Treestyle
CONSULTANCY

BS 5837:2012
Arboricultural Impact Assessment
Arboricultural Method Statement
and
Tree Protection Plan

Date of Report
15th February 2020

Site
26 Islay Road
Lytham
FY8 4AD

Instructed By
Clover Architectural Design

Author
Andrew McLoughlin
Treestyle Consultancy
Arboriculture Level 4
ISA Tree Risk Assessment Qualified
info@treestyleconsultancy.co.uk

Contents

Executive Summary

Treestyle Consultancy was commissioned to complete a survey to specifications set out in British Standard 5837:2012 *Trees in relation to design, demolition & construction - Recommendations.* This document is an Arboricultural Impact Assessment (AIA) which explains the Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP). Tree work and the installation of a shed have been completed since the initial report written earlier this year.

The Tree Survey recorded a few small trees at the entrance one of which has a low canopy. All of the mature tree population within influencing distance are located in the neighbouring garden and in close proximity to the boundary fence. The neighbouring trees are predominantly low quality and are generally unmanaged creating limited longevity and in need of remedial tree work, especially as some trees have mechanical issues which need to be addressed, others are overhanging the garden. Located in a neighbouring garden is a Scots pine with high quality and value whose rooting area has already been breeched. The tree categorisation listed below is in accordance with BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*. The current green infrastructure provides a good level of screening between the existing residential properties seen along the northern boundaries. These trees have limited visual value as they cannot be seen by the wider public domain. A total of ten trees, four groups of trees and several tree stumps were recorded for the purpose of this report. As a group they provide good screening, however, individual trees are generally of low quality.

The Proposed Development

- An extension to the rear of the existing residential property would see the proposed development of a kitchen/dining area, a snug and a pool/spa area.
- The landscaping of the remainder of the rear garden.

The Arboricultural Impact Assessment (AIA)

- The raised bedding area has the potential for tree roots from the neighbouring garden to be within the soil profile as well as the previously occupying vegetation which has recently been removed. There is a crossover with the RPA of the vegetation and the proposed development. These are predominately low quality trees and it is recommended that they are cut down so to remove the below ground constraints.
- Failing the aforementioned the shallowest part of the bedding area will have to be excavated.
- The Scots pine located in a neighbouring garden has potentially tree roots within the proposed development of the pool.
- Several tree stumps and their roots are to be removed to accommodate the proposed development.
- The crown raising of many trees away from the boundary and the proposal, more specifically the cypress tree overhanging the driveway entrance to the property.
- It was suggested that access to the rear of the property could be gained through the wooded area.
- It is expected that the development will have an indirect impact on the neighbouring vegetation due to the change of the landscape.

Tree Protection Plan (TPP)

- The excavation of the raised bedding area with hand tools only to ascertain that no roots greater than 25mm of neighbouring trees would be damaged, this should not be confused with roots from the previously removed vegetation. This would leave a minimum of 1m gap between the existing fencing and the proposed development. The exposed surface where the crossover between the two must be immediately lined with a none permeable membrane.
- The RPA of T1 Scots pine is a Construction Exclusion Zone (CEZ), therefore hand tools only maybe used to excavate the existing surface to ascertain that no roots greater than 25mm would be damaged. Again the exposed surface lined with a none permeable membrane preventing contamination from building material and preventing the drying out of potential roots.
- A specialised temporary surface will rest upon the existing surface between the boundary and the proposed where the Heras fencing would rest upon creating a narrow work area.
- The prevention of contamination through the spillage of building materials into water courses and neighbouring gardens is also discussed within this report.

The Arboricultural Method Statement (AMS)

- Will require approval by the Local Planning Authority (LPA).
- See the recommended tree work carried out in accordance to Appendix A - Tree Schedule
- Soil excavation with hand tools only to ascertain no tree roots are to be damaged.
- Install tree protection measures with protective fencing.
- Pre commencement meeting to confirm all recommended protection is adequate.
- Construction of the developments.
- Removal of the tree protection.

All stages of the work must be photographed, documented and reported back to the Arboricultural consultant.

It is important that the caveats and limitations of this report are understood, these can be read in Section 11.0 of this document.

1.0 Introductions

1.1 Under instruction from Clover Architectural Design an arboricultural report has been prepared to accompany a planning application for the redevelopment of an existing building in a residential property and its parking bays. This report details the arboricultural impact on the site, subsequent mitigation recommendations and protective measures. The latter part of the report explains how the construction of the proposed developments will take place with regards to the protection of the trees to be retained.

1.2 The assessment was originally carried out on the 15th February 2020 by Andrew Mcloughlin of Treestyle Consultancy, tree work and the installation of a shed has been carried out since then. Trees were assessed from the ground in accordance with BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*. The categorisation method identifies the quality and value of the existing green infrastructure.

1.3 Drawings of the existing and the proposed developments has been supplied, this information has been included when mapping the existing tree population. An appropriate Tree Protection Plan (TPP) has been drafted and revised as necessary from this Arboricultural Impact Assessment (AIA).

1.4 It should be noted that neither soil samples or soil maps have been used to make decisions on this report. Therefore there is the possibility of minor soil movement due to tree root activity. Prior to the undertaking of foundation depths calculations of any estimated tree locations should be resolved. If there are any discrepancies with trees locations or queries relating to their location or species within the group, then Treestyle Consultancy should be contacted prior to planning submission.

1.5 A total of ten trees, four groups of trees and several tree stumps were recorded for the purpose of this report. These trees have been listed in Appendix A – Tree Schedule and Drawings 1, Tree Numbering & Categorisation, Drawing 2 - Tree Removal RPA and Protective Fencing.

1.6 This report provides the results of the survey and includes the following;

- A schedule of all tree and hedges located on or within influencing distance of the proposed development site (Appendix A – Tree Schedule).
- An assessment based on BS 5837:2012 of trees in terms of their potential value within any future development. On the basis of this assessment trees have been categorised into one of four categories: High, medium, low or not worthy of retention (A, B, C or U). See Appendix D - BS 5837:2012 Cascade Chart for Tree Quality Assessment.
- Advice on removal, retention and management of these trees and hedges can be read in Sections 5 & 7 of this report.
- A Tree Constraints Plan detailing tree quality categories, canopy spread (N, E, S & W), Root Protection Areas (RPA's), life span, Diameter at Brest Height (DBH), RPA m2, tree height, condition for all of the trees surveyed.
- A Tree Removal and Protection Plan detailing the development proposals alongside trees to be retained and removed and any temporary protection measures.

