



Arboricultural Implication Assessment (AIA)

An Arboricultural Implication Assessment derived from the Tree Survey and Report

2 Gog Magog Way
Stapleford,
Cambridge
CB22 5BQ

Ref No: 230302

Client:	Mr & Mrs Trower 2 Gog Magog Way Stapleford Cambs CB22 5BQ
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Instructed by:	Mrs Trower
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Prepared by:	N. Booth
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Contents

1. INTRODUCTION.....	3
1.1 Aims of this Assessment	3
1.2 Aspects not dealt with within this Assessment	3
2. IMPLICATIONS OF PROPOSED DEVELOPMENT ON TREE POPULATION	3
2.1 Description of Proposed Development.....	3
2.2 Considerations of those trees that will be affected by the proposed build	4
2.3 Summary of effects on the Trees from Proposed Layout.....	9
2.4 Summary of Mitigation required	9
2.5 Infrastructure requirements	9
2.6 Installation of Protective Barriers and Ground Protection.	9
2.7 Consideration of Ecological concerns	10
3. CHANGE IN SITE USE AND TREE MANAGEMENT IMPLICATIONS	10
3.1 THE IMPLICATIONS OF THE POTENTIAL GROWTH AND/OR NUISANCE OF THE TREES WITHIN THE NEXT 10 YEARS.....	10
3.2 POTENTIAL ROOT DAMAGE TO INFRASTRUCTURE	10
4. CONCLUSIONS.....	10
4.1 FURTHER CONSIDERATIONS.....	10
APPENDIX 1: LIMITATIONS OF ARBORICULTURAL IMPLICATION ASSESSMENT	11

1. Introduction

1.1 Aims of this Assessment

The aim of this Arboricultural Implication Assessment (AIA) is to consider how the proposed development and the associated trees will co-exist and interact in the present and the future.

The AIA addresses and considers issues such as statutory constraints, above and below constraints, alternatives to tree loss and infrastructure requirements. It also considers such issues as end use of space, the need to prune or remove trees due to excessive shade or encroachment and whether it is possible to plant new trees.

1.2 Aspects not dealt with within this Assessment

Please also refer to Appendix 1.

The AIA does not include an Arboricultural Method Statement (AMS).

This AIA does not consider issues relating to boundary lines and the proposed structures. It may be that such issues effect the ownership of a tree/s, but the assessment does not deal with this issue. (Issues of boundary line dispute and/or ownership of vegetation may require a land registry search and reference to local records. (This can be conducted if so requested).

2. Implications of Proposed Development on Tree Population

2.1 Description of Proposed Development

From our understanding, the proposed works involve the following stages:

1. Demolition of existing dwelling and detached garage.
2. Construction of 1no. dwelling with associated detached garage and bin stores.
3. Hard and soft landscaping including remodelling of an existing pond, installation of decking/stepping stones, installation of sliding wooden entrance gate and new tree planting.

2.2 Considerations of those trees that will be affected by the proposed build

Tree no.	Species	Cat.	Removal due to		Mitigation required		Details of how proposed affects tree and outline of mitigation required
			Works	Con.	Crown	RPA	
T1	Hazel	C	✓	N/A	N/A	N/A	1. Tree is located within area of new paving. It is not considered viable to retain and protect this tree given the predicted nearby construction activity. Tree is of low quality 'C' category as defined by BS5837 Category. Loss of tree mitigated by replacement planting. Tree and stump to be removed to allow space for proposed works to proceed
T2	Cherry	C	✓	N/A	N/A	N/A	1. Tree is located within area of new paving. It is not considered viable to retain and protect this tree given the predicted nearby construction activity. Tree is of low quality 'C' category as defined by BS5837 Category. Loss of tree mitigated by replacement planting. Tree and stump to be removed to allow space for proposed works to proceed
T3	Holly	C	✓	N/A	N/A	N/A	1. Tree is located within the access for the proposed works. It is not considered viable to retain and protect this tree given the predicted nearby construction activity. Tree is of low quality 'C' category as defined by BS5837 Category. Loss of tree mitigated by replacement planting. Tree and stump to be removed to allow space for proposed works to proceed
T4	Cypress	C	N/A	✓	N/A	N/A	Notice of Intention to carry out work to trees in a Conservation Area previously submitted to South Cambridge District Council and they have decided not to object the removal of T4 - Cypress. Reference: 21/0814/TTCA Date of Decision: 5 th August 2021
T5	Cypress	U	N/A	✓	N/A	N/A	'U Category' tree according to the BS5837:2012 categorisation. Fell due to poor structural condition regardless of the proposed works.
T6	Cypress	C	N/A	✓	N/A	N/A	Notice of Intention to carry out work to trees in a Conservation Area previously submitted to South Cambridge District Council and they have decided not to object the removal of T6 - Cypress. Reference: 21/0814/TTCA Date of Decision: 5 th August 2021

