

ARBORICULTURAL ASSESSMENT AND CONTACT DAMAGE INVESTIGATION FOR 7 GLENWOOD GARDENS, WATERLOOVILLE, PO8 8TN

Carried out by Matthew Rowden for Nicky Mandziej,
Applicant

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The logo for Rowden Treescapescapes features the company name in a dark green, serif font. The word 'ROWDEN' is on the top line and 'TREESCAPES' is on the bottom line. A thin, light-colored horizontal line separates the two words. A thin vertical line runs through the left side of the text, passing through the 'R' of 'ROWDEN' and the 'T' of 'TREESCAPES'.

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3. INSTRUCTION

I have been instructed by Nicky Mandziej as the homeowner to provide expert witness advice pertaining to the risk posed to her property from offsite trees that has led to a planning application and an appeal to fell one of them that was rejected due to insufficient evidence.

This report is to survey the trees off the site with a zone of influence or root protection area that is within the vicinity of the structure for the potential to cause damage and/or harm for insurance and liability. I refer to the current guidance set out within NTSG Common sense risk management of trees 2011, BS5837:2012 and NHBC guidelines section 4.2 to enable the occupier of the property to have discharged their duty of care.

The risks that I have assessed are: Likelihood of damage to property (indirect or contact), tree failure through structures, and personal harm or injury.

4. LIMITATIONS

This survey is valid for 3 years (adhering to the guidance set out in NTSG 2011). I must be kept in direct supervision of the site at all times in regards to all arboricultural matters in order for the findings in this report to remain valid.

The site was inspected using the VTA method as outlined in Mattheck and Breloer 1994. No detailed decay detection has been carried out.

Measurements taken on site were accurate and have accurately been plotted onto a scale drawing.

No soil analysis has been carried out: assumptions have been made based on data from the BGS, and the species that grow in that area.

I believe that the facts stated in this witness statement are true. I understand that proceedings for contempt of court may be brought against anyone who makes, or causes to be made, a false statement in a document verified by a statement of truth without an honest belief in its truth.

5. SITE DETAILS

The property is a 1960s build, as are all the others along that side of Glenwood close. This means that they are unlikely to have been built within the guidance set by NHBC 4.2, which was overhauled in 1985. There is one magnolia tree on the property in the rear garden, falling into the mature age class.

The remainder of the trees are located within the curtilage of 58 Silvester road, Waterloooville, PO8 8TS, and are all Scots pine trees falling into the young-mature age category. It is likely that these trees are the same age as 7 Glenwood Gardens, and were planted as part of the landscape plan.

The soil conditions are listed by the BGS as: "Lambeth Group-Clay, silt and sand. These sedimentary rocks are fluvial, palustrine and shallow-marine in origin. They are detrital, forming deposits reflecting the channels, floodplains and deltas of a river in a coastal setting (with periodic inundation from the sea)."

This suggests that the soil has a high plasticity index and the risk of indirect damage through seasonal expansion and contraction of the soil is high.

6. LEGAL RESTRICTIONS

The trees within 58 Silvester road are covered by a TPO, ref 0788.

7. PROPOSALS

This report aims to evaluate the risk posed by the trees on and off the site to the property, and whether there is a foreseeability of future damage that these trees could cause to the property via the rooting areas, zone of influence, or likelihood of whole stem failure.

8. DRAWINGS AND DOCUMENTS

The client has not provided any additional documents for this study.

The two industry guidance documents that I refer to throughout this report are NHBC 4.2 2025, and BS5837:2012 Trees in relation to design, demolition and construction.

9. SUMMARY

One pine tree within the curtilage of 58 Silvester road does present a foreseeable risk to my client's property, as its zone of influence extends up to the face of the structure, there are visible lateral roots extending all across the lawn up to the property, and there is what appears to be indirect damage occurring to the neighbouring property (number 5), with a downward rotation to the north aspect. The water demand of the offsite pine trees is liable to rise as they mature, as at present they have not reached full maturity, leading to further problems down the line. To mitigate heave potential, at this moment in time, I am recommending the removal of tree 2 only.