2.0 Site and Surroundings

The Grounds

2.1 26 Islay Road has a parking area at the front of the property with the property itself stretching the width of the grounds with approximately 1.5m walkway either side. The substantial rear garden has a small hardstanding area with grass and raised bedding areas located either side of the garden, one of which is within the proposal.

Surrounding land

2.2 The area of land surveyed is set in the leafy area of Lytham and is predominately surrounded by residential properties with a woodland to the east and Fairhaven Golf Club beyond.

Topography

2.3 The topography of the land is relevant with the neighbouring rear garden to the north being on a marginally raised area where the trees and vegetation are located. There is a drainage ditch which runs north to south along the eastern boundary of the rear garden.

3.0 Statutory Protection and Guidance

National Planning Policy Framework (NPPF)

3.1 The NPPF assumes protection of all ancient woodland and veteran trees unless it can be clearly demonstrated that the need for, or benefits of, development outweigh the loss. In this respect ancient woodland is defined as an area which has been wooded continuously since at least 1600 AD and a veteran as a tree of exceptional value for wildlife, in the landscape, or culturally because of its great age, size or condition.

3.2 On this site there are no ancient woodland or veteran trees.

Tree Preservation Orders & Conservation Area Designations

3.3 Local authorities reserve the right to create Tree Preservation Orders (TPO) to protect the amenity value conferred to a location by a tree or group of trees. Where a TPO is in place the lopping, topping, felling, uprooting or wilful damage is prohibited. Failure to comply may lead to prosecution or large fines. Work on a TPO'd tree requires permission from the local authority.

3.4 Section 211 of The Town and Country Planning Act 1990 (TCPA) relates to the preservation of trees in Conservation Areas. Under Section 211 anyone proposing to remove, uproot or destroy any tree within a Conservation Area is required to give the local planning authority six weeks' prior notice (a "section 211 notice"). During this period the Council may consider serving a Tree Preservation Order to prevent the proposed work from being undertaken

3.5 Exceptions from the requirement to give a Section 211 notice are set out in The Town and Country Planning (Tree Preservation) (England) Regulations 2012. A person does not have to give the local planning authority six weeks' prior notice for, amongst other reasons, work to trees so far as such work is necessary to implement a planning permission (other than an outline planning permission).

Bats as a Protected Species

3.5 It is not uncommon for a mature tree with cavities or hollows to be a habitat for roosting bats. Bats are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), as well as under Schedule 2 of the Conservation of Species and Habitats Regulations 2010 and it is therefore an offence to cause damage to a bat roost.

3.6 A preliminary ground level appraisal of the wildlife habitat value of each tree was undertaken as part of the arboricultural survey and no trees were observed as having feature to support roosting bats.

3.7 Should the presence of a bat roost be suspected whilst undertaking works on site then all operations must cease until a licensed bat handler or ecologist can provide advice.

Birds as a Protected Species

3.8 Nesting birds frequently use trees for nesting. They are protected under the Wildlife and Countryside act 1981 (as amended). This makes it an offence to intentionally or recklessly damage or destroy an active birds nest.

3.9 It is recommended that all tree work is carried out outside the bird nesting season which is March to August. If this is not possible then a detailed inspection of each tree should be undertaken by a suitably qualified ecologist prior to any tree work. Should an active nest be found then any work likely to affect the nest must be halted until the nest becomes inactive.

National House Building Council

3.10 This report has been written in accordance with BS 5837:2012

3.11 The soils on site were not recorded or assessed for the purpose of this survey. There could be however a possibility of movement due to trees being present on site.

3.12 It is quite common that not all trees are recorded on the original topographical survey. Therefore Treestyle Consultancy will estimate the approximate location of some trees for mapping purposes. Any discrepancies in a trees location or a missing tree will require further discussion with a suitably qualified Arboricultural Consultant.

4.0 Tree Population

4.1 The tree population varies in this category recognition under BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*. The below charts does not allow for a true representation of the tree population. This is because much of this data has been collected from groups of shrubs and a hedge.

Figure 1. Breakdown of BS5837 categorisation of all trees surveyed.

4.2 One tree has been categorised as high quality and value which is a Scots pine. The breakdown of quantities for each retention category are also shown below in Figure 1. A cascade chart explaining the process used to reach these categorisations can be found in Appendix D – Tree Categorisation Chart**.** Effort and resources to accommodate the trees into the design proposal should be allocated proportionately based on their retention category.

4.3 The existing tree population located in the neighbouring garden varies considerably with its quality and value.

4.4 It can be seen in Figure 1 there is variety in the quality of the tree population, it should be noted that a high percentage of the low quality tree species are located in the area for the proposed development.

4.5 A summary of the trees in each of the four categories is given below in **Table 1**, for ease of reference.

Tree Category	Tree Number
A	T1
B	T3, T10, T11, G13
C	T2, G4, T5, G6, T7, T9, T12
U	T8

5.0 Impacts of the Proposed Development

5.1 This section normally describes the number and quality of trees that would need to be removed in order to facilitate the development proposal, including any that could be retained. This is the result of an assessment based on the proposed site plan and discussions with the client regarding their strategy. Only one small holly tree and several rhododendron are to be removed because of the proposed development of the access/parking bays. Possibly T2 beech because of arboricultural reasons due to roots being removed by a neighbouring development.

5.2 Table 1 shows the effects of the proposal on the trees of the BS 5837 quality categorisation.

Table 1. Summary of trees to be retained and removed.

