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SOMERSALL LANE (17), CHESTERFIELD

Arboricultural Impact Assessment and Arboricultural Method Statement

August 2023

Revision A – October 2023

TABLE OF CONTENTS

1	INTRODUCTION.....	3
1.1	Introduction.....	3
1.2	General Site Description	3
2	TREE SURVEY	5
2.1	Approach to tree protection.....	5
3	DEVELOPMENT IMPACT.....	7
3.1	Description of proposed development	7
3.2	Implications of proposed development	7
4	METHOD STATEMENT FOR CONSTRUCTION	9
4.1	Introduction.....	9
4.2	Tree Protection Fencing and Construction Exclusion Zone	9
4.3	Scaffolding within the Root Protection Area.....	9
4.2	Utility or Service runs within the Root Protection Area	10
4.2	Landscaping within the Root Protection Area	10
4.3	Permanent Hard Surfacing within the Root Protection Area	10
4.2	Additional precautions outside of CEZ fenced areas.....	10
5	PROGRAMME	11
3.1	Prior to development.....	11
3.2	During Demolition and Construction Phase.....	11
3.2	Mitigating Planting.....	11
5.4	After Development	11

1 INTRODUCTION

1.1 Introduction

Mr and Mrs Young have asked Weddle Landscape Design (WLD) to inspect the trees onsite and prepare an Arboricultural Method Statement report.

A planning application (ref CHE/22/00562/FUL) for the Demolition of the existing conservatory and erection of a replacement single storey side extension and a single storey east front/side extension. Timber fencing, raised terracing and associated landscaping works at Upper Close, 17 Somersall Lane, Somersall, Chesterfield, Derbyshire has been granted in December 2022 and is subject to a number of conditions.

This report has been prepared to assist with the discharge of planning condition 3 which states:

“Prior to the commencement of the development hereby approved (including demolition and all preparatory work), a scheme for the protection of the retained trees, in accordance with BS 5837:2012, including a tree protection plan(s) (TPP) and an arboricultural method statement (AMS) shall be submitted to and approved in writing by the Local Planning Authority. Specific issues to be dealt with in the TPP and AMS:

A. Details of construction within the retained trees Root Protection Areas or activities that may impact on the retained trees.

B. A specification for protective fencing or ground protection to safeguard trees during both demolition and construction phases and a plan indicating the alignment of the protective fencing.

C. Tree protection during construction indicated on a TPP and construction and construction activities clearly identified as prohibited in this area.

D. Details of temporary parking, on site welfare facilities, loading, unloading and storage of equipment, materials, fuels and waste as well concrete mixing and use of fires

The development thereafter shall be implemented in strict accordance with the approved details.”

This report has been prepared by Neil Northrop BA DipLD MCIHort MArborA CMLI of Weddle Landscape Design. Neil is a Chartered Landscape Architect and professional member of the Arboricultural Association, registered user of Quantified Tree Risk Assessment with over 16 years experience of arboricultural consultancy.

This report considers the impact of development on the trees and refers to drawing 1571-001 Tree Survey, 1571-002 Tree Constraints Plan and 1571-003A Tree Protection Plan.

4.3 General Site Description

The site is located West of Chesterfield on Somersall Lane which leaves Chatsworth Road at Brampton.

The site and the area to the south form part of the Somersall Conservation area.

There are 31 trees and 2 groups of trees on site. The trees onsite are a mixture of native and ornamental species, including Cypress, Yew, Silver Birch, Sycamore, Rowan, Beech, Pine, Holly, Japanese Maple, Magnolia, Wild Cherry, Hawthorn, Horse Chestnut, Lime and Plum.

