

**HIGH STREET, ROCESTER,
UTTOXETER**

**ARBORICULTURAL IMPACT
ASSESSMENT**

A Report to: SEP

Report No: RT-MME-157323-01

Date: March 2022

REPORT VERIFICATION

This study has been undertaken in accordance with British Standard 5837:2012 "*Trees in Relation to Design, Demolition and Construction - Recommendations*".

Report Version	Date	Completed by:	Checked and Approved by:
Final	04/03/2022	Stefan Harrison BSc (Hons) M.Arbor.A (Arboricultural Consultant)	Duncan Smith BSc (Hons) M.Arbor.A (Arboricultural Manager)

DISCLAIMER

The contents of this report are the responsibility of Middlemarch Environmental Ltd. It should be noted that, whilst every effort is made to meet the client's brief, no site investigation can ensure complete assessment or prediction of the natural environment.

Middlemarch Environmental Ltd accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared.

VALIDITY OF DATA

The findings of this study are based upon the survey data produced as part of the Preliminary Arboricultural Assessment which is valid for a period of 12 months from the date of survey. If a planning application has not been submitted by this date, an updated site visit should be carried out by a suitably qualified and experienced arboriculturist to assess any changes to the trees on site to inform a review of the conclusions and recommendations made.

It should be noted that trees are dynamic living organisms that are subject to natural changes as they age or are influenced by changes in their environment. As such, following any significant meteorological event or changes in the growing environment of the trees they should be re-assessed by a suitably qualified and experienced arboriculturist.

This Arboricultural Impact Assessment has been produced following a review of a proposed development layout for the site based on data provided by the client. Should the development proposals change, this report will need to be updated to assess the impact of the amended development.

CONTENTS

1. INTRODUCTION	3
1.1 PROJECT BACKGROUND	3
1.2 SITE DESCRIPTION	3
1.3 DEVELOPMENT PROPOSALS	3
1.4 DOCUMENTATION PROVIDED	3
2. METHODOLOGY	4
2.1 DESK STUDY	4
2.2 SURVEY SCOPE	4
2.3 ROOT PROTECTION AREA (RPA)	4
2.4 TREE SCHEDULE	5
2.5 ASSESSMENT LIMITATIONS	5
2.6 CONDITIONS OF TREE SURVEY	5
2.7 TREE SURVEY PLAN	5
2.8 TREE RETENTION PLAN	5
3. STATUTORY PROTECTION	6
3.1 TREE PRESERVATION ORDER AND CONSERVATION AREA DESIGNATIONS	6
3.2 PROTECTED SPECIES	6
4. RESULTS SUMMARY	7
4.1 PRELIMINARY ARBORICULTURAL ASSESSMENT	7
5. ARBORICULTURAL IMPACT ASSESSMENT	8
5.1 INTRODUCTION	8
5.2 IMPACTS FROM DEVELOPMENT LAYOUT	8
5.2.1 Tree Retention and Removal	8
5.2.2 Tree Pruning	9
5.3 IMPACTS FROM DEMOLITION AND RELATED OPERATIONS	9
5.3.1 Building Demolition and Removal of Hard Surfaces	9
5.4 DIRECT IMPACTS FROM CONSTRUCTION	9
5.4.1 Works within RPAs	9
5.4.2 Underground and Overhead Utilities	10
5.4.3 Working Space	10
5.5 IMPACTS FROM CONSTRUCTION RELATED OPERATIONS	10
5.5.1 Site Access	10
5.5.2 Site Compound, Contractors Car Parking, Delivery and Storage of Materials	10
5.6 POST-DEVELOPMENT IMPACTS	10
5.6.1 Future Pressure for Removal	10
5.6.2 Seasonal Nuisance	10
6. SUMMARY OF IMPACTS	11
7. MITIGATION AND PROTECTION	12
7.1 INTRODUCTION	12
7.2 NEW TREE PLANTING	12
7.3 GENERAL TREE PROTECTION	12
7.3.1 Construction Exclusion Zone	12
7.3.2 Tree Protection Barriers	12
7.3.3 Ground Protection	12
8. ARBORICULTURAL METHOD STATEMENT	13
9. REFERENCES AND BIBLIOGRAPHY	14
10. DRAWINGS	14

1. INTRODUCTION

1.1 PROJECT BACKGROUND

Middlemarch Environmental Ltd were commissioned by SEP to undertake an Arboricultural Impact Assessment of trees as part of a planning application for commercial development at High Street, Rocester, Uttoxeter. A survey of the trees on site and within influencing distance of the boundaries was undertaken on the 4th August 2021 as part of a Preliminary Arboricultural Assessment (Report Reference: RT-MME-155887-01), which was completed to aid design and avoid unnecessary tree removal.

This Arboricultural Impact Assessment has been carried out in accordance with British Standard 5837:2012 '*Trees in Relation to Design, Demolition and Construction - Recommendations*' (hereafter referred to as BS5837). BS5837 sets out a structured assessment methodology to assist in determining which trees would be considered suitable or unsuitable for retention in the context of the proposed development.

The purpose of this report is to:

- Identify the potential impact of the proposed development upon the existing trees identified during the Preliminary Arboricultural Assessment in accordance with BS5837:2012 "*Trees in Relation to Design, Demolition and Construction - Recommendations*".
- Provide a Tree Retention Plan that identifies the trees to be retained and incorporated into the proposed development including Root Protection Areas (RPA) for the retained trees. The Tree Retention Plan also identifies trees that are to be removed to facilitate the development proposals.
- Identify mitigation proposals to offset any tree or hedgerow loss as part of the development proposals.
- Identify all areas where specific working methods will be required to ensure protection to trees as part of an Arboricultural Method Statement.

1.2 SITE DESCRIPTION

The site under consideration is centred at Ordnance Survey Grid Reference SK 10805 39318 and tree cover across the site was generally found to be of fair quality and located adjacent to the site boundaries.

The location of the trees surveyed can be found on the Tree Survey Plan (C155887-01-01), included in Section 10 of this report.

1.3 DEVELOPMENT PROPOSALS

The proposed development of the site includes the construction of a new Co-op Food Store with associated hard and soft landscaping.

1.4 DOCUMENTATION PROVIDED

This assessment is based upon the information provided by the client in addition to information collected by Middlemarch Environmental Ltd during the Preliminary Arboricultural Assessment. The documents and drawings considered are detailed within Table 1.1.