Tree Category	Trees to be retained	Trees to be removed
A	T1	-
B	T3, T10, T11, G13	-
C	T2, G4, T5, G6, T7, T9, T12	-
U	-	T8

5.3 The impact of the trees which surround the proposed development can be seen to have above and below ground constraints. The above and below ground constraint are with trees lining the northern boundary. There is a mature category A tree in close proximity to the development i.e. the Scots pine which is discussed below.

5.4 The below ground constraints with the Scots pine T1 is close to the proposed development of the swimming pole. There is a probability of roots from this tree being in the RPA of T1 which is technically a no dig area. The excavation of the RPA around the area required will ascertain that no roots greater than 25mm are to be damaged.

6.0 Tree Protection Requirements

6.1 The following information sets out the primary consideration for determining the requirements for tree protective measures and with the assessment impact of the development. The installation of the pool and surrounding building falls within the RPA of the T1 Scots pine, it is this area that is required for excavation to ascertain that no roots are to be damaged. The exposed surface will immediately be lined with a none permeable membrane and will be protected by Heras fencing, post confirmation of there being no roots. Wherever there is a crossover between a trees RPA and an area required for excavation then hand tools only are to be used.

Approximately 1m work area between the proposed development and the boundary fencing will see a specialised temporal surface installed where Heras fencing can then rest upon to prevent soil contamination and compaction.

Root Protection Areas

6.2 The BS5837:2012 RPA is calculated using the trees Diameter at Breast Height (DBH) at 1.5 m and represents the minimum area around each tree that must be left undisturbed to ensure its longevity. Tree roots can be found twice the width of the crown and beyond depending on the tree species and its environment. Most tree roots are found in the top 600mm of soil and most fine roots that absorb water and nutrients are located at the top horizon of soil profile. These near surface tree roots allow the tree to breath and oxygenate. The tree roots can extend well beyond the recommend distances within BS5837:2012 and they may not follow the typical circular area centred from the trees stem.

Ground Contamination

6.3 Storage areas for liquids such as fuels, oil or paint should not be located within 10m of any tree due to the risk of soil contamination caused by accidental spillage. Where spillage might occur, sandbags must be installed. Particular care must be taken when working on or close sloping ground to avoid unintentional runoff into the RPA of trees to be retained.

Underground Utilities

6.4 No detailed drawing have been provided and therefore no assessment has been made of the position of tree roots and the likely location of new services. Where the installation of services within the RPA of retained trees is unavoidable, appropriate methods will be required to ensure the safe long term longevity of the trees. This process will require additional consultation with a suitably qualified and experienced Arboricultural Consultant

Ground Level Changes

6.5 Changes to the soil levels can be induce high amounts of stress onto a tree which over the years can cause entire tree failure with the trees to be retained. This applies to the increase and the lowering of the soil profile.

6.6 Existing ground levels within the Root Protection Area should be maintained. The advice of a qualified Arboricultural Consultant should be sought if level changes are required.

Drainage & Storm Water Run-off Issues

6.7 Drainage and storm water run-off requires due consideration to prevent excessive and/or polluted run-off into the rooting area of trees to be retained.

Soil Compaction

6.8 It is imperative the surface of the soil be protected from compaction from plant machinery and/ or machinery. This can create a capping effect on the surface which can stop the tree root from oxygenating and preventing any precipitation.

7.0 Recommendations

7.1 There is no green infrastructure within the grounds of 26 Islay Road, however, a neighbouring garden provides good screening and privacy between the residential properties. The proposed development has below ground constraints and specifically with T1 Scots pine which has recently been crown raised. Since the original assessment date in February 2020 the RPA of T1 has been breached to accommodate a garden shed. Individually the trees in the neighbouring garden are mostly of low quality and value with a life potential of 10 years, however, they still require protection. Pruning will reduce the short term constraints with their crowns but the below ground constraints with potential tree roots encroaching beneath the proposed development and occupying a raised bedding area are a problem. It is recommended that the trees whose roots have potential to fall within the development be removed with the exception of T1 Scots pine.

7.2 The mapping of the RPA's shown in Drawing 2 - The Proposed Development, Tree Removal, Root Protection Areas and Protective Fencing suggest that roots of Scots pine T1 fall within the proposed development. There is a moderate probability that there will be minimal tree roots from T1 due to its deep forming tap roots. This trees RPA will require careful excavation to ascertain if there are any roots within the proposed area for the pool. It is assumed that a substantial area of excavation will be required to accommodate the pool whose rooting area would then need to be protected against building materials such as cement. These trees can easily be protected from direct damage, however, it is fundamental that tree roots are not damaged indirectly by soil contamination through building materials such as cement.

7.3 The development of kitchen, dining room and snug is proposed to be on top of the RPA of neighbouring trees whose roots have the potential to occupy the raised bedding area along the northern boundary. This is a Construction Exclusion Zone (CEZ) and hand tools only maybe used to remove the existing surface confirming the roots of live trees occupy this area. If the surface can be taken down to the required depth then this will then allow the installation of the foundations. Compaction and contamination of the RPA must be avoided at all cost. A work area is required between the proposed development and the boundary fence which is a RPA of the neighbouring tree and these roots require protection from building materials such as cement and from soil compaction from machinery. The installation of a temporary ground protection such as https://www.ground-guards.co.uk/solutions/tree-root-protection/, this will see the installation of the protective fencing on top of this temporary surface.

7.4 Access to the rear of the property would require passing through the sides of the property, this is relatively narrow and may cause issues. This may also create above ground issues with the trees overhanging the property. Their pruning should be carried out with minimal damage to the trees by removing small lateral branches only. Alternatively it was suggested that access could be gained though the wooded area behind the property, again this has below ground issues with the compaction of ground surface and a temporary surface would be required for the protection of T1 and all other species in the area.

7.5 All tree work must adhere to BS3998 2010 Tree Work - Recommendations. This must be carried out by qualified, experienced and insured Arborists.

