

Assessment of the potential impact that the replacement beech tree might have on the new gates

**No. 4 Newlands Avenue, Radlett, Herts
WD7 6EL**

CLIENT:	Mr Barry Welck
CLIENT REF:	BW/NARH
AAAL REF:	SAL/KMA/11819
AAAL CONSULTANT:	Shane A Lanigan
REPORT DATE:	13th November 2023

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1. Introduction

1.1 Mr Barry Welck asked if I could help him respond to the note sent by Hertsmere Council (by email) on 2nd November 2023. It concerns the council's request for an assessment of the impact of the proposed new gates on any future tree.

1.2 Hertsmere Council are likely to impose a condition relating to the planting of a replacement tree following the removal of a hazardous beech from the front garden of his property, No. 4 Newlands Avenue. It will likely be a common beech, standard 10/12 tree. Specifically, it will be around 10-12 feet (3-4m) high and 10-12cms girth.

2. Background information

2.1 I inspected a mature beech tree growing in the front garden of Mr Welck's property on the afternoon of Thursday 19th October 2023. During the inspection I found the tree to be hazardous and in need of urgent removal. Mr Welck submitted the required 'five-day' notice of intent which Hertsmere Council accepted. All local authorities have a duty to secure the planting/replacement of trees where possible, and accordingly they have applied such a condition to their agreement to this tree's removal. Somewhat unusually, Hertsmere Planning Department have asked that an assessment of the impact of the proposed new gates on this tree be made.

3. The tree

3.1 The replacement tree is to be a common beech (*Fagus sylvatica* L.) to be planted in approximately the same area as that which was removed. At planting-time the root-ball will likely be a maximum of 1 m diameter. Soon after planting small absorbing roots will begin to develop from the existing structural, second, third and perhaps higher order roots. Trees sourced from nurseries rarely have an intact 'tap root.' This is almost always severed when the seedling/sapling tree is lifted from its planting bed and either transported or containerised.

3.1.1 the remaining, proximal section of the tap root often produces a side tap root to replace that which is lost. Horizontally or obliquely disposed roots usually respond to severance of their distal sections by producing the small roots referred to above. The new roots grow through the soil by means of a meristematic zone behind the root tip producing new cells to push that tip through the soil. Roots will grow where there is sufficient oxygen and water to service their metabolic needs. They do not, in contradiction of popular belief 'force' their way through engineered structures or impermeable geological strata. Rather, when encountering obstructions such as these roots will divert, either laterally or vertically, sometimes in both directions.

- 3.1.2 Beech trees develop a Plate Root System in which lateral roots grow at a relatively constant depth below the soil surface. They taper rapidly, decreasing in diameter significantly when 2 m or so from the root buttress. It is rare to find significantly sized roots more than 3-4 m from these points. Roots can grow out to significant distances – one and a half to two times tree height at full maturity. However, at these distances they are very small, usually less than 1 mm in diameter and so will not harm, or be harmed by engineered structures. They are transient too. A high proportion of the absorbing roots die each year and are replaced. This is the natural way of root systems.
- 3.1.3 On this site the new beech tree will likely achieve 12 m or so in height and a diameter at breast height (around 1.5 m above ground level) of around 250 mm in around twenty-five years- the appended photograph shows a beech tree that I planted in 1998 (Appendix 1). I do not expect any roots of significant size to be growing near the gates within that time. Nor can I envisage how installing the new gates will affect the newly planted tree in any way.

4. Conclusion

- 4.1 It will likely be 5-10 years before any small absorbing roots of the new tree reach the new gates. When they do so, they will simply grow around the posts/pillars and on into the subsoil beneath the driveway of No. 4 and the roadway outside – providing these mediums permit sufficient soil or water infiltration. This will be as the original tree grew and survived in that location.
- 4.2 I cannot see any way that the new gates will adversely affect the newly planted tree, either now or in the future.

5. ASSUMPTIONS AND LIMITING CONDITIONS

- 5.1 Any legal description provided to the consultant/appraiser is assumed to be correct. Any titles and ownerships to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.
- 5.2 Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible, however, the consultant/appraiser can neither guarantee nor be responsible for the accuracy of information provided by others.
- 5.3 The consultant/appraiser shall not be required to give testimony or attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.
- 5.4 Loss or alteration of any part of this report invalidates the entire report.
- 5.5 Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to who, it is addressed, without the prior expressed written or verbal consent of the consultant/appraiser.
- 5.6 Neither all nor any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales or other media, without the prior expressed written or verbal consent of the consultant/appraiser particularly as to value conclusions, identity of the consultant/appraiser, or any reference to any professional society or institute or to any initialed designation conferred upon the consultant/appraiser as stated in his qualification.
- 5.7 This report and values expressed herein represent the opinion of the consultant/appraiser, and the consultant's/appraiser's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
- 5.8 Sketches, diagrams, graphs, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys.
- 5.9 Unless expressed otherwise, (1) information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection; and (2) the inspection was by means of visual examination of accessible items.

