Arboricultural Impact Assessment, Method Statement & Tree Planting Plan

Land off Track Road, Batley, WF17

November 2024

Statement prepared by

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Summary

Apollo Estates instructed Treeplan to undertake a BS5837 tree survey to inform a site design and then an arboricultural impact assessment, method statement and tree planting plan to inform proposed development at Land off Track Road, Batley, WF17.

The proposal is the construction of one detached dwelling.

A site visit and BS5837 tree survey was undertaken on 31 May 2022. An additional site visit was undertaken in October 2024 to re-appraise the trees.

Four plans have been annotated to include tree related data relevant to the proposal and are included at the rear of this report, in Appendix 2.

- A Tree Constraints Plan shows the recorded trees and the current site
- A Tree Impact Plan showing the proposed dwelling and trees to be removed in order to enable development
- A Tree Protection Plan showing the retained trees and temporary protection measures through construction
- A Tree Planting Plan showing the proposed dwelling, proposed planting locations and tree specifications

It is considered that the proposed development could be undertaken with suitable temporary tree protection measures remaining compliant with BS5837 without detriment to the health, longevity or amenity of the retained trees.

1. INTRODUCTION

1.1 Instruction

Apollo Estates instructed Treeplan to undertake a BS5837 tree survey to inform a site design and then an arboricultural impact assessment and method statement to inform proposed development at Land off Track Road, Batley, WF17.

The proposal is the construction of one detached dwelling.

A site visit and tree survey was undertaken in May 2022. An additional site visit was undertaken in October 2024 to re-appraise the trees. The tree survey and this report follow guidelines contained in *British Standard 5837:2012 Trees in relation to design, demolition and construction* (hereafter BS 5837).

1.2 Qualifications & Experience of Author

The author of this report is Ross Cannon. Conclusions and recommendations of this report are based on my site observations and experience. I have experience and qualifications in Forestry and Arboriculture which are summarised in Appendix 1.

2. SITE & TREE DETAILS

See Tree Data Schedule & Tree Constraints Plan in Appendix 2 showing current site and its trees.

2.1 Protection Status

A desktop check at Tree preservation orders | Kirklees Council indicates some of the trees on site are the subject of a tree preservation order (TPO) although the map is not definitive enough to accurately determine individual trees on site. This web page only provides a snapshot in time so clients and contractors should make additional checks/site visits with the local planning authority prior to any works at their own risk.

2.2 Tree Categorisation

Section 4.5.2 of BS 5837 states *'The purpose of the tree categorisation method, which should be applied by an arboriculturist, is to identify the quality and value (in a non-fiscal sense) of the existing tree stock, allowing informed decisions to be made concerning which trees should be removed or retained in the event of development occurring'*.

There are four retention category's, U, A, B and C.

- Category U – Trees in such **poor** condition that they cannot realistically be retained in the context of the current land use for greater than 10 years.
- Category A – Trees of **high** quality with an estimated life expectancy of at least 40 years.
- Category B – Trees of **moderate** quality with an estimated life expectancy of at least 30 years.
- Category C – Trees of **low** quality with an estimated life expectancy of at least 20 years, or young trees with a stem diameter of less than 150mm.

2.3 Soil Type

Section 4.3 of BS 5837 states that a soil assessment should be undertaken by a competent person to determine structure, pH and composition to inform new planting as well as 'shrinkability'. I am not a soil scientist and therefore recommend a specialist in this field is consulted as part of the foundation design stage if required.

2.4 Tree Constraints

2.4.1 Above Ground Constraints – Tree Trunk and Canopy

The trees current canopy/crown spread is marked on plans to aid site design. Consideration needs to be made to the following:

- Mature height and spread
- Species characteristics such as evergreen or deciduous, honeydew (sap) drip, fruit fall
- Shade potential
- Potential incompatibilities between layout and trees proposed for retention
- Working/access space needed for construction phase
- Protection of tree canopies from machinery impact or scaffold clearance
- Infrastructure requirements- easements, lighting, solar collectors, CCTV

2.4.2 Below Ground Constraints – Root Protection Area

BS 5837 states a *'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'*.

For single stems the RPA is calculated as an area equivalent to a circle with a radius 12 times the stem diameter.

The RPA is plotted on plans as a circle, but where pre-existing site conditions are considered to have altered the rooting area a polygon will be produced.

If utility operations within the RPA are proposed consideration should be given to NJUG4 (National Joint Utilities Group Volume 4 (Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees)).