8.0 Tree Protection Plan

8.1 Carry out the tree work as recommended in Appendix A – Tree Schedule which would see the pruning or removal of neighbouring trees to aid access onto the site. With the exception of T1 Scots pine the removal of trees whose RPA crossover onto the proposed development will remove the below ground constraints. Failing this, measuring and marked out these areas will create a CEZ, these are no dig areas. Hand tools only are permitted within the RPA's of these neighbouring trees, then avoiding compaction a work area is required around the proposed development which is a RPA, these roots require protection from building materials such as cement and from soil compaction from machinery. The installation of a temporary ground protection such as https://www.ground-guards.co.uk/solutions/tree-root-protection/ between the proposed development and the existing fencing, then installation of the Heras fencing on top of this temporary surface. All of the aforementioned must take place prior to the commencement of any demolition or construction, this must be photographed, documented and reported the Arboricultural consultant. The mapping and distances can be seen in Drawing 2 - The Proposed Development, Tree Removal, Root Protection Areas and Protective Fencing.

The RPA of T1 Scots pine is a Construction Exclusion Zone (CEZ), therefore hand tools only maybe used to excavate down to accommodate the pool which will ascertain that no roots greater than 25mm will be damaged. The exposed surface will immediately be lined with a none permeable membrane preventing contamination from building material and preventing the drying out of potential roots.

8.2 Additional protection would be from building materials, specifically cement. This leaches through the soil profile potentially contaminating the growing medium for existing, future plantings and pollution the waterways. The trees and hedges to be retain will require protection, this will require the storage of cement and other such pollutants off site and away from the water courses. If pesticides are to be used in the clearing of vegetation from the soil profile, then these must be species specific as not to damage the trees and hedges to be retained. This may help to highlight the RPA's of the trees (Drip line) so that they maybe marked out prior to work the commencement of construction and machinery.

8.3 If pesticides are to be used in the clearing of vegetation from the soil profile, then these must be species specific as not to damage the trees and hedges to be retained. This may help to highlight the RPA's of the trees (Drip line) so that they maybe marked out prior to work the commencement of construction and machinery.

9.0 Tree Constraints

9.1 The Scots pine is a category A tree with below ground constraints which need to be addressed with regards to preventing any direct damage through soil compaction, root severance or canopy breakages. There is a 7.2m RPA around T1 and a 2.4m around T3, these are the greatest below ground constraints with root severance. Indirect damage would come from building materials being washed down towards the area of trees and then leaching through the soil profile.

- The above ground constraints consist of the low crown canopies of all the trees which will require crown raising when entering the grounds.
- Both RPA's of T1 and T3 are near to the proposal and are therefore CEZ's.
- Protection from building materials leaching into the soil area all along the boundaries must be carried out prior to any demolition or construction.

9.2 The current site may possibly house construction materials and could be used for storage of building materials. This is the greatest threat to the remaining trees and hedges through the leaching of building material such as cement. Therefore all storage should be a minimum of 10ms.

9.3 No underground services can pass through the RPA of any of the trees or hedges that are to be retained.

10.0 Arboricultural Method Statement (AMS)

10.1 The AMS has been written as guidance on how the construction has to be carried out with regards to the protection of the green infrastructure. It is imperative that this is carried out correctly.

An overview of Sequence of Operations

10.2 In overview, it is necessary to undertake the following sequence of operations in relation to arboricultural input for development operations.

1. Method Statement approved by the LPA.
2. Undertake tree works as recommended in Appendix A - Tree Schedule.
3. Assessing for tree roots within the area proposed for development.
4. Install tree protection measures, specialised temporary surfaces, cellular confinement and Heras fencing
5. Pre Commencement meeting confirming the fencing to specification.
6. Demolition and construction of the development.
7. Removal of tree protection.

Specific Sequence of Operations

10.3 The following timeline table informs the key principles for development operations proceeding in relation to arboricultural requirements conditioned as part of this method statement. The action and timescales within this table must be adhered to in oder to discharge the arboricultural method statement planning condition for this site. The precise time and order of some of the development operations may need to be changed due to site specific operational requirements, yet any operations that may affect the trees on the site must be photographed and documented by a suitably qualified and experience arboricultural consultant.

10.4 This should be read in conjunction with the Arboricultural Implications Assessment (AIS) and the Tree Protection Plan (TPP).

Please refer to this link for guidance on any of the above;

https://www.barrelltreecare.co.uk/resources/technical-guidance/

Sequence of Operations		
Stages	**Action**	**Arboricultural Input**
1 Approval	This AMS is submitted to and approved in writing by the LPA	If necessary, liaise with contractor and LPA to discuss methodologies detailed
2 Tree Works	The tree removal should be carried out as the first operation on site and in accordance with Appendix A - Tree Schedule	Review the tree work requirements with the tree contractor. If necessary liaise with the contractor on site during tree work
3 Tree Protection	Installing the tree protective measures will take place prior to any storage of plant, materials and machinery. Photographic evidence should be recorded	If necessary, liaise with contractor installing the protective fencing until completed to the standard specified in Appendix F - Fencing
4 Site Meeting	Following installation of tree protective measures, the LPA shall be invited to inspect the fencing and discuss any other site operations that have implication for the trees	Meeting with the representative of the LPA and the site manager. Alternatively, contractor can confirm the fencing and tree works are as specified by taking photographs of the tree protection measures
5 Construction	Undertake the construction of the new development	If necessary liaise with the local authority and the site foreman to ensure any issues are adequately resolved
6 Site Finishing	Removal of the tree protection measures must only be undertaken when all site traffic and machinery has left the site	If acceptable to the LPA the contractor can take photos of the site to give to the LPA to gain approval for the removal of protective fencing

11.0 Caveats and Limitations

11.1 This survey was carried out from ground level. No aerial inspection was undertaken and, as such, this report can only identify defects clearly visible from the ground. A VTA (Visual Tree Assessment) is a level two arboricultural tree survey. This normally involves a full 360 degree visual of the buttress, stem and crown of the tree. While every attempt has been made to provide a realistic and accurate assessment of the trees' condition at the time of inspection, it may have not been appropriate, or possible, to view all parts or all sides of every tree to fulfil the assessment criteria of a risk assessment.

11.2 No tree is entirely safe given the possibility that exceptionally strong winds could damage or uproot even a mechanically 'perfect' specimen. It is therefore usually accepted that hazards are only recognisable from distinct defects or from other failure-prone characteristics of the tree or the site.

