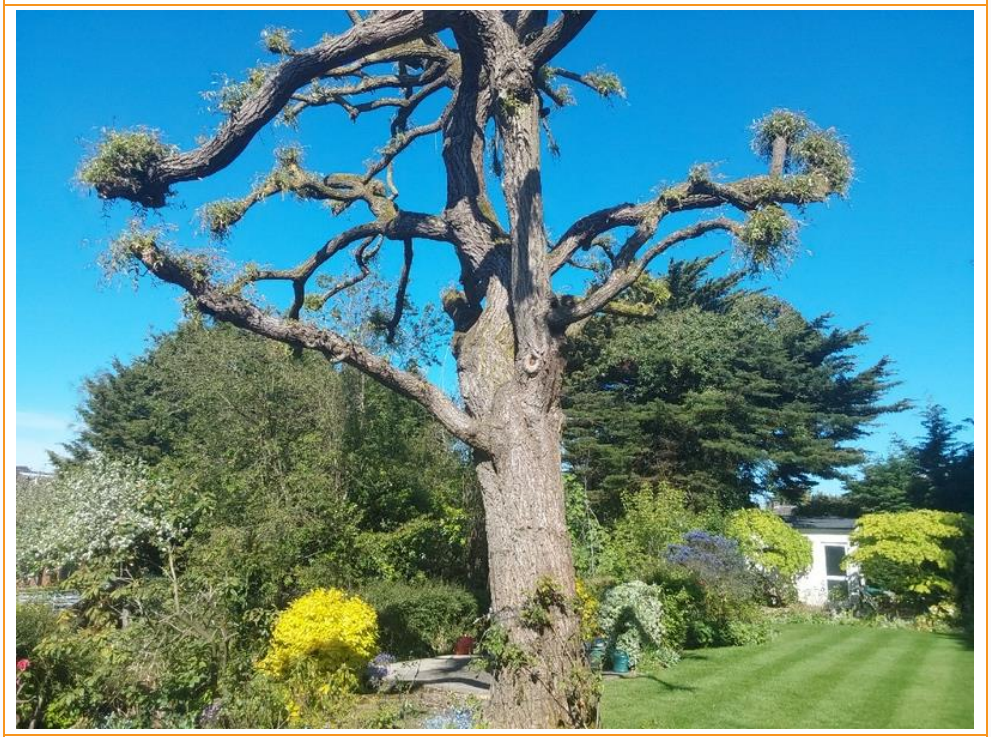
HG3 Privet

HG3 Privet

HG4 Laurel (Cherry)

HG4 Laurel (Cherry)

T1 Willow (Weeping)



T1 Willow (Weeping)

T1 Willow (Weeping)

T2 Eucalyptus

T2 Eucalyptus

No Significant Vegetation

No Significant Vegetation

Noted 2x Cypress 1st & closest is declining and 2nd is outside AOI

Noted 2x Cypress 1st & closest is declining and 2nd is outside AOI

Noted 2x Cypress 1st & closest is declining and 2nd is outside AOI

Noted 3x Cypress keep ornamental size and 1 X Magnolia outside AOI

9.0APPENDIX 4: ENVIRONMENTAL STATEMENT & CO2e POLICY

Tree removal as a remedy for subsidence of low-rise buildings

When subsidence occurs to a residential home which has foundations within clay soils one common cause of movement is the presence of trees, hedges and other vegetation removing moisture from the clay causing a shrinkage of the soil and downward movement of foundations.

There are a variety of ways in which subsidence of low-rise buildings can be mitigated and this report details the vegetation options that can be implemented and that should effectively deal with the cause of movements.

It is acknowledged that removal of trees has impacts on visual amenities for owners and the wider community and that trees play an important role in our towns, cities, and the countryside in a variety of positive ways.

Trees are not recommended for removal without a clear understanding of all these impacts and increasingly of the importance of due consideration relating to the climate crisis, of global climate change and of potential negative impacts in the UK and abroad.

The subsidence event must be remedied to secure the property, its energy efficiency and weather tightness, to maintain its saleability and suitability for mortgage or re-mortgage finance if sold and as a requirement of the insurers commitment under the terms of the policy.

In considering a vegetation remedy the insurer, their advisors and arboricultural specialists are seeking to minimise impacts to the policyholder, to remedy the cause of movement quickly and effectively, and allow subsequent repairs to commence without risk of recurrence of damage. To simply leave the property exposed to intermittent periods of repair based on dry periods would also be hugely disruptive to homeowners and costly in repeat super-structural repairs, vehicle movements, materials and other claim costs in CO2e production and would not comply with a Net Zero agenda.

If vegetation management is not possible or was unsuccessful other remedies that might be attempted whether property underpinning, extensive root barriers or other soil and ground stabilisation have their own issues and impacts. Not least of these is the cost to the environment in CO2e generation from creation of cement and cement substitutes, of steel and other metals production, from costs in plastics and then the material transport, insertion, and excavation effort with heavy machinery.

A single tree removal on a site has a relatively modest annual impact on the CO2e budget loss for a site subject to subsidence of around 25kg CO2e per tree per annum. The cost in total of materials and fuel in tree removal are significantly less than 100kg CO2e.

Heavy engineering and ground stabilisation solutions can range in impacts from around 3000kg CO2e to 10,000kg CO2e in carbon cost and are often difficult to effectively mitigate relative to tree management.

However, this is not simply a “site” consideration and insurers and their advisors through PRI are committed to replace every tree lost on a subsidence scheme in sustainable forests and reforestation projects across the globe with thousands of trees already planted and through carbon reduction investments that stop CO2e being generated to have immediate positive impacts whilst new trees grow.

It’s always sad to see a tree lost but we ensure that the loss is mitigated and replaced with new trees, and this avoids heavy engineering solutions far more costly to the planet. You can learn more about our work in tree planting, climate change and carbon capture by visiting our web site at: www.propertyrisk.co.uk.

Property Risk Inspection LIMITED

SME Climate Hub COMMITTED 2022

Ecologi

Property Risk Inspection

LIMITED

Insurance Services

2 The Courtyards

Phoenix Square

Wyncolls Road

Colchester

Essex CO4 9PE

01206 752539

insurance@propertyriskinspection.co.uk

www.propertyriskinspection.co.uk