ARBORICULTURAL IMPACT ASSESSMENT

(INC. TREE SURVEY TO BS 5837:2012)

CLIENT -	Montague Jamieson
PROJECT -	49 High Street
DOC. REF -	P2925–AIA01 V1
PLANNING REF -	n/a
CREATION DATE -	29/11/2022

W. www.lignaconsultancy.co.uk
E. info@lignaconsultancy.co.uk
T. 01284 598008

TABLE OF CONTENTS

PURPOSE OF DOCUMENT

This document assesses the anticipated impact that the proposed scheme will have on the surrounding tree population, and outlines possible technical design considerations and mitigation measures that should be implemented in order to minimise the overall arboricultural impact.

ARBORICULTURAL DOCUMENT REGISTER

Planning Documents		Version Issued	
Document	Ref.	Current Version	Document Date
Arb. Impact Assessment	P2925-AIA01	V1	29/11/2022
Arb. Site Plan (Existing)	P2925-ASP01	V1	23/11/2022
Arb. Site Plan (Proposed)	P2925-ASP02	V1	23/11/2022

1. SUMMARY

1.1 PROPOSED DEVELOPMENT

1.1.1 Renovation of existing buildings with a small extension on to existing foundations.

1.2 TREE SURVEY

1.2.1 The following woody vegetation was considered to be of note in relation to any development of the site: 8 individual trees, 2 groups of trees.

1.3 PROTECTION MEASURES

1.3.1 The implementation of tree protection measures will be required to ensure that the site's retained trees remain undamaged. Information as to the requirements of such can be found in *Section 3.8.*

1.4 TECHNICAL DESIGN CONSIDERATIONS

1.4.1 The design team must consider and implement the design advice provided in *Section 3.9* of this document.

1.5 PROVISION OF NEW TREE PLANTINGS

1.5.1 New tree plantings are not considered to be necessary as part of the proposed scheme.

1.6 CONCLUSION

1.6.1 The table below summarizes the trees which will be lost, pruned, or protected by special measures during the development project.

	Tree Category			
	A	B	C	U
Trees/groups to be removed (* groups to have sections removed)	-	-	T8	-
Hedges/shrubs to be removed (* hedges to have sections removed)	-	-	-	-
Trees/groups/hedges to be pruned	-	-	-	-
Trees to be subjected to RPA incursions (excl. no-dig techniques)	T4	-	T2	-

Trees to be protected through arboricultural measures / supervision (other than barriers and ground protection)	T4	-	T2
Trees requiring specialist design considerations (for purposes of minimising arboricultural impact)	T4	-	T2

1.6.2 Considering the anticipated arboricultural impact from the construction activities associated with the development of the site, and the implementation of the proposed mitigation measures outlined in this document, the proposed development's arboricultural impact is considered to be **low.**

2 GENERAL INFORMATION

2.1 BRIEF

2.1.1 Ligna Consultancy Ltd were instructed by the client, Montague Jamieson, to undertake a tree survey in accordance with BS 5837:2012 and to prepare an arboricultural impact assessment for the proposed scheme at 49 High Street.

2.2 PROPOSED DEVELOPMENT

2.2.1 Renovation of existing buildings with a small extension on to existing foundations.

2.3 SITE

2.3.1 The site discussed within this report is located at:

49 High Street
Lakenheath,
Brandon,
Suffolk,
IP27 9DS

2.4 PROJECT CONTACT

Role	Name	Telephone	Email
Arboricultural Surveyor	Alistair Godfrey	01284 598008	alistair@lignaconsultancy.co.uk

2.5 SCOPE OF REPORT

2.5.1 This report consists of the following:

- Appraisal of arboricultural impact
- Outline of tree protection & mitigation measures

2.5.2 Appendices included with this report are:

- Tree Survey
- Site Photos
- Arboricultural Site Plan (Existing) (P2925-ASP01 V1)
- Arboricultural Site Plan (Proposed) (P2925-ASP02 V1)

2.6 DOCUMENTS PROVIDED

2.6.1 The following documents were submitted to Ligna Consultancy Ltd for consideration:

- Existing Site Plan (388_02_A Existing Ground Floor Plan, Elevations, Section and Site Layout)
- Proposed Site Plan (388_03_E Proposed Floor Plans, Elevations, Section, Site Layout and 3Ds)

2.7 AUTHOR

2.7.1 Alistair Godfrey is a tree surveyor. He has worked in arboriculture for 6 years, initially working with tree surgery firms to carry out domestic tree work operations. He has worked at Cambridge University Botanic Gardens for 3 years on the Tree and Shrub team and has recently worked on a large-scale tree planting plan with the National Trust. He has a level 4 Certificate in arboriculture and LANTRA Professional Tree Inspection.

2.7.2 This report has been checked and edited by Benjamin Hallinan MArborA.

2.8 LIMITATIONS

2.8.1 Detailed inspections and recommendations relating to tree condition and health are not included within this report.