Tree no.	Species	Cat.	Removal due to		Mitigation required		Details of how proposed affects tree and outline of mitigation required
			Works	Con.	Crown	RPA	
T7	Cherry	C	✓	N/A	N/A	N/A	<p>1. Tree is located directly adjacent to the existing dwelling to be demolished and the proposed dwelling to be constructed. It is not considered viable to retain and protect this tree given the predicted nearby construction activity. Tree is of low quality 'C' category as defined by BS5837 Category. Loss of tree mitigated by replacement planting.</p> <p>1.1 Tree and stump to be removed to allow space for proposed works to proceed</p>
T8	Cherry	C	N/A	N/A	N/A	✓	<p>1. Removal of an existing boundary fence encroaching within the RPA.</p> <p>1.1 Mitigation to include the use of hand tools only to dismantle and remove the existing fence.</p> <p>2. Proposed installation of Permeable Paving encroach by less than 7% within the RPA.</p> <p>2.1 Retain the existing sub-base for incorporation within the proposed permeable paving will remove any requirement for excavations into soils. Therefore, should have minimal impact on this tree.</p> <p>3. Proposed soft landscaping encroaches within the RPA.</p> <p>3.1 New tree planting to be located outside of the RPA.</p> <p>3.2 Holes for the shrubs to be excavated by hand tools only and to be of smallest dimensions. Final location for the shrubs to avoid significant sized roots (>25mm diameter).</p>
T9	Cherry	U	N/A	✓	N/A	N/A	<p>'U Category' tree according to the BS5837:2012 categorisation.</p> <p>Fell due to poor structural condition regardless of the proposed works.</p>
T10	Acer	C	N/A	N/A	N/A	N/A	No Issues
T11	Acer	C	N/A	N/A	N/A	N/A	No Issues
T12	Acer	C	N/A	N/A	N/A	✓	<p>1. Removal of existing patio and installation of proposed decking encroaches within the RPA.</p> <p>1.1 Retaining the existing sub-base for incorporation for proposed decking will remove any requirement for excavations into soils therefore, should have no impact on this tree.</p>

Tree no.	Species	Cat.	Removal due to		Mitigation required		Details of how proposed affects tree and outline of mitigation required
			Works	Con.	Crown	RPA	
T13	Horse Chestnut	B2	N/A	N/A	N/A	✓	<p>1. Remodelling of the existing pond encroaches within the RPA by less than 1%.</p> <p>1.1 This encroachment is considered minimal however, mitigation will be required by the use of hand tools to excavate under Arboricultural Supervision.</p> <p>1.2 Any roots encountered are to be pruned back to growth point if possible using a sharp tool such as secateurs. Significant sized roots (>25mm diameter) or significant roots mass are to be recorded to inform future management of the tree.</p>
T14	Horse Chestnut	B2	N/A	N/A	N/A	N/A	No Issues
T15	Horse Chestnut	B2	N/A	N/A	N/A	N/A	No Issues
T16	Laurel	C	N/A	N/A	N/A	N/A	No Issues
T17	Yew	B	N/A	N/A	N/A	N/A	No Issues
T18	Laburnum	B	N/A	N/A	N/A	N/A	No Issues

