

Arboricultural Report AIA & AMS

JNS Properties

Lighbourne Road

Moston

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March 2016

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G R E E N



Quality Management

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1 Introduction

1.1 Instructions and references

All trees, regardless of their statutory status, are a material consideration in a planning application. It is therefore essential that the potential effects of any Proposed Development on existing trees are fully assessed.

We have been instructed by Michael Hyde and Associates on behalf of JNS Properties to carry out an Arboricultural Survey to British Standard 5837:2012 guidelines at the site location and produce our findings in a report. We have also been instructed to provide an Arboricultural Impact Assessment to evaluate the impact on trees present and an Arboricultural Method Statement to provide detailed guidance on the protection of retained trees throughout the construction process.

The trees were plotted by triangulating their positions from the corners of the existing building.

A plan outlining the development proposals has been used to form the basis of the Arboricultural Impact Assessment.

1.2 Scope and limitations of the report

The report is designed to accompany a planning application following guidance set out in BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations.

The Arboricultural Impact Assessment (AIA) will appraise the Proposed Development in relation to its effect on surveyed trees and any potential impact on local amenity by appraising the following:

- General construction operations.
- Soil compaction in Root Protection Areas (RPAs).
- Installation of hard services.
- Potential physical damage to roots, stems and aerial parts of trees.
- Removal or pruning of trees.

The impact assessment will also appraise the effect that the retained trees may have on the development such as potential nuisance caused by excessive leaf/fruit litter, lighting levels within the proposed building and grounds and the potential damage to structures.

The Arboricultural Method Statement (AMS) is designed to advise on tree management and protection during the planning process.

All processes that have the potential to impact on trees should be considered in the wider project management of the site. This can be done by instructing an arboricultural consultant as part of the management team. This will ensure that any works that can affect trees will be monitored and supervised throughout the project.

The report is based upon a visual inspection. The consultant shall not be responsible for events that happen after the date of the report due to factors that were not apparent at the time, and the acceptance of this report constitutes an agreement with the guidelines and the terms listed in this report.

Any defects seen by a contractor or the employer that were not apparent to the consultant must be brought to the consultant's attention immediately.

The consultant accepts no liability in respect of the trees unless the recommendations of this report are carried out under his supervision.

Any physical alterations to site conditions subsequent to this report may have the potential to change/invalidate the findings and recommendations of this report.

Assessing the potential influence of trees upon load bearing soils, beneath existing and proposed structures resulting from water abstraction by trees or rehydration of shrinkable soils was not included in the contract brief and is therefore not considered in the report. The consultant cannot be held responsible for damage arising from such action.

Trees have the potential to cause indirect damage to existing and proposed structures by desiccation of the soil. Where soils are suspected to be shrinkable, they should be analysed by laboratory testing to determine the plasticity index. This will allow management decisions to be made relating to foundation depths, new planting and the effect of tree removals.

Potentially hazardous trees are highlighted and appropriate recommendations are made. However, this report should not be seen as a substitute for a full tree risk assessment or management plan which are specifically designed to minimise risk and liability associated with responsibility for trees.

2 Site Overview

2.1 Location

The site is situated with Lightbowne Road to the west and Nuthurst Road to the north (Figure 1). The OS reference is SD 8816902429.

The survey was limited to the area shown in Figure 2 which is sufficient to consider the impact of the proposals.

Figure 1



Figure 2



2.2 Tree condition and recommendations

The recommendations found in the Tree Data Schedule in Appendix 1 are based on assessments from a health and safety perspective and are made regardless of the Proposed Development. For details regarding trees in relation to the proposed development please refer to the Arboricultural Impact Assessment.

2.3 Summary of findings

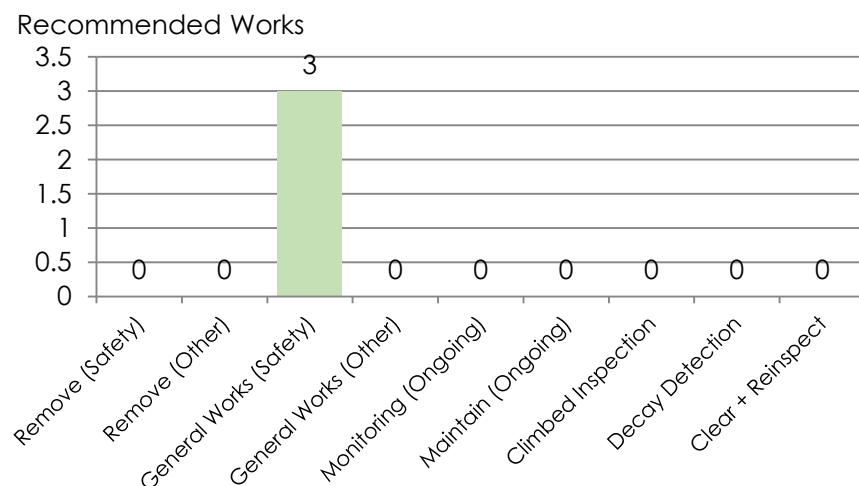
All trees surveyed for the purpose for this report are situated on third party land. The following recommendations are made as the work will directly affect the site and would not be for the benefit of the owner of the trees.