2.8.2 Any engineering solutions presented within this document are recommendations for their suitability from an arboricultural viewpoint. The architect and structural engineers should make the final decision on the suitability of the methods advised.

2.8.3 Information provided by third parties, considered in the creation of this report, is assumed to be correct.

2.9 PROTECTED TREES

2.9.1 Details of trees (if any) that are protected by Tree Preservation Orders (TPOs) or are situated within Conservation Area are available upon request.

2.9.2 It is the standard approach of Ligna Consultancy not to obtain this information from the LPA prior to an application, as the LPA will provide details of nearby protected trees as part of the consultation.

2.9.3 It should also be noted that granted planning permission that includes tree work specifications overrides Tree Preservation Orders and Conservation Area protections (approved works only).

2.10 NESTING BIRDS / BATS

2.10.1 Officially, the 'Bird Nesting Season' is between February and August (Natural England). During this time, it is recommended that vegetation works (tree or hedge cutting) or site clearance is avoided if there is a reasonable potential for the disruption of nesting birds.

2.10.2 All parties involved in the management and/or development of a site must actively avoid causing disturbance and disruption to nesting birds. Failure to do this may result in an infringement of the *Wildlife and Countryside Act 1981* and the *European Habitats Directive 1992 / Nesting Birds Directive*.

2.10.3 When tree or vegetation clearance work has to be undertaken during the nesting season, a pre works survey needs to be carried out by a suitably competent person.

2.10.4 Generally, it should be assumed that birds will be nesting in trees, and it is down to the site/project manager that any activities that have the potential to disturb nesting birds are assessed for their suitability and potential impact,

and records are kept that show that any works carried out in the management of trees and other vegetation have not disturbed nesting birds.

2.11 SUMMARY OF TERMS

Term	Definition
Species	The type of tree.
Stem	The main woody upright portion of a tree that is supported by the roots and supports the crown.
Branch Spread	The length of a tree's branches from stem to tip measured from the north, east, south and western sides of the crown.
BS 5837	The commonly used name for the official guidance document relating to trees and development *(BS 5837:2012 - Trees in relation to design, demolition and construction – Recommendations)*
Canopy / Crown	The branches, leaves, and reproductive structures extending from the trunk or main stems of a tree/trees.
DBH	Diameter of a tree's stem, measured as per BS 5837:2012
RPA	The root protection area (RPA) is a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority.
Facilitation Tree Works	Tree pruning/felling required in order to facilitate the implementation of the proposed development.
Tolerance	The relative tolerance the species can show to construction related activities such as root-loss, soil compaction and other development pressures.
Category (Cat.)	Categorisation of the tree's value based on the methodology shown in Appendix 1, A1.4. This rating takes into account the size, quality, condition, estimated remaining life expectancy and legal status of each tree.

2.12 COPYRIGHT

2.12.1 This report was prepared for use by the Clients and their contractors for planning purposes. The report and its appendices may not be copied, modified, or distributed beyond the necessary parties without the written consent of Ligna Consultancy Ltd.

3 ARBORICULTURAL IMPACT ASSESSMENT

ASSESSMENT & APPRAISAL OF IMPACTS

The following section lists and discusses any aspects of the proposed design and its implementation that has the potential to harm nearby trees, and outlines possible mitigation measures:

3.1 TREES TO BE REMOVED TO FACILITATE THE PROPOSED SCHEME

Affected Trees	Cat. C: T8 (Cupressus spp.)
Impact Appraisal & Mitigation	T4 is due to be removed owing to its location within the proposed layout. Due the low arboricultural significance of this tree, any amenity or arboricultural impact resulting from its removal is considered to be negligible. The removal does not require offsetting through new plantings.
Significance (with mitigation)	Negligible

3.2 TREES TO BE PRUNED AS PART OF THE PROPOSED SCHEME

Affected Trees	n/a
Pruning works	No trees are expected to be pruned as part of this scheme.
Significance (with mitigation)	Negligible

3.3 DEMOLITION OF EXISTING WALL

Affected Trees	Cat. A: T4 (Sequoiadendron giganteum) Cat. C: T2 (Cupressus x leylandii)
Impact Appraisal & Mitigation	Whilst the demolition of the garden wall will not directly impact any retained tree, it has the potential to cause damage to nearby trees if done incorrectly. *Damage can be prevented through the use of the following arboriculturally sensitive methods:* *- Any plant and vehicles engaged in demolition works must either operate from outside the RPA of all trees or from atop existing surfacing or temporary ground protection.* *- Should the retention of the existing foundations be unfeasible, their removal must be accomplished via excavation on the southern edge of*

	the foundations. These excavations must not exceed the depth of the foundation, and should not extend more than 0.3m from the wall.
Significance *(with mitigation)*	Negligible