10. FINDINGS (PLEASE SEE APPENDIX 1 FOR SPECIFIC DETAILS)

1. T1 is at full maturity and its rooting area is unlikely to have changed much, if at all within the last ten years. Bearing in mind its low water demand relative to the pines, I discount this tree as posing a significant risk.
2. The property sits inside the zone of influence of the tree 2.
3. There is minor cracking of the hard surfacing up to the property which appears to have been caused by lateral roots pushing between the layers.
4. The property of 5 Glenwood gardens also sits within the zone of influence of tree 2, and appears to have significant cracking to the north west aspect, with a strong northerly downward rotation consistent with subsidence damage. I would advise the homeowners to obtain advice from a structural engineer to ensure that the damage is dealt with effectively.
5. The soil conditions are highly elastic on Lambeth group, suggesting that there is potential for expansion in the winter and contraction/desiccation during the summer:
 - a. **Dissolution and Sinkholes:** The Lambeth Group often overlies Chalk. Dissolution of this underlying chalk creates underground fissures, voids, and sinkholes, causing the overlying Lambeth Group sediments to subside or collapse into these cavities.
 - b. **Shrink-Swell Clay:** The group contains thick clay deposits, which are subject to high shrink-swell behaviour. Shrinkage occurs when clay dries out (frequently influenced by tree roots or climate variations), leading to ground movement and subsidence.
 - c. **Groundwater Changes:** Changes in groundwater levels—specifically falling water levels (under-drainage) or significant water withdrawal—can cause consolidation of the sand and clay layers, resulting in significant settlement.
 - d. **Unstable Cavities:** The presence of materials like lignite can cause differential settlement
5. NHBC 4.2 2025 stipulates that on high elasticity shrinkable clay soils, the foundations for structures must be a minimum of 1m deep, or must deploy engineering solutions such as piles or rafts to avoid the movement associated with seasonal expansion and contraction of the soil. It is highly unlikely that any of the properties on Glenwood gardens were built to this specification, meaning that there is a definite foreseeability of these trees (2 and G3) causing damage as they mature.
6. Tree roots are also highly opportunistic, liking to push between layers where there is increased warmth and condensation.
7. Trees 2 and G3 are only at young-maturity. Their water demand is likely to increase as they mature.

11. ANALYSIS

The Legal position

1. In this instance, the case law precedent that comes to mind is that of *Perrin and another Vs Northampton BC 2007*.
2. To summarise:

Investigations: The claimant alleged that a local authority owned tree that was covered by a tree preservation order had caused subsidence damage to their property.

Live roots were uncovered beneath the foundations of the property, but not directly or conclusively attributed to the defendant's tree.

The local planning authority rejected the application to fell the tree on the grounds that the data was insufficient to shift the burden of proof to that tree.

Vegetation management: The LPA relayed the following to the claimant, regarding the tree as high value:

- i. The amenity of the tree was considered to outweigh the reasons for the tree's removal.
- ii. The claimant could apply to prune the encroaching roots.
- iii. The tree could be pruned to decrease root growth/ingress, and reduce water demand.
- iv. That there were engineering solutions such as underpinning for the property.

Judgement: The judge initially found in favour of the claimant, saying that the presence of a TPO is irrelevant: that the homeowner had the same rights with a TPO'd tree and a non TPO'd tree, and rejected the idea that engineering solutions should be considered first, and that the work carried out to the tree must be the "minimum to abate nuisance". The tree was to be felled. At appeal, the judge's verdict was found to be incorrect, and the judges ruled in favour of the defendants: that protected trees should remain protected until other solutions had been explored, such as underpinning or root barriers.

Engineering solutions

3. Based on the legal precedent analysed above, engineering solutions must be explored first, prior to the option of felling.
 - i. **Root pruning with a root barrier:** Tree 2 is not particularly close to the structure, so there is a potential for this to work as an option. However, root barriers are notoriously ineffectual, requiring deep excavation, and can often be circumnavigated by the roots if they aren't high enough above the soil level, or deep enough to an extent that the soil is "un-rootable". The issue with this is that the root barriers would have to go through my client's property on the edge of the plotted RPA (see appendix 2), at considerable inconvenience to her, and considerable expense to the tree owner. Due to the complexity of Lambeth group formations, root barriers are often considered impractical. In the instance of tree 2, it is not a high enough value tree to justify the expense and disruption.
 - ii. **Under pinning:** This would mitigate any risk posed to the structure from these young-mature trees, but runs to a significant expense ($>£1500/\text{linear meter}$), and vast amounts of disruption. It is not reasonable for the applicant to bear such a cost for someone else's trees.
 - iii. The water demand of trees 2 and G3 is liable to increase as they mature, and there is a definite foreseeability of the damage that these trees can cause to the surrounding properties. Having explored engineering solutions, they're simply impractical: on a Helliwell valuation of tree 2, it scores $(6 \times 2 \times 2 \times 1 \times 1 \times 1) \times £53.99 = £1295.76$. This is simply not a high enough value to justify anything other than removal of the

tree, and secures the right for my client and other homeowners along that close to enjoy their properties without nuisance.