Tree no.	Species	Cat.	Removal due to		Mitigation required		Details of how proposed affects tree and outline of mitigation required
			Works	Con.	Crown	RPA	
T19	Apple	B	N/A	N/A	✓	✓	<ol style="list-style-type: none"> 1. Canopy to the east overhangs proposed demolition by 1.3m and further overhangs proposed works to the new paving by 1.8m. <ol style="list-style-type: none"> 1.1 Laterally prune the east of the canopy by 1.5m and crown lift the remaining crown to the east by 2m from ground level to allow for works to proceed. 2. Demolition of the existing dwelling encroaches within 5% of the RPA and construction of the proposed dwelling encroaches within 15% of the RPA (5% covered by the existing dwelling). <ol style="list-style-type: none"> 2.1 Machinery used for demolition of existing build to be of smallest dimensions suitable for the operation; and located within footprint of structure, demolishing inwards away from the tree using 'top down pull-back method'. 2.2 Existing foundations located within RPA to be retained if practical to remove requirement for excavations and potential damage to roots. 2.3 If existing foundations are not retained, removal of existing foundations within the RPA to be carried out using hand tools only under Arboricultural Supervision. 2.4 The encroachment for the proposed dwelling is approx. 10% therefore, mitigation will be required for the excavation of the foundations within the RPA. 2.5 Excavations for the foundations to be carried out using of hand tools and air spade under Arboricultural Supervision. Any roots encountered are to be pruned back to growth point if possible using a sharp tool such as secateurs. Significant sized roots (>25mm diameter) or significant roots mass are to be recorded to inform future management of the tree. 3. Proposed impermeable paving has the potential to effect 35% of the RPA. <ol style="list-style-type: none"> 3.1 Removal of the existing hard standing to be removed using hand tools only with the sub-base left in-situ. Proposed new paving to utilise existing sub-base to remove requirement for excavations and potential damage to roots. 3.2 If new proposed paving is to be installed within soft ground it is to be installed without excavation using a no-dig 3d cellular confinement system, removing requirement to lower soil levels in the RPA. 4. Installation of the new proposed Brick-slot water drainage within the RPA of T19 must be carried out by hand and under Arboricultural Supervision 5. Due to the extensive works that are being carried within the RPA, it is recommended that soil improvement within this area is carried out. This should include decompaction by using an air spade.

Tree no.	Species	Cat.	Removal due to		Mitigation required		Details of how proposed affects tree and outline of mitigation required
			Works	Con.	Crown	RPA	
T20	Prunus	C	✓	N/A	N/A	N/A	1. Tree is located within area of new paving. It is not considered viable to retain and protect this tree given the predicted nearby construction activity. Tree is of low quality 'C' category as defined by BS5837 Category. Loss of tree mitigated by replacement planting. Tree and stump to be removed to allow space for proposed works to proceed
T21	Willow	C	N/A	N/A	N/A	N/A	No Issues
T22	Cherry	B	N/A	N/A	N/A	✓	1. Proposed soft landscaping encroaches within the RPA. 1.1 New tree planting to be located outside of the RPA. 1.2 Holes for the shrubs to be excavated by hand tools only and to be of smallest dimensions. Final location for the shrubs to avoid significant sized roots (>25mm diameter).
T23	Field Maple	C	N/A	N/A	N/A	✓	1. Proposed soft landscaping encroaches within the RPA. 1.1 New tree planting to be located outside of the RPA. 1.2 Holes for the shrubs to be excavated by hand tools only and to be of smallest dimensions. Final location for the shrubs to avoid significant sized roots (>25mm diameter).
H1	Yew Hedge	C	N/A	N/A	✓	N/A	1. Canopy to the south in direct contact with proposed sliding wooden gate and bin stores. 1.1 Prune back south of canopy back to boundary line to allow proposed works to proceed.
H2	Cypress Hedge	C	✓	N/A	N/A	N/A	1. Hedge is located directly adjacent to access for the proposed works. It is not considered viable to retain and protect this hedge given the predicted nearby construction activity. Hedge is of low quality 'C' category as defined by BS5837 Category. Loss of hedge mitigated by replacement planting. 1.1 Hedge and stumps to be removed to allow space for proposed works to proceed

2.3 Summary of effects on the Trees from Proposed Layout

Consideration	Number of trees
Trees, groups and hedges to be retained	13 trees and 1 hedges
Category A trees, groups and hedges to be removed	0 trees
Category B trees, groups and hedges to be removed	0 tree
Category C trees, groups and hedges and groups to be removed	7 trees and 1 hedge
Category U trees, groups and hedges to be removed	2 trees

The proposed works will necessitate the removal of 7no. trees and 1no. hedge. T5 and T9 is a low value 'U' Category tree which has been recommended for removal due to its poor condition, regardless of the proposed works. Notice of Intention to carry out work to trees in a Conservation Area previously submitted to South Cambridge District Council and they have decided not to object the removal of T4 and T6 – Cypress (Reference: 21/0814/TTCA Date of Decision: 5th August 2021).

The proposed works include replacement planting therefore, it is considered this will mitigate the loss of the trees. Replacement trees to be carefully chosen good quality specimens to ensure a quality and viability of the tree stock for the future.

2.4 Summary of Mitigation required

Above ground mitigation will include relatively minor pruning to maintain space for access for proposed works.

Below ground mitigation will involve utilising existing foundation if practical, the retention of the existing sub-bases, the installation of a no-dig 3d cellular confinement system for the proposed reconfigure of existing terrace and suitable ground protection to be installed.