3.4 INSTALLATION OF NEW GARDEN WALL

Affected Trees	Cat. A: T4 (Sequoiadendron giganteum) Cat. C: T2 (Cupressus x leylandii)
Impact Appraisal & Mitigation	The excavation and installation of the new garden wall foundations has the potential to result in sizeable RPA incursions to T2 and T4 if traditional construction methods are used. *Owing to the size of the potential incursion, structural beams, laid at or above ground level should be used to bridge intact tree roots. This will reduce the number of roots severed during the installation of the foundations.* Assuming the above methodology is used, any lasting impact on the overall health and condition of the trees is believed to be well within tolerable limits.
Significance *(with mitigation)*	Negligible

3.5 INSTALLATION OF NEW SURFACING

Affected Trees	Cat. A: T4 (Sequoiadendron giganteum) Cat. C: T2 (Cupressus x leylandii)
Impact Appraisal & Mitigation	As part of the proposed scheme, new surfacing is to be installed within the RPAs of T2 and T4. *To prevent root loss and disturbance, a specialist no-dig 3D cellular system (Cellweb TRP) with a depth of at least 100mm (refer to manufacturer's guidance on suitable loading) must be used as the subbase for the new surfacing. (see Arb. Site Plan Proposed for required area of specialist surfacing).* *Prior to this being installed, the top 50mm of turf may be removed manually.* This type of specialist surfacing allows for the retention of underlying tree roots while protecting against possible soil compaction damage and allowing the continuation of water and gas exchange between soil and air.
Significance *(with mitigation)*	Negligible

3.6 IMPLEMENTATION OF PROPOSED SCHEME

Affected Trees	All retained trees
Impact Appraisal & Mitigation	During the construction process, all retained trees are susceptible to damage from general construction related activities. *In order to reduce the risk of construction damage to the site's retained trees, temporary ground protection and stem protection must be installed before the commencement of any site works.*
Significance *(with mitigation)*	Negligible

TREE RELATED SHADING AND NUISANCES

3.7 LONG-TERM IMPACT OF RETAINED TREES ON PROPOSED SCHEME

3.7.1 Shading

3.7.1.1 None of the trees observed are considered to possess a significant potential for a negative shading impact on any of the proposed dwellings; any tree-related shading of property is expected to be minimal, transient and well within the recommended levels outlined in BRE 209 guidance.

Note - Shading arcs, as discussed in BS 5837, have not been included on the Arb. Site Plans owing to their poor accuracy, and the extreme unlikelihood that the shading will not be within tolerable levels. Ligna Consultancy Ltd have undertaken many detailed shading assessments, and in all situations, light levels have been shown to be well within acceptable levels (BRE 209). Situations where lighting levels may not be suitable are most likely to involve rows of large dense conifers near to dwellings.

3.7.2 Canopy Growth

3.7.2.1 The layout of the scheme has been designed with consideration of the location and growth potential of nearby trees. Owing to such, no noteworthy contention between tree canopies and property are anticipated.

3.7.3 Nuisances

3.7.3.1 Owing to the tree species present within and around the site, and the layout of the proposed scheme, additional unreasonable tree-related nuisances, such as leaf and fruit-fall, are not thought to exist beyond what might generally be considered as acceptable limits.

MITIGATION PROPOSAL

The following proposals, if approved, should be detailed within an arboricultural method statement and tree protection plan prior to the commencement of any development associated works:

3.8 PROTECTIVE MEASURES

3.8.1 Temporary Ground Protection

3.8.1.1 Ground protection boards shall be installed within parts of the RPAs of T3, T4 and T7 to protect them from soil compaction damage during the construction of the proposed scheme.

3.8.2 Tree Protection Barriers

3.8.2.1 Barriers shall be erected, and a construction exclusion zone established, to protect all retained trees during the construction of the proposed scheme.

3.8.3 Arb. Sensitive Demolition of Garden Wall

3.8.3.1 Any plant and vehicles engaged in demolition works must either operate from outside the RPA of all trees or from atop existing surfacing or temporary ground protection.

3.8.3.2 Should the retention of the existing foundations be unfeasible, their removal must be accomplished via excavation on the southern edge of the foundations. These excavations must not exceed the depth of the foundation, and should not extend more than 0.3m from the wall.

3.9 TECHNICAL DESIGN CONSIDERATIONS

3.9.1 Installation of New Garden Wall

3.9.1.1 To reduce root loss resulting from the installation of the building foundations, structural beams, laid at or above ground level should be used to bridge intact tree roots. These should be based on hand dug piers.

3.9.2 Use of Specialist No-Dig Surfacing within RPAs

3.9.2.1 A ≥100mm deep no-dig 3D geocell system (we recommend Cellweb TRP) must be used for all new surfacing within the RPAs of T2 and T4.

3.9.2.2 Owing to the nature of no-dig surfacing, the FSL will likely be increased as a result of its use. This may result in the need to increase the level of areas of adjacent existing surfacing so as to provide a consistent surface level.