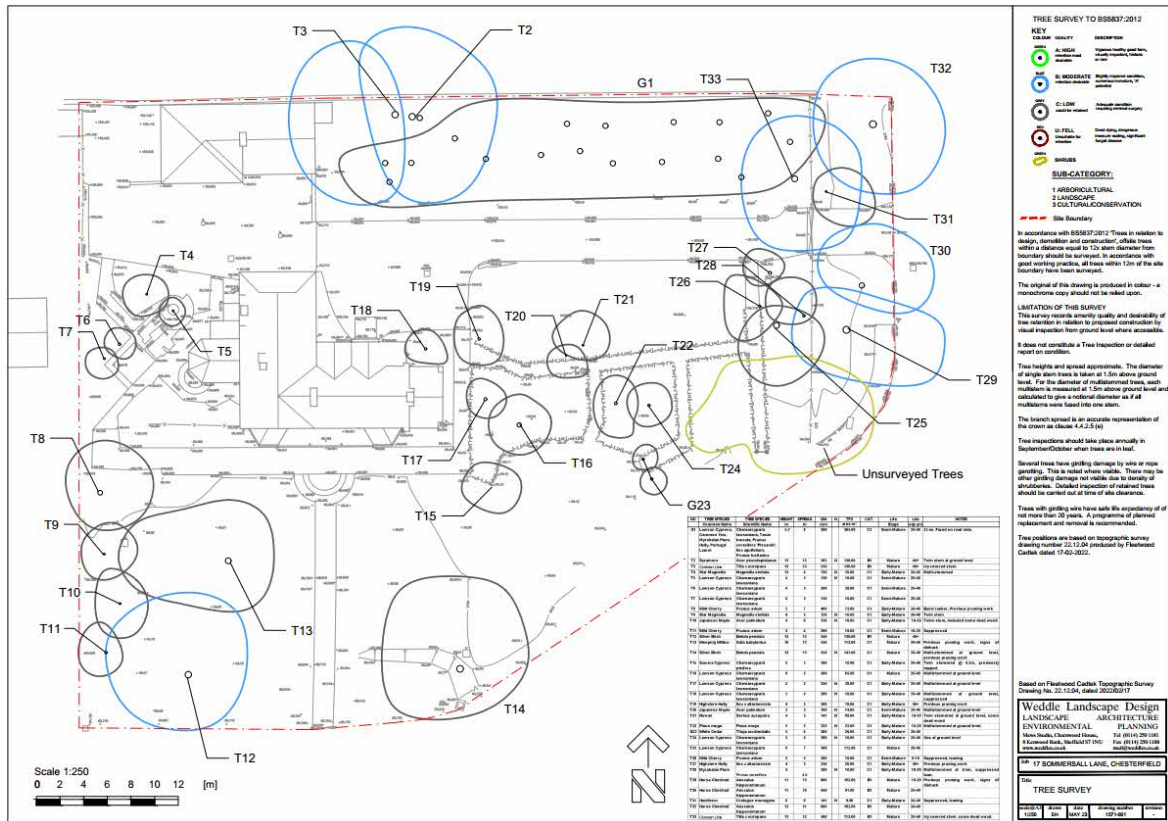


Site Location

2 TREE SURVEY

A Tree Survey to BS 5837:2012 'Trees in Relation to Design, Demolition and Construction – Recommendations' was carried out by Weddle Landscape Design in May 2023, as shown on drawing 1571-001 below.

The tree survey includes an assessment of life stage, life expectancy, general observations on condition and categorisation in accordance with BS 5837:2012 'Trees in Relation to Design, Demolition and Construction – Recommendations' Section 4.5 and Table 1.