Author	Document	Drawing Number	Date
Gould Singleton Architects	Proposed Site Plan	21-1875/10b	Mar 2022

Table 1.1: Documentation Provided

2. METHODOLOGY

2.1 DESK STUDY

A desk-based study was undertaken to identify if any of the trees present within or near the site are protected by Tree Preservation Orders (TPOs) or if the site is situated within a Conservation Area.

An online search using the Multi Agency Geographical Information for the Countryside (*MAGIC*) website for statutory conservation sites was also undertaken (where appropriate) to determine the presence of Ancient Woodland within 15.0 metres of the site boundary.

2.2 SURVEY SCOPE

To determine the status of the trees within the site, a full arboricultural survey has been undertaken, assessing the species and status of all trees present. This survey has been carried out in accordance with British Standard 5837:2012 '*Trees in Relation to Design, Demolition and Construction – Recommendations*'.

All trees have been assigned a unique reference number. Individual trees above 75 mm in diameter (at 1.5 m above ground level) have had their position plotted to the Tree Survey Plan. Trees, and hedgerows were visually assessed and a schedule prepared listing:

- Tree number,
- Species,
- Tree height,
- Stem diameter at 1.5 m above ground level (or in accordance with Annex C of BS5837:2012),
- Crown spread (cardinal points where necessary),
- Minimum crown clearance,
- Age class,
- Condition and;
- Preliminary management recommendations (where required).

Measurements for tree height, minimum crown clearance and crown spread were taken to an accuracy of 0.5 m. Stem diameter measurements were recorded to the nearest 10 mm. Any specific observations or management recommendations were also noted. All observations and measurements are included in Appendix A Tree Schedule.

Trees were assessed and assigned one of the following categories:

- **Category U:** Trees 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.
- **Category A:** Trees of high quality with an estimated remaining life expectancy of at least 40 years.
- **Category B:** Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.
- **Category C:** Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm.

Categories A, B and C have further sub-categories with regards to the reasons for tree retention:

- 1: Mainly arboricultural qualities.
- 2: Mainly landscape qualities.
- 3: Mainly cultural values, including conservation.

N.B. Certain category U trees may possess existing or potential conservation value which make them desirable to preserve in the context of wildlife habitat (e.g. areas with limited public access).

2.3 ROOT PROTECTION AREA (RPA)

In order to avoid damage to the roots or rooting environment of retained trees, the RPA has been calculated for each of the Category A, B and C trees in accordance with section 4.6 of BS5837. This is a minimum area

around a tree which is deemed to contain sufficient roots and rooting volume to maintain the tree's viability. Where groups of trees have been assessed, the Root Protection Area has been shown based on the maximum sized tree stem in each group and so may exceed the Root Protection Area required for some of the individual specimens within the group. Further detailed inspection of the individual trees forming a group may be required where development impacts upon individual trees forming the combined group.

Protection of the roots and soil structure within the RPA should be treated as a priority. These figures have been calculated utilising the formulas within Section 4.6 and Annex D of British Standard 5837:2012.

2.4 TREE SCHEDULE

Appendix A details the individual trees and groups found during the assessment and includes the relevant information for each at the time of inspection. General observations of any structural and physiological condition and the presence of any decay or physical defects have also been included. Preliminary management recommendations have also been recorded where appropriate.

2.5 ASSESSMENT LIMITATIONS

This survey has been undertaken in accordance with BS5837 recommendations only. Trees under 75mm in diameter have not been identified in accordance with the guidance. It may therefore be necessary during detailed design to undertake further assessment and accurate positioning of juvenile trees or woody species within tree groups to assist structural calculations for foundation design of structures in accordance with current building regulations and NHBC Chapter 4.2 *Building near Trees*.

The exact position of individual trees or species included as part of a tree group, hedgerow or woodland should be checked and verified on site prior to any decisions for foundation design, tree operations or construction activity being undertaken.

2.6 CONDITIONS OF TREE SURVEY

The survey was completed by a suitably qualified and experienced Arboriculturist from ground level only and from within the boundary of the site. Aerial tree inspections or the internal condition of the stem/s or branches was not undertaken at this stage. Evaluation of tree condition given within this assessment applies to the date of survey and cannot be assumed to remain unchanged. It may be necessary to review these within 12 months, in accordance with sound arboricultural practice.

2.7 TREE SURVEY PLAN

The Tree Survey Plan seeks to act as a design tool that shows potential opportunities for inclusion of the existing trees across the site as well as the above and below ground constraints which should be considered during the design process.

2.8 TREE RETENTION PLAN

The Tree Retention Plan identifies which trees are to be retained and incorporated as part of the site development and which are to be removed. The positions of trees and their current crown spread that are to be removed have been shown on the Tree Retention Plan with a dashed outline.

All survey data is based on a topographical survey where possible, supplied by the client. Where topographical information has not identified tree positions or Ordnance Survey mapping has been utilised, trees have been positioned using GPS and aerial photography to provide approximate locations in relation to existing surrounding features. Further confirmation of tree locations through a topographical survey of the site is recommended to ensure future design accuracy.

3. STATUTORY PROTECTION

3.1 TREE PRESERVATION ORDER AND CONSERVATION AREA DESIGNATIONS

No direct consultation with the Local Planning Authority, East Staffordshire Borough Council, has taken place, however, it is understood having used the online search facility for the Local Planning Authority, that there are no Tree Preservation Orders that would apply to trees present on, or in close proximity to the assessment site. However, the site is entirely situated within the Rocester Conservation Area and therefore, statutory constraints would apply to the development in respect of trees. Prior to any tree works being undertaken, confirmation of the online information should be sought from the Local Authority.

No works to any trees within the Rocester Conservation Area (i.e. any trees within the study area) are to be carried out without prior submission of a Section 211 notice to the Local Planning Authority (LPA) giving six weeks' notice of the proposed works unless authorised as part of an approved planning application.

Reference to the Multi Agency Geographical Information for the Countryside (MAGIC) website indicates that no ancient woodland is present within a 15.0 m buffer of the survey area.

3.2 PROTECTED SPECIES

Bats

Mature trees often contain cavities, hollows, peeling bark or woodpecker holes which provide potential roosting locations for bats. Bats and the places they use for shelter or protection (i.e. roosts) receive European protection under The Conservation of Habitats and Species Regulations 2017 (Habitats Regulations 2017). They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. Consequently, causing damage to a bat roost constitutes an offence.