3.9.3 Routing and Installation of Utility Apparatus

3.9.3.1 Wherever possible, utility apparatus should be routed outside of any RPAs. Failing this, services should be routed together in common ducts, with any inspection chambers being located outside of the RPA.

3.9.3.2 Where it is necessary for underground services to intersect an RPA, specialist excavation methods should be used.

3.9.3.3 In such situations, the design team should consult with Ligna Consultancy in order to establish a suitable services route, and specify the specialist excavation method most suitable.

3.9.4 Potential for Subsidence & Heave

3.9.4.1 Where shrinkable sub-soils may be present, the potential for tree related subsidence and/or ground heave (resultant from proposed tree removals) must be considered by a structural engineer prior to the final specification of foundation depth/type.

3.10 PROVISION OF NEW TREE PLANTINGS

3.10.1 New tree plantings are not considered to be necessary as part of the proposed scheme.

CONCLUSION

3.11 SUMMARY OF THE DEVELOPMENT'S OVERALL IMPACT

3.11.1 The table below summarizes the trees which will be lost, pruned, or protected by special measures during the development project.

	Tree Category			
	A	B	C	U
Trees/groups to be removed (* groups to have sections removed)	-	-	T8	-
Hedges/shrubs to be removed (* hedges to have sections removed)	-	-	-	-
Trees/groups/hedges to be pruned	-	-	-	-
Trees to be subjected to RPA incursions (excl. no-dig techniques)	T4	-	T2	-
Trees to be protected through arboricultural	T4	-	T2	

measures / supervision (other than barriers and ground protection)			
Trees requiring specialist design considerations (for purposes of minimising arboricultural impact)	T4	-	T2

3.11.2 Considering the anticipated arboricultural impact from the construction activities associated with the development of the site, and the implementation of the proposed mitigation measures outlined in this document, the proposed development's arboricultural impact is considered to be **low.**

4 APPENDICES

4.1 APPENDICES

4.1.1 The following appendices are included within this document:

Appendix	Document
1	Tree Survey
2	Site Photos
3	Arboricultural Site Plan (Existing) (P2925-ASP01)
4	Arboricultural Site Plan (Proposed) (P2925-ASP02)

APPENDIX 1
TREE SURVEY

APPENDIX 1 – TREE SURVEY

A1.1 SITE VISIT

i) A site visit was undertaken by Alistair Godfrey of Ligna Consultancy, on the 23/11/2022.

A1.2 METHOD OF DATA COLLECTION

i) Data was collected using the recommendations laid out in British Standard 5837:2012 as a guide. All observations were from ground level without detailed or invasive investigations.

ii) Measurements have been calculated using a laser measurer and diameter tape/calipers. Where this was not possible or reasonably practical, measurements have estimated by eye.

iii) The trees were surveyed and assessed impartially and irrespective of the proposed development. Management recommendations should be implemented regardless of any proposed development for reasons of sound arboricultural management or safety.

iv) The method used for categorizing the trees can be seen in section A1.3. This is an improved variation of the method suggested in BS 5837:2012.

v) BS 5837:2012 recommends that better quality (category A and B trees) are retained where possible. Planning permission overrides a Tree Preservation Order and Conservation Area. Furthermore, trees are a material consideration in the UK planning system irrespective of their legal status. Trees in land adjacent to the site are considered where they may be impacted by development; for example, when roots or branches encroach onto the site.

vi) Trees may be recorded as group or woodland where:

- The canopies touch.
- The trees have more group value than individual merit.
- They are part of a formal landscape feature like an avenue.
- It is impractical to record them individually.

vii) Trees within groups or woodlands etc. are recorded individually where it is necessary to distinguish them from others.

A1.3 SURVEY KEY & GLOSSARY OF TERMS

Term	Definition
Ref.	Tree reference number
Tag	Physical tag attached to some trees with unique identification number (not the same as Ref.)
Species	The trees' scientific and common name
Height	The measured/estimated height of the tree (measured in metres)
Branch Spread	The length of a tree's branches from stem to tip measured from the north, east, south and western sides of the crown.
Crown Clearance	Crown clearance is the measurement of height between the trees branches in the outer third of its crown and the floor. Crown clearance has only been recorded where it is considered to be of relevance to the proposed scheme. The height of the first significant branch is also generally recorded and is discussed where relevant.
DBH	Diameter of a trees' stem, measured as per BS 5837:2012
RPA	The root protection area (RPA) is a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority.
Life Stage	A quantification of a trees' state of physical maturity: • Young • Semi-mature • Early-Mature • Mature • Late-mature • Veteran • Dead
Structural	Summary statement relating to the structural condition of a tree: • Good (no apparent problems / normal optimal condition for a tree of its species.) • Fair (minor problems, no instabilities) • Poor (major problems, potential instabilities) • Unstable (extreme problems, likely to result in failure)
Vitality	Summary statement relating to the overall observed vitality of a tree: • Good (no apparent problems / normal optimal vitality for a tree of its species) • Fair (minor / temporary reduction in tree vitality) • Poor (major reduction in tree vitality, often with some branch dieback) • Dead / Dying (extreme / total reduction in tree vitality)
General Management Recommendations	Remedial tree works recommended regardless of whether the site is developed or not.
Facilitation Tree Works	Tree pruning/felling required in order to facilitate the implementation of the proposed development.
Development Related Tree Works	Tree works that are required as part of the proposed scheme.
Tolerance	The relative tolerance the species can show to construction related activities such as root-loss, soil compaction and other development pressures.
Cat.	Categorisation of the tree's value based on the methodology shown in A1.4. This rating takes into account the size, quality, condition, estimated remaining life expectancy and legal status of each tree.