11.3 Underground services were not confirmed around any of the trees surveyed. The potential influences of trees upon building or other structures resulting from the effects of trees upon shrinkable load-bearing soils or the effect of incremental root growth are specifically excluded from this report.

11.4 The report reflects the tree stock as found on the day surveyed. Change of ground levels, soil conditions, surrounding tree cover or land use, or any ground works within the root zone of any tree may invalidate the content of this report. No root zone excavation was undertaken.

11.5 Change of circumstance as a result of unusual weather conditions may invalidate the content of this report. It is recommended that trees should be reassessed after strong gale, 39 – 46 mph wind Beaufort scale 8.

11.6 The content of this report is valid for 12 months from the cover date. Any works recommended for beyond this time period are based on expectations rather than in response to currently identified defects. Trees should have their condition re-inspected by a qualified arboricultural consultant within three years of this report being written.

Appendix B - Tree Schedule

Basic information				BS5837 data				Basic				BS5837 data							
Tree number	Tree species	Age	DBH mm	Bra N	nch E	Spr S	ead W	Height	Condition	Comments	Management recommendations	RPA m's	Life span	Categ ory	Sub cat	RPA DBH	RPA m2	Constr aints as a %	Amend ed RPA
T1	Scots pine	Mature	600	6	5	6	5	14	Good	Neighbouring tree with low canopy and rooting constraints	Excavation with hand tools only to ascertain if any roots are to be damaged with the installation of the pool	7.2	40	A	2	600	163	0	7.2
T2	Blackthorn	Mature	150	1	2	2	1	4	Fair	Neighbouring tree suppressed	None	1.8	5	C	2	150	10	0	1.8
T3	Holly	Mature	200	2	2	2	2	12	Good	Neighbouring tree with good screening	None	2.4	20	B	2	200	18	0	2.4
G4	Holly, sycamore	Early maturity	50	1	1	1	1	4	Fair	Neighbouring tree	None	0.6	10	C	2	50	n/a	0	0.6
T5	Maple	Mature	250	2	2	2	2	14	Fair	Neighbouring tree with multiple stems and limited longevity	Preferred removal	3	10	C	2	250	28	0	3
G6	Cypress	Early maturity	100	2	2	2	2	5	Fair	Good screening. Low canopies	Prune away from fencing	1.2	10	C	2	100	n/a	0	1.2
T7	Maple	Mature	250	2	2	2	2	14	Fair	Neighbouring tree, leaning and limited longevity	None	3	10	C	2	250	28	0	3
T8	Cypress	Early maturity	100	2	2	2	2	5	Poor	Nearly dead	Remove	1.2	20	U	2	100	28	0	1.2
T9	Maple	Mature	250	2	2	2	2	14	Fair	Neighbouring tree with multiple stems, too close to fencing and limited longevity	Preferred removal	3	10	C	2	250	28	0	3
T10	Conifer	Mature	300	2	3	2	3	11	Fair	Neighbouring tree	None	3.6	20	B	2	300	41	0	3.6
T11	Holly	Mature	200	2	2	2	2	12	Good	Neighbouring tree with multiple stems and low crown over property	Crown raise away from building	2.4	20	B	2	200	18	0	2.4
T12	Cypress	Mature	400	3	3	4	4	15	Poor	Neighbouring tree with multiple stems, above ground constraints due to proximity to wall and low canopy over road and entrance	Crown raise or remove entire tree	4.8	5	C	2	400	72	0	4.8
G13	Holly, hawthorn, Prunus	Early maturity	50	1	1	1	1	4	Good	Three trees located in front garden area	None	0.6	20	B	2	50	n/a	0	0.6

Key; Green text is High Quality and Value, Blue is Medium, Grey is Low and Red is Remove, see Appendix D - for Tree Categorisation Chart, DBH Diameter at Breast Height. Life expect of 40 suggests 40 years plus

Appendix B - Glossary

Abbreviation	Term	Explanation
DBH	Diameter at Breast Height	The diameter of the tree trunk in question, 'breast height' is taken to be 1.3 metres above ground level. Multi-stem trees have their stems measured separately and indicated as so in the tree schedule. Trees with abnormal growths, branch unions or other obstructions at 1.3 m will have their measurements taken immediately below said obstructions.
RPA	Root Protection Area	The area in metres squared of the potential underground rooting constraints
AMS	Arboricultural Method Statement	This dictates the procedure for works to be carried out around the protected trees
RPA	Root Protection Area	Circular area surrounding tree with a radius based on the DBH of the tree, as calculated in BS 5837:2012. RPA Radius = 12 x DBH
AIA	Arboricultural Impact Assessment	What will the impact be on the trees with the proposed develeopment
VTA	Visual Tree Assessment	A system of tree inspection devised by Claus Mattheck using visual signs to read the body language of trees & aid with the diagnosis of potential defects.
TPP	Tree Protection Plan	This describes the process on how the work is to be carried out around the trees
BS5837 2012	British Standards	British Standard 5837:2012 *Trees in relation to design, demolition & construction - Recommendations.*
	Codominant stem	Two stems on a tree which can suggest a weakened union
	V union with bark inclusion	Usually with a codominant stem, as above but with up to an additional 42% weak union
Y	Young	Tree which has not yet established a significant rooting structure in the ground & has not developed a significant branching structure - its form is largely 'whip' like in nature & it could normally be easily transplanted or replaced.
EM	Early Mature	Tree which has established a significant rooting structure & has developed a noticeable internal scaffold structure, it differs from a mature version of its species only in size but not in relative proportions of its structure. Trees in this age class will still be developing significantly in height & spread.
M	Mature	Tree which has established a significant root-plate & which is over 50% of the way through its usual life expectancy. Trees in this age class will still be developing significantly in spread but less significantly in height.
OM	Over Mature	Tree which has fully established & will no longer be able to continue increasing in size due to its age, it may be showing signs of decline such as localised dieback but does not need to do so by definition. However it should be expected that signs of structural deterioration will soon become apparent.
V	Veteran	Tree which is showing veteran tree characteristics such as very significant crown retrenchment, extensive internal cavitation & possess significant cultural, ecological &/or historical value. Size is a common indicator of these characteristics but is not an essential requirement, for example, ancient coppices may possess veteran tree characteristics but may have a stunted form. Age is a stronger indicator but again not essential as veteran characteristics can be encouraged in younger trees.
-	Minor Deadwood	Deadwood under 50 mm in diameter
-	Major Deadwood	Deadwood which is equal to or greater than 50 mm in diameter
-	Retrenchment	Retrenchment: progressive reduction in the size of the crown of an old tree, by means of the dieback or breakage of twigs and small branches, accompanied by the enhanced development of the lower or inner parts of the crown.