6. CERTIFICATE OF PERFORMANCE

I, Shane A. Lanigan, certify that:

6.1 I have personally inspected the trees and the property referred to in this report and have stated my findings accurately. The extent of the evaluation or appraisal is stated in the attached report and the Terms of Assignment.

6.2 I have no current or prospective interest in the vegetation or the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.

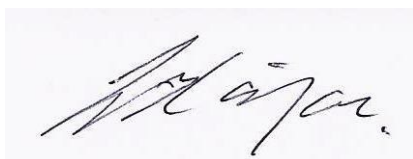
6.3 The analysis, opinions and conclusions stated herein are my own and are based on current scientific procedures and facts.

6.4 My analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted arboricultural practices.

6.5 No one provided significant professional assistance to me, except as indicated within the report.

6.6 My compensation is not contingent upon the reporting of a predetermined conclusion that favours the cause of the client or any other party nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any subsequent events.

6.7 I further certify that I am a Chartered Arboriculturist being a professional member of the Institute of Chartered Foresters and a Registered Consultant of that professional body. I am a Registered Consultant of the Arboricultural Association, and a Registered Consulting Arborist (#588) of the American Society of Consulting Arborists. I am also an ISA Board-Certified Master Arborist and hold the Royal Forestry Society Professional Diploma in Arboriculture. In matters of tree inspection, I hold the LANTRA Professional Tree Inspection Module with integrated assessment and update training. I have worked full time in the field of Arboriculture for a period of fifty-three years.



**S.A. Lanigan – Chartered Arboriculturist
MICFor, Dip.Arb.(RFS), M.Arbor A, RCarborA – ISA - BCMA,CUEW,
ASCA Registered Consulting Arborist #588**

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7. PROFESSIONAL DETAILS OF MR S.A. LANIGAN

Qualifications: I hold the City and Guilds Certificate in Tree Surgery and am an International Society of Arboriculture Certified Arborist, also holding the International Society of Arboriculture Municipal Arborist Accreditation and being a Board- Certified Master Arborist of that professional body.

In addition, I hold the Royal Forestry Society's Professional Diploma in Arboriculture which is a degree level qualification rated as level 6 on the qualifications and curriculum framework. It is a qualification specific to the arboricultural profession. In matters of tree safety and risk assessment I have undertaken and completed the LANTRA Awards Professional Tree Inspection Course and integrated assessment, I also hold the International Society of Arboriculture Tree Risk Assessment Qualification (TRAQ).

I am a registered consultant of the American Society of Consulting Arborists (ASCA RCA#588), a Chartered Arboriculturist, being a Professional Member of the Institute of Chartered Foresters and a Registered Consultant of the Arboricultural Association.

In respect of legal issues, I am also a Cardiff University Law School Certified Expert Witness in both civil and criminal proceedings.

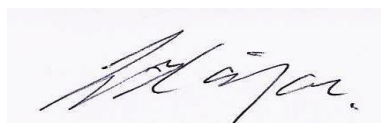
My professional memberships include:

- The American Society of Consulting Arborists
- The Arboricultural Association
- The Consulting Arborist Society
- The International Society of Arboriculture
- The Institute of Chartered Foresters
- The Royal Forestry Society

Career details: I am a second- generation arborist having worked from 1971 to 1979 for a private tree care company before forming my own arboricultural company in 1979.

Continuing professional development: I maintain and improve my professional knowledge by being an active member of the five professional bodies referred to above. In addition, I attend a high number of arboriculture related seminars and the annual conferences of the International Society of Arboriculture, the Arboricultural Association, and the Institute of Chartered Foresters (ICF). I was also privileged to serve on the credentialing council of the International Society of Arboriculture educational certification department for seven years. Having served two consecutive terms as an elected member. I 'rolled off' the council in late 2020.

Currently, I am the senior consultant within Abbots Arboricultural Advice Limited. This is my consulting practice which is a forward-looking operation. In-order to keep abreast of changes in arboriculture and consulting practice I attend many conferences and seminars which contribute to my CPD/CEU obligations.



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APPENDIX 1

PHOTOGRAPHS OF BEECH TREE PLANTED IN 1998 (referred to in 3.1.3), the adjacent shed provides some scaling





APPENDIX 2

References:

Hirons, A., Thomas, P.A., 2018. *Applied Tree Biology*. 1st ed. The Atrium, Southern Gate, Chichester, West Sussex PO19 8SQ UK. John Wiley & Sons Ltd.