Generally, should the presence of a bat roost be suspected whilst completing works on any trees on site then an appropriately licensed bat worker should be consulted for advice.

Birds

Trees offer potential habitat for nesting birds which are protected under the Wildlife and Countryside Act WCA 1981 (as amended). Some species (listed in Schedule 1 of the WCA) are protected by special penalties. This legislation makes it an offence to intentionally or recklessly damage or destroy an active bird nest or part thereof.

As the trees on, and adjacent, to the site provide potential habitat for nesting birds all tree work should ideally be completed outside the nesting bird season (Generally March to September).

If this is not possible then the vegetation should be subject to a nesting bird inspection by a suitably experienced ecologist prior to commencement of works. If any active nests are identified then the vegetation, and a defined buffer zone, will need to remain in place until the young have naturally fledged.

4. RESULTS SUMMARY

4.1 PRELIMINARY ARBORICULTURAL ASSESSMENT

Fourteen individual trees and two groups of trees were surveyed as part of the Preliminary Arboricultural Assessment. Trees assessed during the survey are listed as individual trees and groups of trees in the Tree Schedule (Appendix A) in accordance with BS5837:2012 recommendations. Table 4.1 provides a summary of the survey results in terms of categorisation.

BS5837:2012 Category	Tree/ Group Reference
U	T9.
A	T6, T8.
B	T1, T2, T4, T5, T10, T11.
C	T3, T7, T12, T13, T14, G1, G2.
<p>Key:</p> <p>T: Trees G: Groups</p>	

Table 4.1: Summary of Trees and Groups in BS5837:2012 Categories

The site comprised an area of land off of High Street in Rocester which had formally been the garden of a privately-owned residential property. The land had since been left unmanaged and had started to become overgrown with self-seeded trees and bramble in areas. The trees recorded during the survey were typically in fair condition and were situated adjacent to the boundaries of the site.

Two of the yew trees recorded during the survey (T6 & T8) were considered to be of high retention value. Both trees were in good condition and were the larger specimens on site with T6 having the largest stem diameter of the specimens recorded. Both trees had minor deadwood in their crowns as is common with yew trees but were considered to be in good structural condition overall.

Several moderate retention value trees were identified during the survey including four yew trees (T1, T2, T4 & T5), a cherry (T10) and an ash (T11). These specimens were typically in good condition with the cherry and one yew tree (T2) being in fair condition. All of the specimens were visible from outside the site and as such, provided visual amenity value to the immediately adjacent public areas. It should be noted that four of the yew trees (T2, T3, T4 & T5) supported ivy on their stems and in their crowns and would benefit from removal of the ivy.

A single ash tree (T9) was identified during the survey as unsuitable to retain in its current context (Retention Category U) as the tree exhibited defects which reduced its remaining useful life expectancy to less than ten years. T9 had apical and lateral dieback, which was potentially due to ash dieback disease, and was in a state of advanced decline.

The remaining trees and groups recorded during the survey (see Table 4.1) were all considered to be of low retention value as the trees were either too juvenile to be considered higher value or because they had defects which limited their likely future potential.

5. ARBORICULTURAL IMPACT ASSESSMENT

5.1 INTRODUCTION

This section of the report details the potential impacts that the proposed development may have upon the site's tree stock. The assessment has been based upon the documents detailed in Table 1.1 with reference to the results of the Preliminary Arboricultural Assessment. The location of the trees can be found on the Tree Survey Plan and a schedule of the trees (Appendix A) attached to this report.

5.2 IMPACTS FROM DEVELOPMENT LAYOUT

5.2.1 Tree Retention and Removal

To accommodate the proposed development, it will be necessary to remove a number of trees within the site.

The trees to be removed are detailed within Table 5.1 and are identified on the Tree Retention Plan, attached to this report. All trees and groups not featured within Table 5.1 are to be retained within the proposed development.

Tree/ Group Reference	Species	Retention Category	Reason for Removal
T1	Yew	B	Within the footprint of proposed building.
T2	Yew	B	Within the footprint of proposed building.
T3	Yew	C	Within the footprint of proposed building.
T4	Yew	B	Within the footprint of proposed building.
T5	Yew	B	Within the footprint of proposed building.
T7	Irish yew	C	In close proximity to proposed access.
T8	Yew	A	In close proximity to proposed access, hardstanding, and parking.
T9	Ash	U	The tree requires removal due to its poor condition.
T10	Cherry	B	Within footprint of proposed hardstanding.
T12	Cherry	C	In close proximity to the proposed building and within footprint of proposed hard surfacing.
T13	Cherry	C	In close proximity to the proposed building and within footprint of proposed hard surfacing.
T14	Yew	C	Within the footprint of proposed building.
G2*	Cherry laurel	C	The group requires partial removal due to its location within the footprint of proposed hard surfaces and the proposed building.
<u>Key</u>			
*: Partial removal of trees within group.			

Table 5.1: Tree Removal

The proposed development will require the removal of twelve individual trees and the partial removal of one group of trees.

A single ash tree (T9), identified for removal, was considered to be unsuitable for retention during the Preliminary Arboricultural Assessment and therefore the removal of the tree would be required, irrespective of the proposed development, due to its poor condition.

One yew tree (T8) identified for removal, was considered to be of high retention value during the arboricultural assessment of the site. As such, the loss of this tree has the potential to impact the site and suitable new tree planting will therefore be required to offer an adequate level of mitigation for this loss.

Four yew trees (T1, T2, T4 & T5) and one cherry tree (T10) identified for removal were considered to be of moderate retention value during the arboricultural assessment of the site. Suitable new tree planting will therefore be required to offer an adequate level of mitigation for this loss.

The remaining trees and groups (see Table 5.1) that are to be removed or partially removed were considered to be of low retention value during the Preliminary Arboricultural Assessment. The proposed removal of these trees should be considered acceptable as new tree planting of higher quality trees more suited to the new development will make a lasting contribution to the visual amenity and canopy coverage of the site.

5.2.2 Tree Pruning

Pruning of mature trees should only be undertaken where essential, to prevent open wounds that allow the ingress of decay and provide an opportunity for fungal spores to infect the tree. Pruning works should ideally be undertaken during the winter months when the tree is dormant or during the summer months when the tree is fully active. Autumn pruning (when fungal spores are abundant in the surrounding atmosphere) should be avoided if possible. Juvenile trees should be formatively pruned in their early years to reduce the presence of potential defects into maturity that would reduce their lifespan.