Trees which are potentially hazardous and require works in order to make them safe are T2, T3 and T4. These works should be prioritised as indicated on the Tree Data Schedule.

All other trees are deemed to be in an acceptable condition and no further works have been recommended.

2.4 Work priority and future management

The Tree Data Schedule in Appendix 1 details what works are required to individual trees in order to ensure that they are in an acceptable condition. The chart below summarises these works:



The following table suggests a schedule for prioritising works required to individual specimens, as outlined in the Tree Data Schedule in Appendix 1, in order to ensure that the associated risks are abated:

Priority	Definition	Tree Number
Urgent	As soon as possible	None
Very High	Within 1 Month	None
High	Within 3 Months	None
Moderate	Within 1 year	T2, T3, T4
Low	Within 3 years	None

Upon completion of any recommended works, the trees will be in an acceptable condition from a health and safety perspective. However, they should be regularly inspected according to the following suggested schedule:

Inspection Frequency (years)	Tree Number
0.5	None
1	T2, T3, T4
1.5	None
3	T1

2.5 Tree protection status

At the time of writing the report, we have made no enquiries regarding the status of trees onsite.

2.6 Tree protection – general advice

It is recommended that the local authority is consulted before any tree works are undertaken, as new TPOs may have been created since the time of enquiry, and heavy fines exist for unauthorised works to protected trees.

A TPO can be overridden by planning consent, where tree removal is necessary to enable the Proposed Development to proceed.

All works to protected trees require consent from the local authority, including pruning. However, this does not include the removal of dead wood, which is exempt. Although dead and dangerous trees are exceptions to a TPO, it is advisable to give the local authority five days' notice in writing of any intended removal.

In a conservation area, all trees are effectively protected. Where tree work is required in a conservation area, the local authority must be given six weeks' notice of intent, which allows them to either make a TPO or give consent for the intended work. The proposed tree work can proceed after six weeks, if the local authority has not responded.

2.7 Tree works

All specified tree work is to be carried out in accordance with BS 3998:2010 Tree work - Recommendations by a professional and specialist arboricultural contractor, who carries the appropriate experience and insurance cover.

2.8 Wildlife

Prior to the commencement of any tree works, the trees should be assessed for the presence of protected species, some of which are subject to the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010. Where there is evidence that bats, birds or other protected species are present, the statutory nature conservation organization needs to be consulted prior to commencement of any tree work operations.

3 Arboricultural Impact Assessment (AIA)

3.1 Summary of the development

It is proposed to renovate the existing building and increase the footprint towards Lightbowne Road which can be seen on the plans included in Appendix 3. For a tabulated summary of the arboricultural impacts please refer to Appendix 3.

3.2 Summary of impact on trees

Trees can be adversely affected on development sites if their protection is not factored into the wider project management of onsite operations. We have transposed the tree survey plan over plans detailing current proposals in order to assess the impact on surveyed trees.

3.3 Impact of pruning works

It is recommended that T1, T2 and T3 are crown lifted to provide a 3m clearance to the adjacent building. This work should avoid removing major scaffold branches and should be carried in accordance to BS3998:2010. Tree work Recommendations.

3.4 Impact of general construction activity

Tree protection fencing will need to be erected before any construction activity takes place to avoid damage to trees directly by mechanical damage or indirectly due to soil compaction in the Root Protection Areas (RPAs).

It is not always practical to fence off the complete RPAs, therefore special care is required in the areas not protected by temporary protective fencing, as indicated on the Tree Protection Plan in Appendix 3, to avoid soil compaction.

It is essential that all site personnel, including temporary contractors, are made aware of the recommendations within this report.

3.5 Changes in ground surfaces

The hard standing surrounding the existing structure will require re-surfacing. Due to the raised elevation of the existing foundations, root proliferation in these areas is highly unlikely. Therefore, any re-surfacing in this area will have no impact on the retained trees.

3.6 Impact of foundations

The foundations of the existing structure will be extended towards Lightbowne Road by approximately 2.5m. The surfaces in this area are a mix of existing hard standing and soft ground. The nature of the urban terrain makes it difficult to assess root proliferation in this area and therefore difficult to assess the impact of the proposed foundations. Root proliferation is likely to favour the more suitable conditions found within the park, meaning that limited roots will be encountered in the area of the proposed foundations. However, for clarity it is recommended that trial digs are carried out in order to ascertain the exact nature of root proliferation in the area.