2.5 Tree Constraints Plan

Plans accompanying this report have highlighted the trees retention category (as per 2.2 above), their current below ground constraints (RPA) and can aid site design through shade and species consideration.

3. ARBORICULTURAL IMPACT ASSESSMENT

See Tree Impact Plan in Appendix 2 showing proposed site.

3.1 Above Ground Impacts – Stems and Canopy

Table 1 - Tree work to enable development

	Impact/ work required	BS Retention Category			
		U	A	B	C
1	Trees to be removed to enable development	G4 T9 T11	-	T3 T7 T10	-

- Trees listed in Table 1 above require or are recommended to be removed in order to enable the development build space, build access and post development dwelling clearance.
  These trees are internal to the site, of low retention quality or of low amenity value – it is considered they could be removed without detriment to the amenity of the wider area. The pictures below taken from adjacent public viewpoints from Track Road to the west indicate the low amenity value the recorded trees have. The current wooded/overgrown area in which the development is proposed has a number of Ash and Elm trees which are dying or dead. This application is recommending the planting of 18 trees (strategically located in canopy gaps) which will mature to be 10-20m high and 40 Holly trees randomly planted (but in a defined area) to provide below 10m height cover and improve the woodland understorey. As such the planting gain is likely to improve the tree type, planting density and longevity of the wooded area, that would otherwise not occur

View from Track Road approximately 40m to west of proposed dwelling, panoramic looking east
None of the trees shown here will be removed or pruned. The existing dark green evergreen Holly canopies seen here will provide year-round cover

View from Track Road approximately 55m to southwest of proposed dwelling, looking northeast via the site access
The only tree partially viewed from this public vantage point is T10 Lime, circled yellow. This picture indicates this tree does not provide any significant amenity value. Adjacent Holly trees provide year-round cover. Four replacement trees are proposed for the area around T10 as part of the tree planting scheme

- No retained trees are proposed for pruning
- Shade – The average height of the retained trees (15m) has been shown on the Tree Impact Plan. This indicates that tree shade will not be an issue. The dwelling is south facing so will receive full sun all day
- Sycamore and Holly have robust leaf and seed, additionally Sycamore deposits a sticky substance due to the action of aphids, as such rooflines, windows, doors and gutters may require more regular cleaning than elsewhere
- New tree planting locations have considered future canopy growth/shade/leaf/seed fall. Larger canopies trees have been proposed to the north of the dwelling in the more wooded areas (so they form upright narrow canopies and do not shade the proposed dwelling in future decades) and medium sized canopies to the east and west of the dwelling

3.2 Below Ground Impacts - to Root Protection Areas (RPA)

- Trees listed in Table 1 above require or are recommended to be removed in order to enable the development
- No retained trees will see alterations to their RPA's
- Utilities in and out of the proposed dwelling will be routed to the south from the existing road, outside the RPA's of retained trees
- Retained trees could still see potential impacts to the RPA's from site clearance works, construction activity/access and hard landscaping through compaction, degradation and contamination. Therefore, temporary tree protection measures would need to be installed prior to and maintained throughout the build stages, only removed at the very end of the development, controlled through an Arboricultural Method Statement and Tree Protection Plan – see section 4 below and Tree Protection Plan in Appendix 2

4. ARBORICULTURAL METHOD STATEMENT

4.1 Project Arborist

BS 5837 recommends the appointment of a Project Arborist to ensure that on and off-site trees are fully considered during the development process. This is normally a requirement of a planning condition. Treeplan can be instructed if required.

4.2 Requirements to Protect Site Trees

It is **essential** that the following methodologies are followed in order that the proposed development is not to have a significant impact on the retained trees

- Physical protection – by the use of protective fencing to limit or prevent the physical impact on above ground tree parts or below ground rooting areas
- Site management – by detailing suitable methods for activities where they may influence trees which may include arboricultural supervision
- Use of a **Tree Protection Plan**, showing locations of protection measures

4.3 Tree / Ground Protection – Generic Precautions

I suggest enforcing these general precautions within the RPAs of retained trees during the construction phase:

- No soil disturbance, including compaction or level change by stripping or filling
- No excavation, without prior discussion with the Project Arborist and/or the Local Planning Authority
- No redirection of surface water runoff into or out of the RPA
- No temporary buildings, sheds, or offices, without prior discussion with the Project Arborist and/or the Local Planning Authority
- No storage of materials or fuel
- No dumping of materials, whether into a skip or onto the ground
- No fires within 10m of the RPA or tree canopy, whichever is greater
- No refuelling of mechanical equipment
- No storage or mixing of cement
- No washing of cement mixers within or uphill of the RPA
- Follow the guidance contained within the National Joint Utilities Group Volume 4 (Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (Issue 2, 2007); www.njug.org.uk) when installing underground services inside or other excavation in the RPA of a tree

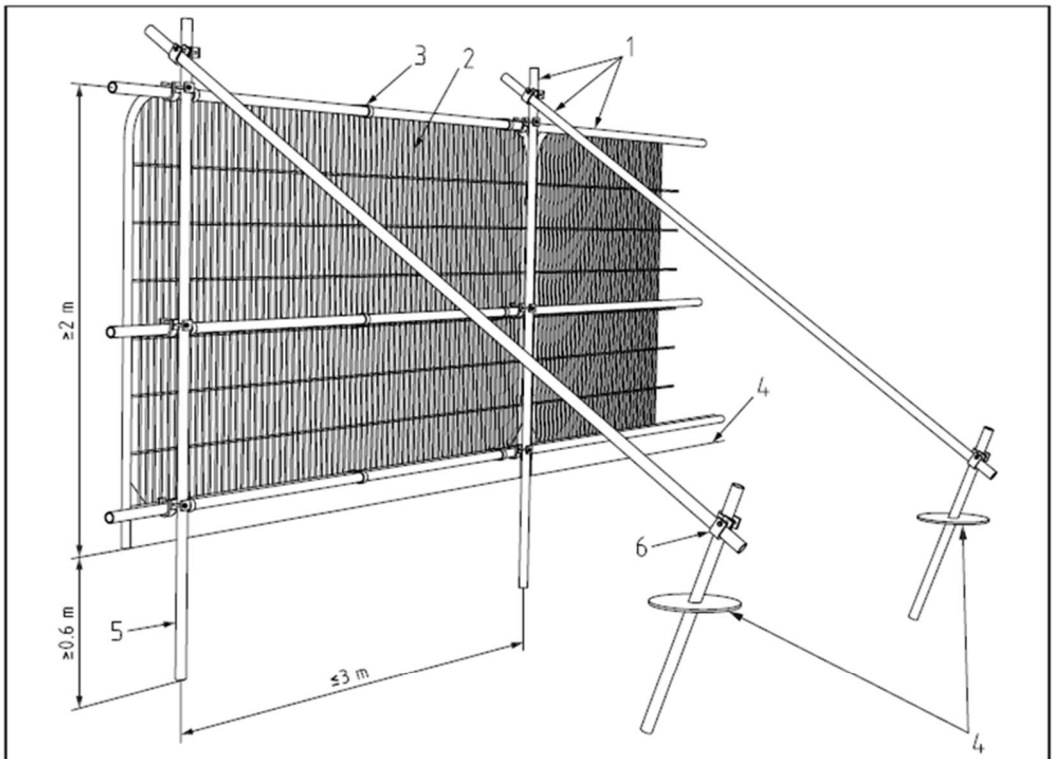
4.4 Tree Protective Fence – Construction Exclusion Zone

Protective fencing should be erected along the line shown on the Tree Protection Plan. The area inside this fence becomes the 'Construction Exclusion Zone'.

This fence will prevent construction activity that could cause damage occurring close to the retained trees. No plant, equipment or vehicles should operate inside the protective fencing without suitable ground protection and agreement from the Project Arborist or Local Planning Authority. Further to this no activities as listed in Section 4.3 above should occur inside the protective fence/ construction exclusion zone.

This product is to be installed before any plant or vehicle comes on site or soil stripping occurs. This product is to remain in situ until all construction work (up to and including all electrical and decorating) is completed.

The diagram below demonstrates the required fence specification of BS 5837. Angled support poles closest to tree/s. Attach weatherproof signs to outside with the words 'CONSTRUCTION EXCLUSION ZONE – NO ACCESS'.



Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

4.5. Order of Works & Staff Responsibilities

Order	Task	Person Responsible	Signature & Date
1	Once planning permission gained discharge any relevant conditions	Architect/Agent	
2	Instruct Project Arborist	Architect/ Client	
3	Check consents with local planning authority and also ensure no nesting birds/ bat roosting present before works. Undertake tree removal	Architect/ Client in liaison with Project Arborist	
4	Install temporary tree protective fence as per Tree Protection Plan and section 4.4 above	Builder	
5	Project Arborist to attend and check fence to ensure it is fit for purpose. Project Arborist to write to Local Planning Authority confirming as such	Client in liaison with Project Arborist	
6	Undertake build	Builder	
7	When all works complete seek consent to remove temporary tree protective fence from Local Planning Authority	Architect/ Client	
8	Undertake tree planting as per plan	Client in liaison with Project Arborist	

APPENDIX 1 – Qualifications & Experience of Author

The Qualifications and Experience of Ross Cannon

1. Qualifications

In 2001 I was awarded a National Diploma in Urban Forestry.

In 2006 I was awarded the Arboricultural Associations Technicians Certificate.

2. Experience

I have been working and studying within the field of arboriculture since 1999, first as a tree surgeon and latterly in an advisory capacity. Between 2001 and November 2007 I was a tree surgeon for a large local authority. Between November 2007, and December 2008 I worked as a Tree Surveyor and then Arboricultural Officer for Leeds City Council. This involved various large-scale tree condition and management surveys and carrying out detailed tree inspections. Between December 2008 and December 2011 I was a Trees & Woodlands Officer for the Yorkshire Dales National Park Authority administering tree preservation orders, trees in conservation areas and providing advice to the development control section on matters relating to trees in relation to proposed development. From December 2011 to present I have been undertaking independent tree consultancy services.

3. Continuing professional development

I attend courses, conferences, seminars and workshops run by land management, forestry and arboricultural organisations, colleges and universities.

APPENDIX 2 – Tree Data & Plans

Tree Data – Glossary

N, S, E, W = Compass direction

= An estimated measurement.

1. Tree Number/ tags - Individual tree = T+ Number, Group of trees = G+ Number, Hedge = H+ Number
2. Tree Type - Common name
3. Height - Over all tree height, measured in M
4. Diameter at breast height - Measurement of stem @1.5m in mm
5. Root Protection Area - As per section 4.6 of BS 5837(2012).
6. Canopy spread - Extent of tree branches taken at each compass point in m.
7. Low canopy & first direction branch height (m)
8. Age Class – Young, early mature, mature, old mature
9. Health – good, fair, poor, dead
10. Management
11. U or A to C Category grading - See BS 5837(2012) Table 1 For details of each Category