A1.4 TREE CATEGORISATION METHODOLOGY

Category and definition	Criteria / Subcategories			Label on plan
	1 – Mainly arboricultural qualities	2 – Mainly landscape qualities	3 – Mainly cultural values/conservation	
Trees worthy of being a material constraint:				
Category A Trees of high quality, capable of providing a significant contribution to local amenity (usually large in size) and that generally possess an estimated remaining life expectancy of 40+ years.	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	Cat. A
Category B Trees of moderate quality and with an estimated remaining life expectancy of 20+ years, that are capable of providing a notable contribution to local amenity but are lacking the condition of category A trees (usually medium to large in size).	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage); or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	Cat. B
Trees worthy of material consideration:				
Category C Trees of a low quality, small size, or incapability to be protected within the legal framework. These trees generally possess an estimated remaining life expectancy of 10+ years.	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	Cat. C
Trees unsuitable for retention owing to condition:				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low-quality trees suppressing adjacent trees of better quality			Cat. U

A1.5 SUMMARY OF DATA

i) The following woody vegetation was considered to be of note in relation to any development of the site: 8 individual trees, 2 groups of trees.

ii) The following tables show the category distribution and life stage of the trees distributed within the site:

	Tree Category			
	A	B	C	U
Individual Trees	1	3	4	-
Groups	-	-	2	-
Woodland Groups	-	-	-	-
Hedges	-	-	-	-
Shrubs	-	-	-	-

Table 1 - Table showing category distribution within site.

	Life Stage						
	Young	Semi-Mature	Early-Mature	Mature	Late-Mature	Veteran	Dead
Individual Trees	-	3	2	3	-	-	-
Groups	-	2	-	-	-	-	-
Woodland Groups	-	-	-	-	-	-	-
Hedges	-	-	-	-	-	-	-
Shrubs	-	-	-	-	-	-	-

Table 2 - Table showing life stage distribution within the site.

Ref.	Tag	Species	Height (m)	Crown (N/E/S/W)	Crown Clearance (m)	DBH (mm)	Life Stage	Structural	Vitality	Additional Notes	General Management Recommendations	Priority	Development Related Tree Works	Tolerance	RPA Radius (m)	RPA Area (m^2)	Cat.
T1		Aesculus hippocastanum (Horse chestnut)	21.5	8 / 8 / 8 / 8	2.5	900	Mature	Good	Good	On neighbouring property in church yard. Minor deadwood in crown - not of concern. Estimated dimensions used due to access restrictions.				Moderate - Good	10.8	366.4	B1
T2		Cupressus x leylandii (Leylandii)	13	6.6 / 6 / 6 / 6	2	690	Early-Mature	Good	Good	Multi-stemmed tree. Tight union. Minor deadwood in crown - not of concern. One stem bifurcates at 2 metres. Tree is causing minor disruption to the adjacent hard surfacing - low risk of causing trips and falls.				Good	8.3	215.3	C3
T3		Ginkgo biloba (Ginkgo)	16	6 / 5.5 / 5.5 / 5	2	730	Mature	Good	Good	Minor deadwood in crown - not of concern.				Good	8.8	241.1	B1
T4		Sequoiadendron giganteum (Giant redwood)	25	5 / 5 / 5 / 5	1.5	1320	Mature	Good	Good	New steps installed at base of tree - not of concern at this point in time. Minor deadwood in crown - not of concern.				-	15.8	788.2	A1
T5		Cupressus x leylandii (Leylandii)	6	3 / 3 / 3 / 3	2	215	Semi-Mature	Good	Good	Crown lifted to 2 metres.				Good	2.6	20.9	C3
T6		Quercus robur (English oak)	13	5 / 5 / 5 / 5		400	Early-Mature	Good	Good	On neighbouring property. Estimated dimensions used due to access restrictions. Stem separates in to 3 main stems at 3 metres. Minor deadwood in crown - not of concern.				Moderate - Good	4.8	72.4	B2
T7		Ilex spp. (Holly)	6.5	2 / 2 / 2 / 2	1.5	220	Semi-Mature	Good	Good					Good	2.6	21.9	C3
T8		Cupressus spp. (Cypresses)	3.5	1 / 1 / 1 / 1		240	Semi-Mature	Good	Good				Remove	Good	2.9	26.1	C3
G1		Cupressus x leylandii (Leylandii)	2	1 / 1 / 1 / 1		50	Semi-Mature	Good	Good	On neighbouring property. Estimated dimensions used due to access restrictions.				Good	0.6	1.1	C3
G2		Mixed group	2	1 / 1 / 1 / 1		30	Semi-Mature	Good	Good	Mixed shrubs: Choisya ternata, Viburnum tinus, Euonymus Spp.				-	0.4	0.4	C3