Should significant rooting be encountered it may be possible to use the data ascertained from the trial dig investigation to inform the design of pile foundations. It should be noted that if pile foundations are utilised a void must be left between the existing ground level and the underside of the floor of the proposed structure. This void will act to provide water and oxygen to the root system below.

4 Arboricultural Method Statement (AMS)

4.1 Summary of the impacts identified

The following impacts have been identified during the AIA and will be discharged within this AMS:

- Pruning works
- General construction activity
- Foundation installation
- Changes in ground surfaces

4.2 Development implementation phases

The arboricultural consultant may need to be involved in some or all of the following processes.

Phase of Development	Arboricultural input
Phase 1 - Site preparation	• Pre-construction tree surgery works • Installation of protective fencing and ground protection
Phase 2 – Construction process	• Foundations in the RPA • Working in the RPA • New surfaces in the RPA
Phase 3 – Post-construction	• Removal of protective fencing • Signing off

4.3 Phase 1 – Site preparation

4.4 Tree surgery works

Tree works that are recommended in the Tree Data Schedule in Appendix 1 are of a general maintenance nature and can be carried out at any time as per recommendations.

Tree works required to facilitate the development will be carried out prior to the commencement of any onsite operations. This should allow sufficient space for approved construction to be carried out. For further details regarding the pruning of trees for the facilitation of the development please refer to Arboricultural Impact Assessment.

Any unforeseen tree works that become apparent during the construction process will require written consent from the Local Authority Tree Officer.

4.5 General construction activity

All operations that could affect trees on and adjacent to the site must be considered as part of the project management of the Proposed Development.

The Arboricultural Consultant may also have an advisory role in the preparation of site including tree surgery works and the protection of trees during demolition processes.

The AMS accompanies the AIA and should be read in conjunction with the Tree Protection Plan. It is essential to adhere to the recommendations within this document during on-site operations to ensure the successful retention of trees as part of the Proposed Development. Compliance with the AMS will be a requirement of all relevant contracts associated with the Proposed Development.

The AMS aims to provide general guidelines to onsite personnel that must be followed when working close to trees on construction sites. All site personnel should have access to this document and be made aware of any sections that may be relevant to their specific area of work.

4.6 Potential damage to above ground parts of retained trees

Care will be taken when planning site operations to ensure that wide or tall loads or plant with booms, jibs and counterweights are able to operate without coming into contact with retained trees. Any contact has the potential to cause life limiting damage. It is therefore essential that any activities in close contact with retained trees is carried out under the supervision of a banksman to maintain sufficient clearances.

Any tree damage must be reported to the Arboricultural Consultant or Local Authority Tree Officer as unreported damage could lead to the structural instability.

4.7 Protective fencing

Temporary protective fencing will need to be installed in the positions indicated on the Tree Protection Plan in Appendix 3 prior to the commencement of any construction activities on site including the delivery of materials and site facilities.

Any fencing that is damaged so that it is no longer able to protect retained trees must be replaced/repared immediately with appropriate fencing.

In areas of site where construction activity is expected in close proximity to RPAs, it will be necessary to employ the more robust 'in-ground' system following BS 5837 guidelines (Fig 3).

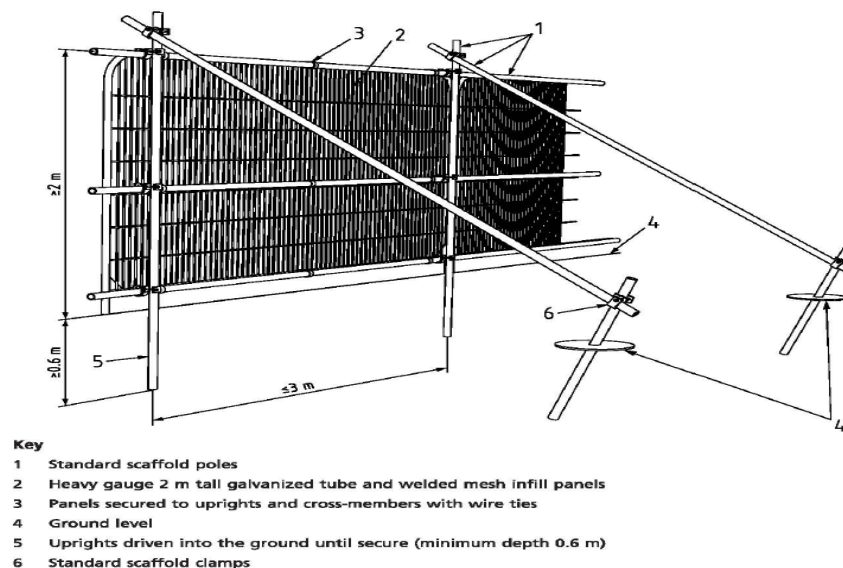


Fig 3. Temporary Protective Fencing

The 'in-ground' system involves driving vertical scaffold poles approximately 0.6m into the ground onto which are affixed horizontal scaffold poles and bracing struts. 2m high anti-climb weldmesh panels are then wired to the scaffold framework. The vertical scaffold poles should be at a maximum of 3m apart.