All tree pruning works should be detailed as part of an Arboricultural Method Statement and completed in accordance with the current best practice guidance set out within BS3998:2010 "*Tree Work – Recommendations*" by suitably competent, qualified, and insured arboricultural contractors. It is recommended that the extent of pruning required is then identified to contractors in a pre-commencement site meeting as part of the enabling works.

5.3 IMPACTS FROM DEMOLITION AND RELATED OPERATIONS

5.3.1 Building Demolition and Removal of Hard Surfaces

There are no areas on site where the demolition of existing buildings or the removal of existing hard surfaces is required within close proximity to trees. As such, no impact from these aspects of the development is considered likely.

5.4 DIRECT IMPACTS FROM CONSTRUCTION

5.4.1 Works within RPAs

Some aspects of the proposed development will require works within the RPAs of retained trees as detailed within Table 5.2.

Tree/ Group Reference	Species	Retention Category	Proposed Works
T6	Yew	A	Proposed parking, site access, hardstanding and retaining wall.
T11	Ash	B	Proposed hard standing and retaining wall.

Table 5.2: Works in RPAs and Canopy Spreads

The works to construct new hard surfaces within the RPAs of retained trees T6 and T11 have the potential to impact the health of the trees. In order to minimise the likelihood of the trees being negatively impacted by the works, they should be undertaken according to a no-dig methodology which should be devised as part of an Arboricultural Method Statement.

The construction of the retaining walls within the RPAs of retained trees T6 and T11 has the potential to impact the health of the trees. Consequently, an appropriate methodology should be adopted for the works as part of an Arboricultural Method Statement. In order to minimise the likelihood of the trees being negatively impacted by the works to construct the retaining walls.

All works within the Root Protection Areas or beneath the canopy spreads of retained trees should be detailed as part of an Arboricultural Method Statement to ensure the method of construction is suitably considered.

5.4.2 Underground and Overhead Utilities

Wherever possible, common service trenches should be specified to minimise land take associated with underground service provision and facilitation access for future maintenance.

5.4.3 Working Space

Sufficient working space around new buildings at a distance of approximately 2.5 m will be required across the site. Suitable canopy, stem and ground protection measures will therefore be required to ensure any potential impact upon retained trees is mitigated. These mitigation measures should be included in an Arboricultural Method Statement following approval of the current planning application.

5.5 IMPACTS FROM CONSTRUCTION RELATED OPERATIONS

5.5.1 Site Access

It is understood that construction access to the site will be provided through the existing access point off of High Street and it may therefore be necessary to undertake access facilitation pruning works to low-hanging branches to minimise the potential for vehicular impact.

It will be necessary to ensure retained trees adjacent to the access route are protected from vehicular impact through the installation of tree protection barriers, prior to the commencement of the development.

5.5.2 Site Compound, Contractors Car Parking, Delivery and Storage of Materials

Material deliveries to the site will utilise the existing access point. Retained trees will be protected from harm by the prior installation of tree protection barriers and the completion of access facilitation pruning works (if required).

The site compound, contractor's parking, and areas for materials storage within the site should be confirmed as part of an Arboricultural Method Statement following approval of the current planning application.

5.6 POST-DEVELOPMENT IMPACTS

5.6.1 Future Pressure for Removal

The layout of the proposed development is such that future pressure for tree removal is generally unlikely to occur.

5.6.2 Seasonal Nuisance

The sweeping up of leaves and cleaning of gutters, which may become blocked by falling leaves, is considered to be routine seasonal maintenance and as such, no notable conflict with the proposed development is considered likely to occur. Nonetheless, it may prove appropriate in certain areas to use gutter guards, or otherwise enclosed gutters, to minimise the potential for leaf fall to cause blockage and an ongoing nuisance.

6. SUMMARY OF IMPACTS

The proposed development of the site has the potential to impact the local area as a result of the proposed tree removal due to the loss of the Retention Category A tree T8. However, whilst regrettable, the removal of T8 is necessary as the new site access must be off of Riversfield Drive to accord with highways requirements as the previous design for the new access of off High Street was determined to provide insufficient room for the junction.

The proposed works are unlikely to impact significantly upon the long-term health of retained trees. Whilst some works are to be undertaken within the RPAs of retained trees, the nature of those works are such that they can be completed without impacting significantly upon the trees subject to the adoption of appropriate working practices as detailed in a future Arboricultural Method Statement following approval of the current planning application.

7. MITIGATION AND PROTECTION

7.1 INTRODUCTION

This section of the report details the mitigation for the proposed tree loss, initial protection and avoidance measures suggested to prevent harm to the retained trees.

7.2 NEW TREE PLANTING

New tree planting will form an integral part of the proposed development, however, proposals for new tree planting should be appropriate for the future use of the site and not just aim to mitigate the proposed tree loss.

As part of the development proposals, new tree planting has been demonstrated in the Proposed Site Plan – Opt.1 (Drawing Reference: 21-1875/10). It is understood that twenty-one new trees are proposed as part of the development. Whilst the development is constrained by the size of the site, it is considered that the quantity of new tree planting should be increased where possible in order to ensure the mitigation of the proposed tree removal.

7.3 GENERAL TREE PROTECTION

7.3.1 Construction Exclusion Zone

To minimise the potential for harm to the root systems and canopies of retained trees during development construction exclusion zones will be required throughout the site. These are areas surrounding the trees' RPAs and canopies in which construction works, or related activities, will be avoided.

It is recommended that the exclusion zones are always afforded protection using tree protection barriers and/or ground protection (specified in accordance with BS5837:2012). No works that cause compaction of the soil or severance of tree roots, except when undertaken in accordance with the guidance provided within this document or detailed within a subsequent AMS, will be undertaken within any exclusion zone.

7.3.2 Tree Protection Barriers

The protective barriers should be erected following any tree removal or tree surgery works and prior to the commencement of any construction site works e.g. before any construction materials or machinery are brought on site or the stripping of soil commences.

The protective barriers are to be constructed in accordance with the specification detailed in BS5837:2012. Any variation to the specification of the protective barrier should be agreed with the Local Planning Authority Arboricultural Officer or included as part of an Arboricultural Method Statement following approval of the current planning application.