2.5 Infrastructure requirements

We are currently unaware of the details in regard to new infra-structure requirements relating to the proposed development. Where possible existing utility services should be utilised for the new development.

If the installation of new trenches are required they must be conducted in accordance with National Joint Utilities Group (2007) Publication Volume 4: Issue 2 Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees.

If trenching is to be carried out within the RPA of a retained tree Arboricultural advice must be sought to ensure that minimum impact is caused to the rooting area.

2.6 Installation of Protective Barriers and Ground Protection.

It will be necessary to install protective barriers to prevent incursion within the RPAs of retained trees during the build process. The protective barriers will remain in-situ throughout the main construction and only removed on completion of the main build. The specification of the Protective Barriers will be sufficiently robust to prevent access into the Construction Exclusion Zones and in accordance with BS5837:2012.

Ground protection is to be installed between Tree Protection fencing and the proposed works within the RPA's of T12, T13 and T14 . This is to ensure there is no additional compaction or rutting of soils within the RPAs whilst maintaining sufficient space for construction.

2.7 Consideration of Ecological concerns

No ecological concerns have been raised in relation to the works or the trees on the site and none were noted at the time of the survey. Ecological considerations that involve EU Habitats Directive will overrule any Arboricultural recommendations as given within this report.

3. Change in Site Use and Tree Management Implications

3.1 The Implications of the Potential Growth and/or Nuisance of the Trees within the next 10 years

Tree no.	Species	Details of required works	Timing of works
T19	Apple	Pruning to maintain clear of building.	Prune back from build on a 3 to 5 year cycle.
H1	Yew	Pruning to maintain clear of sliding wooden gate.	Annually

3.2 Potential root damage to Infrastructure

This report does not consider the implications of trees, whether retained or removed, indirectly or directly on the proposed works.

4. Conclusions

4.1 Further considerations

An Arboricultural Method Statement (AMS) has been drawn up along with a Tree Protection Plan (TPP).

Appendix 1: Limitations of Arboricultural Implication Assessment

Limitations of the Arboricultural Implication Assessment

Please also refer to sections 1.2 and 1.3 at the beginning of this report.

- This Assessment is based upon information obtained from the Tree Survey.
- All dimensions and measurements are based upon the previous data collected from the survey and from the design drawings as provided.
- This Assessment considers the possible implications to proposed future built structures. Suggestions may be given outlining alternative proposals for building layout. Such suggestions must be considered by the Architect/ Designer/or Engineer before implementing any of the suggestions.

Data on which the Assessment is based

- Validity, accuracy and findings of the report will directly relate to the accuracy of information provided at the time of the survey.
- No checking of independent data provided will be undertaken. This is particularly relevant with regards to scaled maps and drawings provided to Writtle Forest Ltd.

Validation of the Assessment

- The Assessment considerations/ findings in this tree report are valid for one year.
- Such considerations/ findings will become invalid if any building works are undertaken, soil levels are altered or tree work undertaken.
- If there are any alterations to either the property or soil levels, or if tree works are carried out, it is recommended that a new tree survey/report is undertaken.

Trees in relation to other Properties:

- This assessment only considers the trees in relation to the site and the proposed structures as identified.
- The Assessment only considers those trees as are relevant to the proposed structures. Comment is not made with regard to trees in relation to structures beyond the boundaries as identified, (third party property).
- Issues with regard to neighbouring property and trees on the site considered maybe relevant if new planting is considered or required.
- Damage to, or possibility of damage to, any other structure that is not referred to within the report is not considered unless otherwise specified. This includes both neighbouring structures and any other structure on the property.

Trees in Relation to Subsidence, Heave and Direct damage

- This report does not deal with issues relating to subsidence or heave in relation to any built structures and surrounding vegetation. However, it may be prudent to consider the effects of heave on any property if trees are removed.
- Unless information relating to soils is presented or if the client has instructed the assessment to consider the type and depth of foundations, then this is not considered within the assessment.

Trees subject to statutory controls:

- Where trees are covered by a Tree Preservation Order or are located in a Conservation Area it will be necessary to consult the local authority before any tree works, other than certain exemptions, can be carried out.
- The works specified above are necessary for reasonable management and should be acceptable to the local authority. However, tree owners should appreciate that the local authority may take an alternative point of view and have the option to refuse consent.

Trees are subject to changes outside man's control:

- Trees are living organisms subject to changes outside man's control.
- Changes to ground water conditions will affect the root growth of a tree. Such changes are not always the result of man's influence and other factors may be involved.

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