No fixing shall be made to any tree and all possible precautions shall be taken to prevent damage to the tree roots when locating uprights.

Where space is limited, it is sometimes necessary to construct a temporary tree guard to physically protect the main stem of the tree (Fig 4). This should be made by joining together 4 X 25mm Exterior Grade pieces of plywood to 47mm X 47mm treated timber posts to create a box shaped frame which is attached to the ground or adjacent structures. No fixings are to be made

to the tree and suitable ground protection should be employed within the RPA of the tree.

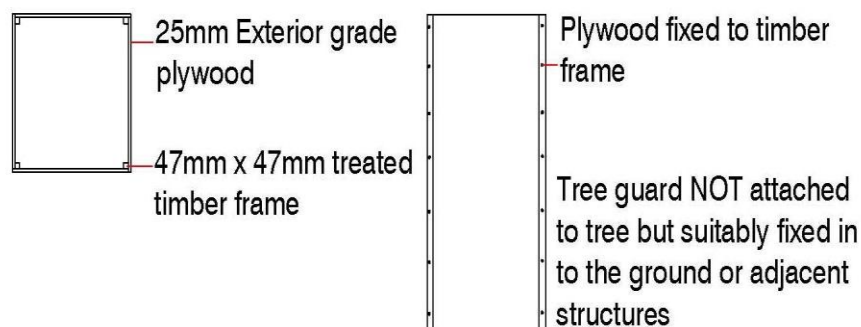


Fig 4. Temporary Protective Fencing.

A 600mm x 300mm warning sign reading “TREE PROTECTION AREA KEEP OUT” shall be fixed to every 10m of protective fencing. (Fig 5).



Fig 5. Tree Protection Sign

4.8 Phase 2 – Construction process

4.9 Demolition and removal of surfaces in the RPA

During demolition, the following restrictions will apply:

- Where direct damage by falling masonry is likely, the tree should be protected by exterior grade plywood sheets constructed around the main stem.
- The main body of any mechanical excavator will operate outside the RPA.
- Masonry will be pulled away from trees where possible.
- When breaking masonry, a fine water spray will be used to minimise dust particles.
- Excessive dust particles on trees will be removed each day by spraying with water.
- Hard surfaces should be kept in place for as long as possible during construction works in order to prevent soil compaction in the RPA.

During surface removal, the following restrictions will apply:

- Only hand operated tools will be used to lift existing surfaces and sub-base. No mechanical excavators are to be used.
- No excavation below the existing sub-base will occur.
- All surface removal within the RPA will be supervised by the Arboricultural Consultant or the Local Authority Tree Officer.

4.10 Excavation in the RPA

Any necessary excavation must be carried out using hand tools to avoid direct damage to the protective bark of tree roots. It

may be possible in some instances to use specialised equipment such as high air pressure machinery to excavate the soil with minimal disturbance to roots.

Exposed roots will be wrapped in dry, clean Hessian sacking to prevent desiccation and to protect from rapid temperature changes. In warmer weather, the sacking should be kept moist by regular watering. Sacking should be removed before backfilling.

Roots less than 25mm diameter may be pruned back, preferably to a growing point. A sharp cutting tool such as bypass secateurs or a handsaw should be used to leave the smallest wound possible. Roots greater than 25mm in diameter should be retained wherever possible.

Root pruning should be carried out under the supervision of the Arboricultural Consultant or the Local Authority Tree Officer to ensure that only roots necessary to facilitate the development will be removed and the long-term well-being of retained trees is maintained.

Backfilling of any excavation should be carried out by hand to avoid direct root damage by excessive compaction and should include, where possible, the replacement of inert granular material mixed with sharp sand (not builder's sand) around retained roots.

4.11 New structures in the RPA

No concrete strip foundations are to be installed within the RPA of any retained tree. Traditional strip foundations can cause an unacceptable amount of damage during the excavation process where roots are easily torn by mechanical excavators.

Where foundations are to be laid in the RPA of retained trees, root damage can be minimized by using small diameter piles located to avoid major tree roots. The proposed area for pile installation should be dug by hand to a depth of approximately 750mm in order to ascertain the position of roots present. Beams, slabs and suspended floors should be laid at or above ground level and cantilevered, as necessary, to avoid tree roots.

Where piling is to be installed in proximity to trees, the smallest practical pile diameter should be used as this reduces the possibility of striking major tree roots, and reduces the size of the rig required to sink the piles. The latter is particularly important where piling within the branch spread is proposed, as mini-rigs reduce the need for access facilitation pruning. Sheathed piles protect the soil and adjacent roots from the potential toxic effects of concrete.