7.3.3 Ground Protection

Ground protection measures may need to be installed within the RPAs of T6 and T11 to provide construction access and working space. Suitable ground protection measures should be detailed as part of an Arboricultural Method Statement following approval of the current planning application.

8. ARBORICULTURAL METHOD STATEMENT

An Arboricultural Method Statement will be required for the site as various aspects of the proposed development will need to be fully considered due to the presence of retained trees.

The purpose of an Arboricultural Method Statement is to ensure that all site operations can occur with minimal risk of adverse impact upon trees that are to be retained. The document will identify all areas where specific working methods will be required to ensure protection to trees. The document will also specify the location and extent of tree protection barriers and ground protection.

In relation to this development the Arboricultural Method Statement should address the following:

- Tree Surgery.
- Site setup and logistics.
- Works within Root Protection Areas.
- Working space for site activities.
- Suitable site access, material storage contractor's car parking and site compound locations.
- Final protective barrier and ground protection locations and specifications.
- Phased approach to development works to ensure retained trees are not impacted through new access construction works.
- Extent of access facilitation pruning works to be undertaken.
- Pre-commencement site meeting.

9. REFERENCES AND BIBLIOGRAPHY

British Standards Institution. (2010). *British Standard 3998:2010, Tree Work - Recommendations*. British Standards Institution, London.

British Standards Institution. (2012). *British Standard 5837:2012, Trees in Relation to Design, Demolition and Construction – Recommendations*. British Standards Institution, London.

Middlemarch Environmental Ltd. (2021). *Report Number RT-MME-157323-01*. Preliminary Arboricultural Assessment.

Littlefair P. (2011). *Site layout planning for daylight and sunlight: a guide to good practice* (BR 209). British Research Establishment, Watford.

10. DRAWINGS

Drawing Number C155887-01-01 – Tree Survey Plan

Drawing Number C157323-01-01 – Tree Retention Plan

Appendix A: Tree Schedule

Legend

- Tree location and stem diameter
- Category A
- Category A to be removed
- Category B
- Category B to be removed
- Category C
- Category C to be removed
- Category U
- Category U to be removed
- Current canopy - tree to be removed
- Current canopy - tree to be retained
- Root Protection Area
- Indicative tree shadow
- Area of self-set trees
- Site boundary

T - Tree
G - Tree group

The original of this drawing was produced in colour - a monochrome copy should not be relied upon

NOTES
All dimensions to be verified on site. Do not scale this drawing, use figured dimensions only. All discrepancies to be clarified with Project Arboriculturalist. Drawing to be read in conjunction with Preliminary Arboricultural Assessment and Tree Schedule. Drawing has been produced in .dwg format, aerial images and/or GPS location where appropriate. A monochrome copy should not be relied upon. The exact position of individual trees or species included as part of a tree group, woodland or hedgerow should be checked and verified on site prior to any decisions for foundation design, tree operations or construction activity being undertaken. Further survey work would be required for calculating foundation depths.
Trees are living organisms that change over time, the condition of all trees illustrated herein, are to be checked by the Project Arboriculturalist should works commence 12 months after the date of this survey. **SOME TREES MAY BE SUBJECT TO STATUTORY CONSTRAINTS. IT IS THEREFORE ADVISED THAT NO WORKS SHOULD BE UNDERTAKEN TO ANY TREES ILLUSTRATED HEREIN WITHOUT FIRST OBTAINING THE RELEVANT AUTHORISATION TO DO SO UNLESS AGREED AS PER THE APPROVED PLANS THROUGH PLANNING CONSENT.**

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Project
High Street, Rocester, Uttoxeter

Drawing
Tree Retention Plan

Client
Pegasus Planning

Drawing Number C157323-01-01	Revision 00
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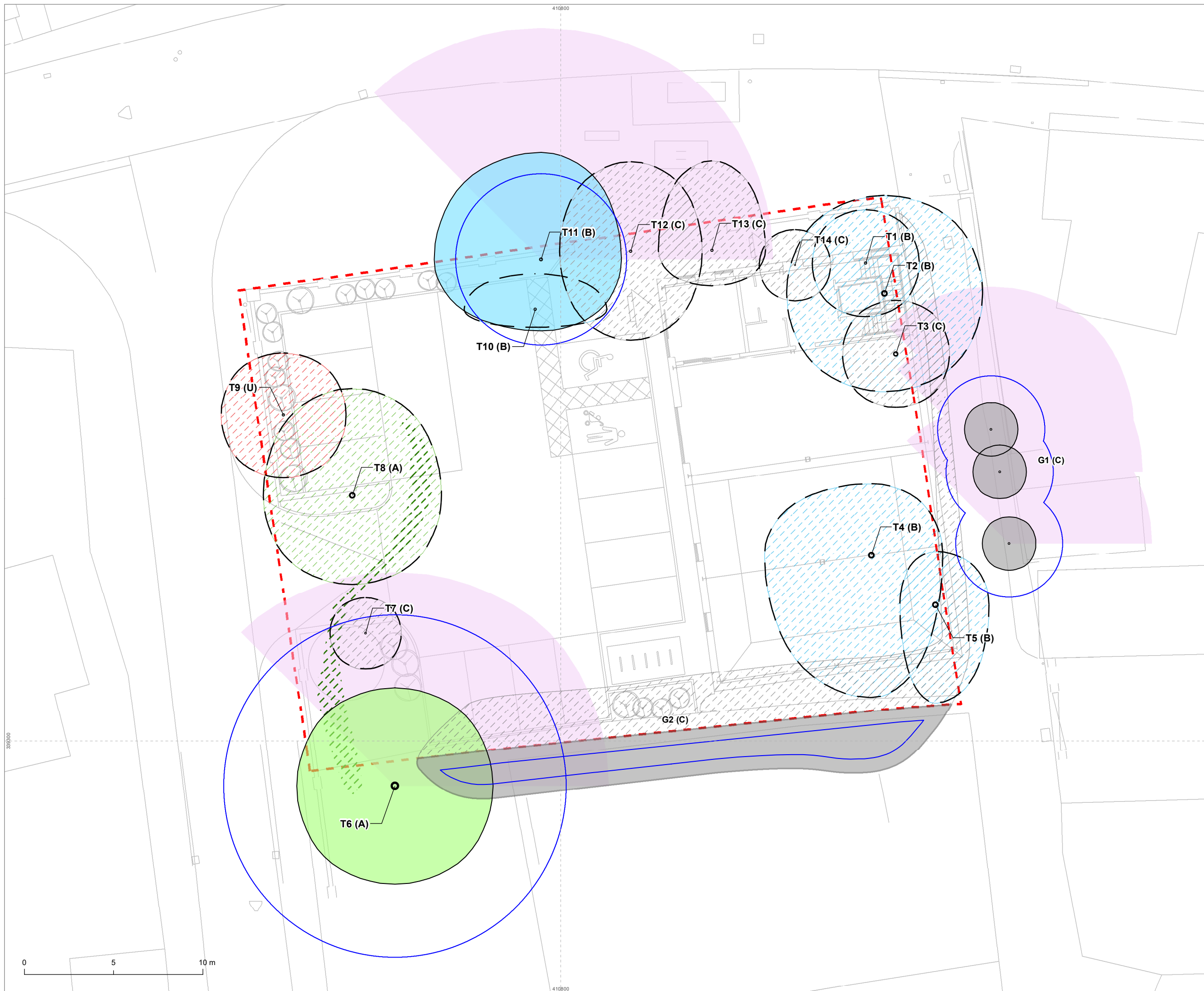
Scale @ A3 1:200	Date February 2022
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Approved By SKH	Drawn By VO
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Triumph House, Birmingham Road, Allesley, Coventry CV5 9AZ
T:01676 525880
E:admin@middlemarch-environmental.com