APPENDIX 2
SITE PHOTOGRAPHS

Note - Below is a selection of site photographs intended for general site context. Should you require supplementary site/tree photographs please contact info@lignaconsultancy.co.uk:

Figure 1 – Existing car port.

APPENDIX 2 – SITE PHOTOGRAPHS

Figure 2 – Existing barn.

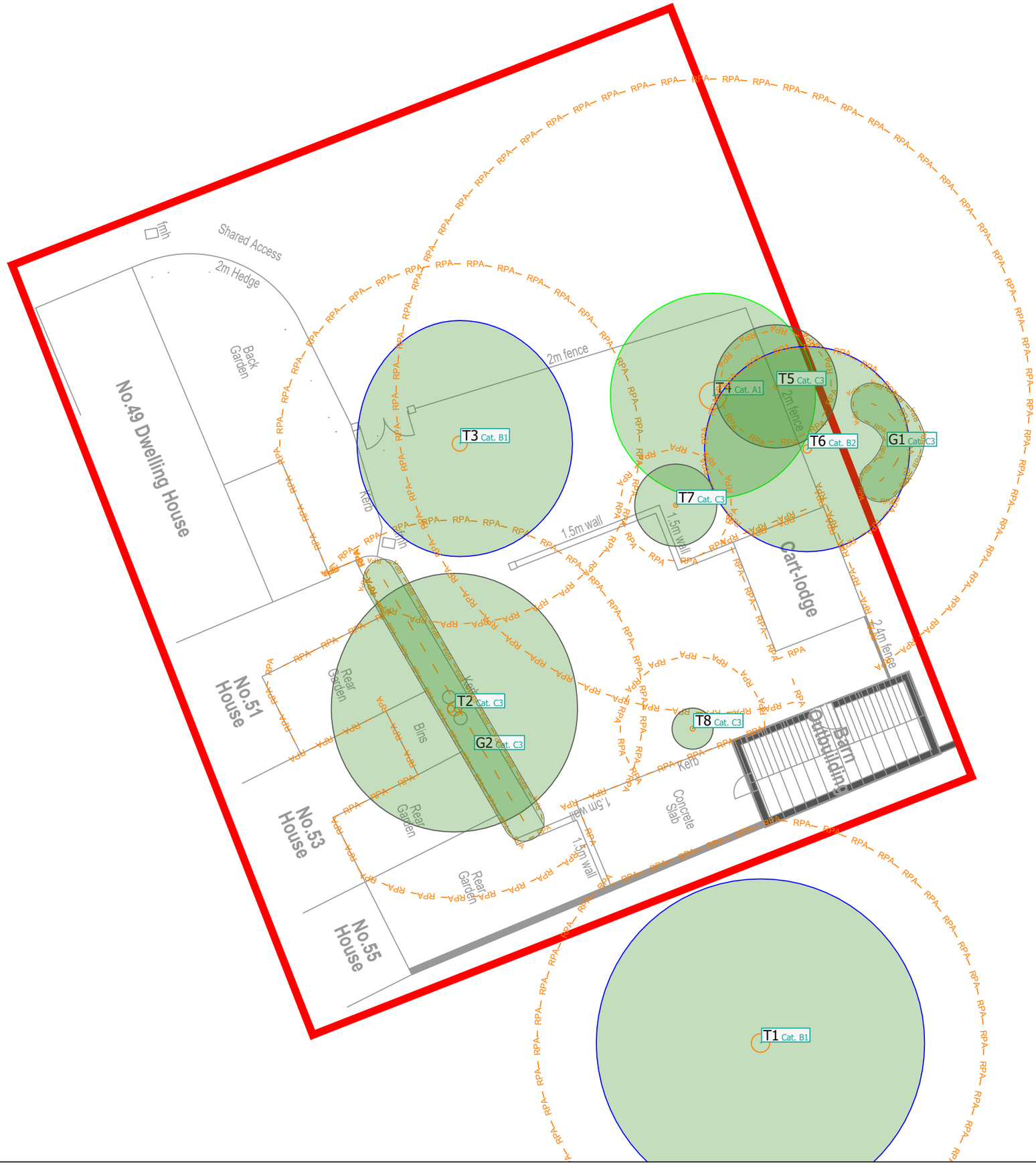
Figure 3 – T4 looking northeast.