Backfilling of any excavation should be carried out by hand to avoid direct root damage by excessive compaction and should include, where possible, the replacement of inert granular material mixed with sharp sand (not builder's sand) around retained roots.

Any pruning should be carried out under the supervision of the Arboricultural Consultant or the Local Authority Tree Officer to ensure that only branches necessary to facilitate the Proposed Development will be removed and the long-term well-being of retained trees is maintained.

4.12 Working in the RPA

Special care will need to be undertaken when working in the RPAs that are not protected by temporary fencing. The RPA is defined on the Tree Protection Plan Appendix 3 by coral circles surrounding retained trees. Where necessary, temporary

protective fencing will be placed in the marked positions, beyond which is a Construction Exclusion Zone (CEZ). This zone precludes all construction activity, with the sole exception of specified arboricultural works that have been agreed by all parties and under the supervision of an arboriculturist.

4.13 RPAs explained

The RPA is an area of ground around the base of a retained tree, which is calculated in relation to the stem diameter, where disturbance should be kept to a minimum and avoided if at all possible.

The majority of tree roots grow within the upper 600mm of the soil profile where most nutrients are available as the result of the decomposition of organic matter close to the surface. Rooting conditions become less favourable at depth as the soil density increases, creating anaerobic conditions.

It is essential that roots are protected from construction works including physical damage from excavation and changes in soil structure from compaction and changes in ground levels.

Services should not be attached to any part of retained trees.

4.14 Monitoring

The Arboricultural Consultant will be responsible for the monitoring of all arboricultural works and issuing a certificate of practical completion.

4.15 Phase 3 – Post development

4.16 Removal of protective fencing and signing off

When the construction process is complete, the site should be inspected by the appointed arboriculturist or Local Authority Tree Officer. This must be prior to the removal of temporary protective fencing.

Appendix 1 - Tree Data Schedule

- The following pages contain information gathered during the site survey.
- The reader should refer to Appendix 2 in order to correctly interpret the tree data.
- All images within the Tree Data Schedule are diagrammatical only. Their purpose is to indicate, at a glance, the relative dimensions of each tree. The images are computer generated based on measurements recorded for stem diameter, crown spread, crown height and overall height.

Reference G = Group H = Hedge	Age & Species	Height (m)	Crown Ht (m)	Diameter (mm)	Crown Spread (m) N W S E	Scaled Tree Diagram (m)	Notes	Recommendations		Physiological Condition	Life Expectancy (yrs)
								Priority	Inspect Freq (yrs)	Structural Condition	Retention Category
T1	Early-Mature Sycamore Acer pseudoplatanus	14	5	470	7 6.5 5		1: Single stemmed and vertical with a slightly unbalanced crown. 2: Situated in close proximity to hard standing and overhanging building. 3: Minor deadwood to upper crown. 4: Acceptable condition at present.	No action required.		Good	40+
								n/a	3	Good	B
T2	Early-Mature Ash Fraxinus excelsior	14	3	490	6 7 7		1: Twin stemmed at 4.5m. 2: Deadwood present throughout crown. 3: Situated in close proximity to building.	Deadwood.		Good	40+
								Moderate	1	Fair	B
T3	Early-Mature Ash Fraxinus excelsior	15	5	550	3.5 7 5		1: Twin stemmed at 5m. 2: Deadwood present throughout crown. 3: Ivy present on main stem. 4: Situated in close proximity to building.	Deadwood, crown lift to clear building and remove ivy.		Good	40+
								Moderate	1	Fair	B
T4	Early-Mature Sycamore Acer pseudoplatanus	14	5	490	5 4 4		1: Single stemmed and vertical with an unbalanced crown. 2: Deadwood throughout crown. 3: Situated in close proximity to building.	Deadwood.		Good	40+
								Moderate	1	Fair	B