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Legend

- Tree location and stem diameter
- Category A
- Category B
- Category C
- Current canopy - tree to be retained
- Root Protection Area
- Tree protection barrier subject to BS:5837
- Tree protection barrier (prior to no-dig construction of new hard surfaces)
- Tree protection barrier (post no-dig construction of new hard surfaces)
- ▨ No-dig construction
- Indicative tree shadow
- - - Site boundary
- # Tree pruning works required

T - Tree
G - Tree group

The original of this drawing was produced in colour - a monochrome copy should not be relied upon

NOTES
All dimensions to be verified on site. Do not scale this drawing, use figured dimensions only. All discrepancies to be clarified with Project Arboriculturalist. Drawing to be read in conjunction with Preliminary Arboricultural Assessment and Tree Schedule. Drawing has been produced in colour and is based on digital information in .dwg format, aerial images and/or GPS location where appropriate. A monochrome copy should not be relied upon. The exact position of individual trees or species included as part of a tree group, woodland or hedgerow should be checked and verified on site prior to any decisions for foundation design, tree operations or construction activity being undertaken. Further survey work would be required for calculating foundation depths.
Trees are living organisms that change over time, the condition of all trees illustrated herein, are to be checked by the Project Arboriculturalist should works commence 12 months after the date of this survey.
SOME TREES MAY BE SUBJECT TO STATUTORY CONSTRAINTS. IT IS THEREFORE ADVISED THAT NO WORKS SHOULD BE UNDERTAKEN TO ANY TREES ILLUSTRATED HEREIN WITHOUT FIRST OBTAINING THE RELEVANT AUTHORISATION TO DO SO UNLESS AGREED AS PER THE APPROVED PLANS THROUGH PLANNING CONSENT.

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Project
High Street, Rocester, Uttoxeter

Drawing
Tree Protection Plan

Client
Pegasus Planning

Drawing Number
C157323-02-01

Revision
00

Scale @ A3
1:200

Date
February 2022

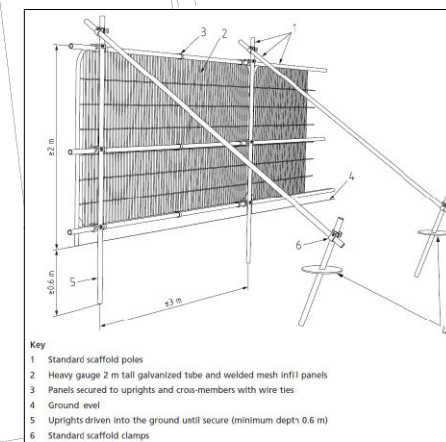
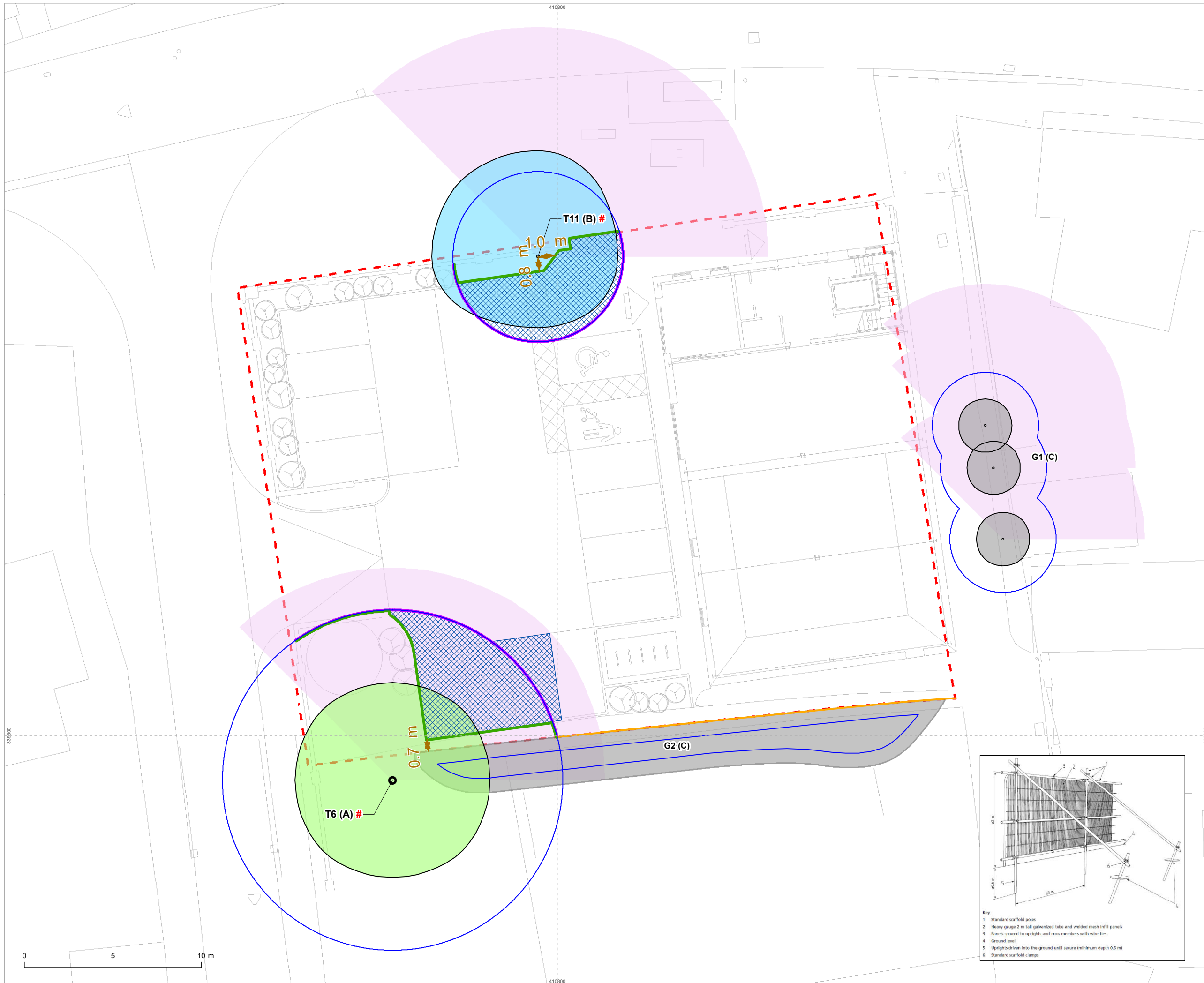
Approved By
SKH