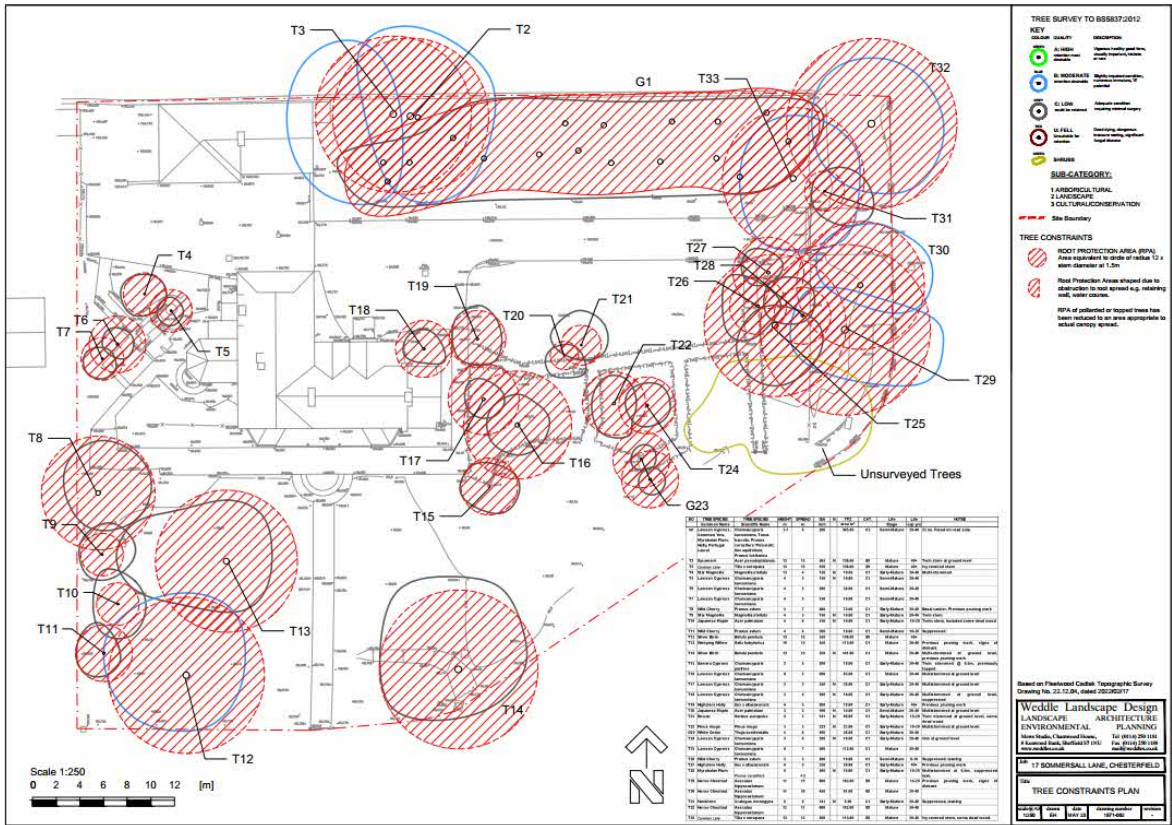
Tree Survey 1571-001.

2.1 Approach to tree protection

The Root Protection Area (RPA) as defined by BS 5837:2012 'Trees in Relation to Design, Demolition and Construction – Recommendations' has been identified and shown on the Tree Constraints Plan (see drawing 1571-002). This is the zone of roots which should be protected against damage during construction.

The Tree Protection Plan indicates the position for protective fencing barriers throughout the development.

The Method Statement for Construction is a general methodology of tree protection by avoiding compaction during construction and provides techniques to be adopted to minimise the impact of construction on tree roots.