Appendix 2 – Tree Schedule Definition of Terms

Tree Referencing	Individual Trees T (+number) Grouped Trees G (+number) Hedgerows H (+number) Woodlands W(+number)
Age Category	Young Usually <15 years Semi-mature Significant growth expected, approximately one third of life expectancy complete Early-Mature Full height achieved with further significant growth possible, up to two thirds of life expectancy complete Mature Full height has been achieved with possible spreading of the canopy, usually past two thirds of overall life expectancy Veteran Usually a tree of significant age with characteristics that give additional cultural, landscape and conservation benefits, Over-mature A tree declining due to age as indicated by deterioration in the health and condition of its crown and trunk.
Species	Botanical Name - conforming to the International Code of Nomenclature for algae, fungi, and plants (ICN). For universal plant recognition. Common Name – commonly used names usually on a local and national scale.
Tree Height	The vertical distance between the base of the tree (where soil and buttress meet) and the tip of the highest branch on the tree.
Crown Height	Measured from ground level to the height at which the main crown begins.
Stem Diameter (DBH)	Stem diameter is measured at 1.5 m above ground level
Tree Diagrams	A diagrammatical representation of the tree taken from measurements of stem diameter, crown height and spread, and overall height.
Crown Spread: Crown	Measurements taken from all four cardinal points in metres.
Notes	Notes are made to inform of any possible defects, peculiarities or points of interest that may relate to the trees position, physiology, safety and possible effects on developments.
Recommendations	Recommendations are made in accordance to good arboricultural practice. Recommendations are made regardless to the end usage of the site.
Priority Scale	Priority is given dependant on the perceived threat and the likelihood of failure given to a possible hazard. The priority of work is given regardless of the end usage of the site. Urgent To be carried out as soon as possible. Very High To be carried out within 1 month. High To be carried out within 3 months. Moderate To be carried out within 1 year. Low To be carried out within 3 years.
Physiological Condition:	Good Usually healthy with no symptoms of poor health or disease. Fair Exhibiting signs of poor health or minor disease infections that are not considered to be hazardous. Poor Disease present in considerable quantities or with very poor physiological vigour. Very Poor Tree is in a moribund state in extremely poor condition, usually with little chance of recovery.
Structural Condition:	Good A tree with no significant structural defects. Fair Minor defects may have been observed but are not considered to be immediately hazardous. Poor Significant defects found. Tree requires monitoring or remedial works. Very Poor Major defects that require immediate remedial work or the removal of the tree.
Life Expectancy:	The estimated number of years before the tree may require removal should no unexpected mechanical or environmental impacts occur to the tree.
Retention Category:	Please refer to Tree retention categorisation table on the next page.

Tree Retention Category – The following table provides an explanation of retention categories used.

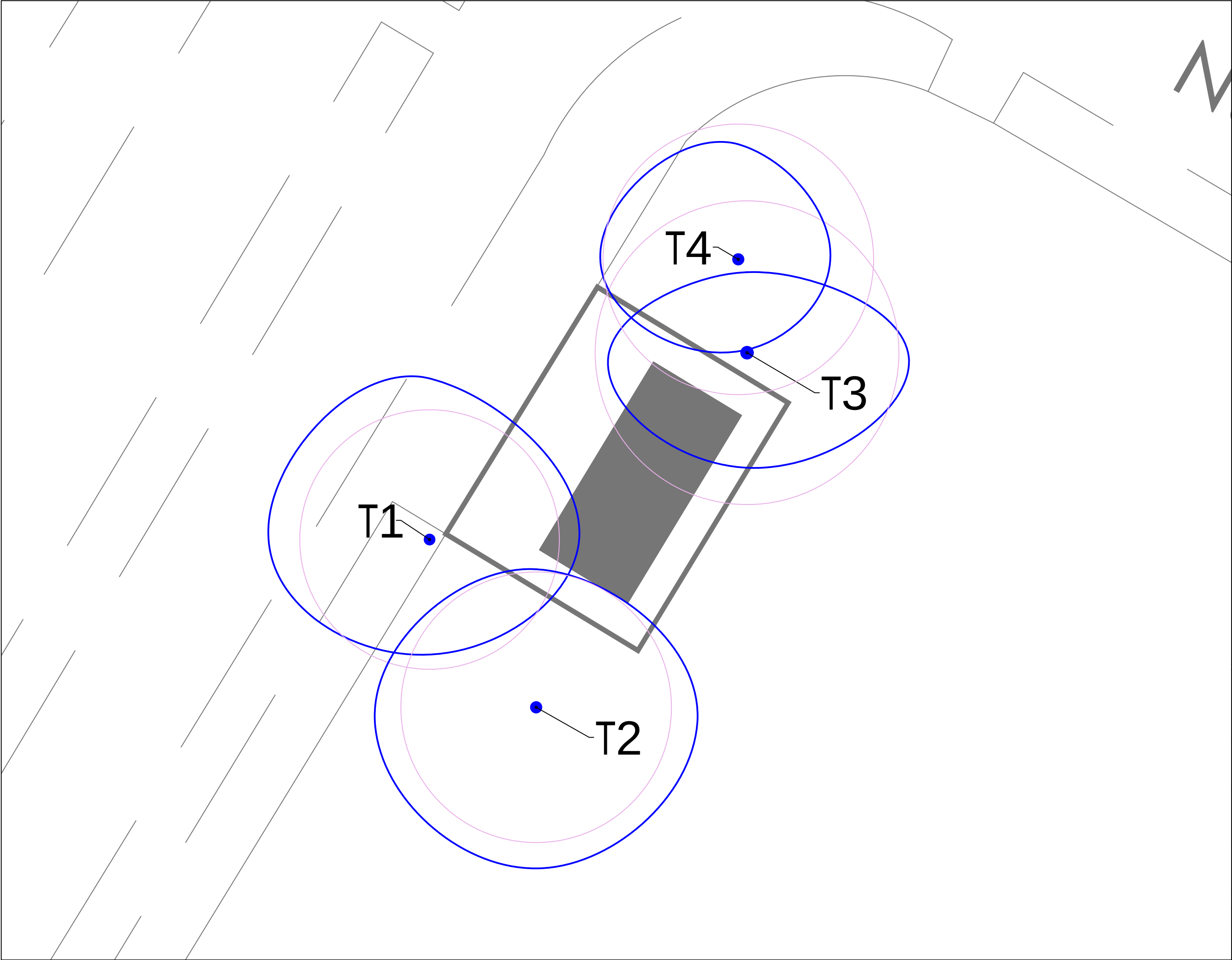
Trees to be removed		Colour on Plan
Category U includes trees of very low quality that offer little or no amenity value.	Trees that are in such a condition that they should be removed as a matter of good arboricultural practice regardless of given proposals.	RED
Trees to be considered for retention		Colour on Plan
Category A Trees of a high quality, with an estimated life of expectancy of at least 40 years	Trees that are excellent examples of their species, usually mature, with a safe useful life expectancy of at least 40 years. Category A trees are likely to enhance a development and should be retained wherever possible.	GREEN
Category B includes trees of moderate quality and amenity value.	Trees that are good examples of their species but may have defects or form that downgrade them from category A. Category B trees are usually mature or younger trees with the potential to reach A category in the future. Although the retention of these trees is desirable, some losses may be acceptable.	BLUE
Category C includes trees of low quality and amenity value.	Trees that are either young with a stem diameter less than 150mm or are unlikely to make a contribution for more than 10 years. The removal of these trees should be seen as acceptable in order to allow development to proceed. It may be possible to transplant younger specimens.	GREY
NOTE: Trees that are viewed as borderline and do not fit neatly into either of the categories are given a plus or minus rating (+/-) in the tree data schedule. Therefore C+ would denote a tree being borderline C/B although C is deemed to be the most appropriate category. Similarly B- would denote a tree being borderline B/C with B seen as the most appropriate category.		