Drawn By
GT



Triumph House, Birmingham Road, Allesley, Coventry CV5 9AZ
T:01676 525880
E:admin@middlemarch-environmental.com

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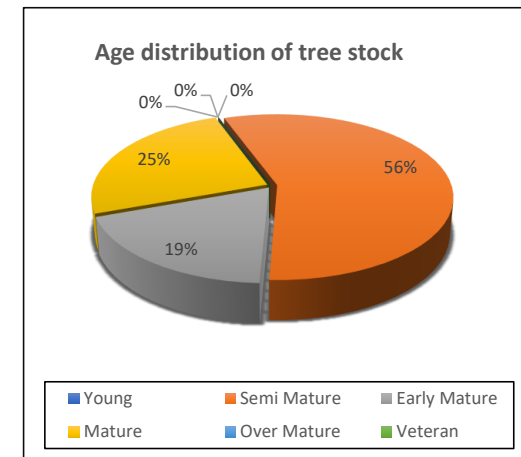
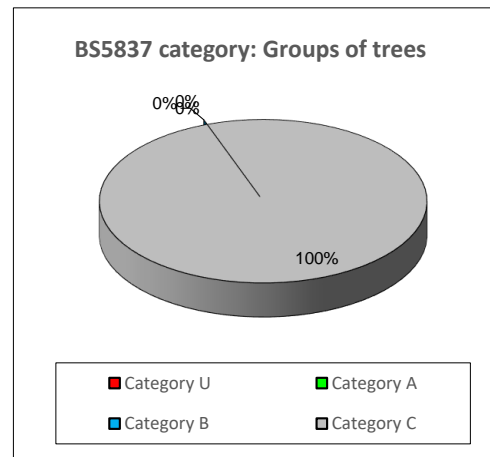
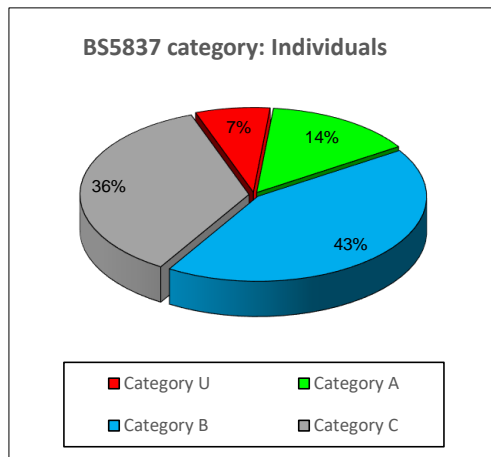


Appendix A - Tree Schedule

Measurements	Age Class	Overall Condition	Root Protection Area (RPA)
Height - estimated from ground level (m).	YNG: Young trees up to ten years of age.	G - Good: Trees with only a few minor defects and in good overall health needing little, if any attention.	<ul style="list-style-type: none"> • The RPA column gives the required area (m²). • The RPA Radius column gives the radius (m) of an equivalent circle. • The RPA is calculated using the formulae described in paragraph 4.6.1 of British Standard 5837: 2012 and is indicative of the required rooting area in order for a tree to be retained.
Stem Dia. - Diameter measured (mm) in accordance with Annex C of the BS5837.	SM: Semi-mature, trees less than 1/3 life expectancy.	F - Fair: Trees with minor, but rectifiable, defects or in the early stages of stress from which it may recover.	
Crown - crown spread estimated radially from the main stem (m).	EM: Early mature, trees 1/3 – 2/3 life expectancy.	P - Poor: Trees with major structural and/or physiological defects such that it is unlikely the tree will recover in the long term.	
Abbreviations Est - Estimated stem diameter Avg - Average stem diameter Max - Maximum stem diameter	M: Mature trees, over 2/3 life expectancy.	D - Dead: Trees no longer alive. This could also apply to trees that are dying and unlikely to recover.	
	OM: Over mature, declining or moribund trees of low vigour.	In the assessment, of the BS category, particular consideration has been given to the following <ul style="list-style-type: none"> • The health, vigour and condition of each tree • The presence of any structural defects in each tree and its future life expectancy • The size and form of each tree and its suitability within the context of a proposed development • The location of each tree relative to existing site features e.g. its screening value or landscape features 	
	V: Veteran, tree possessing certain attributes relating to veteran trees.	<ul style="list-style-type: none"> • Age class • Life expectancy 	

Structural Condition
<p>The following has been considered when inspecting structural condition:</p> <ul style="list-style-type: none"> • The presence of fungal fruiting bodies around the base of the tree or on the stem, as they could possibly indicate the presence of possible internal decay. • Soil cracks and any heaving of the soil around the base. • Any abrupt bends in branches and limbs resulting from past pruning. • Tight or weak 'V' shaped forks and co-dominant stems. • Hazard beam formations and other such biomechanical related defects (as described by Claus Mattheck, Body Language of Trees HMSO Research for Amenity Trees No. 4 1994). • Cavities as a result of limb losses or past pruning. • Broken branches or storm damage. • Canker formations. • Loose or flaking bark. • Damage to roots. • Basal, stem or branch / limb cavities. • Crown die-back or abnormal foliage size and colour. • Any changes to the timing of normal leaf flush and leaf fall patterns.