Appendix C: BS 5837:2012 Cascade Chart for Tree Quality Assessment

Table 1 Cascade chart for tree quality assessment				**ID on plan**
Category and definition	**Criteria (including subcategories where appropriate)**			
Trees unsuitable for retention (see Note)				
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 U category trees i.e. where, for whatever reasons, 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 or significance to health and/or safety of other trees nearby (e.g. Dutch elm disease, or very low quality trees suppressing adjacent trees of better quality *NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see **4.5.7.***			**RED**
	1 Mainly arboricultural values	**2 Mainly landscape values**	**3 Mainly cultural values, inc. conservation**	
Trees to be considered for retention				
Category A **Those of a high quality** with an estimated remaining life expectancy of at least 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 of 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)	**GREEN**
Category B **Those of moderate quality** with an estimated remaining life expectancy of at least 20 years	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), such that they are unlikely to be suitable for retention for beyond 40 years; 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	**BLUE**
Category C **Those of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	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 landscape value, and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	**GREY**

Appendix D - General Tree Protection Considerations

Any tree retained within the design will require protection in accordance with BS 5837, regardless of its initial retention category. This protection will require tree to be fenced off in areas equal to the RPAs plotted on the attached Tree Constraints Plan, located in **Appendix A**.

A protective fence will be erected prior to the commencement of any site works e.g. before any materials are brought on site. The fence will have signs attached to it stating:

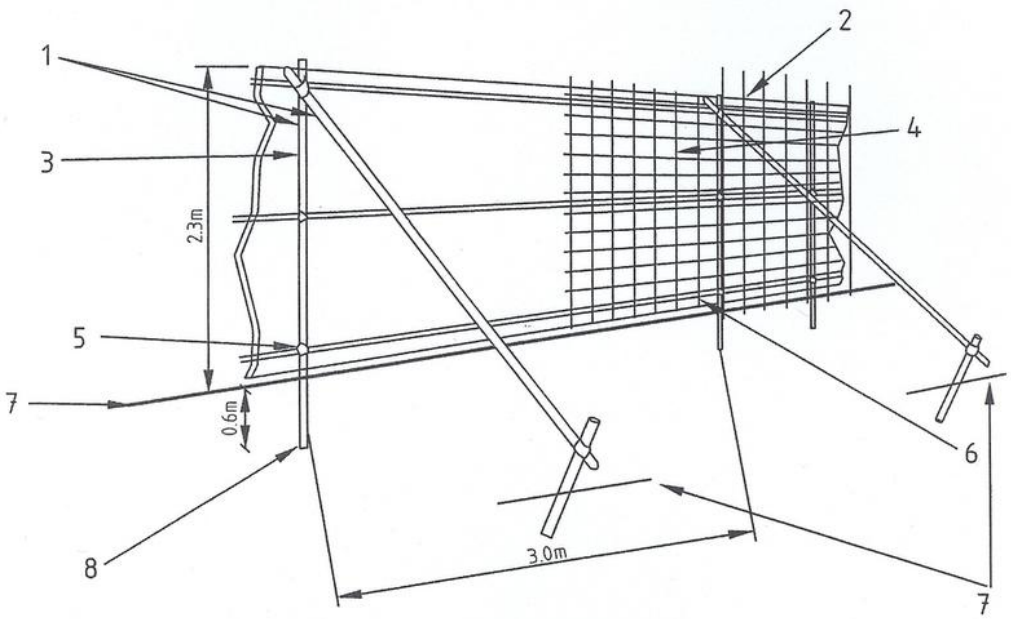
'CONSTRUCTION EXCLUSION ZONE – NO ACCESS'

The protected fence may only be removed following completion of all construction works.

The fence is required to be sited in accordance with the Tree Constraints Plan enclosed with this method statement as **Appendix A**. They must ideally be constructed as per figure 2 in BS 5837 and be fit for the purpose of excluding any construction activity (see diagram below). Any other fence/barrier used must be fit for the purpose (as decided by the project arborist.

Once erected all protective fencing will be regarded as sacrosanct, and will not be removed or altered without prior recommendation by the project arborist and approval by the local planning authority.

The diagram below demonstrates the required fence specifications of BS 5837 figure 2.



1 Standard scaffold poles
2 Uprights to be driven into the ground
3 Panels secured to uprights with wire ties and, where necessary, standard scaffold clamps
4 Weldmesh wired to the uprights and horizontals
5 Standard clamps
6 Wire twisted and secured on inside face of fencing to avoid easy dismantling
7 Ground level
8 Approx. 0.6m driven into the ground

Figure 2. – Protective fencing for RPA

Appendix D - General Tree Protection Considerations (Cont.)