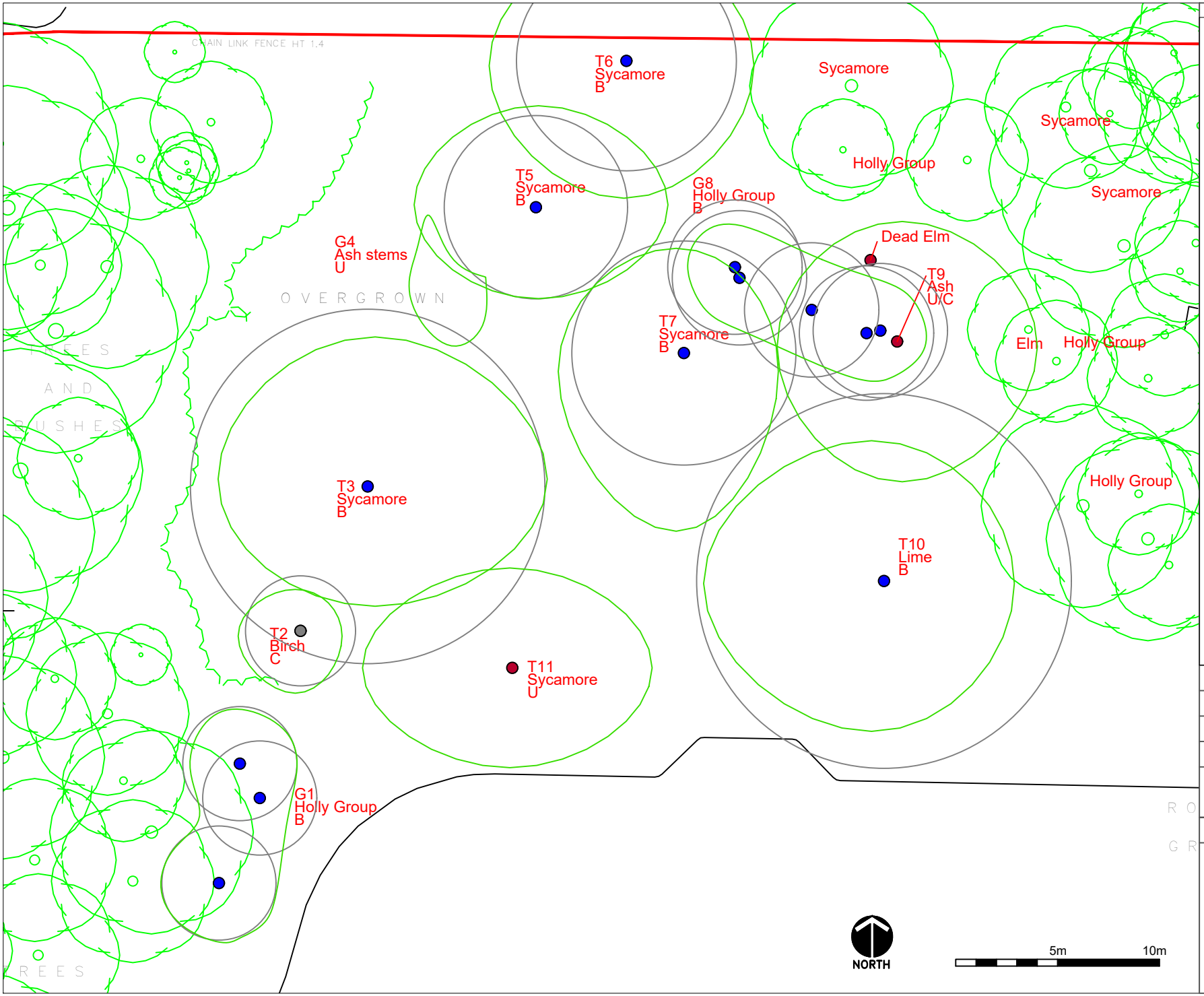
Tree No.	Tree Type	Height (m)	Stem Diameter (mm)	Root Protection Area (Radius, m)	North (m)	East (m)	South (m)	West (m)	Low Canopy (m)	First Branch (m)	Age Class	Health	Comment	Management	BS Category
G1	Holly group	9	240	2.8	As plan				0	4	M	G	-	None	B
T2	Birch	12	230	2.7	1.5	2	3	3	2	5	EM	G	Burrowing in root plate?	None	C
T3	Sycamore	14	730	8.7	7.5	9	6	7.5	4	4.5	M	G	Good health and form	If permission given remove	B
G4	Ash group	<9	<100	1.2	As plan				1	1	SM	P	Infected with ash dieback	If permission given remove	U
T5	Sycamore	10	380	4.5	5	6.5	4.5	6	3	3	EM	G	Ivy prevents full inspection	None	B
T6	Sycamore	12	450	5.4	6	6.5	7	7	3	4.5	EM	G	Ivy prevents full inspection	None	B
T7	Sycamore	11	460	5.5	5	4.5	8.5	6	1	3.5	EM	G	Historic wound and decay to base	If permission given remove	B
G8	Holly group	8	280	3.3	As plan				0	0	M	G	Linier group	None	B
T9	Ash	15	550	6.6	6	7	7	6	8	5	M	F	Historic wound to east, base to 4.5m, canopy sub optimal consistent with ash dieback infection	If permission given remove	C/U
T10	Lime	17	760	9.2	7	6.5	7.5	9	2	4	M	G	Good health and form	If permission given remove	B
T11	Sycamore	14	470	5.6	5	7	5	7.5	4	5	M	P	Canopy in irreversible decline	If permission given remove	U

Tree Constraints Plan - **Current** site and trees

Tree Impact Plan - **Proposed** site and trees

Tree Protection Plan - **Proposed** site and temporary tree protection measures

Tree Planting Plan – Proposed site, tree planting locations



Key

- Category A
- Category B
- Category C
- Category U

Category — Crown Spread
13 Birch B2 — Tree Number, Species, Category
Root Protection Area

No RPA shown for Cat U trees

For planning purposes only, check all measurements on site
Read in colour & with associated report. Copyright.