Quality Assessment of Retention Category
<p>Category U - Trees 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.</p>
<p>Category A - Trees of high quality with an estimated remaining life expectancy of at least 40 years.</p>
<p>Category B - Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.</p>
<p>Category C - Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.</p>
<p>Sub-categories: (i) - Mainly arboricultural value (ii) - Mainly landscape value (iii) - Mainly cultural or conservation value</p>



Appendix A - Summary

	Individual Trees	Totals	Tree Groups	Totals
Category U	T9	1		0
Category A	T6, T8	2		0
Category B	T1, T2, T4, T5, T10, T11	6		0
Category C	T3, T7, T12, T13, T14	5	G1, G2	2
	Total	14	Total	2

	Hedgerows	Totals	Woodlands	Totals
Category U		0		0
Category A		0		0
Category B		0		0
Category C		0		0
	Total	0	Total	0

Tree No	Species	Height (m)	Crown Clearance (m)	No. of Stems	Stem Dia. (mm)	Crown Radius				Age Class	Structure	Vigour	RPA (m)	RPA Radius (m)	Cat	Comments
						N	E	S	W							
T1	Yew	9.0	2.0	1	300	3.0	3.0	3.0	3.0	SM	F	G	41	3.6	B 1	Hard surfaces within the rooting area Minor deadwood in the crown Pruning wounds observed
T2	Yew	10.0	2.0	1	650	5.5	5.5	5.5	5.5	EM	F	F	191	7.8	B 1	Branch stubs observed Hard surfaces within the rooting area Included unions observed Minor deadwood in the crown Dense ivy in the crown Dense ivy on the stem Ivy restricts inspection Pruning wounds observed
T3	Yew	5.0	3.0	1	500	3.0	3.0	3.0	3.0	SM	F	P	113	6.0	C 1	Apical dieback Conservation value Dense ivy in the crown Dense ivy on the stem Hard surfaces within the rooting area Included unions observed Ivy restricts inspection Minor deadwood in the crown Tree is showing signs of decline Lateral dieback
T4	Yew	12.0	1.0	1	620	4.0	4.0	8.0	6.0	M	G	G	177	7.5	B 1	Apical dieback Branch stubs observed Hard surfaces within the rooting area Dense ivy in the crown Light ivy on stem Minor deadwood in the crown
T5	Yew	10.0	1.0	3	270 270 500	3.0	3.0	55.0	2.0	M	F	G	191	7.8	B 1	Apical dieback Branch stubs observed Epicormic growth observed in the crown Hard surfaces within the rooting area Included unions observed Minor deadwood in the crown Dense ivy in the crown Dense ivy on the stem Ivy restricts inspection Pruning wounds observed
T6	Yew	12.0	2.0	1	790	5.5	5.5	5.5	5.5	M	G	G	290	9.6	A 1	Branch stubs observed Minor deadwood in the crown Typical crown form
T7	Irish yew	7.0	2.0	12	250	2.0	2.0	2.0	2.0	SM	F	F	28	3.0	C 1	Epicormic growth on the main stem Included unions observed

Tree No	Species	Height (m)	Crown Clearance (m)	No. of Stems	Stem Dia. (mm)	Crown Radius				Age Class	Structure	Vigour	RPA (m)	RPA Radius (m)	Cat	Comments
						N	E	S	W							
T8	Yew	11.0	0.0	1	600	6.0	5.0	5.0	5.0	M	G	G	163	7.2	A 1	Epicormic growth observed in the crown Branch stubs observed Building within the rooting area Included unions observed Hard surfaces within the rooting area Minor deadwood in the crown Storm damage observed
T9	Ash	10.0	2.0	1	300	3.5	3.5	3.5	3.5	SM	F	P	41	3.6	U	Apical dieback Branch stubs observed Hard surfaces within the rooting area Lateral dieback Minor deadwood in the crown Tree is in heavy decline
T10	Cherry	10.0	0.5	1	300	2.0	4.0	1.0	4.0	EM	F	F	41	3.6	B 1	Branch stubs observed Minor deadwood in the crown No obvious defects observed
T11	Ash	13.0	3.0	1	400	6.0	4.5	4.0	6.0	SM	F	G	72	4.8	B 1	Apical dieback Branch stubs observed Hard surfaces within the rooting area Minor deadwood in the crown No obvious defects observed
T12	Cherry	11.0	2.0	1	300	5.0	4.0	5.0	4.0	EM	F	G	41	3.6	C 1	Apical dieback Building within the rooting area Dense ivy in the crown Dense ivy on the stem Hard surfaces within the rooting area Included unions observed Lateral dieback Limited inspection due to ivy Minor deadwood in the crown
T13	Cherry	9.0	2.0	1	280	5.0	3.0	2.0	3.0	SM	F	P	41	3.6	C 1	Apical dieback Dense ivy in the crown Dense ivy on the stem Building within the rooting area Hard surfaces within the rooting area Lateral dieback Minor deadwood in the crown Limited inspection due to ivy Tree is showing signs of decline
T14	Yew	7.0	1.0	1	180	2.0	2.0	2.0	2.0	SM	F	P	18	2.4	C 1	Apical dieback Branch stubs observed Hard surfaces within the rooting area Dense ivy in the crown Dense ivy on the stem Tree is showing signs of decline Monitor Tree for improvement as it is showing signs of terminal decline

Tree No	Species	Height (m)	Crown Clearance (m)	No. of Stems	Stem Dia. (mm)	Crown Radius				Age Class	Structure	Vigour	RPA (m)	RPA Radius (m)	Cat	Comments
						N	E	S	W							
G1	Holly	8.0	3.0	-	250	1.5	1.5	1.5	1.5	SM	F	F	28	3.0	C 1,2	Branch stubs observed Building within the rooting area Conservation value Group is located off site but overhangs the study area Group is sparse in areas Hard surfaces within the rooting area Included unions observed Minor deadwood in the crowns Provides screening Pruning wounds observed
G2	Cherry laurel	7.0	0.0	-	60	1.5	1.5	1.5	1.5	SM	G	G	3	0.9	C 1,3	Conservation value Hard surfaces within the rooting area Minor deadwood in the crowns Provides screening