APPENDIX 2 – SITE PHOTOGRAPHS

Figure 4 – Looking south towards the site at T3.

Figure 5 – T2 to be removed.

APPENDIX 3
ARB. SITE PLAN (EXISTING)



Use of This Document

This document should be viewed in conjunction with the relevant arboricultural impact assessment and/or tree survey schedule.

Tree Categorisation & Numbering

The method used for categorising the trees can be seen in Appendix 1 of the Tree Survey/Arboricultural Impact Assessment. The categorisation method used is an improved variation of the method suggested in BS 5837:2012.

BS 5837:2012 recommends that better quality trees (Cat. A & B) are retained where possible. Trees in land adjacent to the site are considered where they may be impacted by development.

The trees considered significant within the context of the development are numbered and assigned a prefix of 'T' or 'G' to describe whether they are an individual or a group, and 'S' or 'H' for a shrub or hedge. Using this identification number, further information for each tree/group can be found within the survey schedule.

Cat. A	**Category A** : High or exceptional aboricultural, landscape or ecological value. (Worthy of being a material constraint.)
Cat. B	**Category B** : Moderate arboricultural, landscape or ecological value. (Worthy of being a material constraint.)
Cat. C	**Category C** : Low quality or small in size. (Not worthy of being a material constraint.)
Cat. U	**Category U** : Such poor quality or condition that renders it unsuitable for retention. (Not worthy of being a material constraint.)

Root Protection Areas

In order to avoid damage to the roots or rooting environment of retained trees, the Root Protection Areas (RPA's) should be plotted around each of the category A, B and C trees. This is a notional depiction of the minimum rooting area in m2 which should be left undisturbed around each tree. The RPA is calculated using the *British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'*, unless otherwise stated within the survey schedule.

Where there appears to be restrictions to root growth the root protection area is reshaped to more accurately reflect the likely distribution of the roots.

RPA	**Root Protection Area (RPA)**: The notional area around each tree which should be left undisturbed during the development of the site
	RPA Incursion: Anticipated incursion into the root protection area of a proposed tree which may result in root loss/damage.
	Arboriculturally Sensitive Demolition/ Removal): A structure or surfacing is to be removed using special methods to avoid damage to trees.
	Specialist Foundations: Low impact foundations to be used to preserve underlying tree roots.

Further Object Key

	Tree Stem / Stem line: Diameter of stem at ~1.5m
	Tree Removal: Trees designated for removal will comprise of a red filled canopy.
	Site Boundary: Extent of site boundary (illustrative only)
	Buildings/Surfacing to be Removed: Buildings or surfacing to be removed will generally be depicted with a dashed red line

Ligna Consultancy

Project: 49 High Street

Client: Montague Jamieson

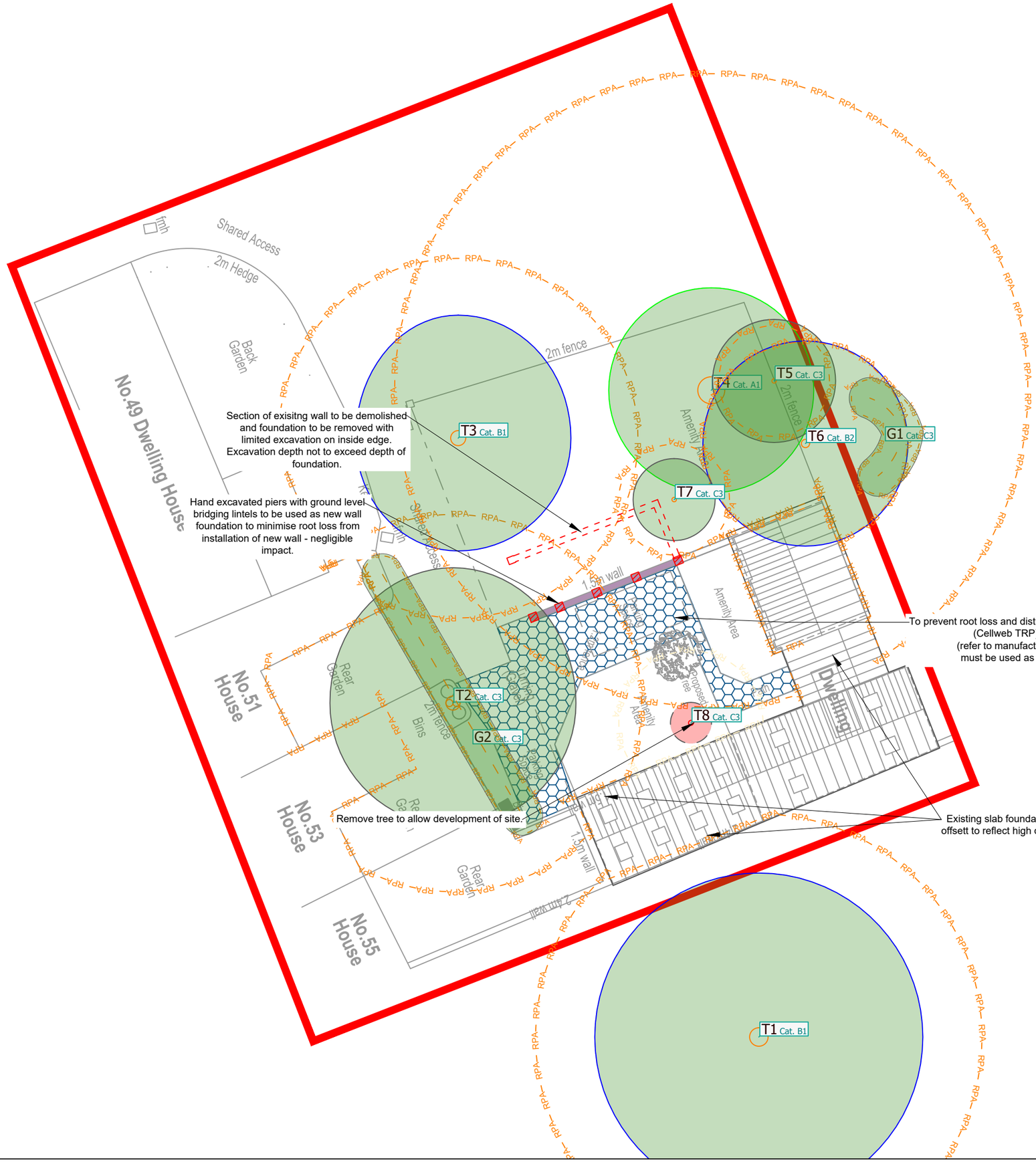
Drawing: Arboricultural Site Plan (Existing)