PLAN 1 OF 4

Scale	1:250@ A3
Plan Title	Tree Constraints Plan
Site	Off Track Rd, Batley
Date	October 2024

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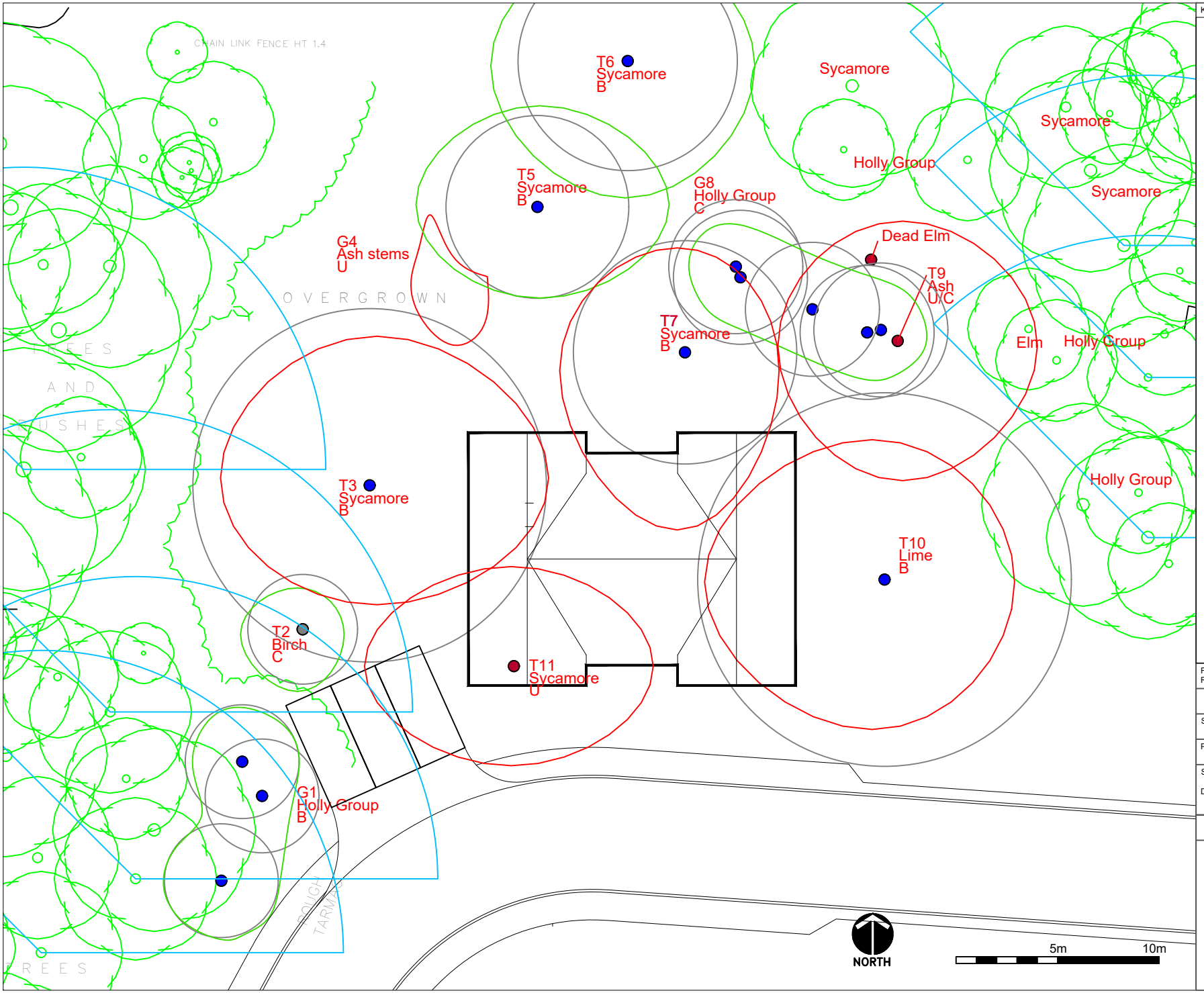

Key

- Category A
- Category B
- Category C
- Category U

Category — Crown Spread
Root Protection Area — 13 Birch B2 — Tree Number / Species / Category

No RPA shown for Cat U trees

Tree Proposed for Removal (Canopy shown Red)

AM — PM

Approximate sweep of shade cast by trees in midsummer, plotted as per description in BS5837: 2012

"An indication of potential direct obstruction of sunlight can be illustrated by plotting a segment, with a radius from the centre of the stem equal to the height of the tree, drawn from due north-west to due east, indicating the shadow pattern through the main part of the day."