Should scaffolding be required to be erected within the RPA of any retained trees (so that building works may be carried out outside the extent of the RPA), this should be carried out to the following specifications:

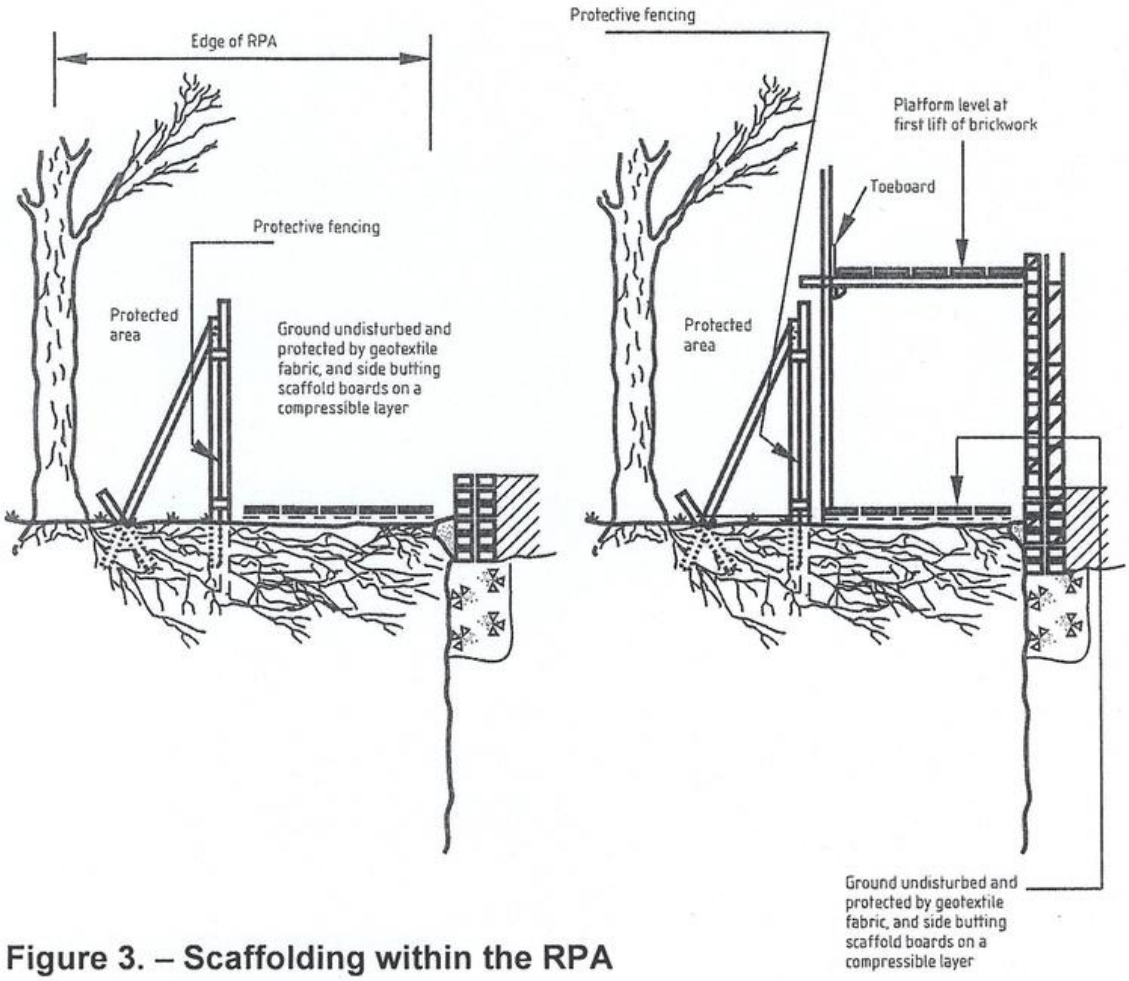


Figure 3. – Scaffolding within the RPA

CONSTRUCTION EXCLUSION ZONE

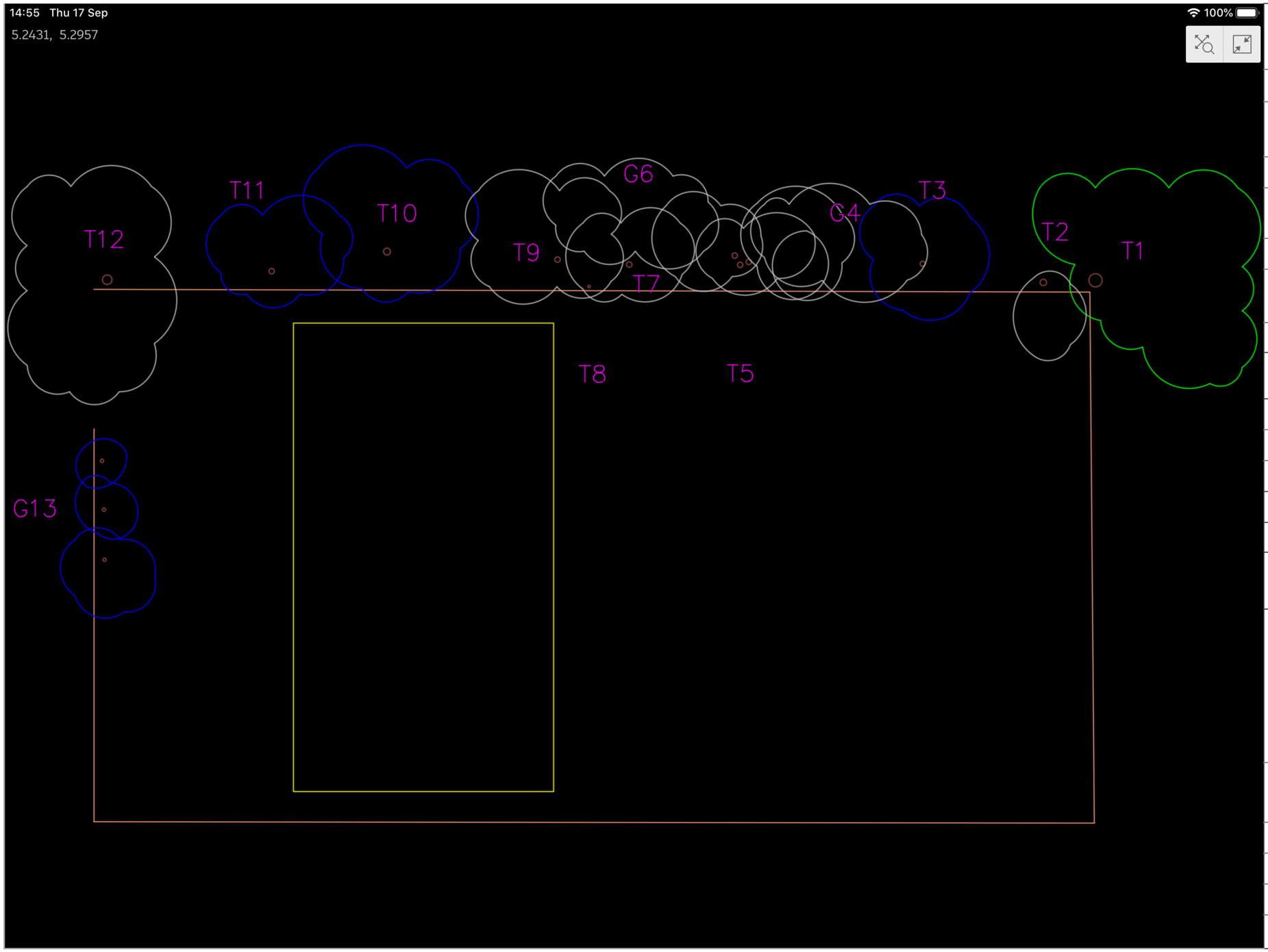
KEEP OUT

RESTRICTED ACCESS
NO VEHICLES
NO STORAGE OF MATERIALS

REPORT ANY TREE DAMAGE TO
TREESTYLE CONSULTANCY
ON

07872 064 313

Drawing 1 - Tree Numbering and Categorisation



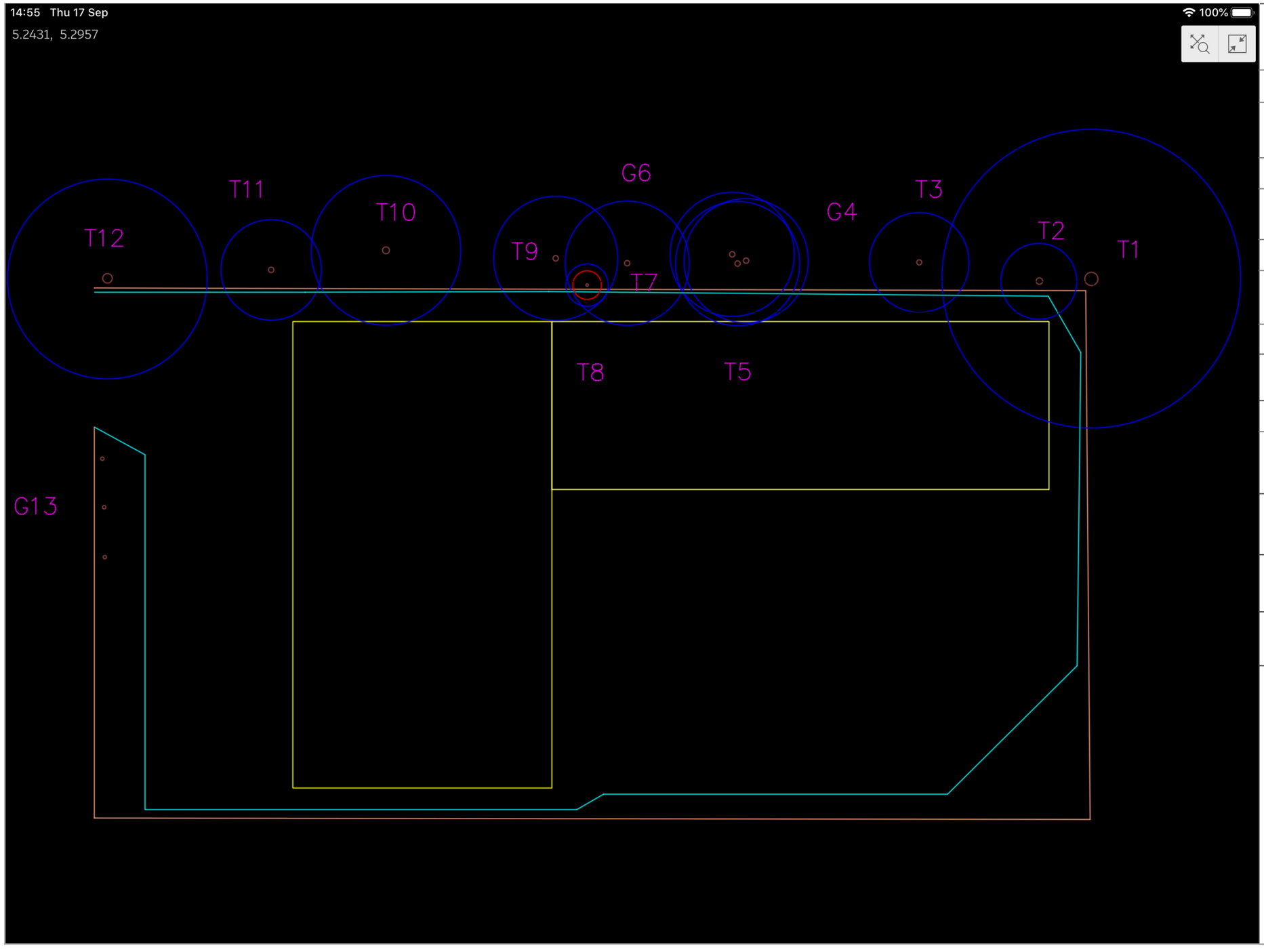
Drawing 1 - Tree Numbering and Categorisation
Site
26 Islay Road, Lytham
Author
Andrew McLoughlin
Instructed by
Clover Architectural Design
Date of Assessment
February 2020
Key

Tree Stems	○
G	Group of Trees
T	Trees

BS5837 2012 Tree categorisation

Category A	High quality & value
Category B	Medium quality & value
Category C	Low quality & value
Category U	Recommended removal

Drawing 2 - Tree Removal, Root Protection Areas and Protective Fencing



Tree Removal, Root Protection Areas and Protective Fencing

Site

26 Islay Road, Lytham

Author

Andrew McLoughlin

Instructed by

Clover Architectural Design

Date of Assessment

February 2020

Key

Root Protection Areas

Trees To Be Removed

Tree Protective Fencing

Buildings