4. The other legal precedent that springs to mind in this instance is *Delaware Mansions v Westminster CC* 2002 AC 321 HL. The judge ruled that based on the proximity of the tree to the structure, and its presence on London clay, the damage was foreseeable, and that from the initial onset of damage, the council had ample time to fell the tree and avoid the need to underpin the entire property. At present, there is damage to number 5 Glenwood gardens (built to exactly the same specification as my client's property), and the future damage these trees could do is foreseeable.

12.CONCLUSION:

Based on *Delaware Mansions v Westminster CC* 2002 AC 321 HL I see no difference in this situation. There is one moderate water demand tree in close proximity to the property, on a high plasticity soil, whilst the adjacent building of the same age is already having issues with potential indirect damage, and whose footings are of an unknown depth.

With this in mind, as a bare minimum to mitigate the risk posed to my client's property, and to also mitigate any heave potential from significantly reduced water demand, tree 2 must be felled. The remainder must be monitored for future damage potential, but based on the age of the properties around these trees, and the presence of shrinkable clay soil, there is a definite foreseeability of them causing future damage.

13.RECOMMENDATIONS

- i. Fell tree 2.
- ii. Formal re-inspection date for March 2029. Informal observations may be made by visiting arboricultural contractors, or the homeowner.

Matthew Rowden *ABC ProfDip.Arb L6, BTEC NatDip.Arb L3*

14. REFERENCES

- a. BS3998:2010
- b. *Modern Arboriculture*, Alex Shigo
- c. *The body language of trees*, Dr Claus Mattheck
- d. *Plant Biomechanics*, Karl Niklas
- e. NTSG *Common sense risk management of trees* 2011
- f. TDAG 2014

Factor	Points Available									
	0	0.5	1	2	3	4	5	6	7	8
i) Size (m2)	<2	2 – 5	5 -10	10 – 20	20 – 30	30 – 50	50 – 100	100 – 150	150 – 200	over 200
ii) Duration (years)	<2	–	2-5	4-40	40-100	100+				
iii) Importance	None	Very little	Little	Some	Considerable	Great				
iv) Tree Cover		Woodland	Many	Some	Few	None				
v) Suitability	Not	Poor	Just	Fairly	Very	Particularly				
vi) Form	–	Poor	Average	Good	–	–				

Visual amenity valuation table showing factors and scores available for individual trees

i.