PLAN 2 OF 4

Scale	1:250@ A3
Plan Title	Tree Impact Plan
Site	Off Track Rd, Batley
Date	November 2024

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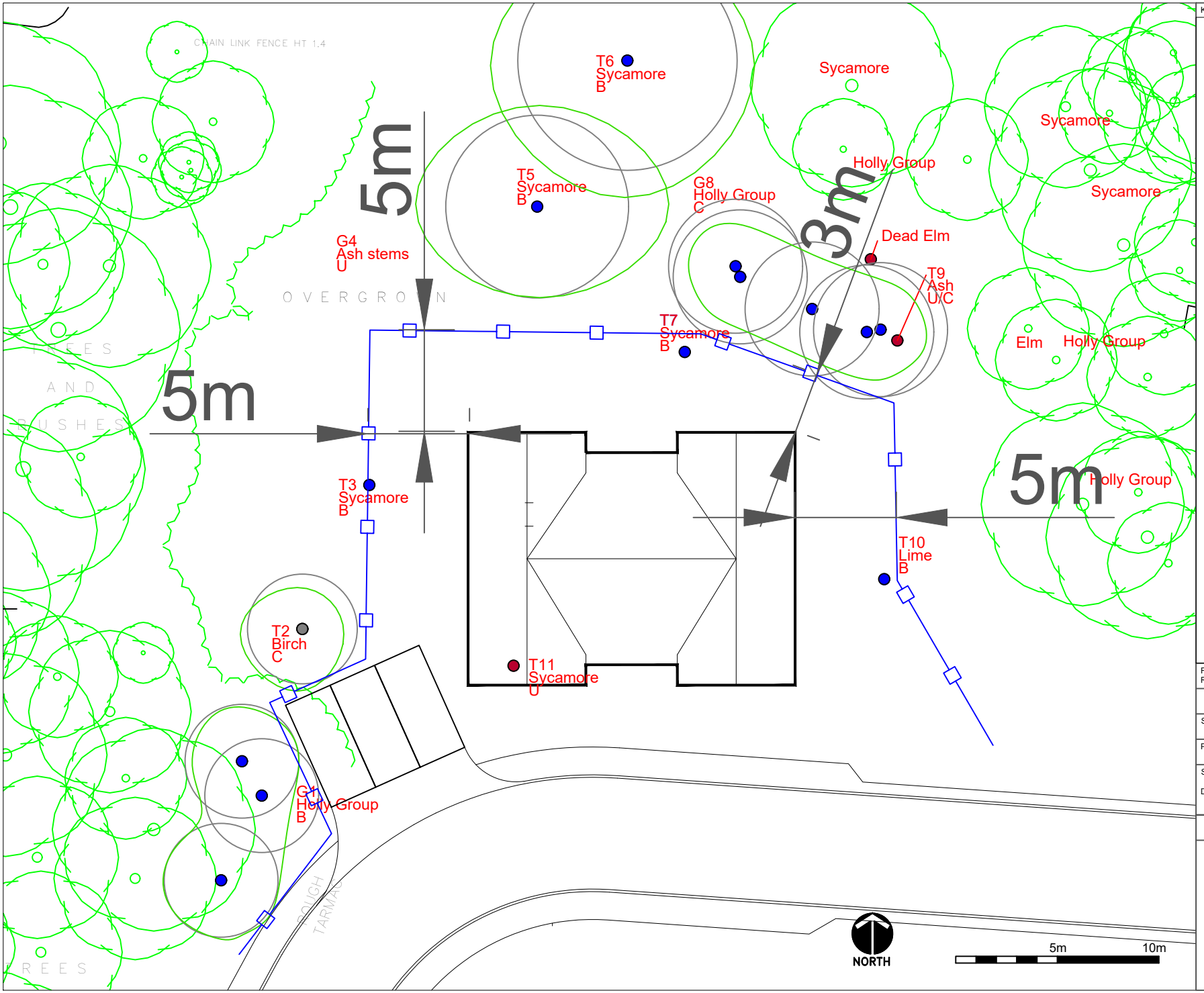

Key

- Category A
- Category B
- Category C
- Category U

Category — Crown Spread
Root Protection Area — 13 Birch B2 — Tree Number / Species / Category

Temporary Tree Protective Fencing as per Fig 2 of BS5837

For planning purposes only, check all measurements on site
Read in colour & with associated report. Copyright.