Drawing Ref:	Rev:	Date:
P2925-ASP01	V1	23/11/2022

Scale:	Drawn By:
1:200 - A3	Alistair Godfrey

Based on: 388_02_A Existing Ground Floor Plan, Elevations

APPENDIX 4
ARB. SITE PLAN (PROPOSED)



Use of This Document

This document should be viewed in conjunction with the relevant arboricultural impact assessment and/or tree survey schedule.

Tree Categorisation & Numbering

The method used for categorising the trees can be seen in Appendix 1 of the Tree Survey/Arboricultural Impact Assessment. The categorisation method used is an improved variation of the method suggested in BS 5837:2012.

BS 5837:2012 recommends that better quality trees (Cat. A & B) are retained where possible. Trees in land adjacent to the site are considered where they may be impacted by development.

The trees considered significant within the context of the development are numbered and assigned a prefix of 'T' or 'G' to describe whether they are an individual or a group, and 'S' or 'H' for a shrub or hedge. Using this identification number, further information for each tree/group can be found within the survey schedule.

Cat. A — **Category A** : High or exceptional aboricultural, landscape or ecological value. (Worthy of being a material constraint.)	Cat. B — **Category B** : Moderate arboricultural, landscape or ecological value. (Worthy of being a material constraint.)
Cat. C — **Category C** : Low quality or small in size. (Not worthy of being a material constraint.)	Cat. U — **Category U** : Such poor quality or condition that renders it unsuitable for retention. (Not worthy of being a material constraint.)

Root Protection Areas

In order to avoid damage to the roots or rooting environment of retained trees, the Root Protection Areas (RPA's) should be plotted around each of the category A, B and C trees. This is a notional depiction of the minimum rooting area in m2 which should be left undisturbed around each tree. The RPA is calculated using the *British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'*, unless otherwise stated within the survey schedule.

Where there appears to be restrictions to root growth the root protection area is reshaped to more accurately reflect the likely distribution of the roots.

RPA — **Root Protection Area (RPA)**: The notional area around each tree which should be left undisturbed during the development of the site	**RPA Incursion**: Anticipated incursion into the root protection area of a proposed tree which may result in root loss/damage.
Arboriculturally Sensitive Demolition/ Removal): A structure or surfacing is to be removed using special methods to avoid damage to trees.	**Specialist Foundations**: Low impact foundations to be used to preserve underlying tree roots.

Further Object Key

Tree Stem / Stem line: Diameter of stem at ~1.5m	**Tree Removal**: Trees designated for removal will comprise of a red filled canopy.
Site Boundary: Extent of site boundary (illustrative only)	**Buildings/Surfacing to be Removed**: Buildings or surfacing to be removed will generally be depicted with a dashed red line

Ligna Consultancy

Project:	49 High Street	
Client:	Montague Jamieson	
Drawing:	Arboricultural Site Plan (Proposed)	
Drawing Ref: P2925-ASP02	Rev: V1	Date: 23/11/2022
Scale: 1:200 - A3		Drawn By: Alistair Godfrey
Based on: 388_03_E Proposed Floor Plans.		

W. www.lignaconsultancy.co.uk
E. info@lignaconsultancy.co.uk
T. 01284 598008