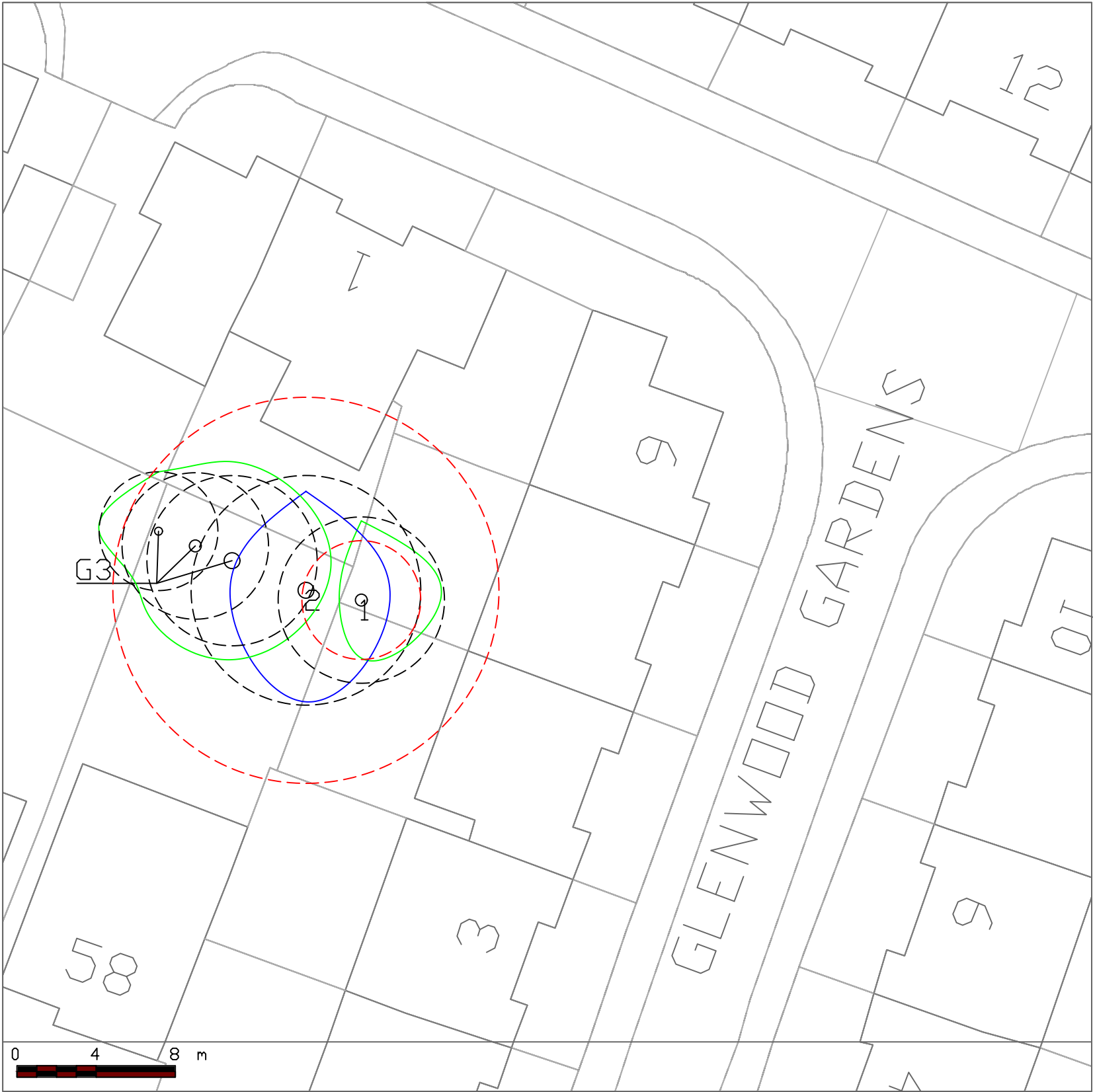
TREE NO. ON PLAN	SPECIES	HT (M)	CROWN SPREAD (M) N E S W	STEM DIA. @1.25M (MM) RPA (RADIUS IN M) NHBC WATER DEMAND CLASSIFICATION ZONE OF ROOTING INFLUENCE (RADIUS IN M)	LIFE STAGE	ESTIMATED REMAINING CONTRIBUTION IN YEARS	GENERAL OBSERVATIONS PHYSIOLOGICAL CONDITION- P STRUCTURAL CONDITION - S	PRELIMINARY MANAGEMENT RECOMMENDATIONS	PRIORITY
1	<i>Magnolia grandiflora</i>	7	4 4 3 1	350 4.2 Low 3.5	M	>20	P- Good S- Good Low water demand tree unlikely to pose a significant threat to the property or surrounding structures.	None	Low
2	<i>Pinus sylvestris</i>	13	5 4 6 4	480 5.8 Moderate 9.75	YM	<5	P- Good S- Fair Zone of influence spreads right up to properties to SE aspect. Visible cracking of hard surfacing in number 7, and a significant downward rotation of number 5 towards the north aspect which may be attributed to the trees onsite.	Fell	Moderate

TREE NO. ON PLAN	SPECIES	HT (M)	CROWN SPREAD (M) N E S W	STEM DIA. @1.25M (MM) RPA (RADIUS IN M) NHBC WATER DEMAND CLASSIFICATION ZONE OF ROOTING INFLUENCE (RADIUS IN M)	LIFE STAGE	ESTIMATED REMAINING CONTRIBUTION IN YEARS	GENERAL OBSERVATIONS PHYSIOLOGICAL CONDITION- P STRUCTURAL CONDITION - S	PRELIMINARY MANAGEMENT RECOMMENDATIONS	PRIORITY
G3	<i>Pinus sylvestris</i> x 3	12 11 5	3 - 5m radius	360, 310, 250 4.3, 3.7, 3 Moderate 9, 8.25, 3.75	YM	>20	P- Good S- Fair Zone of influence unlikely to reach any of the properties at this moment in time, although that may be liable to change as these trees mature.	None	Low