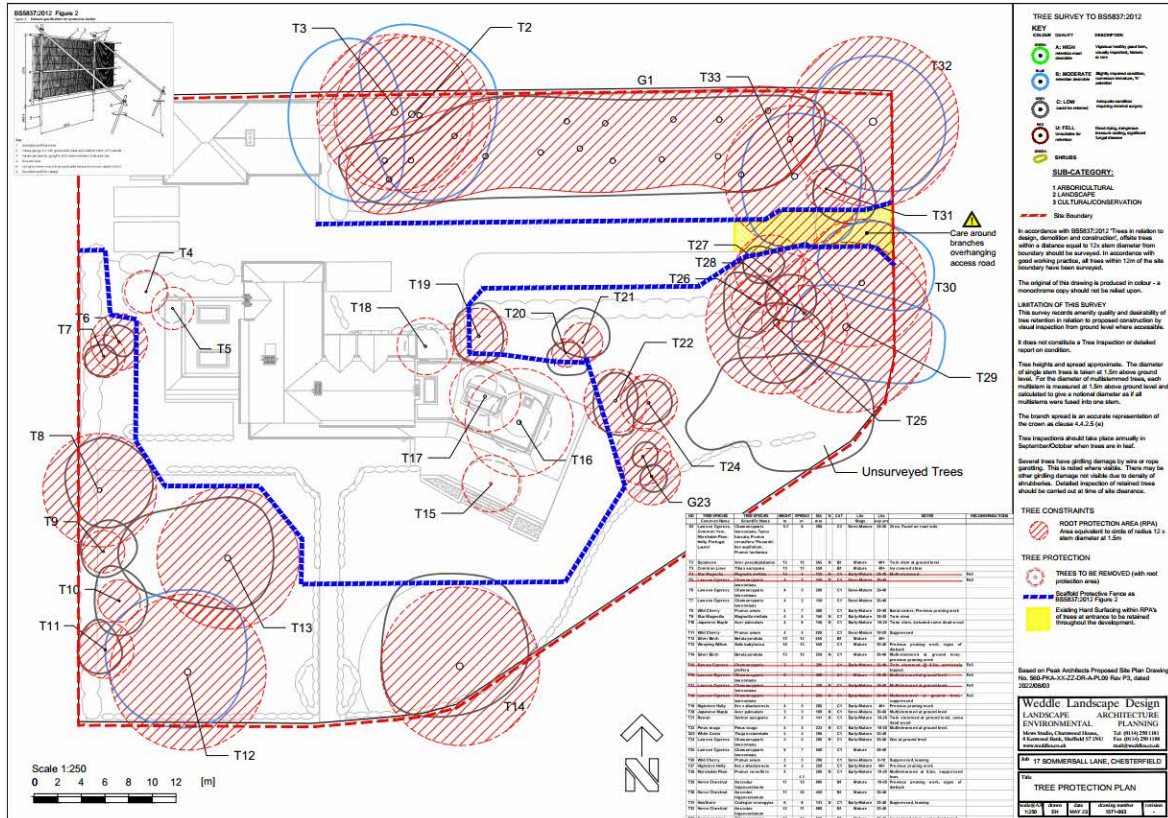


Tree Constraints Plan 1571-002.

3 DEVELOPMENT IMPACT

3.1 Description of proposed development

The proposal is for a replacement single storey side extension and a single storey east front/side extension, with associated landscaping works. The proposed layout is shown on drawing 1571-003A. The Tree Protection Plan also indicates the position for protective barriers.



Tree Protection Plan – 1571-003A

3.2 Implications of proposed development

3.2.1 Trees to be removed

6 No. trees will be removed as part of the development and graded low quality (category C):

Magnolia T4 clashes with the replacement extension and also blocks construction access.

Lawson Cypress' T5, T16, T17 and T18 all clash with the proposed extensions.

Sawara Cypress T15 clashes with the proposed external layout.

3.2.2 Trees to be retained

All other trees will be retained. The proposed development has the potential to impact on the retained trees and protective fencing will be erected to surround all retained trees. The location of protective fencing is shown on drawing 1571-003A Tree Protection Plan.

A number of retained trees are in close proximity to the construction area particularly around the site entrance. In this location the existing hard surfacing of the driveway will be maintained throughout the development providing protection to the RPA's of trees in this location.

Care will also be needed in this area during vehicle movements/deliveries with branches overhanging the access road. Provision has been made to allow for the pruning of T27, T30, T31 and T33 overhanging branches to 5.2m height over the access road to facilitate the development.

It is considered that with the fencing and methods proposed during construction any impacts on retained trees will be satisfactorily mitigated, ensuring their long term health.

3.2.2 Mitigation

The removal of the low quality trees can be mitigated through the planting of 5No. broadleaved replacement trees and the long term management of the retained trees.

4 METHOD STATEMENT FOR CONSTRUCTION

2.1 Introduction

The root system is the most susceptible part of a tree to damage, because it is not immediately visible. Damage of the root system will affect the health, growth, life expectancy and safety of the rest of the tree. The effects of below ground damage may only become evident several years later.

Damage to the trunk and branches of a tree may cause severe disfigurement although rarely kills the tree. Death of branches or their unplanned removal may adversely affect the balance of the tree and hence its safety.