Appendix 3 – Site Plans

The site plans referred to in the report follow this page which include the following:

- Tree Constraints Plan
- AIA Plan
- Tree Protection Plan

Although included plans are usually to scale, they are only intended to indicate positions of surveyed trees and dimensions should not be taken from these drawings.



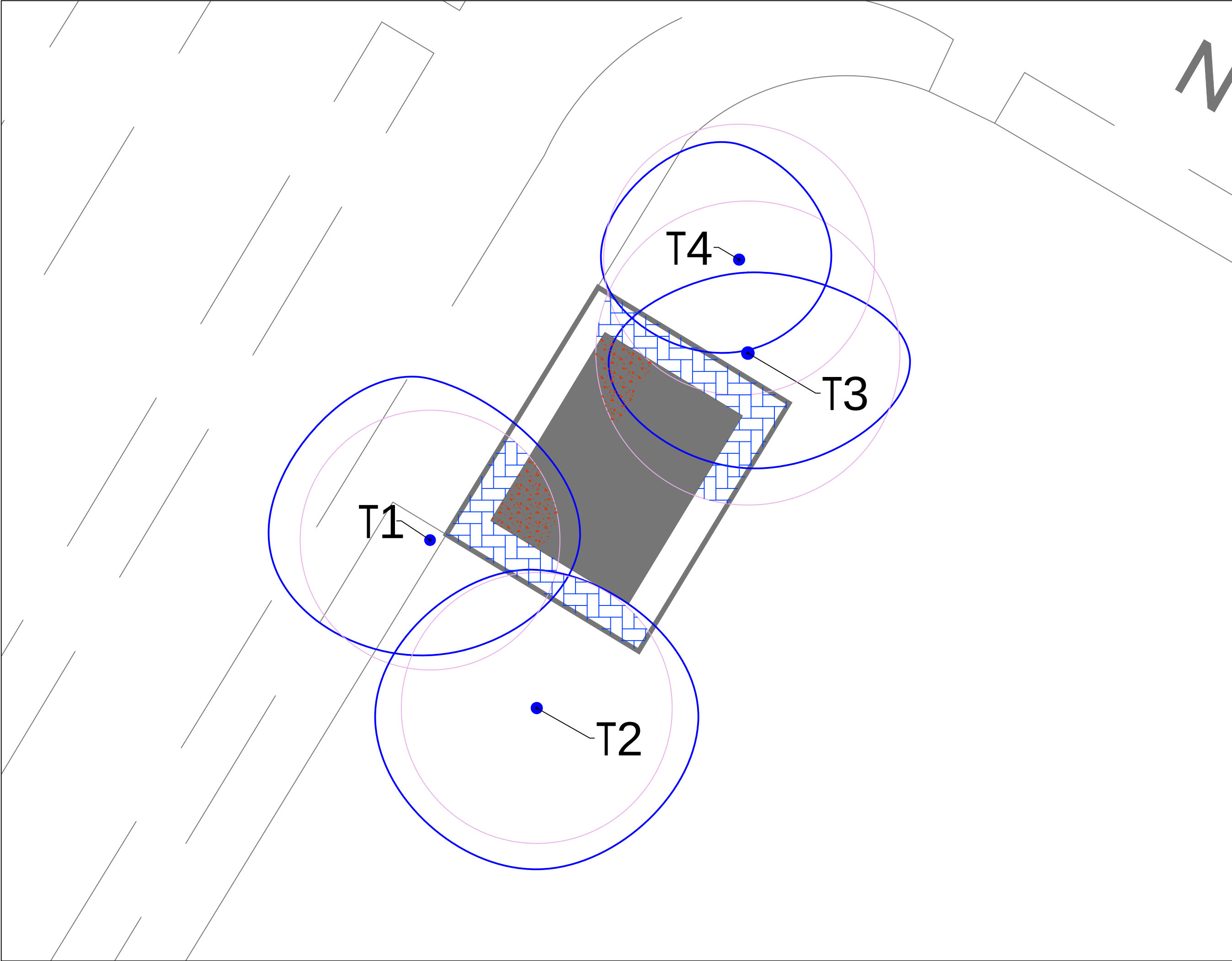
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Notes:-