SURVEY SCHEDULE KEY

1. Tree ID: Refers to numbers as shown in the tree location plan.
2. Species: scientific name
3. Height (measured in meters)
4. Crown spread (measured in meters at the points of North, South, East and West). Where “#” is used as a suffix, the measurements are approximate.
5. Stem diameter measured at 1.25m height in mm. Root protection area calculated as 12x stem diameter, based on BS5837:2012. Water demand classification based on NHBC 4.2 2025, and zone of influence calculated based on 1.25 x height of tree for high water demand, 0.75 for moderate water demand, and 0.5 for low.
6. Life stage: Young (Y) (small trees at a very early stage of their growth), young mature (YM)(larger trees at an early life stage with the potential to still grow considerably larger), Mature (MA)(trees which have reached their maximum size and are self sustaining at the point), Over mature (OM)(trees that are beginning to decline and starting to die back from the tips), Veteran (V)(trees that are rapidly in decline and steadily losing canopy spread), Dead (D)
7. Estimated remaining contribution in years: Until such a time as any residual amenity is lost.
8. General observations - a visual assessment of the physiological and structural condition of the tree, classed as :Poor, fair, good, dead, decline. Physiologically refers to the vitality and vigour of the tree; Structural refers to the presence of physical defects within the tree's structural makeup. For example, a multi stemmed tree from a lapsed pollard with multiple defects in those unions, but with good vitality and good leaf cover would be classed as physiologically good, but structurally poor.
9. Preliminary management recommendations - recommendations to maintain the tree as part of the proposals, or assessing whether its retention is viable, whether it be the suggestion of aerial inspections, remedial pruning, or detailed decay inspections.
10. Likelihood of causing damage/ harm: None, low, moderate, high and critical. These mean that respectively, the recommendations are to be actioned with no time scale and within 5 years (green canopy spread), 1 year (blue canopy spread), 6 months (red canopy spread). Trees to be felled will have the canopy spread denoted in a red dotted line.

111000



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General Notes

Key

Low risk trees	
Moderate risk trees	
High risk trees	
RPA	
Zone of influence	

No.	Revision/Issue	Date

Firm Name and Address

ROWDEN
TREESCAPES

Project Name and Address

7 Glenwood
Gardens,
WATERLOOVILLE,
POB 8TN

Project	Sheet
RTC/NM/7GGV/SBI/V1	A3 Tree Location Plan
27/02/2026	
Scale	
1:200	

APPENDIX 3: IMAGES (DOWNWARD ROTATION OF 5 GLENWOOD GARDENS)



APPENDIX 4: QUALIFICATIONS AND EXPERIENCE

Rowden Treescapes is owned and run by Matthew Rowden (*ProfDipArb L6*), and consolidates nearly two decades of experience both within the theory and practical side of the industry. Matthew is an experienced professional who made his bones at the coal face of this industry. As the owner, Matthew Rowden holds a professional diploma in arboriculture, qualifying him to the level of expert witness. He has also climbed for over 50 of the leading companies in the South of England, building a professional path as a big tree specialist. Alongside his experience as a climber within the industry, he's a contributor to industry media such as ProArb Magazine, regularly appears on podcasts, and consults on a wide range of issues from scientific studies to new pruning methods.

Education and qualifications

Secondary education:

Kings' School, Winchester: 2000- 2005. 12 GCSEs

Further education:

Peter Symonds College, Winchester: 2005 - 2007. A levels: History - B, Politics - B, English literature - B, Economics - D

Arboricultural education:

Sparsholt College, Winchester: 2007 - 2009. BTEC L3 National Diploma Arboriculture - Triple distinction

TreeLife academy: 2020 -2022. ABC Professional Diploma Arboriculture L6

Certification

NPTC units 30, 31, 32, 38, 39, MEWP, Brushwood chipper, Chainsaw from a MEWP St Johns ambulance First aid at work.

MediArb emergency first aid + F.

Work experience

Full time employment:

Hampton's Tree Care, Winchester. Lead climber 2008 - 2011.

Sub Arb Ltd. Company director 2011 - 2017

Harz Tree Surgeons Ltd. Company director 2017 - 2019

Awbridge Arborists. Lead climber 2019 - 2020

Rowden's Tree Consultancy and Training Ltd. Company director 2023 - present.

Sub Contract climbing employment

Awbridge Arborists Ltd, Romsey: 2011 - present

Romsey Tree Surgeons Ltd, Romsey: 2009 - present

Hampton's Tree care, Winchester: 2011 - 2018

Lakewood Tree Surgeons, Chandler's Ford: 2011 - 2017

Itchen Valley Trees, Winchester: 2013 - 2016

Hampshire Tree and Landscapes, Winchester: 2013 - 2018

Catt's Tree Care, Southampton: 2020 - 2023

Arb Elite Tree Care Ltd, Fareham: 2020 - present

Salcey Group, Milton Keynes: 2014- 2016

Down Tree Care, Stockbridge: 2011 - present

Wildewood Tree and Garden, Southampton: 2022 - present

Tree consultancy sub contract employment

Romsey Tree Surgeons: 2021 - present

Awbridge Arborists: 2019 - present

Catts Tree Care: 2021 - present

Arb Elite Tree Care: 2021 - present

C & D Trees, Winchester: 2023 - present
Peter Yeates Arboriculture, Winchester: 2022 - present
HRG Tree surgeons: 2023 - present
Langley Arb Ltd: 2024 - present

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