PLAN 3 OF 4

Scale	1:250@ A3
Plan Title	Tree Protection Plan
Site	Off Track Rd, Batley
Date	November 2024

treeplan
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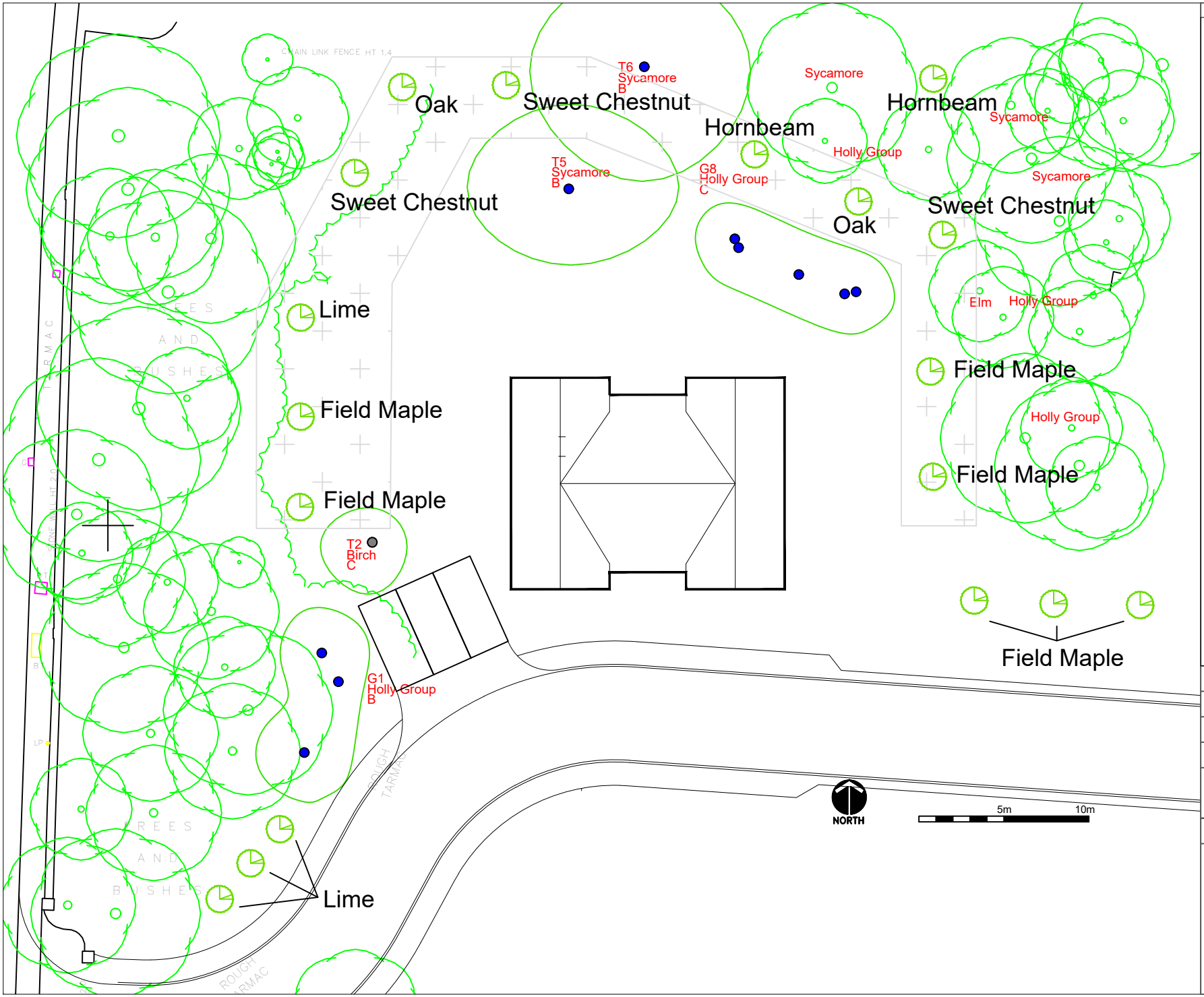

Key

- Category A
- Category B
- Category C
- Category U

Category — Crown Spread
13 Birch B2 — Tree Number, Species, Category

SELECT STANDARD SIZED TREE

4 x Small Leaved Lime
7 x Field Maple
3 x Sweet Chestnut
2 x Hornbeam
2 x Pedunculate Oak

RANDOM SPACED HOLLY PLANTING

40 x Holly 20-40cm cell grown

PLAN 4 OF 4

Scale	1:300@ A3
Plan Title	Tree Planting Plan
Site	Off Track Rd, Batley
Date	November 2024

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