-  Category A tree, group or hedge
-  Category B tree, group or hedge
-  Category C tree, group or hedge
-  Category U tree, group or hedge
-  Root Protection Area (RPA)

P01	17/03/16	Planning	DL	JC
REV	DATE	DESCRIPTION	DRAWN	CHK'D
URBANGREEN 21 Swan Street Manchester M4 5JJ T: 0161 312 3131 W: urbangreen-space.co.uk				
Client: JNS Properties				
Project: Lightbourne Road				
Title: Tree Constraints Plan				
Project: Planning				
Status:	11162	Drawn:	DL	Checked: JC
Scale @ A3:	1:150	Date:	17/03/16	Approved: SF
Drawing No: 11162.T01			Revision: P01	



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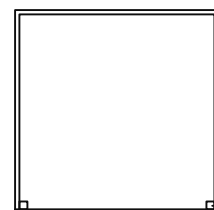
Notes:-



- Category A tree, group or hedge
- Category B tree, group or hedge
- Category C tree, group or hedge
- Category U tree, group or hedge
- Root Protection Area (RPA)
- RPA affected by surface changes
- RPA affected by foundations
- RPA affected by boundary treatments

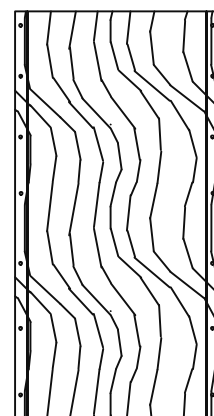
P01	17/03/16	Planning	DL	JC
REV.	DATE	DESCRIPTION	DRAWN	CHK'D
URBANGREEN 21 Swan Street Manchester M4 5JJ T: 0161 312 3131 W: urbangreen-space.co.uk				
Client:		JNS Properties		
Project:		Lightbourne Road		
Title:		Arboricultural Impact Assessment		
Project:		Planning		
Status:	11162	Drawn:	DL	Checked: JC
Scale @ A3:	1:150	Date:	17/03/16	Approved: SF
Drawing No: 11162.T02			Revision: P01	

Temporary tree guard detail



25mm Exterior grade plywood

47mm x 47mm treated timber frame



Plywood fixed to timber frame

Tree guard NOT attached to tree but suitably fixed in to the ground or adjacent structures



Notes:-



- Category A tree, group or hedge
- Category B tree, group or hedge
- Category C tree, group or hedge
- Category U tree, group or hedge
- Root Protection Area (RPA)
- Protective fencing
- Temporary tree guard
- RPA not protected by fencing (special care required)
- Construction Exclusion Zone (CEZ)

See temporary tree guard detail

See temporary tree guard detail

T1

T4

T3

T2

P01	17/03/16	Planning	DL	JC
REV.	DATE	DESCRIPTION	DRAWN	CHKD



21 Swan Street Manchester M4 5JJ
T: 0161 312 3131 W: urbangreen-space.co.uk

Client: JNS Properties

Project: Lightbourne Road

Title: Tree Protection Plan

Project:	Planning
Status:	11162
Drawn:	DL
Checked:	JC
Scale:	1:150
Date:	17/03/16
Approved:	SF
Drawing No:	11162.T03
Revision:	P01