Roots also need oxygen from the soil. Respiration by the roots and other soil organisms depletes this oxygen and increases carbon dioxide levels in the soil. Diffusion between the soil and the atmosphere maintains a correct balance of oxygen and carbon dioxide in the soil.

Anything which affects this balance will affect the condition of the root system. Compaction of the ground reduces space between soil particles and hence can upset this balance.

4.2 Tree Protection Fencing and Construction Exclusion Zone

The general principle of avoiding damage to trees or compaction of soil within the Root Protection Area is achieved by erecting protective fencing as recommended by BS 5837:2012, Trees in Relation to Design, Demolition and Construction - Recommendations (Clause 5.5), before site works commence.

The fenced area is referred to as the construction exclusion zone (CEZ) and should be considered to be sacrosanct.

The Tree Protection Fence shall be a minimum 2 metre high vertical and horizontal scaffold framework well braced to resist impacts as Figure 2 in BS5837:2012 and be erected as a first site operation (See Appendix A). Waterproof signage labelled as 'Tree Protection Area' should be attached to fencing as provided in Appendix A.

Within the CEZ site no construction activities will take place including:

- Movement of vehicles or plant
- Raising, lowering or adjusting soil levels
- Storage of construction materials, chemicals, fuel or cement
- Site huts, cabins or other temporary structures
- Utility trenching
- Laying of impervious materials
- Changes to the water table

4.3 Scaffolding within the Root Protection Area

Where it is essential for scaffolding to be erected within the protected area of trees, construction shall be in accordance with Clause 6.2.3 of BS5837:2012. Underlying roots will be protected by a layer of geotextile fabric placed over undisturbed soil, covered by a minimum 50mm depth of woodchip overlain by scaffold boards.

If branches extend beyond the protective fencing in positions liable to impact, the branch may be shortened back to a fork in accordance with the recommendations of BS 3998.

4.4 Utility or Service runs within the Root Protection Area

Ideally no service runs should pass through protected areas. If unavoidable, all hand dug trenching should be carried out in accordance with NJUG 10/Volume 4 (Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees published by the National Joint Utilities Group April 2007).

Particularly a hand-dug method of trenching should be used and if any roots of 25mm size and above are encountered must be retained spanning the trench, and services are to be inserted carefully beneath them.

Alternative trenchless insertion methods may also be possible in accordance with Clause 7.7 of BS5837:2012.

4.3 Landscaping within the Root Protection Area

All work within the RPA is to be carried out by hand and no adjustments to soil levels unless otherwise agreed with the arboriculturalist. No mechanical rotovations.

4.3 Permanent Hard Surfacing within the Root Protection Area

Where permanent hard surfacing is to be installed within the Root Protection Area it will be designed to provide a no-dig and permeable buildup in accordance with Clause 7.4 of BS5837:2012 and agreed with the arboriculturalist.

4.2 Additional precautions outside of CEZ fenced areas

Chemicals, fuels, oils, bitumen and cement or other material likely to be injurious to trees should be stored well away from the root protection areas of trees. Positions of chemical toilets should also be considered.

Ideally fires should be avoided if possible. If unavoidable they should not be lit where the heat could affect tree foliage or bark. 15m is a suggested offset from any tree canopy.

Trees should not be used as anchorages for any equipment.

5 PROGRAMME

5.1 Prior to development

Trees to be removed (T4, T5, T15, T16, T17 and T18) and the facilitating pruning of T27, T30, T31 and T33 overhanging the site entrance should be undertaken as a first site operation.

Protective fencing should be erected immediately prior to demolition as shown on drawing 1571 – 003A.

A record of fence line positions should be kept by the contractor for submission to the council if requested.

3.2 During Demolition and Construction Phase

Fence lines should be maintained throughout.

No construction activities should take place within the protected area.

3.2 Mitigating Planting

Replacement tree planting should be implemented to replace trees removed to allow for the development.

4.3 After Development

Protective fencing should be removed within one month of the development being completed.

APPENDIX A

BS 5837:2012 Standard Tree Protection Fence

Figure 2 Default specification for protective barrier

